



DRAFT

**STRATEGIC ENVIRONMENTAL
ASSESSMENT:
GUIDELINES FOR THE PACIFIC**

FOREWORD

Foreword from SPREP Director General (Kosi Latu)

ACKNOWLEDGEMENTS

To be written after Guidelines content is finalised

DISCLAIMER

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ABBREVIATIONS

CO₂ – Carbon dioxide

DP – Development proposal

EIA – Environmental impact assessment

ESIA – Environmental and social impact assessment

E&S – Environmental and Social

ESS – Environmental and Social Safeguards

FSM – Federated States of Micronesia

MEA – Multilateral environmental agreement

NEPA – The National Environmental Policy Act 1969

NGO – Non-government organisation

OECD – Organisation for Economic Co-operation and Development

PICTs – Pacific Island Countries and Territories

PPP – Policy, Programme or Plan

SEA – Strategic environmental assessment

SPREP – Secretariat of the Pacific Regional Environment Programme

UNDP – United Nations Development Programme

UNECE – United Nations Economic Commission for Europe

US – United States

USS – United States Ship

USAID – United States Agency for International Development

USCEQ – United States Council for Environmental Quality

WWF-SPP – World Wide Fund for Nature, South Pacific Program

WWII – World War 2

GLOSSARY

Adaptation: adjustment in natural or human systems to a new or changing environment, so as to mitigate or avoid negative impacts. Climate change adaptation refers to anticipating the negative impacts of climate change and taking well-planned, early action to prevent or minimise the damage they can cause; or anticipating the positive impacts and taking advantage of opportunities that may arise.

Baseline: a description of pre-development or current environmental (including social and economic) conditions in a defined area.

Climate change: long-term changes in climate conditions, i.e. changes in the mean and/or the variability of a climate property such as precipitation, temperature or wind force. These changes persist for an extended period, typically a decade or longer. With climate change, disaster risks can change in terms of scale, scope, frequency and intensity.

Cumulative impacts: changes in the environment and socio-economic conditions, resulting from the combined, incremental effects of past, present and future human activities, as well as environmental change processes (e.g. climate change) and physical events. The physical events can be of natural or human origin, and may include extreme weather events and natural disasters.

Disaster: severe, adverse disruption to the normal functioning of a community, society or ecosystem due to hazardous events interacting with vulnerable social and/or ecological conditions, which causes widespread human, material, economic or environmental losses.

Environment: encompasses environmental (natural and physical environment), social (people, culture, health, heritage, aesthetics, amenity) and economic aspects, as well as the relationships between these different aspects.

Environmental assessment: a term that covers both assessment processes referred to in this document, i.e. environmental impact assessment (EIA) and strategic environmental assessment (SEA).

Environmental hazard: an event or action that has the potential to cause significant impacts on a community, society or ecosystem. Environmental hazards can be natural (e.g. cyclone, flood, earthquake, tsunami, volcanic eruption, drought, landslide), human-induced (e.g. oil spill) or technological (e.g. infrastructure failure) in origin. They are not impacts (or disasters) in themselves but have the potential to cause them.

Environmental impact assessment (EIA): a process for identifying and managing a development's impacts on the environment, and assessing the potential impacts of the environment on a development, i.e. the impacts arising from environmental hazards and environmental change processes, including climate change. In this document, environmental impact assessment includes the consideration of socio-economic matters, as per the definition of 'environment' above.

Environmental impact assessment report (EIA report) or environmental impact statement (EIS): a detailed document that describes a proposed development project; the likely impacts the development will have on environmental and socio-economic conditions; the likely impacts the environment will have on the development; the consequences and significance of those impacts; and ways to modify, mitigate and/or manage different aspects of the development so as to avoid or lessen negative impacts and enhance positive impacts.

Environmental and Social Impact Assessment (ESIA): A process for predicting and assessing the potential environmental and socio-economic impacts of a proposed project, evaluating alternatives and designing appropriate mitigation, management and monitoring measures. For the purposes of this guidance document reference is only made to EIA, which is deemed to include consideration of socio-economic matters.

Exposure: people, property and/or ecosystems that are present in hazard zones and hence subject to loss, disruption, damage or degradation.

Impact: a negative or positive change as a result of an action, activity or event. Refers to the impact of a project, as well as the impact of the environment on a project due to an environmental hazard or environmental change process (including climate change). Examples of negative impacts include environmental degradation, loss of life or injury, property or infrastructure damage and social unrest. Examples of positive impacts include environmental recovery and restoration, increased food security, property or infrastructure improvements, and growth in local job opportunities.

Multilateral environmental agreement: an environment-related treaty, convention, protocol or other binding instrument between three or more states.

Policy: A general course of action or proposed overall direction that a government is or will be pursuing and that guides ongoing decision making.

Practitioner: a participant in the Strategic Environmental Assessment process e.g. government officer; consultant; scientific or technical expert; community member or stakeholder.

Plan: A purposeful forward looking strategy or design, often with co-ordinated priorities, options and measures that elaborate and implement policy.

Programme: A coherent, organised agenda or schedule of commitments, proposals, instruments and/or activities that elaborate and implement policy.

Resilience/resilient: the ability of a community or system (human or environmental) to sustain itself; to respond to and recover from extreme events and disturbances; and to use extreme events and disturbances as an opportunity for renewal and positive transformation.

Risk: a measure of the consequences and probability (likelihood) of an impact. Risks arise from the interaction between environmental hazards and vulnerability.

Stakeholder: any person, organisation, institution or business who has interests in, or is affected by, a proposed policy, plan and/or programme. Includes local community members and customary land/resource owners.

Strategic environmental assessment: a higher-level assessment process that can be used in three main ways: (1) to prepare a strategic development or resource use plan for a defined land and/or ocean area; (2) to examine the potential environmental impacts that may arise from, or impact upon, the implementation of government policies, plans and programmes; and (3) to assess different classes or types of development projects, so as to produce general environmental management policies or design guidelines for the development classes/types.

Vulnerability: the sensitivity of a development, community or ecosystem to damage and loss resulting from a hazardous event or disturbance.

1.0 INTRODUCTION

Since the early 1990's the Secretariat of the Pacific Regional Environment Programme (SPREP) has been promoting the use of environmental planning and assessment processes amongst its member countries and territories. SPREP's approach to environmental planning and assessment has been part of a global programme for improving environmental management and supporting sustainable development. SPREP has been guided by regional and international multilateral environmental agreements (MEAs), the needs of its members, the advice of its collaborators, donors and regional partners, and green economy, climate change adaptation and disaster risk management considerations, with the latter two considerations being amongst the most important sustainable development issues for the Pacific.

To support its members, SPREP developed and in 2016 released a guidance document on Environmental Impact Assessment titled 'Strengthening Environmental Impact Assessment – Guidelines for Pacific Island Countries and Territories'¹. As well as providing a comprehensive guideline for the application of Environmental Impact Assessment (EIA) at project level, this document highlighted other environmental impact assessment processes. One of these was Strategic Environmental Assessment (SEA), which can be applied to higher-level processes, such as policies, plans and programmes to assist with the integration of environmental and social considerations.

Promotion of environmental assessment remains an important priority for SPREP, as stated in Regional 4, Objective 4.1 of the organisation's Pacific Regional Environment Programme Strategic Plan 2017-2026 (Strategic Plan). Therefore, this publication 'Strategic Environmental Assessment – Guidelines for Pacific Island Countries and Territories' has been prepared to provide guidance on the application of SEA as well as support environmental policy making and planning.

1.1 PURPOSE

These guidelines are intended to assist authorities in Pacific Island Countries and Territories with understanding what Strategic Environmental Assessment is, the benefits that can be achieved through its use and how and when to apply it to ensure that environmental and social matters are integrated into policies, plans, programmes and projects.

¹ [Strengthening Environmental Impact Assessment – Guidelines for Pacific Island Countries and Territories](#)

1.2 STRUCTURE OF THE GUIDELINES

The Guidelines are set out in the following sections:

- **Section 2** – provides an overview of Strategic Environmental Assessment, describing what it is, how it has been developed, the benefits of using SEA, and who can benefit from it.
- **Section 3** – introduces the SEA process, identifying objectives, key performance criteria and providing considerations and recommendations for effective SEA in the Pacific. This also highlights the importance of stakeholder engagement.
- **Section 4** – focusses on the first steps of carrying out an SEA, in particular how to screen policies, plans and programmes to determine whether an SEA should be carried out, and then how to develop the scope of the SEA and prepare a Stakeholder Engagement Plan.
- **Section 5** – describes the process of identifying potential environmental and socio-economic impacts, assessing their risk and considering how they can be avoided or mitigated, and any opportunities can be maximised.
- **Section 6** – addresses the importance of transparent decision making, demonstrating how the SEA findings have been taken into account when finalising proposed policies, plans and programmes.
- **Section 7** – introduces tools to assist with the understanding and implementation of SEA.

2.0 OVERVIEW OF STRATEGIC ENVIRONMENTAL ASSESSMENT

2.1 WHAT IS STRATEGIC ENVIRONMENTAL ASSESSMENT?

Strategic Environmental Assessment (SEA) is a means of systematically evaluating the environmental and socio-economic impacts of Policies, Plans and Programmes (PPP) to ensure that opportunities can be maximised, risks can be mitigated and alternatives can be considered during the early stages of PPP development. SEA enables integration of environmental and socio-economic considerations into PPP initiatives, promoting collaboration and stakeholder engagement at an early stage and continuously throughout the development cycle so that strategic decisions can be made.

SEA shares much in common with EIA, as they are both used as a means of evaluating and mitigating potential effects of a proposal. However, EIA is applied on a project basis, whilst SEA is generally applied at an earlier stage, during the development of policies, plans and programmes, as illustrated in Figure 1 below.

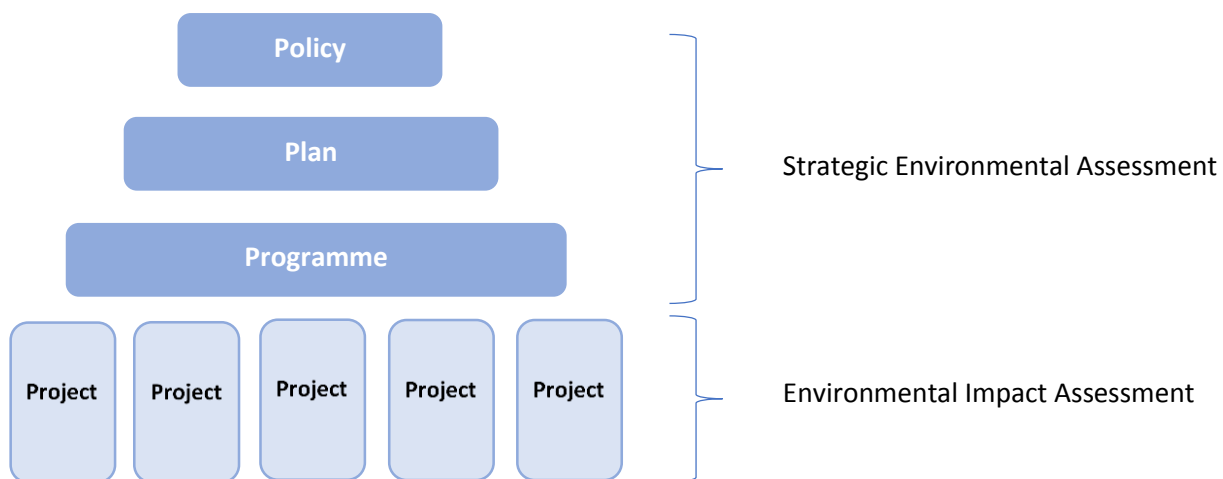


Figure 1: Environmental assessment tools applied at different levels and scales in policy, plan, programme and project development

Because SEA is applied at an earlier stage than EIA there is greater opportunity to influence environmental and socio-economic outcomes by integrating these considerations into the PPP before it is implemented. This process enables identification and promotion of positive environmental and socio-economic outcomes, and can allow significant adverse impacts to be avoided entirely. For instance, by conducting an SEA it is possible to influence where development occurs i.e. steering developments towards less sensitive areas, rather than simply trying to minimise the impacts in a specific location once a project proposal has been submitted.

However, doing an SEA does not remove the need for EIA. They are not mutually exclusive and there is a great deal of benefit from applying both tools at different stages in the development process to maximise environmental and socio-economic outcomes. This is because the level of detail and certainty improves as policies are translated into plans, and then into programmes, and ultimately into projects. SEA is a very useful tool for influencing PPP development to ensure the significant environmental and socio-economic matters are addressed before new projects are conceived. This can reduce the effort required in preparing EIAs for projects, but will not remove the need for EIA entirely. An EIA is still likely to be required to address the residual risks that could not be mitigated through the preparation of an SEA.

For instance, SEA can establish a sustainable and resilient development context for EIA by identifying what forms of development are environmentally and socially sound and appropriate, pinpointing locations where developments are or are not permissible, stipulating desired types and characteristics of developments, and identifying broad environmental management measures that need to be followed. An EIA can then be carried out to assess whether projects can be developed sustainably within this framework i.e. are the types of project appropriate, are they in an appropriate location and are their potential impacts within limits of acceptable change?

For example, an SEA of a Tourism Development Plan might result in guiding principles and standards to help beachfront developments avoid the impacts of climate change and natural disasters, and identify critical issues for the tourism industry that need to be considered during the EIA/ESIA process for a new resort, e.g. groundwater drawdown, liquid/solid waste production and management, increasing tourism arrivals and associated impacts on village communities, appropriate set-back of buildings and infrastructure.

2.2 HOW CAN SEA BE USED?

SEA is a process that can be used in three main ways:

1. To prepare a strategic development or resource use plan for a defined land and/or ocean area;
2. To examine the potential environmental impacts that may arise from, or impact upon, the implementation of government PPP; and
3. To assess different classes or types of development projects, so as to produce general environmental management policies or design guidelines for the development classes/types.

For instance, SEA could include the development of a water resource management plan for a catchment or aquifer, to support sustainable water use and water security; the preparation of a whole-of-island agricultural development plan, with an aim of increasing local food security; or the

development of a marine spatial plan that is based on informed and coordinated decisions about how to use a range of marine resources sustainably, within a defined area.

Example: Implementing an Integrated “Ridge to Reef” approach to enhance ecosystem services and sustain local livelihoods in the Federated States of Micronesia.

The Ridge to Reef approach is an ecosystem-based approach to land-use management and biodiversity conservation that focuses on the terrestrial, aquatic, estuarine and coastal ecosystems and their linkages. Through this approach the Government of the Federated States of Micronesia aims to enhance the sustainability of natural resources and conservation of biodiversity by understanding and promoting sustainable land-use practices and strengthening management capacity. This work is still in progress.

Another example of this type of application for SEA is the Integrated Strategic Environmental Assessment of the Northern Province of Sri Lanka carried out by the Central Environmental Authority in Sri Lanka in 2009-2014. Further information on this SEA is provided in Appendix 1.

SEA might also be used to assess the potential environmental and socio-economic consequences of a variety of proposed policies, plans or programmes, which could range in subject matter from issues such as urban and rural development to disaster risk reduction and climate change adaptation to extraction of mineral resources.

Example: Strategic Environmental Assessment of Neiafu Master Plan (Vava’u, Tonga)

This Strategic Environmental Assessment (SEA) was initiated by SPREP in order to consider the environmental impacts of the proposed Neiafu Master Plan. This examined the Neiafu Master Plan, its links to wider policy initiatives for Vava’u and for Tonga as a whole. The components of the plan were examined in a broad manner to identify significant environmental implications and consider how these impacts were distributed between biophysical and social environments. The findings and recommendations of this SEA were subsequently fed back into the development process.

Further information on this SEA is provided in Appendix 1.

Furthermore, SEA can include a broad assessment of development types/classes, from tourism developments, to quarries, power generation, coastal roads or coastal housing subdivisions. Using it in this manner can help develop guiding principles and standards for sustainable and resilient development, avoiding undesirable cumulative impacts.

Example: Strategic Environmental Assessment of Tourism Development Plan (Fiji)

In 2003, the World Wide Fund for Nature – South Pacific Programme carried out an SEA of Fiji’s Tourism Development Plan, which called for a ‘step change’ growth in tourism to compensate for losses in the sugar industry. The SEA considered the likely environmental and social impacts of this plan by comparing the current environmental, social and economic baseline and likely trends under the Tourism Development Plan against sustainability objectives. This allowed an assessment to be made of whether or not the Tourism Development Plan was sustainable.

Further information on this SEA is provided in Appendix 1

Another example of this is the Strategic Environmental Assessment of the hydropower sector in Myanmar, which has been carried out by the Ministry of Electricity and Energy and Ministry of Natural Resources and Environmental Conservation with support from the Australian Government and International Finance Corporation. Further information on this SEA is provided in Appendix 1.

2.3 HISTORY OF SEA

Although SEA is relatively new in some regions/countries it was first conceived in the late 1960’s, through the National Environmental Policy Act 1969 in the United States of America. Since then several international initiatives have subscribed to the need to consider environmental impacts at a more strategic level, than is possible through EIA. The key milestones in the global development and implementation of SEA are summarised below:

- 1969 The National Environmental Policy Act 1969 was passed by the US Congress, mandating all federal agencies and departments consider and assess the environmental effects of proposals for legislation and other major projects.
- 1978 US Council for Environmental Quality (USCEQ) issues regulations for NEPA which apply to USAID and specific requirements for programmatic assessments
- 1989 The World Bank adopted an internal directive (O.D. 4.00) on EIA which allows for the preparation of sectoral and regional assessments
- 1990 The European Economic Community issues the first proposal for a Directive on the Environmental Assessment of Policies, Plans and Programmes
- 1991 The UNECE Convention on EIA in a Transboundary Context promotes the application of EA for policies, plans and programmes
- 1991 The OECD Development Assistance Committee adopted a set of principles calling for specific

arrangements for analysing and monitoring environmental impacts of programme assistance

- 1995 The UNDP introduces the environmental overview as a planning tool
- 1997 The Council of the European Union adopts a proposal for a Council Directive on the assessment of the effects of certain plans and programmes on the environment
- 2001 The UNECE issues a draft protocol on Strategic Environmental Assessment applying to policies, plans and programmes
- 2001 Council of the European Union adopts the Council Directive 2001/42/CE on 27 June on the assessment of the effects of certain plans and programmes on the environment
- 2016 SPREP develop and release 'Strengthening Environmental Impact Assessment – Guidelines for Pacific Island Countries and Territories', which highlights the benefits of using SEA.
- 2017 Strategic Plan 2017-2026 is released by SPREP, identifying the importance of environmental assessment tools, such as SEA in Regional 4, Objective 4.1.

SEA has been carried out on four occasions in the Pacific to date:

- 1996 SPREP conducted an SEA of the development projects that had been proposed for the town of Neiafu, on the island of Vava'u, Tonga, as part of the Vava'u Development Programme.
- 2001 SPREP, Asia Pacific ASA and Sea Australia conducted an SEA and evaluated potential future shoreline impacts of oil spills from WWII shipwreck *Hoyo Maru* on Chuuk Lagoon in the Federated States Of Micronesia.
- 2003 The World Wide Fund for Nature conducted an SEA of Fiji's Tourism Development Plan in collaboration with the Ministry for Tourism.
- 2003 SPREP prepared an SEA on the wreck of the USS *Mississinewa*, a sunken WWII US military oil tanker, to determine the environmental impacts of the oil spill.

In addition, the Government of the Federated States of Micronesia has recently commissioned an SEA to inform integrated land and sea planning and management.

2.4 WHAT ARE THE BENEFITS OF SEA?

The key benefits of SEA are:

- Encourages the integration of environmental and socio-economic considerations into policies, plans and programmes during the early stages of their development. This can in turn, help to establish a governance framework for sustainable and resilient development;
- Adds value to decision-making processes, by highlighting the key opportunities and risks, enabling opportunities to be maximised and risks to be avoided or mitigated;
- Promotes transparent governance by encouraging public involvement in policy development and planning;
- Provides early warning of cumulative and transboundary impacts;
- Identifies trade-offs between environmental, economic and social issues and enhances the chance of finding win-win options;
- Sets a broad environmental and sustainable development vision for defined land/sea areas, economic sectors or themes, which in turn sets the context for project specific EIA and supports consistent decision-making for individual development projects;
- Provides confidence to development agencies that environmental and social safeguards have been incorporated into the PPP development process, and that specific project proposals are developed within a sustainable framework;
- Reduces the time and effort required for EIA by addressing the more significant risks at an earlier stage.

Conversely, the risk of not utilising an approach like SEA during PPP development is that there may be unforeseen, and preventable environmental and socio-economic impacts when PPP are implemented. For instance, developments may occur in sensitive areas or impact on vulnerable communities. Whereas, if SEA is used it can help to pinpoint locations where developments are or are not permissible and this can be taken into account when planning development. This can in turn facilitate the EIA process by demonstrating early engagement and consideration of stakeholders' views, building social licence to operate.

It is also increasingly important to demonstrate environmental and social credentials when obtaining project finance, as more and more financial institutions and development agencies adopt sustainable finance initiatives. In this context, SEA can be used to demonstrate that there is a sustainable framework for development, and how particular projects meet these criteria.

2.5 WHO SHOULD DO SEA?

As SEA is not mandatory throughout the Pacific there are no established requirements for who must do them or be involved in them. Nevertheless there can be significant benefits to a variety of stakeholders in a range of circumstances.

Government agencies - Because of the breadth of their responsibilities there are numerous applications for SEA by government agencies, including:

- during the development of national/regional/district strategies, plans or programmes, such as disaster risk reduction plans and climate change adaptation plans;
- during the development/review/reform of policies;
- for sector-based initiatives, such as strategies/plans/programmes for the development of renewable energy resources;
- when preparing plans and programmes for the development of infrastructure, such as roads, ports and waste management;
- As a tool to support applications for financial assistance by development agencies and financial institutions that require a demonstration of sound environmental and social governance.

Development agencies - Due to the increasing importance, and application of environmental and social safeguards by development agencies, SEA has become increasingly valuable as a mechanism for guiding how development agencies provide support. SEA may be used to evaluate:

- donors' country assistance strategies and plans;
- partnership agreement with other donor agencies;
- donors' sector-specific policies; and
- donor-supported public-private infrastructure support facilities and programmes.

Development agencies also increasingly look for evidence of strategic environmental and social planning by countries seeking their support, and SEA is a useful tool for demonstrating this.

Private sector - For private industry and developers SEA can support their development strategies. For instance, an energy company looking for opportunities expand or develop new generation technologies might use SEA as a tool for mapping prospective locations and evaluating the potential environmental and socio-economic impacts with a view to developing sites with best access to the resources it needs but minimise the impacts on the environment and communities.

Regardless of who initiates an SEA, carrying out an effective SEA requires a team of people to deal with the different aspects of the project, including project governance, stakeholder engagement, coordination of work streams, and development of specific studies to inform the SEA. There is also

great value in collaboration with other stakeholders to achieve integrated development and informed decision making. Identification of relevant stakeholders is a key part of the scoping phase of SEA and is explored further in Section 4.2.4.

As SEA has not been used extensively in the Pacific to date it is likely that any organisation choosing to carry out an SEA will need to obtain external SEA expertise until sufficient internal capacity has been developed. This will likely involve engaging SEA consultant to assist with conducting SEA and preparing relevant reports, and should also include engaging independent practitioners to peer review the outputs from the SEA process.

3.0 STRATEGIC ENVIRONMENTAL ASSESSMENT IN PRACTICE

Having introduced SEA in Sections 1 and 2, this section begins to explain the process of conducting SEA. It sets out the objectives, key performance criteria and SEA process, with further detail on each step in the process further described in Sections 4-7.

3.1 OBJECTIVES

SEA has three key objectives:

- Encourage the integration of environmental and socio-economic considerations into PPP, establishing a sustainable framework for future development;
- To add value to decision-making, through the identification of risks and opportunities so that risks can be avoided or minimised and opportunities can be maximised;
- To create a strategic culture in decision-making, promoting collaboration and cooperation, which creates a better understanding of values and how to avoid conflicts.

3.2 KEY PERFORMANCE CRITERIA

In accordance with the performance criteria for good quality SEA, established by the International Association for Impact Assessment, an SEA should:

- Establish clear goals, objectives and targets of the PPP;
- Be integrated with existing policy and planning structures;
- Be flexible, iterative and customized to context;
- Analyse the potential effects and risks of the proposed PPP, 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-off;
- 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;
- Include an effective, preferably independent, quality assurance system;
- Be transparent throughout the process, and communicate the results;

- Be cost effective – avoid duplication of efforts and encourage synergies;
- Encourage formal reviews of the process after completion, and monitor PPP outputs; and
- Provide opportunities to build capacity for both its undertaking and use.

3.3 CONSIDERATIONS AND RECOMMENDATIONS FOR EFFECTIVE SEA

Since its introduction, SEA has been used extensively worldwide, primarily in countries that have implemented legislation mandating its use. Through the implementation of this legislation and use of SEA a great deal of experience has been developed and lessons learned. Based on this experience, it is recommended that particular regard be paid to the following matters when implementing SEA in the Pacific.

The importance of Integration - Integrating SEA and PPP development processes enables environmental and socio-economic considerations to be ‘built in’ to the PPP. The risk of running both processes separately and out of sequence with one another is that the PPP will continue to be developed without knowledge of the relevant environmental and socio-economic issues/risks/opportunities. As a result, it is less likely to mitigate risks or maximise opportunities sufficiently.

Early adoption of SEA - Greater benefit can be derived from SEA when it is initiated early in the PPP development process as this provides the most opportunity to influence decisions about the PPP. The risk of initiating the SEA process late is that the findings of the SEA will be presented too late to affect change in the PPP.

Building the right SEA team - It is important to have the right mixture of experience and skills in the SEA team. The team should collectively have knowledge of SEA techniques, the PPP and broader legislative/planning context as well as the geographical area. While external consultants are advisable in some cases, this should be balanced against the need to build up in-house capacity for future SEAs. A joint approach may be advisable as SEA capacity is being developed.

Early and open engagement with stakeholders - By engaging with stakeholders early in the process, it provides the PPP development team and SEA team with the opportunity to gain insights from stakeholders that will help shape the PPP and the SEA. Engaging early and in a genuine manner improves transparency and stakeholder understanding, and can gain support, avoiding unnecessary conflicts at a later stage in the SEA process and facilitating the process of gathering information by the SEA team.

Support from key decision makers - To provide the opportunity for SEA to influence change, there must be support for the SEA process from key decision makers. If there isn’t this support, then it is unlikely the PPP will change in response to the findings of the SEA process. Not only would this be a missed opportunity, but it would lead to frustration and potentially a lack of participation in the SEA process by stakeholders. The result would be an SEA that did not reflect the views of stakeholders.

Collaboration - To be effective, SEA needs to be collaborative. As a minimum there needs to be cooperation between the PPP development team and SEA team. This will ensure the SEA team understands the PPP and

the likely outcomes of its implementation, and the PPP development team can be informed by the SEA process and incorporate its findings into the PPP before it is finalised and implemented.

Realistic alternatives – To give alternatives genuine consideration they need to be realistic and identified early in the PPP and SEA processes. This will allow iterative development of alternatives in response to the evaluation of environmental and socio-economic impacts before selecting the preferred option. There is little value in identifying alternatives retrospectively that are not realistic or viable in order to justify the selection of the preferred option.

Including socio-economic issues - In the Pacific there are extensive customary land ownership and direct linkages between community livelihoods, subsistence lifestyles, natural resource conditions and sustainable development so it is essential for SEA to address socio-economic matters alongside the environment.

Climate change – When determining the current state of the environment it is also important to predict its future state in the absence of the proposed PPP. This provides a critical opportunity to build climate change thinking into the SEA so that it can influence and future proof the proposed PPP.

Central repository for data – The availability (or lack) of sufficient baseline data/information is a common concern when preparing SEA, in much the same way as it has been for EIA in the Pacific. Therefore, consideration should be given to the development and use of a central database/repository to build a comprehensive baseline of information.

Transparent decision making – When deciding whether/how to address the findings of the SEA process and stakeholders' views, it is important to be transparent. Explaining the rationale in the SEA Report and/or a subsequent statement in the PPP will show how stakeholders' opinions/concerns/suggestions have been considered and incorporated and create a better understanding of the outcomes of the PPP development process.

3.4 STAKEHOLDER ENGAGEMENT

An essential component of SEA is stakeholder engagement, which involves consulting with relevant government agencies, industry, non-government organisations and members of the public/local community during each step of the SEA process. To ensure the appropriate level of engagement is carried out it is beneficial to prepare a Stakeholder Engagement Plan very early in the SEA process that identifies the appropriate stakeholders, the issues they are likely to be interested in and describes the proposed timing and mechanisms for engagement.

In the Pacific there are extensive customary land ownership and direct linkages between community livelihoods, subsistence lifestyles, natural resource conditions and sustainable development. So, it is essential to engage in a meaningful way to promote social accountability and reduce the potential for future conflicts.

The nature and frequency of stakeholder engagement should reflect the scale and complexity of the proposed PPP as well as the level of potential impact on the environment and socio-economic conditions. The aim is to:

- Provide transparency in decision-making;
- Build a comprehensive understanding of baseline conditions, including key community concerns and values;
- Gain an understanding of the potential environmental and socio-economic impacts at an early stage in the SEA process and then to test this with stakeholders again later, following further analysis;
- Obtain feedback on options/alternatives and understand potential trade-offs;
- Build and maintain constructive relationships between all parties;
- Improve understanding and avoid unnecessary controversy and delays in the decision-making process due to public opposition arising from a lack of engagement and understanding.

A good SEA will facilitate constructive debate and discussion amongst stakeholders, starting early in the SEA process, and again during each step of the process as illustrated in Figure 2 (Section 3.4). During these engagement activities it is important to promote participation, listen to and record the opinions of stakeholders and demonstrate how these have been taken into account in decision-making processes.

It is also important to continue to communicate following completion of the SEA, during the implementation phase of the PPP. This will help with understanding whether the PPP has had any unforeseen impacts in addition to those that were anticipated.

The key opportunities for stakeholder engagement are identified for each step of the SEA process in Sections 4-7 below.

3.4 SEA PROCESS

Over the last decade the use of SEA has been evolving, with the tool being adapted and applied for different purposes in different parts of the world. For the Pacific context, the basic SEA process can be defined as follows:

SEA Stage	Description	Section
Screening	Determining whether an SEA should be done	4.1
Scoping	Identifying the key issues to be addressed and the boundaries of the SEA	4.2
Evaluation of Impacts	Collection of baseline data and assessment of potential impacts of the PPP and any viable alternatives	5.1-5.2
Mitigation	Consideration of how to avoid or minimise significant risks and maximise opportunities	5.3
Monitoring	Description of the proposed plan for monitoring the outcomes of implementing the proposed PPP	5.4
Reporting	Preparation of the SEA report describing the findings of the evaluation of the PPP	5.5
Quality Review	Review of the SEA report for quality assurance purposes	5.6
Making Decisions	Deciding how to address findings of the SEA process	7.0

Stakeholder Engagement is conducted at every step of SEA

This process, as illustrated in Figure 2 below, is not always linear. This reflects the nature of PPP development whereby proposals and possible alternatives are developed, evaluated and then further refined/modified to address the findings of impact assessments and engagement with stakeholders. As a result, this general SEA process needs to be tailored to the needs of each project.

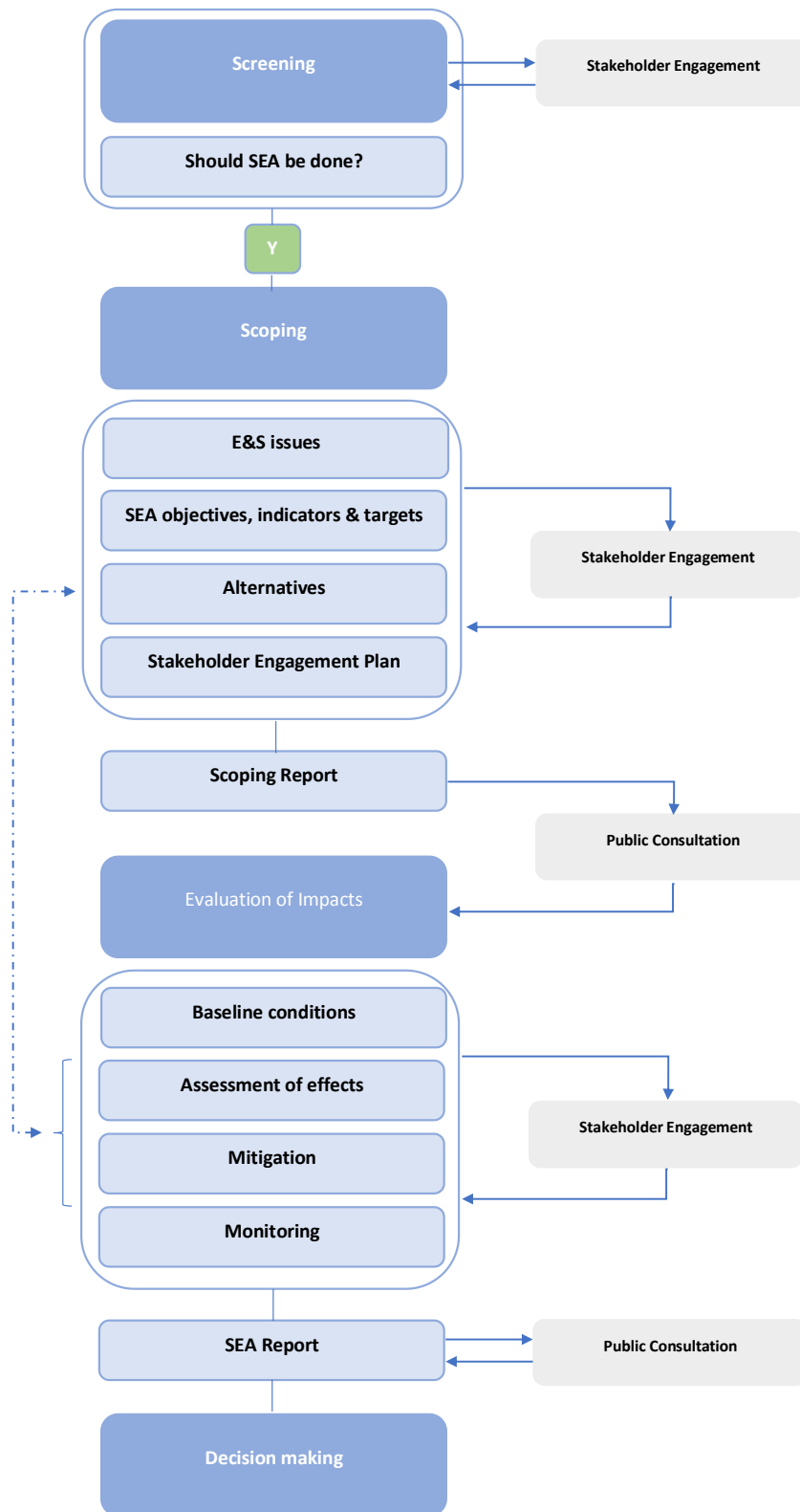


Figure 2: Overview of the SEA Process

4.0 SCREENING AND SCOPING

4.1 SCREENING

Screening is undertaken to determine whether an SEA should be carried out. In many countries SEA is a requirement of legislation, therefore screening processes focus on helping relevant parties to determine whether their PPP is captured by the legislation. However, as there is little SEA legislation in Pacific Island Countries and Territories, there is no mandatory requirement to carry it out and no direction on when SEA should be initiated. It is therefore important to look for windows of opportunity to initiate SEA during cycles of PPP development and decision making based on whether a proposed PPP is likely to have significant environmental and/or socio-economic impacts.

Figure 3 below illustrates the key questions that should to be considered during the screening process. It also identifies the importance of stakeholder engagement to obtain appropriate information and make informed decisions about whether or not to conduct a SEA.

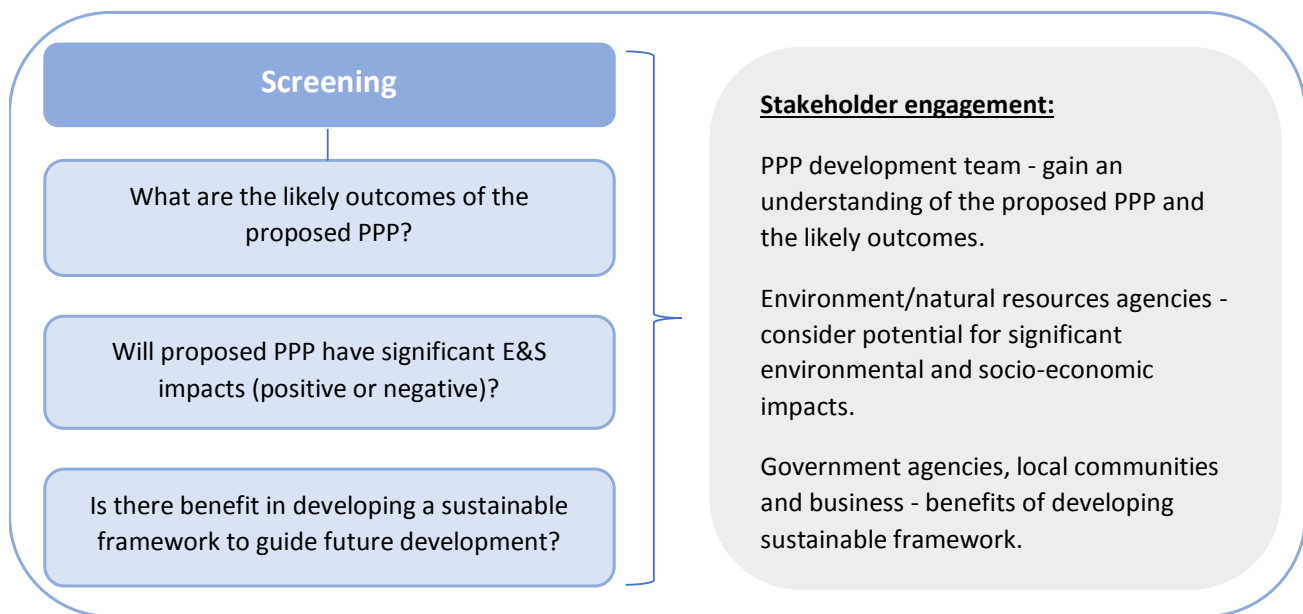


Figure 3: Screening process

This is described further in Sections 4.1.1-4.1.3.

4.1.1 WHAT ARE THE LIKELY OUTCOMES OF THE POLICY, PLAN OR PROGRAMME?

In order to consider the potential environmental and socio-economic impacts of a proposed PPP it is first necessary to identify the likely outcomes from implementing the proposed PPP. These could be:

Physical changes – the PPP may result in physical changes, such as development of infrastructure (roads, water treatment plants, waste water treatment, airports, coastal defences).

Behavioural change - As well as direct physical change, the PPP may result in changes in the behaviours of communities, businesses and government agencies. For instance:

Communities - changes to patterns of settlement, modes of transport, energy consumption

Businesses – intensification of development, changes in management of waste materials/recycling, reduced/increased rate of manufacture

Government – increased investment in renewable energy, improvement of electricity transmission infrastructure, ethical/sustainable procurement.

At this stage in the SEA process it is important to focus on the key changes that are likely to occur. This can be best determined through consultation with the PPP development team.

Stakeholder Engagement

In order to gain an understanding of the proposed PPP and the possible outcomes from its implementation it is important the SEA team engages with the team developing the PPP rather than rely exclusively on its own interpretation of documentation relating to the proposed PPP. This engagement will provide the opportunity for the PPP development team to provide further detail and for the SEA team to ask questions and seek clarification.

Further work will be done at the Assessment of Effects stage (Section 5.2) to prepare a more comprehensive list of possible outcomes.

4.1.2 ARE THERE LIKELY TO BE SIGNIFICANT IMPACTS?

Once the key outcomes of the PPP have been identified in consultation with the PPP development team, the key environmental and socio-economic impacts (positive and negative) can be identified.

To avoid confusion, references to ‘environment’ in Strategic Environmental Assessment covers environmental (natural and physical environment, including natural hazards and climate change), social (people, culture, heritage, aesthetics, amenity) and economic aspects. This broad definition is particularly important in the Pacific context, with extensive customary land ownership and direct linkages between community livelihoods, subsistence lifestyles, natural resource conditions and sustainable and resilient development.

Some common issues that may be examined through SEA are summarised in Table 1 below.

Table 1: Examples of environmental, social and economic issues that may be addressed in SEA

Environment*	Social	Economic
Native plants, animals, habitats and ecosystems	Public health and wellbeing	Livelihoods and employment
Invasive plants and animals	Indigenous communities and cultural heritage values	Public/private sector financing and revenue
Ground, surface, and marine water	Public services, utilities and infrastructure	Resource extraction
Soil and land resources	Population	Industry development
Air quality, pollution and waste (liquid, solid, gas)	Village settlements and housing	Distribution of costs and benefits
Climate change and climate variability	Traffic and transportation	Land and sea tenure
Extreme events, natural hazards and disasters	Aesthetics	Global markets (imports, exports)
Genetic resources	At risk/disadvantage groups (gender, poverty, indigenous)	Fair trade practices

*Includes biophysical environmental issues and environmental issues that arise from, or are linked to, human activities, i.e. issues that result from the relationship between people and the environment.

At this stage in the SEA process it is important to focus on identifying the significant environmental and socio-economic opportunities and risks from the proposed PPP. This process can be supported by tools such as checklists containing established criteria or lists of questions to ensure a consistent approach is applied to screening. However, it is also important to engage with stakeholders.

At the end of this process, a decision should be made as to whether it is necessary to carry out a SEA. It will be important to consider country specific issues, but in general it would be appropriate to carry out a SEA where:

- The proposed PPP is likely to result in significant environmental or socio-economic effects, considering the magnitude, duration and spatial extent of effects;
- There is a high level of uncertainty about the potential effects of the PPP, perhaps due to data gaps or application of new technology whose effects are not well understood;
- The proposed PPP is likely to be contentious;
- The cumulative effects are likely to be significant;
- There are likely to be trans-boundary effects i.e. impacts that are likely to be felt by neighbouring districts, regions and/or countries;

- There are likely to be impacts on vulnerable receptors, such as poor communities or sensitive ecosystems;
- Existing environmental quality or resources are close to limits of acceptable change. For instance, water quality may already be degraded or water abstraction from aquifers may already be allocated;
- The PPP may have a negative impact on unique or highly valued biodiversity or cultural values;
- The impacted area has a recognised local/regional/international conservation/protection status. For instance, Marine Protected Areas;
- The PPP is likely to lead to significant changes in behaviours of individuals, businesses, NGOs or government agencies, such as patterns of settlement/land occupation, intensification of development and increased/decreased consumption of energy.
- The PPP could lead to the introduction of new species or genetically modified organisms.

4.1.3 IS THERE BENEFIT IN DEVELOPING A SUSTAINABLE FRAMEWORK?

There is also an opportunity to use SEA in a more proactive manner, rather than in response to the development of PPP, SEA can be used to develop a sustainable framework to guide future development. As outlined in Section 2.2, SEA could include the development of a water resource management plan for a catchment or aquifer, to support sustainable water use and water security; the preparation of a whole-of-island agricultural development plan, with an aim of increasing local food security; or the development of a marine spatial plan that is based on informed and coordinated decisions about how to use a range of marine resources sustainably, within a defined area.

Stakeholder Engagement

The need to use SEA in this way is best determined through collaboration between responsible agencies and communities. For instance, the Ridge to Reef project initiated by the Federated States of Micronesia is designed to shift the approach to management of natural resources from an ad-hoc approach to a more holistic ecosystem-based regime by building awareness, knowledge and engaging with a wide range of stakeholders.

Similarly, the Integrated Strategic Environmental Assessment of the Northern Province of Sri Lanka involved undertakings by more than 25 government agencies working together to understand natural resource base and environmental consequences after conflict in the province. This was carried out to provide strategic information to support development.

4.2 SCOPING

Once it has been determined that a SEA is going to be done, scoping of the SEA should be carried out to establish the focus and content of the SEA. This builds on the work carried out in the screening stage by identifying additional environmental and socio-economic issues, determining appropriate objectives, indicators and targets for the SEA, as well as identifying possible alternatives to the proposed PPP and relevant stakeholders to be consulted.

The key components of the scoping stage are shown in Figure 4 below and described in further detail in Sections 4.2.1-4.2.5. The primary output of this stage of the SEA process is the Scoping Report.

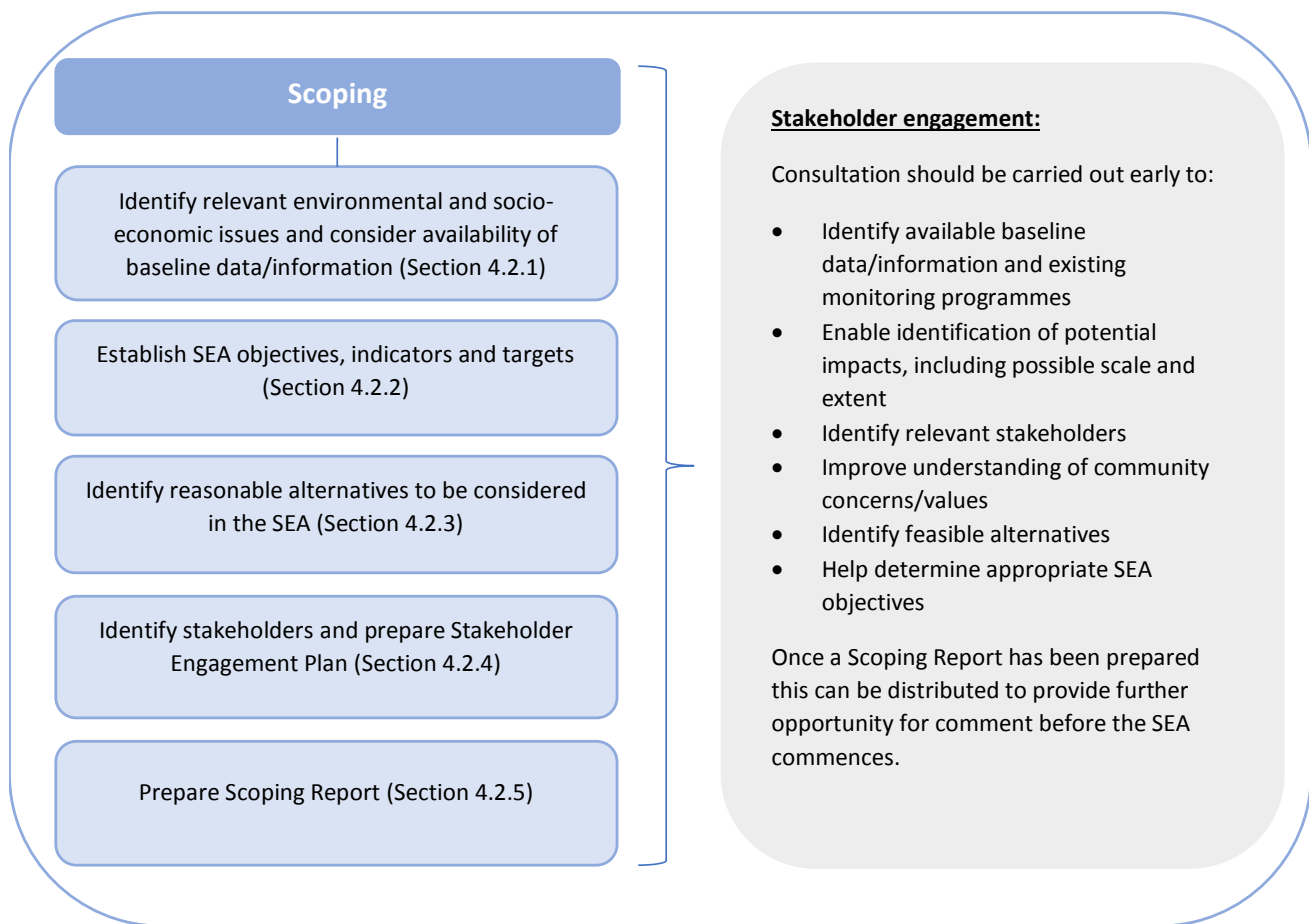


Figure 4: Scoping Process

4.2.1 IDENTIFICATION OF ENVIRONMENTAL ISSUES

The scoping stage builds on the work carried out in the screening stage (Sections 4.1.1 and 4.1.2) to develop a more comprehensive understanding of the potential outcomes of implementing the

proposed PPP and the nature and scale of environmental and socio-economic impacts that are likely to result. During this stage the SEA team should consider:

The nature of change – what will be impacted? For instance: air quality, water quality, health, water resources, amenity value
Receptors – How sensitive are the receptors? For instance, are the species that are likely to be affected endangered/protected? Are there communities or groups within communities that are likely to bear the bulk of the impact?
Scale/degree of change – Are the changes likely to be significant or relatively small? Will they be temporary or permanent?
Geographical location and extent – where are the impacts likely to occur? Will they be localised or wide reaching? Is there potential for transboundary effects on other districts/regions/countries? For instance, impact(s): <ul style="list-style-type: none">• on a water resource that is used by multiple <u>districts</u>.• upon roading infrastructure that may change transport between regions.• on migratory fish stocks that may affect availability of resources to more than one country.
Duration and frequency – How long and how often will impacts occur?
Cumulative effects – what other things are already taking place in the affected areas? Will there be several actions/activities/behaviours impacting upon the same areas, resulting in a greater level of impact than if they were happening individually
Probability – What is the likelihood of the impacts occurring?

It is important that the scoping phase be used to tailor the SEA to issues that are of most relevance to the PPP. It is helpful to do this in a collaborative and consultative manner to ensure that the appropriate matters are being considered and there is broad agreement on the scope of the SEA.

Stakeholder Engagement

There should be continued engagement with the PPP development team to expand the SEA team’s understanding of the likely outcomes from implementing the PPP. The SEA team should consider the level engagement during development of the PPP i.e. have the predictions been tested or is there a need for further engagement to understand this?

There should also be continued engagement with government agencies, non-governmental organisations, communities and businesses to gather further information on potential environmental and socio-economic impacts. Through this the SEA team should also try to determine what baseline data already exists, and where this can be sourced.

This engagement should be guided by the Stakeholder Engagement Plan described in Section 4.2.4.

At this stage, consideration should also be given to the availability of baseline data that is relevant to the identified issues. Whilst SEA typically aims to use existing data rather than require extensive new studies/monitoring to be carried out, if there are critical information/data gaps identified further study/monitoring may be required.

4.2.2 SEA OBJECTIVES

For each of the environmental, social and economic issues to be investigated through the SEA it is necessary to identify criteria against which the PPP can be tested. This process should start with the identification of any objectives or standards established at international, national, regional and/or district level that may be relevant to the PPP, such as commitments to reduce greenhouse gas emissions, prohibit/reduce single use plastics, or improve water quality.

Having done so, the SEA team should consider whether all of these are applicable to the PPP and proposed scope of the SEA. It is important that the objectives are relevant and measurable. For each of the objectives that are chosen the SEA team should then identify appropriate indicators and targets.

Indicators should provide a means of measuring progress towards achieving the stated objective and targets should describe the desirable state in quantifiable terms. For instance:

Table 2: Examples of environmental, social and economic objectives, indicators and targets

Objectives	Indicators	Target
Reduce greenhouse gas emissions	Tonnes of CO ₂ emitted per year	X Tonnes of CO ₂ emitted per year by 2025
Reduce single use plastics	Tonnes of single use plastic waste disposed of	50% reduction in waste disposal by 2022
Improve water quality at beaches	Water quality (i.e. E.coli, dissolved oxygen, Ammonia)	Water quality meets specified levels

To be of value the objectives should be able to be monitored. It will be easiest if this can be done through existing, established monitoring networks. However, if there are available resources for setting up additional monitoring programmes this may also be considered. Whilst quantitative targets are preferable, qualitative indicators should not be completely discounted as they may be the only available options through which to monitor performance.

Stakeholder Engagement

Engagement with stakeholders at this stage should seek to find out what objectives or standards have already been established at international, national, regional and/or district level that may be relevant to the PPP and SEA. For instance, commitments to reduce greenhouse gas emissions, prohibit/reduce single use plastics, or improve water quality.

The SEA should also seek advice from stakeholders, such as other government agencies, about what monitoring is already taking place that is relevant to objectives chosen for the SEA. If there is relevant monitoring already underway this could provide a source of baseline data (refer Section 5.1) for the SEA and a means of monitoring the outcomes of implementing the SEA (refer Section 5.4).

This engagement should be guided by the Stakeholder Engagement Plan described in Section 4.2.4.

4.2.3 ALTERNATIVES

As well as the proposed PPP, the SEA should consider any reasonable alternatives that were considered during development of the PPP, including the status quo (do nothing). Consideration of alternatives in SEA provides the opportunity to identify and explore different ways to deliver the PPP's objectives while addressing the environmental and socio-economic issues. For this reason, it is often preferable to develop, assess, revise and re-evaluate options in an iterative manner throughout the PPP development process as illustrated by the feedback loop in Figure 2. This allows options to be refined/adapted to minimise potential risks and maximise potential opportunities.

However, if the development process has been largely completed it may be more appropriate and practical to set out the alternatives that were considered, evaluate the environmental and socio-economic impacts, compare them and explain the reasons for selecting the preferred option.

For practical reasons it will be necessary to limit the number of alternatives that are considered in the SEA. The alternatives should always, as a minimum, include the 'do nothing' scenario and it is important that they are reasonable/realistic/viable and are not simply chosen or retrofitted to promote the preferred option.

It is recommended that the SEA team identify these reasonable alternatives in collaboration with the PPP development team, but not be limited to the alternatives identified by them. It is important to note that while each of the alternatives considered in the SEA will be assessed in terms of the environmental and socio-economic impacts, the reasons for selecting alternatives may also include other factors.

Stakeholder Engagement

Initially the SEA team should engage with the PPP development team to identify the alternatives that it considered when developing the PPP. However, through the SEA process it is also important to engage with a broader range of stakeholders to assess the viability of these alternatives and identify other realistic alternatives that could address risks or maximise opportunities.

This engagement should be guided by the Stakeholder Engagement Plan described in Section 4.2.4.

4.2.4 IDENTIFICATION OF STAKEHOLDERS

It is beneficial at this stage to prepare a Stakeholder Engagement Plan, that identifies the relevant stakeholders, the issues that the SEA team wishes to discuss with them and the proposed timing and mechanisms for doing so. This plan can then be used to inform and guide engagement with stakeholders throughout the SEA process.

TYPES OF STAKEHOLDERS

It is at this stage of the SEA process that the SEA team should identify the relevant stakeholders that it proposes to consult with, collaborate with or notify of the proposed SEA, its progress and outcomes.

These stakeholders should be determined on a case by case basis, and include:

- government agencies
- potentially affected/interested communities, landowners and businesses
- non-governmental organisations
- industry associations and/or unions, and
- development agencies.

FOCUS FOR ENGAGEMENT

The SEA team should identify the matters that it would like to engage with stakeholder on. This likely to include:

- the proposed PPP – to improve understanding of the objectives, likely outcomes and realistic alternatives for achieving the objectives
- the potential environmental and socio-economic impacts of the proposed PPP
- Appropriate objectives, indicators and targets for the SEA
- Feedback on the scope of the proposed SEA

- Existing baseline data and monitoring programmes
- Assessment of potential effects and appropriate mitigation for environmental and socio-economic impacts
- Identification of opportunities that could be created through the PPP
- Feedback on the SEA Report

This plan should also consider the interests of the stakeholders themselves i.e. what do they want to know, when would they like to know it and how would they like this communicated.

MECHANISMS FOR ENGAGEMENT

Engagement can be done in a range of ways, including, but not limited to:

- Public (open) forums – These are useful for broadcasting information to a larger audience i.e. to inform communities about the SEA process and advising how, and who they can contact for further information or to provide feedback. It can be more difficult obtain specific feedback from such sessions, so they may need to be carried out in combination with more targeted engagement;
- Targeted engagement – More targeted engagement is generally required when there is a need to obtain more specific feedback or input into the SEA from smaller groups or individuals. For instance:
 - Workshops with officials from government agencies to obtain input i.e. to understand the possible outcomes of the proposed PPP or to determine the availability of baseline data.
 - Meetings with community groups and/or businesses to understand their concerns.
 - One on one engagement with individual stakeholders or businesses that may be significantly impacted by the proposed PPP to understand their concerns.

TIMING

Identifying and engaging with stakeholders during the scoping process provides the SEA team with the opportunity to seek input from stakeholders early in the process and obtain feedback that will help to refine the scope of the SEA. This should ensure that the SEA reflects the appropriate issues and obtains early 'buy in'. The Stakeholder Engagement Plan should also set out how the SEA team proposes to engage with stakeholders at other steps in the SEA process. The typical opportunities for stakeholder engagement throughout SEA are summarised in Figure 5 below.

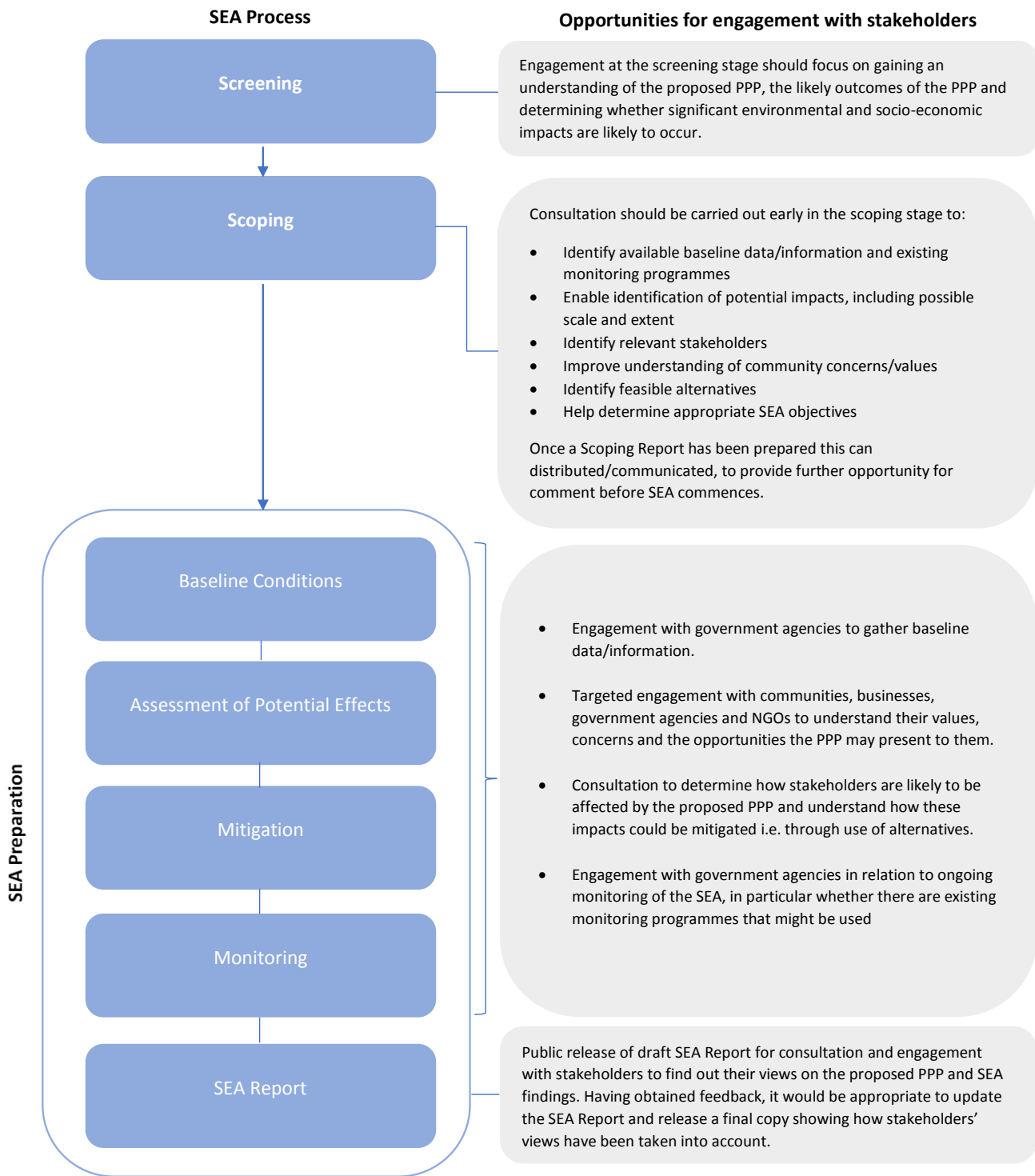


Figure 5: Opportunities for stakeholder engagement during SEA

4.2.5 SCOPING REPORT

It is recommended that the outcomes of the screening and scoping process are documented in a Scoping Report. The purpose of this report is to inform stakeholders of the issues, objectives and alternatives that are to be considered in the SEA and the proposed approach for assessing impacts and engaging with stakeholders. It should be clear and concise, and may include the following:

- Introduction – a brief description of the background/context for the SEA and the purpose of the SEA Scoping Report;
- Proposed PPP – A summary of the proposed PPP, including its objectives and if appropriate the process for its development. Maps can be used to show the area covered by the PPP;
- Alternatives – a brief description of the alternatives that have been considered during development of the PPP and confirmation of those that are being considered as part of the SEA;
- Issues to be addressed – summary of the key environmental and socio-economic issues that are to be considered in the SEA;
- SEA objectives – statement of the objectives, indicators and targets that are going to be used to assess the PPP against;
- Stakeholders – identification of the stakeholders that will be consulted with and those that will collaborate in the development of the SEA;
- Methodology – a summary of the approach to carrying out the SEA, including an indicative project plan identifying the key steps and times for consultation. This may also discuss proposed sources of data/information;
- Limitations – a brief description of any limitations that have been identified during the scoping stage, such as the availability of baseline data;
- Conclusions – any concluding remarks on the scope of the SEA;
- Contact details – if the Scoping Report is going to be released as part of the stakeholder engagement strategy, the document should include contact details so that anyone with queries or feedback has a point of contact.

Stakeholder Engagement

Once the Scoping Report has been completed this may be published or otherwise provided to stakeholders to seeking their feedback on the proposed scope of the SEA before commencing the assessment process.

5.0 EVALUATION OF IMPACTS

The purpose of this stage of the SEA is to identify the potential environmental and socio-economic impacts of the PPP and the selected alternatives, assess their risk, and consider how these risks can be avoided or mitigation, and any opportunities can be maximised. The keys steps and opportunities for stakeholder engagement are identified in Figure 6 below.

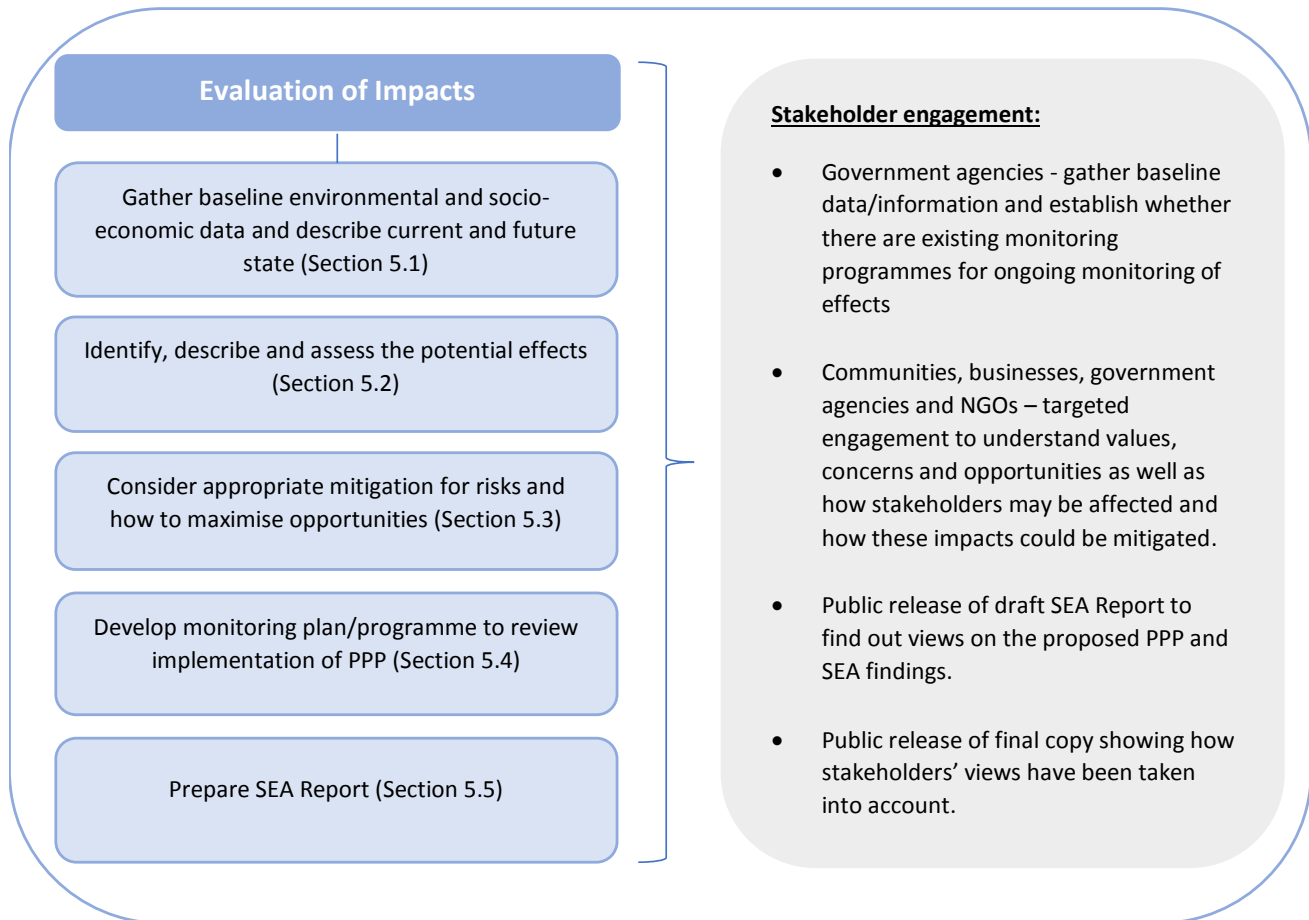


Figure 4: Process for evaluating potential impacts

5.1 BASELINE ENVIRONMENTAL AND SOCIO-ECONOMIC CONDITIONS

Before carrying out any assessment of potential effects it is necessary to gain an understanding of the existing environmental and socio-economic conditions that are relevant to the SEA. This not only includes their current state, but a prediction of the future state in the absence of the PPP. In other words, without the proposed policy intervention, plan or programme what would these conditions look like in the future? Would existing trends continue or are there other external factors that would result in change. For instance, climate change and sea level rise. In the absence of action, what

changes would occur as a result of climate change and sea level rise? This process therefore provides an opportunity to consider issues such as climate change and sea level rise and how they are predicted to impact on the country/region/district/community.

The collection of baseline information/data should start at the earliest opportunity, by gathering information/data from existing sources as far as possible. This may require engagement with regulatory authorities to find out what information is already available, and whether there are any ongoing monitoring programmes for collecting additional information.

The aim of SEA is to use existing data rather than require extensive new studies/monitoring to be carried out. However, if there are critical information/data gaps identified during the scoping stage, this may be required to enable the SEA to determine strategic impacts.

When collecting existing data and considering whether new monitoring/studies are needed it is important to carefully consider how much information is necessary to predict the potential impacts with reasonable confidence. In some instances, it may be enough to rely on expert opinion/judgement without extensive quantifiable data. This is to avoid the SEA become a burdensome data collection exercise and allow it to progress without unreasonable delay.

Once collected, the information/data should be used to prepare a description of the existing and predicted future environmental and socio-economic conditions that are relevant to the scope of the SEA. This description should identify important features of the study area, such as:

- Climate, including temperature, rainfall, winds, flooding, drought, extreme weather events and climate change projections;
- Topography, geology and soils, landscape and visual amenity;
- Land zoning and use, including ownership if relevant;
- Water resources, including surface and groundwater quality and quantity, catchment and local hydrology, water users;
- Marine – coastal processes, including tides, waves, currents as well as salinity, storm surge, temperature, water depth, water quality, and marine habitats
- Air quality and existing sources of air emissions;
- Noise – ambient noise and key noise sources and sensitive receptors;
- Flora, including plant species and communities, native, endemic, threatened/protected, invasive or culturally significant species, and species, plant communities or habitats that are vulnerable to environmental hazards and environmental change;

- Fauna - animal species and communities, including native, endemic, threatened/protected, migratory, invasive or culturally-significant species, habitat within and adjacent to the project area suitable for species of conservation significance and species, animal communities or habitat vulnerable to environmental hazards and environmental change;
- Human communities - towns/villages/settlements, population and local demographics, access to education, literacy level and educational attainment, housing, energy and water resource access and use, land use, gardens and subsistence dependency, natural resource use, transport and other infrastructure, cultural traditions, community structure and governance systems, marginalised groups, community health status, social infrastructure and services, such as health care, education, recreation and vulnerability to environmental hazards and environmental change;
- local and national economy, including skills, livelihoods and formal/informal employment, economic and business conditions, distribution of income and major sectors and industries;
- social/cultural resources and heritage, including objects or sites of social/cultural significance, cultural and archaeological assets.

When preparing this, it is important that any assumptions or limitations be stated.

Stakeholder Engagement

Engagement should focus on stakeholders who may have access to existing baseline data and/or be conducting monitoring programmes already. This is likely to include regulatory authorities and may also include environmental NGOs and development agencies.

This engagement should be guided by the Stakeholder Engagement Plan described in Section 4.2.4.

5.2 ASSESSMENT OF POTENTIAL AFFECTS

Building on what has been determined through the scoping stage (Section 4.2) the aim of this task is to finalise the analysis and description of the outcomes that are expected as a result of implementing the PPP and alternatives. Having completed this, it is possible to complete the task of identifying the potential implications for the environment and socio-economic conditions. For instance, the development of infrastructure may result in the removal of habitat, changes in energy consumption will affect CO₂ emissions, and intensification of land use for farming may lead to a decline in water quality through the discharge of effluent to water ways.

To identify the potential impacts, consider:

- What will be impacted?

- How sensitive are the receptors?
- Are the changes likely to be significant?
- Where are the impacts likely to occur? Will they be localised or wide reaching? Is there potential for transboundary effects?
- How long will the impacts last for? How frequently will they occur?
- Will there be several actions/activities/behaviours impacting upon the same area resulting in a greater level of impact than if they were happening individually (cumulative impacts)?
- What is the likelihood of the impacts occurring?

It is important to consider indirect impacts as well as direct impacts and impacts that may arise from unforeseen, abnormal or accidental events. One of the benefits of using SEA, is that this will also enable the consideration of longer term impacts, such as how the impacts of the proposed PPP may be affected by climate change.

In some cases it may be possible to provide a high level of detail about the potential impacts. There may be a high degree of certainty about the actions that are going to occur in response to the PPP, which enables a more focussed assessment, quantitative assessment of its potential effects. However, in other cases there may be a much lower level of certainty about the potential outcomes, making this more difficult. It is therefore important to consider the probability of impacts occurring when carrying out an assessment.

Predictions of impact can be qualitative and quantitative, and both approaches are valid/useful. For instance, modelling could be used for predicting potential impacts on water use, air quality, water quality as well as for predictions of natural events, such as flooding. These tools can provide specific predictions of change. In other cases it may only be possible (or desirable) to predict the direction of change, such as a decrease in CO₂ emissions, in a qualitative manner or through the professional opinion of relevant experts. An example of the simple approach used for analysing the Neiafu Master Plan is summarised below.

Example: Strategic Environmental Assessment of Neiafu Master Plan

the Neiafu Master Plan comprised a set of policies concerning land use and building standards, together with specific projects for upgrading infrastructure and enhancing the urban landscape. The SEA of this master plan used a simple matrix to map out the broad environmental impacts of the various proposals. This took a high level approach to evaluating the plans implications, enabling a comparison of the various initiatives and the distribution of impacts. The intention of this SEA was not to provide definitive judgements about the impacts of each project as this would be done through EIA studies in the future.

The results of impact analysis can be presented in summary form via tables, as was done for the Neiafu Master Plan. This provides a broad understanding of the potential impacts, and should always be supported by further description of the potential impacts, so that it is clear what has been considered, and why the conclusion has been reached.

To aid decision making, this assessment of potential impacts should always be considered within the context of the SEA objectives, including any known limits of acceptable change and/or standards. For instance, if defined limits of acceptable change have been set for water quality, and the proposed PPP is likely to lead to exceedance of this, particular attention may need to be paid to alternatives that could avoid or limit this change.

Stakeholder Engagement

Targeted engagement with potentially affected stakeholders is required in order to evaluate the nature and significance of the impacts upon them. For instance, if the proposed PPP is likely to result in purchase of productive land from a farmer, how will this impact upon their livelihood, and will they be able to adapt to this change? Engaging with such stakeholders can provide further detail and help identify other options that have not been previously considered.

This engagement should be guided by the Stakeholder Engagement Plan described in Section 4.2.4.

5.3 MITIGATION

Once the potential impacts have been assessed, the next step is to consider whether it is possible to mitigate them, particularly any that have been identified as being significant or that are unintended consequences of the proposed PPP. This should involve considering whether the impacts can be avoided altogether, or their severity/likelihood could be reduced to an acceptable level. Further, if they cannot be avoided, can steps be taken to remedy the impact(s) or compensate for them once it/they have occurred.

Avoiding impacts may require changes/refinements to the proposed PPP, therefore as discussed in Section 4.2.3 it is particularly important that alternatives be considered at this stage. For instance, can the proposed PPP be modified to promote development in less vulnerable/sensitive areas, which could avoid impacts on endangered habitats/species? Such consideration will be important to providing justification for the PPP or selected alternative(s). This feedback loop is illustrated in Figure 2.

As well as mitigating potential adverse effects it is important that there be consideration of how to maximise opportunities from the proposed PPP. For instance, can the PPP promote habitat restoration, and improve peoples' livelihoods and wellbeing; noting that such matters can be specific goals/objectives of the PPP.

Stakeholder Engagement

At this stage of the SEA, engagement with stakeholders should focus on identifying appropriate means of mitigating risks. For significant risks to particular communities, businesses or individuals, engagement should be focussed on these potentially affected parties. There may also be circumstances where government agencies, or the services/facilities they provide are likely to be impacted, and in such circumstances they should be consulted.

As a minimum there should be engagement between the SEA team and the PPP development team to determine whether there are viable alternatives to the proposed PPP and/or modifications that could be made to mitigate risks and maximise opportunities.

This engagement should be guided by the Stakeholder Engagement Plan described in Section 4.2.4.

5.4 MONITORING

Monitoring is important to examine the implementation of a PPP and ensure that any unforeseen impacts are identified, that appropriate remedial or risk reduction actions are being taken, and that the PPP is contributing to sustainable and resilient development. To ensure this is done effectively a monitoring plan/programme should be developed that is consistent with the SEA objectives, indicators and targets (Section 4.2.2) as well as the findings of the search for available baseline data (Section 5.1).

Consideration should be given to implementing this monitoring plan/programme prior to implementation of the PPP, particularly if further baseline data is required against which to compare the outcomes of the PPP.

Stakeholder Engagement

When preparing the monitoring plan/programme the SEA team should engage with government agencies, and if appropriate, environmental NGOs and development agencies that are already implementing related monitoring programmes. The purpose of this is to ensure the SEA monitoring plan is aligned with existing monitoring, and/or determine whether existing monitoring programmes can be adjusted/extended to accommodate the additional monitoring needs.

This engagement should be guided by the Stakeholder Engagement Plan described in Section 4.2.4.

5.5 PREPARATION OF SEA REPORT

The SEA process and its findings should be described in a Report, which includes the following information:

Introduction – a brief description of the background/context for the SEA and the purpose of the SEA Report;
Methodology – a summary of the approach to carrying out the SEA;
Proposed PPP – A summary of the proposed PPP and any alternatives that have been considered;
Outcomes of the PPP – A description of the outcomes that may result from implementation of the PPP
Current state – a description of baseline environmental and socio-economic conditions. This should include a description of the future state in the absence of the proposed PPP;
SEA objectives – statement of the objectives, indicators and targets that have been used to assess the PPP against;
Potential impacts – a description and assessment of the potential impacts of the proposed PPP and alternatives;
Mitigation – Explanation of the mitigation measures that are proposed. This may include explanation of how alternatives have been adopted;
Monitoring – description of the proposed monitoring plan/programme;
Stakeholders engagement – an explanation of the engagement that has been carried out to date as part of the SEA process and any further consultation that is proposed. This section should also explain how stakeholder concerns/suggestions have been taken into account;
Findings and recommendations – summary of the key findings and any recommendations of the SEA. This may include findings of significant adverse effects, and recommendations for mitigation, including the use of alternatives;

For ease of understanding a non-technical summary of the SEA Report should also be prepared for use in consultation with stakeholders.

Stakeholder Engagement

Once a quality review has been carried out (Section 5.6), a draft SEA Report and non-technical summary should be published online or otherwise distributed to ensure availability to relevant stakeholders.

The purpose of this is to obtain feedback on the draft findings and recommendations so that these can be taken into consideration when finalising the SEA Report and making decisions on how to implement the recommendations (Section 6).

This engagement should be guided by the Stakeholder Engagement Plan described in Section 4.2.4.

5.6 QUALITY REVIEW

The SEA Report should undergo a quality review once completed. As a minimum, the report should be peer reviewed by another member of the SEA team to confirm it meets the SEA requirements stated in the Scoping Report.

Consideration should also be given to commissioning an independent review of the SEA to confirm it has been prepared in accordance with good practice. This review should consider:

The scope of environmental and socio-economic issues considered;
The relevance of the SEA objectives, indicators and targets;
The quality of the data/information used;
The mechanisms for predicting potential impacts;
Whether the proposed alternatives are realistic;
The level of stakeholder engagement carried out; and
How the findings of the risk assessment and consultation have been taken into consideration.

The findings of quality reviews should be addressed prior to releasing the draft SEA Report for consultation.

Stakeholder Engagement

A copy of the draft SEA Report should be provided to the PPP development team at the same time as it is undergoing a quality assurance review. This will allow the team to clarify any matters relating to the PPP and alternatives or correct errors resulting from misinterpretation by the SEA team. Early and ongoing engagement between the SEA team and PPP development team should minimise the risk of such mistakes occurring.

This engagement should be guided by the Stakeholder Engagement Plan described in Section 4.2.4.

6.0 MAKING DECISIONS/ADOPTION OF THE POLICY, PLAN OR PROGRAMME

The greatest value is derived from SEA when it is used to inform decision-making processes. If it is used during the PPP development process it will enable amendments and refinements to be made to the PPP before it is implemented, addressing significant risks and maximising opportunities.

Providing the PPP development and SEA process are well aligned, the rationale for making decisions and amendments to the PPP can be documented in the SEA Report. This will provide greater transparency, giving stakeholders a better understanding of the outcomes of the PPP development and SEA processes. It will also show how their opinions/concerns/suggestions have been considered and incorporated.

However, if changes to the PPP occur following completion of the SEA Report and obtaining feedback from stakeholders it may be preferable to prepare a separate statement in the PPP, which sets out the following:

The key environmental and socio-economic issues raised in the SEA Report;

Key issues raised in submissions on the SEA Report;

How the PPP has been amended to take these into consideration;

The alternatives that were considered, their potential impacts and the rationale for choosing the preferred option; and

How the PPP will be monitored once it has been implemented.

SEA is also a useful tool when reviewing PPP's that have already been implemented. This can help decision-makers consider whether the PPP is achieving its objectives, if the environmental and socio-economic impacts are in line with expectations or there have been unforeseen consequences and whether there are any adjustments that could be made to the PPP to improve its ability to meet its objectives.

Stakeholder Engagement

It is important to communicate to stakeholders how the SEA process has influenced the final PPP proposal, and how their opinions/concerns/suggestions have been considered and incorporated. This could be documented in the final SEA Report or in a separate statement in the PPP itself, which are then published or otherwise distributed for information purposes.

This engagement should be guided by the Stakeholder Engagement Plan described in Section 4.2.4.

7.0 STRATEGIC ENVIRONMENTAL ASSESSMENT TOOLKIT

To help with the understanding and application of SEA in the Pacific the following tools have been developed:

Tool	Description	Appendix
Case studies	<ul style="list-style-type: none"> • A Strategic Environmental Assessment of Fiji’s Tourism Development Plan (2003) • Strategic Environmental Assessment (SEA) Report: Neiafu Master Plan, Vava’u, Tonga (1996) • Strategic Environmental Assessment and Potential Future Shoreline Impacts of the Oil Spill from WWII Shipwreck <i>Hoyo Maru</i> Chuuk Lagoon, FSM (2001) • Response to an Oil Spill from a Sunken WWII Oil Tanker in Yap State, FSM (2003) • Integrated Strategic Environmental Assessment of the Northern Province of Sri Lanka (2014) • Strategic Environmental Assessment of the Hydropower Sector in Myanmar (2018) 	1
A screening checklist	Not yet developed – Stage 2	2
SEA Scoping Report template	Not yet developed – Stage 2	3
An example approach to risk assessment	Not yet developed – Stage 2	4
SEA Report template	Not yet developed – Stage 2	5
An SEA review checklist	Not yet developed – Stage 2	6
Guidance on Stakeholder Engagement	Not yet developed – Stage 2	7

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APPENDIX 1: CASE STUDIES

A Strategic Environmental Assessment of Fiji's Tourism Development Plan, Fiji, 2003

World Wide Fund for Nature – South Pacific Program & Ministry of Tourism

Objective(s): To inform the mid-term review of the Tourism Development Plan by assessing the environmental and sustainable development impacts of the current plan, and to test the usefulness of SEA as a tool for improving the sustainability of strategies and plans in the Asia-Pacific Region.

Findings/Recommendations:

- There are areas in Fiji where tourist development is causing significant environmental degradation. Many pressures are close to levels at which irreversible damage could occur;
- Tourism is currently providing considerable economic benefits to Fiji. However, lost earnings from other sectors leaves Fiji's economy highly dependent on one sector;
- Fiji lacks the framework to ensure good practice is adopted across the tourist development industry;
- The growth advocated under the Tourism Development Plan is likely to compete with sustainability objectives, in particular it is likely to lead to tension between tourist developers, landowners and the local communities;
- A precautionary approach to tourism development is required. This would ensure the benefits to Fiji could be maximised whilst safeguarding the advantages Fiji has and avoid any action which could cause serious environmental harm or create further social tension.
- Full implementation of institutional and regulatory frameworks for environmental assessment and management, including capacity building and enforcement, is a prerequisite for tourism expansion.

Key Outcomes/Lessons learned for the Pacific:

- SEA provided a helpful structure for assessing the impacts of the Tourism Development Plan;
- The existence of studies carried out in the region and a large pool of local expertise was crucial in drawing robust conclusions - The SEA drew heavily on earlier research and reports;
- Where information is not available, assessors should make estimates or judgements based on best available information;
- It is essential to consider social and economic issues together with environmental issues;
- When conducting SEA, seek to understand the official legislative framework and what is happening in reality;
- Make recommendations that are within the capacity of the target organisation to implement;
- SEA is not necessarily a linear process. Tasks will overlap/run in parallel;
- Stakeholder engagement is pivotal to the success of SEA - A consultation strategy was devised early in the process to facilitate meaningful stakeholder participation;
- Lack of participation by key decision makers can create risk that the outcomes of the SEA will not be accepted;
- There should always be a project champion who is a permanent member of staff in the local organisation, to ensure follow through once the SEA is complete - WWF approached the Ministry of Tourism to collaborate on the project. MOU agreed that SEA will provide the environmental and social elements of the mid-term review and results are to be integrated into the Tourism Plan. WWF formed a project team comprising of external consultants and a specialist from the Ministry of Tourism.

Strategic Environmental Assessment of Neiafu Master Plan, Tonga, 1996

Secretariat for the Pacific Regional Environment Programme

Objective(s): This Strategic Environmental Assessment (SEA) was initiated by SPREP in order to consider the environmental and social impacts of the development projects proposed for the town of Neiafu on the island of Uts Vava'u, Tonga as part of the Vava'u Development Programme. These projects, collectively known as the Neiafu Master Plan, comprise a set of policies concerning land use and building standards, together with specific projects for upgrading infrastructure and enhancing the urban landscape in various ways.

Findings/Recommendations:

- Tourism is given a high degree of prominence, perhaps to the detriment of other areas for development, such as improving the primary sector and basic living conditions for local people;
- Encouraging tourism will increase tourism impacts, over a wider pan of the region. The environmental implications of this have not been recognised in the Plan;
- There does not seem to have been any formal environmental assessment of development options during the early stages of the Programme. Nor has there been any study into carrying capacities, environmental constraints, etc.;
- There does not appear to have been a great deal of formal input into the Programme from local communities even though most of the adverse effects fell upon the local people and the marine environment;
- Local people are likely to benefit from the proposed projects i.e. better water supply and sanitation should lead to health improvements;
- The loss of historical and cultural aspects is unlikely to be acceptable to the community.
- The cumulative impacts of all of the proposed projects could be severe if constructed concurrently, therefore some thought needed to be given to programming works to mitigate noise, dust, traffic disruption and sediment loss to the marine environment.

Key Outcomes/Lessons learned for the Pacific:

- The assessment of impacts in SEA can be done in a simple way. Detailed analysis and prediction of effects is not always required. In this SEA a simple impact matrix was formulated to review the broad environmental implications of the plan. This allowed comparison of projects, consideration of cumulative impacts and distribution of effects;
- There are limitations to this approach. Due to its simplicity it can be difficult to deal with complex issues. It is therefore important to determine SEA objectives before deciding on the method of analysing risk;
- Many of the impacts of the proposals relate to social outcomes, which demonstrates the importance of considering socio-economic matters alongside the natural environment;
- The SEA team made its own value judgements, about potential impacts, but recognised the importance of consulting with the local community to find out how they viewed these impacts;
- In particular, the local community should be involved in the planning process and asked whether the perceived benefits of the plan outweigh the adverse impacts they will also experience;
- There is a great deal of benefit in carrying out integrated planning to ensure issues are addressed comprehensively. For instance, while the Neiafu Master Plan could achieve positive marine water quality outcomes i.e. through improved sanitation, it would not address pollution from other land uses;
- It would be beneficial to apply a higher level of scrutiny to some of the proposed projects i.e. through EIA.

Strategic Environmental Assessment and Potential Future Shoreline Impacts of the Oil Spill from WWII Shipwreck Hoyo Maru, Chuuk Lagoon, Federated States of Micronesia, 2001

Secretariat for the Pacific Regional Environment Programme, Asia Pacific ASA, Sea Australia

Objective(s): The aim of this strategic environmental assessment was to determine the extent of shoreline oiling and potential future oiling coming from the Hoyo Maru, a WWII shipwreck located in Chuuk Lagoon- FSM. This in turn will assist the government of FSM to make long-term decisions about the WWII wrecks located in Chuuk Lagoon.

Findings/Recommendations:

- The shoreline assessment showed that at the time of the survey there was no visible oil on any of the shorelines examined;
- The strong oil odour in the area and the light shimmer on the surface of the water clearly indicated a sub-surface release;
- Wind strength and direction are the main driving forces for movement of oil spills and potential shoreline impact zones within Chuuk Lagoon;
- The dominant north-easterly trade winds placed the Island of Fefan mostly at risk from the Hoyo Maru. Over 1000m of the shoreline of Fefan Island is at risk to 40% of all the probable oil spills from the Hoyo Maru;
- Shoreline impacts from oil spills from the Hoyo Maru are also possible on the islands of Dublon, Moen, Parah, Udot and Lidot but with a reduced risk, in the order of less than 10%;
- Approximately 50% of the oil volume spilt will be evaporated due to the warm tropical waters and wind with the remainder 50% likely to come ashore somewhere within the lagoon. In high sea states conditions a proportion of this oil would be entrained as oil droplets exposing marine life;
- Therefore, response personnel should plan that at least 50 % of the oil escaping from the vessel is likely to be persistent and also impact on the natural coastal and marine resources somewhere within the lagoon;
- For spill response planning purposes of particular interest is the minimum time for oil to come ashore which takes into account the worst-case scenario. Most of the oil scenarios showed the oil impacting shorelines within the lagoon 2-6 hours of the spill;
- Oil is likely to impact the shoreline of Fefan Island within 1 hour of the spill from the sunken wreck;
- The potential short timing between an oil spill and shoreline impacts highlights the need to ensure the most sensitive resources within the lagoon are identified and response actions are carried out immediately to divert or contain oil before an oil spill strands onshore.

Key Outcomes/Lessons learned for the Pacific:

- For those countries and territories affected by sunken vessels, it is important to understand the risk from oil spills, including the volume and type of fuel oil on board, the likelihood of it leaking and the receptors that are likely to be affected if it does.
- This risk assessment enables planning and preparation for such events, which improves the likelihood of successful mitigation.

Response to an Oil Spill from a Sunken WWII Oil Tanker, Yap State, Micronesia, 2003

Secretariat for the Pacific Regional Environment Programme

Objective(s): To provide an independent study on the wreck and the environmental impacts of the recent oil spill from the USS Mississinewa in Ulithi lagoon. In particular:

- Had leaks ceased;
- Identify ecological resources at risk from oil;
- Assess extent of remaining oil on shorelines;
- Determine priorities and requirements for any shoreline cleanup or restoration;
- Document any ecological constraints on oil spill response or cleanup.

Findings/Recommendations:

- It was estimated that 18,000-24,000 gallons of oil had been released into the lagoon over 2 months;
- From the surveys carried out it was apparent that no major foreshore oiling remained in Ulithi lagoon. Some oil had impacted the turtle island of Pau. The western beaches Falalop facing the lagoon were probably the most contaminated with oil;
- No signs of any abnormal crustacean or mollusc mortality were apparent and none of the turtles examined showed any sign of oil contamination. Bird population appeared to be diverse, healthy and very active with no signs of oil contamination, oil intoxication or behavioural changes. No apparent or significant damage was observed on wildlife by the oil spill on any island surveyed;
- A significant amount of oil remained on board the vessel; only 0.35-0.5% of the oil cargo had been released. The magnitude of the worse possible case scenario was 200-300 times the amount already spilled;
- It was estimated that 5,000,000 gallons of oil remaining on the USS Mississinewa represented a “grave and imminent danger” of a pollution hazard to Ulithi lagoon. It was highlighted that major doubt and uncertainty existed as to the structural integrity of the vessel in the long term;
- A release of the vessels' cargo, whether by chronic low level discharge, or by catastrophic failure during a storm or typhoon, could have severe impacts on the lagoons coral reefs, the foreshore environment, subsistence fishing, food supply and health of the Ulithi population;
- Any oil leak would pose a significant threat to one of the most important remaining sea turtle breeding colonies in the western pacific region.

Key Outcomes/Lessons learned for the Pacific:

- The livelihood, food supply and way of life for Pacific Islanders depends upon the ocean, its coastal environments and natural resources. These are vital for subsistence living, and very sensitive to marine pollution;
- The oil spills highlight the problems of oil spill response and cargo salvage in remote regions of the Pacific. The lack of infrastructure, support services, equipment and transport difficulties hampers effective and timely response;
- The USS Mississinewa also highlighted the problems of aging and slowly deteriorating WWII shipwrecks across the Pacific region;
- Coral reefs are the richest and most diverse of all of the ecosystems in the sea and very sensitive to marine pollution. During oil spills incidents coral reefs should receive a high protection priority since they are easily damaged if oiled.

Integrated Strategic Environmental Assessment of the Northern Province, Sri Lanka, 2014

Central Environmental Authority of the Ministry of Environment and Renewable Energy and Disaster Management Centre (DMC) of the Ministry of Disaster Management

Objective(s): The purpose of the SEA was to provide a clear understanding of the probable environmental consequences arising from implementation of the envisaged fast-tracked development of the Northern Province. The need for this assessment arose because after many years of conflict and economic embargo, the Northern Province is entering into a rapid resettlement and development phase with increased investment in infrastructure, roads, railways, telecommunications, etc. while also restoring public administration to stimulate investment and growth.

Findings/Recommendations:

- The boundaries of high priority conservation areas should be demarcated and gazetted as early as possible, including the proposed wildlife protected areas and archaeological sites;
- A minimum reservations or buffer zones should be decided and maintained to protect waterways;
- Untreated wastewater or sewage should not be discharged into any inland water body;
- Coastal sand dunes should be preserved as they perform a very important function by supporting the recharge of the ground water table and act as a barrier against coastal disasters including tsunamis;
- Erosion prone areas to be taken into consideration along with climate change induced sea level changes in development and infrastructure work with adequate precautionary/ mitigation measures;
- Salt water intrusion into inland surface waters including rivers to be studied, on a continuing basis while monitoring ground water levels to keep track of the climate influences and excessive drawdown of ground water for industry including agriculture;
- Water quality to be monitored in water bodies to keep track of pollution;
- Resource maps should be further refined to identify minerals which could be extracted with minimum damage to the environment;
- Several sanitary landfill sites should be identified in suitable locations near urban centres in order to dispose of the non-compostable portion of municipal solid waste;
- A comprehensive Bio Diversity Assessment should be carried out for the entire Northern Province in order to identify valuable and unique ecosystems;
- The private timber farms/forest plantations with suitable timber species or homesteads should be promoted. High potential for social forestry to be explored including road side planting;
- Extensive awareness and capacity building on ecosystems, ecosystem services and their management is recommended for all agencies, nongovernmental agencies, communities and schools.

Key Outcomes/Lessons learned for the Pacific:

- The process was an excellent example of harnessing the technical capacity in Government Institutions and Universities while tapping into international expertise to add value. It also demonstrated synergistic agency cooperation for integrated development planning;
- The SEA contributed towards changing or adjusting agency plans and strategies on land uses. It highlighted the areas to conserve where biodiversity, archaeological value and potential for green jobs such as ecotourism is high.

Strategic Environmental Assessment of the Hydropower Sector in Myanmar, 2018

Ministry of Electricity and Energy and Ministry of Natural Resources and Environmental Conservation with support from the Australian Government and International Finance Corporation

Objective(s): The primary purpose of the SEA is to provide a “sustainable development framework” (SDF) for hydropower in each of Myanmar’s major river basins to ensure both basin health and hydropower generation.

Findings/Recommendations:

- The SEA focuses on significant environmental and socio-economic issues directly related to major Hydroelectric Power Plants to reduce negative impacts during project siting and design. Hydropower development can create environmental and social impacts at basin, sub-basin, and site levels. The major potential impacts of medium-to-large-scale hydropower are:
 - Environmental: Changes in river hydrology and geomorphology; Coastline and delta erosion/degradation; Deterioration of water quality; Loss of aquatic biodiversity; Loss of terrestrial biodiversity;
 - Social and Economic: Land acquisition and resettlement; Loss of or reduction in communal natural resources supporting livelihoods or cultural/religious practices; Loss of important natural/cultural heritage/religious sites; Community safety; Impacts on indigenous peoples;
 - Cumulative Impacts: cumulative sub-basin and basin impacts;
 - It was recommended that environmental and social planning of proposed occur at three integrated levels to ensure that each project is sited, designed, constructed, and operated in accordance with environmental and social sustainability requirements. This consisted of: (i) Site screening against the SDF; (ii) Cumulative Impact Assessment; and (iii) EIA for projects;
 - Environmental governance, including the lack of local voices and public participation in decision-making, was highlighted as a major concern;
 - Stakeholders reported a lack of transparency and limited public participation in EIAs for projects in the past. Reports were often not disclosed to the public and environmental management plans were not enforced or monitored. Recommendations on strengthening the EIA process included:
 - Consulting with local communities before project siting and design to select projects with the least environmental and social impacts;
 - Incorporate local knowledge and livelihoods and community concerns into decision making, assess impacts and develop mitigation plans and livelihood-restoration programs in consultation with communities affected;
 - Conduct social baseline research, covering health, education, gender, ethnic minority groups, and social welfare;
- Develop communication mechanisms between government, developers, and local communities.

Key Outcomes/Lessons learned for the Pacific:

- Promote public participation and include stakeholder views;
- A key aim of the SEA included enhancing decision makers’ understanding of the range of stakeholder’s environmental and social values that should be considered in formulating the SDF, improving the dialogue among stakeholders, and obtaining the best available information;
- Ongoing consultations were important in identifying environmental and social issues;
- Respect ethnic cultures and traditions and protect the livelihoods of local people.

APPENDIX 2: SCREENING CHECKLIST

A screening checklist might assist PICTs looking for opportunities to engage and apply SEA, these would need to be generic enough to enable them to be developed/tailored at a country/territory level.

APPENDIX 3: SEA SCOPING REPORT TEMPLATE

General description of what this should include is provided in Section 4.2.5, but it may assist to provide a template for this.

APPENDIX 4: RISK ASSESSMENT – AN EXAMPLE APPROACH

Please provide any preferences to Risk Assessment approaches used in your country.

APPENDIX 5: SEA REPORT TEMPLATE

General information on what this should include is provided in Section 5.5, but it may assist to provide a template for this. I suggest this be considered for Stage 2 scope of works.

APPENDIX 6: SEA REVIEW CHECKLIST

It would be possible to prepare a review checklist to guide reviewers. I suggest this be considered for Stage 2 scope of works.

APPENDIX 7: GUIDANCE ON STAKEHOLDER ENGAGEMENT

To provide more detailed information on how to go about identifying and engaging with stakeholders during the SEA process. I suggest this be considered for Stage 2 scope of works.