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Strategic Environmental Assessment (SEA) An Introduction

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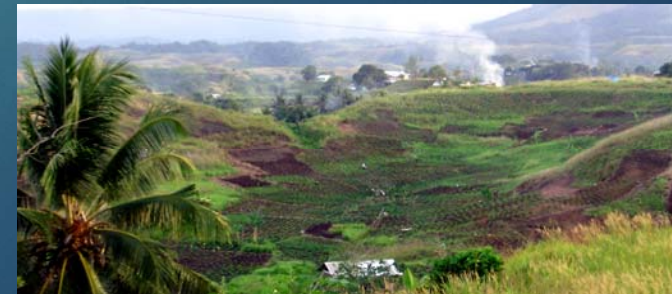
Introduction to the webinar

SEA as an important part of impact assessment practice

What SEA is and how it promotes better policy and planning

SEA practice: two main approaches

How to strengthen SEA in the Pacific islands?



What is SEA?

Apply impact assessment thinking to policy and planning processes

- ensure social, cultural, and environmental aspects are included in considerations
- anticipatory, to inform emerging policies, plans, programmes
- pay attention to the unintended direct and indirect effects of proposals, both adverse and beneficial
- participatory, inclusive

Terminology:

- SPREP SEA Guide uses “environment” in the wider sense, not limited to natural environmental systems



Brief international perspective

Forms of SEA in over 60 countries

- esp EU through a Directive; also wider group under Espoo Convention

Strong European influence on SEA development

- EIA style models, often a biophysical emphasis but now social is typically included

SEA also promoted by UN and its agencies (UNEP, UNECE, etc.), WHO, OECD/DAC, and esp the World Bank, IFC, ADB, etc.

SPREP published detailed SEA guidelines in 2020

Brief look at SEA in Aotearoa NZ

Not formalised as “SEA”, but some SEA-type processes

- s32 under the RMA is most obvious
- also regulatory impact assessment at Cabinet level
- Local Government Act 2002 (as amended 2019) has relevant language
- emerging use of Living Standards Framework by Treasury and He Ara Waiora (Maori wellbeing framework)

Plus a variety of ad hoc approaches in evidence

What can SEA contribute?

Strategic policy and planning

- rational models very focused on achieving desired outcomes (eg wellbeing, sustainability, equity)
- monitor and evaluate, revise

Often there is limited consideration of wider implications of proposals

- especially those that arise through indirect pathways...

SEA widens the consideration of context and potential consequences



SEA helps decision makers:

- to make informed decisions that are strategically sound;
- to achieve environmentally sound and sustainable development through improved planning and programming;
- to save time and money by avoiding costly mistakes and severe environmental effects;
- to identify new opportunities for development;
- to ensure efficiency and transparency of decision-making;
- to strengthen governance and build public trust and confidence in decision making

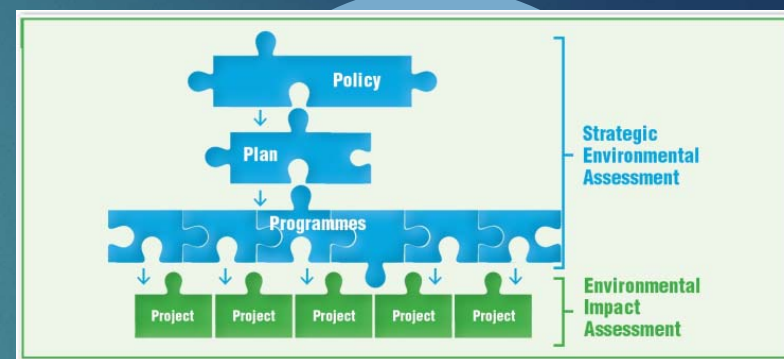
SPREP SEA Guide 2020



Tiering and cumulative effects

Tiered decision-making, policy to plans to projects

- ▶ SEA for upper levels, EIA/AEE for projects
- ▶ SEA prepares the ground for project IA
- ▶ Project IAs benefit from well developed policies, rules and standards to work with when informing decisions
- ▶ Development plans are an effective way to manage cumulative effects, defining what activities (and how many) are suited to an area
- ▶ For example sand mining, quarry, or wind farm development



SEA and cumulative effects

The strategic level is particularly suited to analysis of cumulative effects

- on a given resource (e.g. dams on a river or groundwater extractions, nature-based tourism ...)
- multiple projects across an area, to recognise combined effects of existing, permitted or proposed actions
- for wider geographic and temporal range
- for diffuse (non point) effects
- to identify “boundaries”
- ▶ e.g. Social and ecological carrying capacities, environmental thresholds, limits of acceptable change



Examples of cumulative effects

Examples from participants – please speak up or use chat



SEA theory: models and methodology

A great deal of discussion and debate!

Simple typology:

- SEA carried out on draft policies/plans/programmes, to assess their wider environmental, social, cultural implications (*EIA model*). Gives limited ability to change a proposal
- SEA part of the policy and plan making process, to ensure they consider sustainability, and avoid/reduce impacts on environment, people, etc. throughout (ie, *embedded* SEA throughout)

Doing SEA... *EIA model*

Carried out as separate activity, typically separate teams

- runs alongside policy/plan/programme processes
- triggered at key development points, eg., draft proposals produced
- SEA evaluates the process, and assesses wider impacts
- provides feedback, informs revision of proposals and plan writing

Broadly follows standard IA approach

- scoping (incl stakeholder consultation)
- baseline description
- forecasting/prediction
- significance evaluation
- impact management recommendations and report

Neiafu MasterPlan, Vava'u?

Plan already completed

Many component activities

- roading, drainage, sewerage,
- streetscape, foreshore upgrades
- wharf and market upgrades

Strong focus on tourism development

Opportunity to trial SEA

See case study, p.51 of SPREP SEA Guide



Reviewed background to the Master Plan

- other policies, sustainability

Reviewed component activities of plan

- main impacts, inc. cumulative impacts, distributional aspects, gaps, EIA needs

Reviewed monitoring intentions

Identified a number of issues under each of these...

e.g. cumulative impact of earthworks across projects; sewage into marine environment; no waste management plan; SIA would be needed in many cases; no monitoring provisions...

Doing SEA... *embedded model*

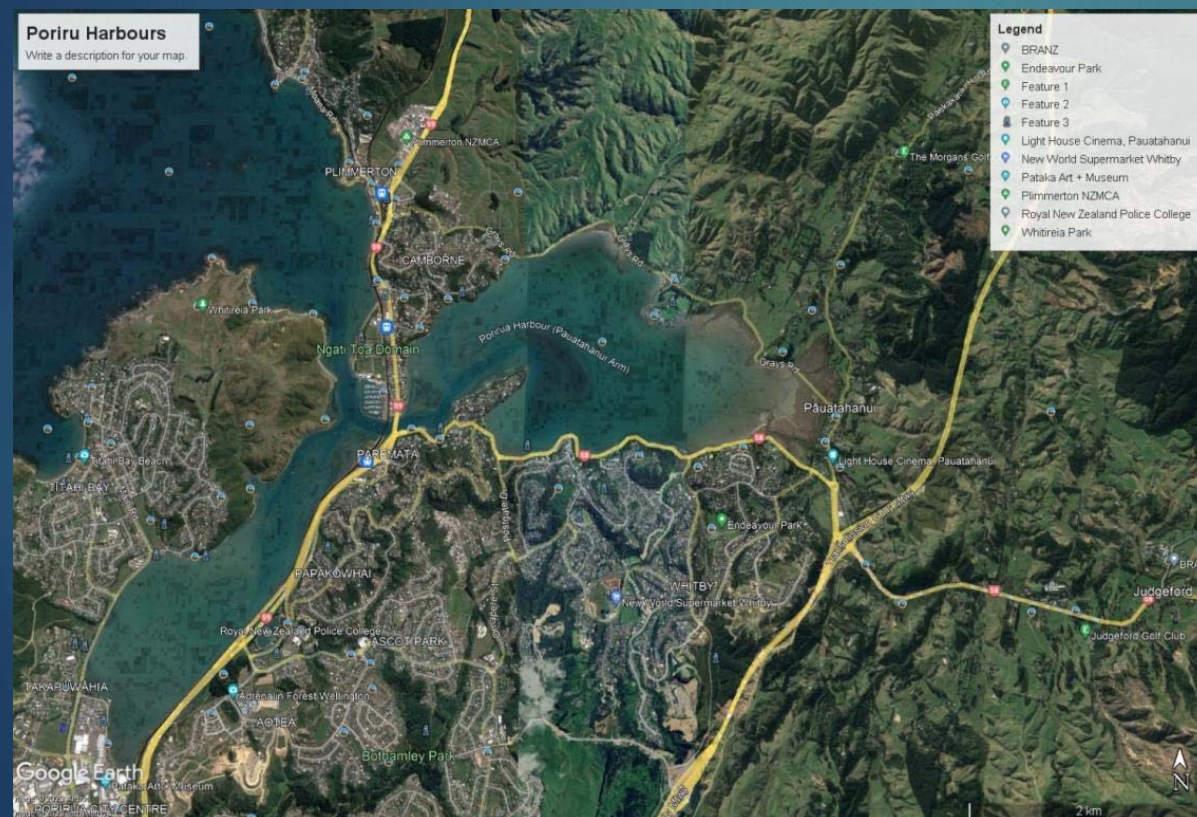
SEA specialists within policy/plan team

- help plan studies, to ensure relevant social, cultural and environmental factors recognised
 - to set capacity/threshold boundaries for emerging policies/plans
- support analysis of potential wider impacts
 - avoid/mitigate adverse impacts, look to enhance beneficial impact if practical

Methods: less structured, more flexible

- degree of structure would depend on context (e.g. land use planning versus housing policy?)
- impact assessment component would follow standard IA approach
- sustainability analyses based on variety of tools, to suit context
 - modelling, GIS, etc.

Porirua Harbours: embedded SEA



- ▶ Working with regional land and water planners from the start (planning focus)
- ▶ Ki uta ki vai principles
- ▶ Multiple values in harbour system
- ▶ Urban and rural components
- ▶ Whaitua approach –community-based, emphasising wide public engagement
- ▶ Iwi partners in the process
- ▶ Working with an inter-disciplinary team of experts
- ▶ Outcomes (1) regional plan changes
- ▶ Outcomes (2) locally based actions to improve water quality

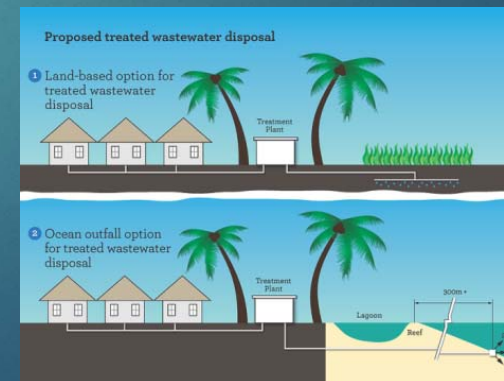
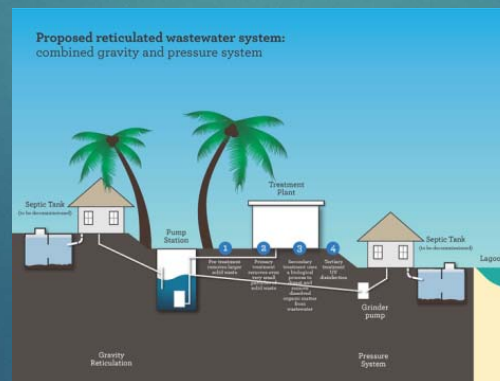
Apply to an example from Rarotonga?

Mei te Vai ki te Vai – improving the water in Muri lagoon - <https://www.totatouvai.co/mei-te-vai-ki-te-vai>

Wastewater, land-use (forest clearing, fertiliser use and animal waste, urban development)

Stakeholder and community involvement/Environmental investigations

To identify a management approach and priority actions, i.e., use of SEA for approach/options versus EIA for project components



Hybrid model....?

Embedded model can still benefit from an external check using SEA principles/guidelines

The EIA model benefits if the policy/planning team internalise sustainability and anticipatory thinking from the start, especially in multi-component programmes

The development of plans and policies benefits from early iterations (embedded considerations of likely outcomes for sustainability)

SEA in practice in the Pacific

SPREP SEA Guide (2020) based on the EIA-style model

- apply SEA to draft or final proposals
- follow up during implementation (monitor and evaluate)
- familiar IA methodology, but flexible, interactive, and with a strong emphasis on stakeholder/public engagement



Examples in the SPREP SEA Guide

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

Strategic Environmental Assessment of Neiafu Master Plan, Tonga, 1996

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

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

Strategic Environmental Assessment of the Hydropower Sector in Myanmar, 2018

Does a proposal require SEA ?

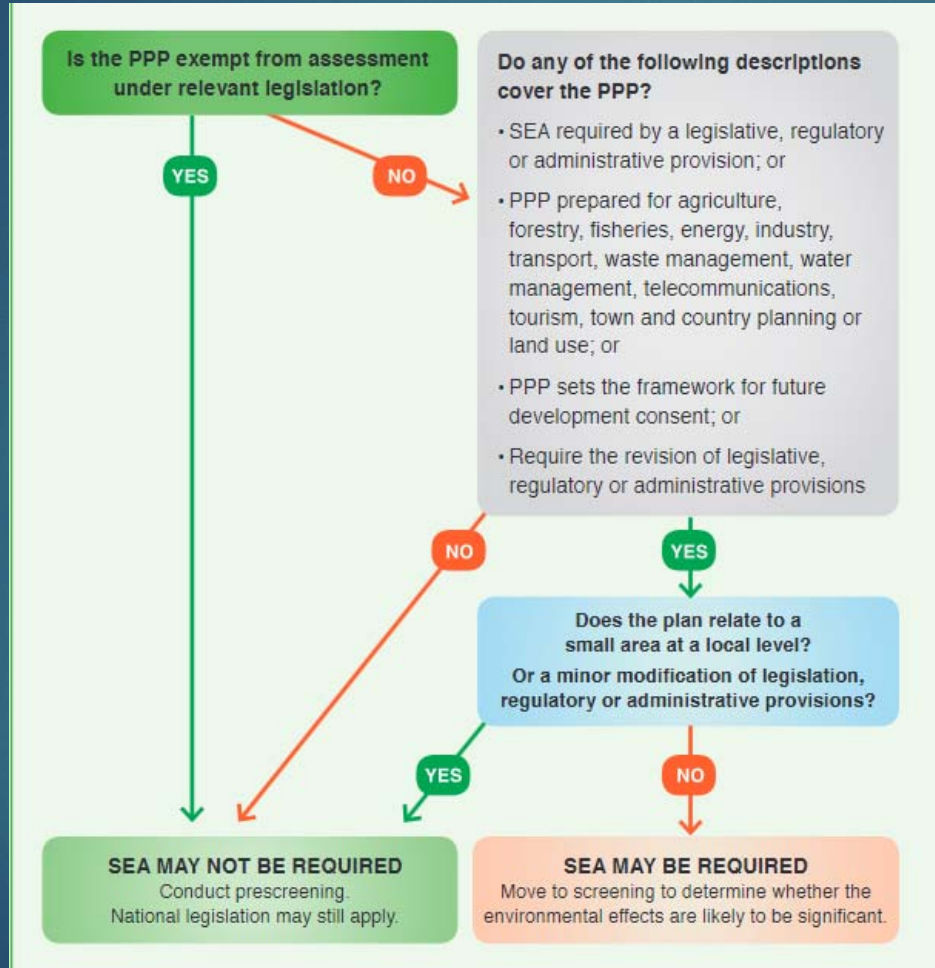
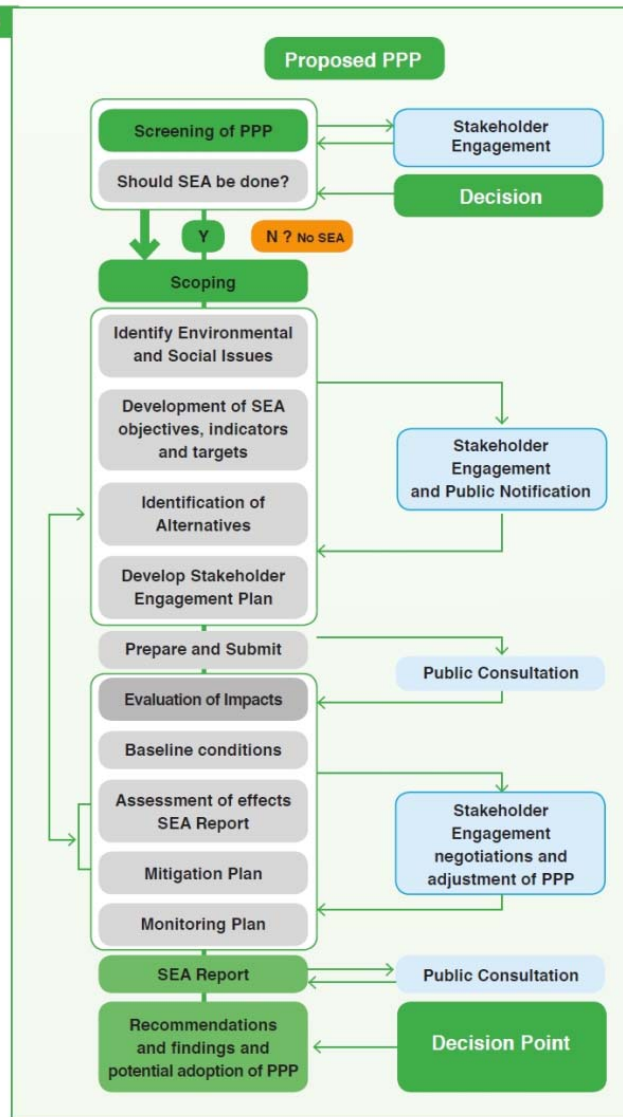


Figure 8 in the SPREP Guide

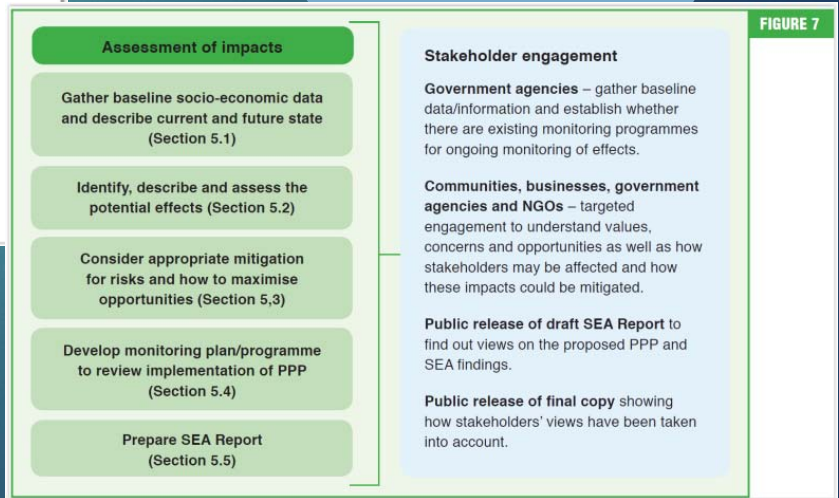
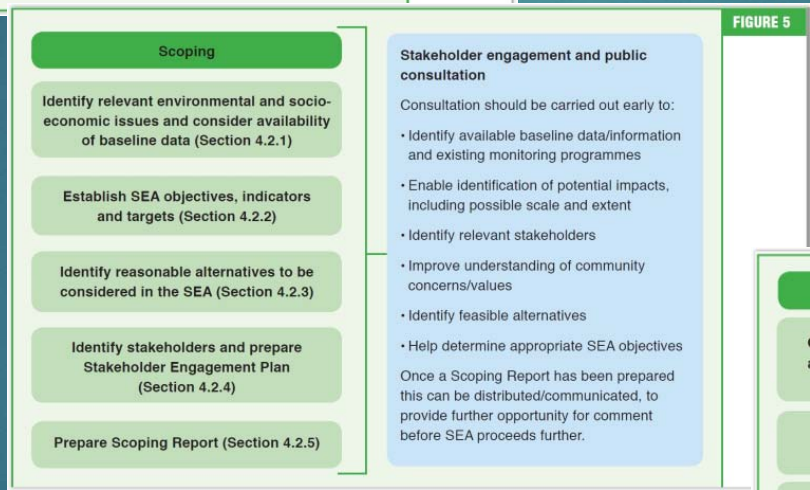
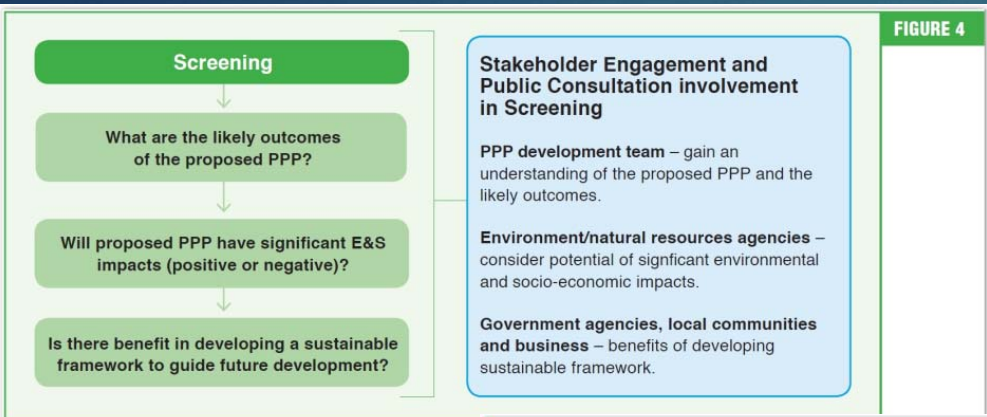
SEA Process

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
Assessment 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, Evaluation & Compliance	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 and implement the SEMP	7.0

FIGURE 3



Overview of the SEA Decision Making Process



Strengthening SEA in the Pacific Islands

Does SEA have a role ...?

What are the opportunities?

Are there institutional arrangements to mandate the use of SEA?

What resources will be needed, and what challenges to overcome?



Some useful resources

SPREP (2020) *Strategic Environmental Assessment (SEA): guidelines for Pacific island countries and territories*. Apia, Samoa

Morgan, R. and Taylor, C. N. (2021). Strategic environmental assessment in New Zealand. Chapter 21 in Fischer, T.B. and González, A. (Eds). *Handbook of Strategic Environmental Assessment*. Cheltenham: Edward Elgar. pp. 332-348. [DOI: 10.4337/9781789909937.00035](https://doi.org/10.4337/9781789909937.00035)

Resources on NZAIA website:

<https://www.nzaia.org.nz/sea.html>

