9. A Generic SEA Process

9.1 An Iterative Process

SEA, by its nature, is not a one-way process. In the course of the SEA, certain steps might have to be proceeded iteratively to ensure environmentally unfriendly components are discarded and environmentally friendly components are brought forward to the next round of evaluations. Because of this nature, both the SEA process and its assessment results are equally important. SEA processes allow project proponents or decision makers to have a better and more thorough understanding of the objectives of their PPPs and the consequential environmental implications. When evaluating various considerations or factors, project proponents or decision makers always have opportunities to shift their mindsets and in turn change the objectives of the PPPs, with a view enhancing environmental performance. Both SEA processes and results are important in achieving environmental sustainability outcomes.

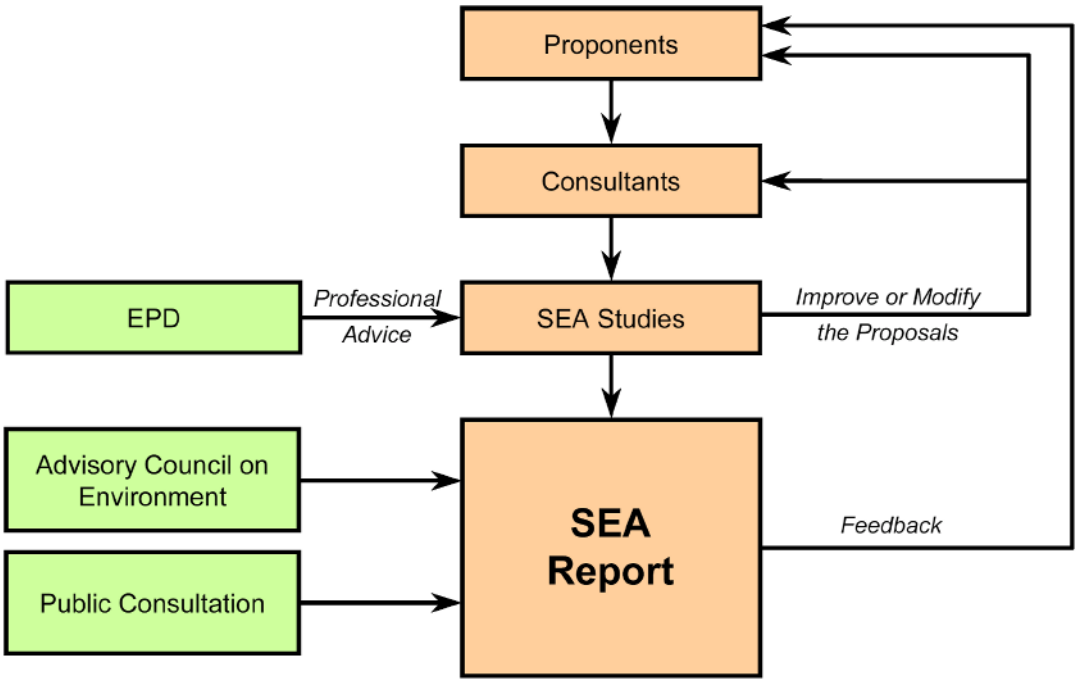


Figure 5 SEA Study Process in Hong Kong

9.2 Tasks of Different Parties in the Process

Basically, SEA is conducted in three phases with different tasks conducted by relevant parties – project proponents, decision makers or environmental authorities and other stakeholders :

Table 1 Tasks of different parties in the SEA process

Phase of SEA	Proponent	Decision Maker or Environmental Authority	Other Stakeholders (if applicable)
Alternative and Screening/Scoping Phase	• Needs of policies/plans • Alternatives • Initial budget / programme • Baseline study	• Design SEA process • Initial screening and scoping	• Alternative ideas • Possible key issues
Initial Assessment Phase	• Baseline study (continue) • Framing options • Identify key issues	• Formulate yardsticks • Initiate a review process	• Early feedback on options and key issues • Start dialogues
Final Assessment Phase	• Detailed assessment & interactions • Selection of preferred PPP	• Conduct detailed reviews • Decision-making	• Detailed feedback • Follow-up

9.3 Generic Steps of SEA

In order for SEA to be effective, it is essential to develop an agreed framework for SEA to tie in with the main study of the PPPs and the PPP decision making mechanism. There are no standard SEA processes that can be applied to all types of PPPs and processes vary depending on the nature and needs of the PPP itself. Some generic steps, however, as elaborated below, can be referred to as a basic framework for SEA. Figure 6 is a flowchart showing the generic steps of a systematic SEA process.

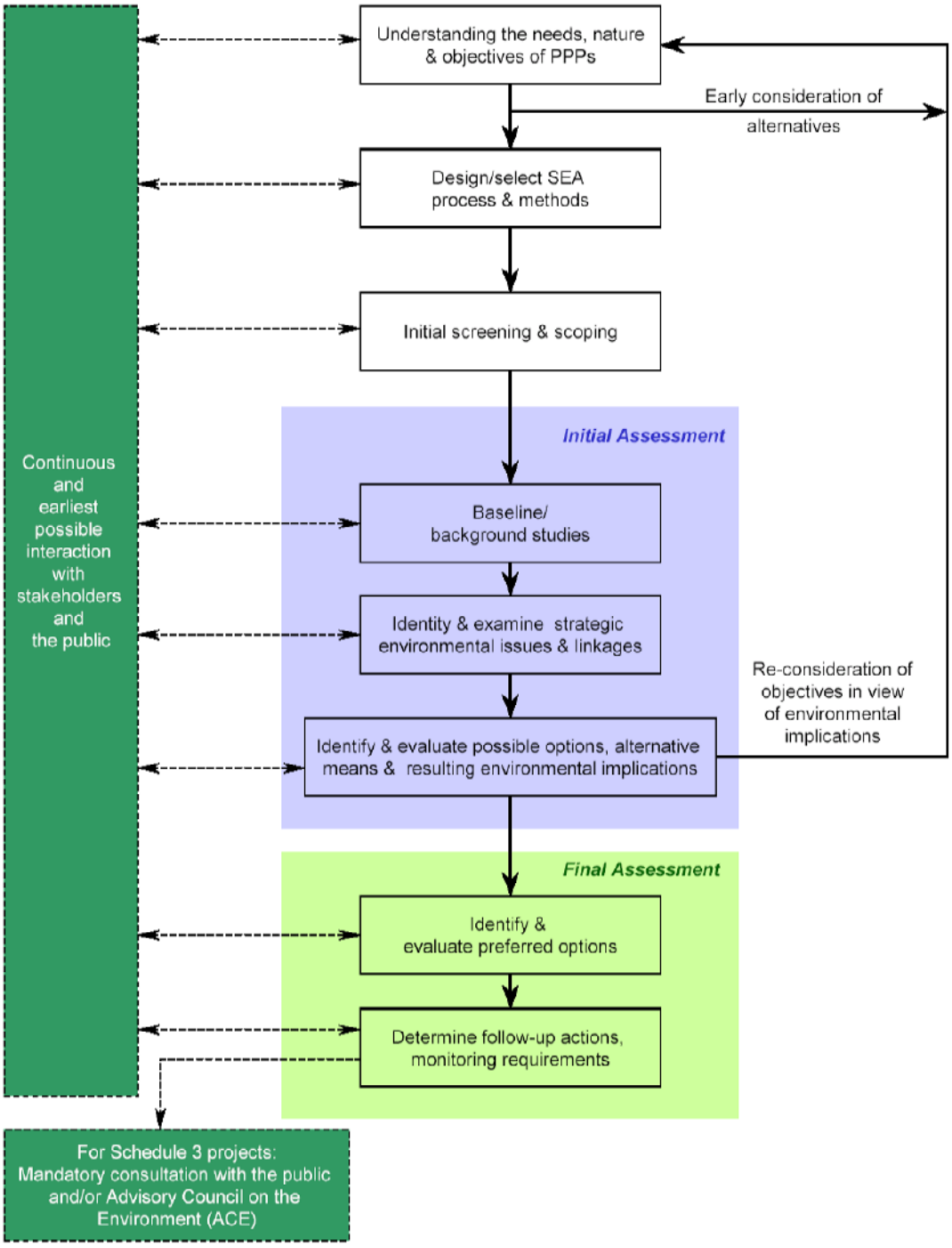


Figure 6 Generic Steps of a Systematic SEA Process

Step 1 : Understanding the Need, Nature and the Objectives of the PPPs

SEA methods and techniques may vary depending on the nature and the objectives of the PPPs. Hence, it is imperative to understand the decision-making needs, and the nature and objectives of the PPPs before deciding which methods should be adopted in a SEA.

Step 2 : Designing or Selecting Suitable Process and Methods

According to the nature and objectives of the PPPs, the whole SEA processes along with major steps should be designed or selected in light of specific circumstances to fit in with the PPP decision mechanism and the timeframes of other associated studies. The aim is to provide environmental inputs at critical stages. As far as possible, a scientifically robust SEA should be carried out. However, in extreme situations where a decision on a PPP is required to be made within a short timeframe, the SEA processes and methods should be relatively fast tracked and professional judgments and/or precedents might be employed to save time and efforts. However, decision makers must be alerted of the risks involved and the associated uncertainties as a result of a simple and fast tracked assessment process.

Example – Hong Kong 2030 : Planning Vision and Strategy (HK2030)

http://www.info.gov.hk/hk2030/hk2030content/news/cover.htm

The SEA was divided into four stages coincided with the major study, providing environmental inputs at every critical time juncture.

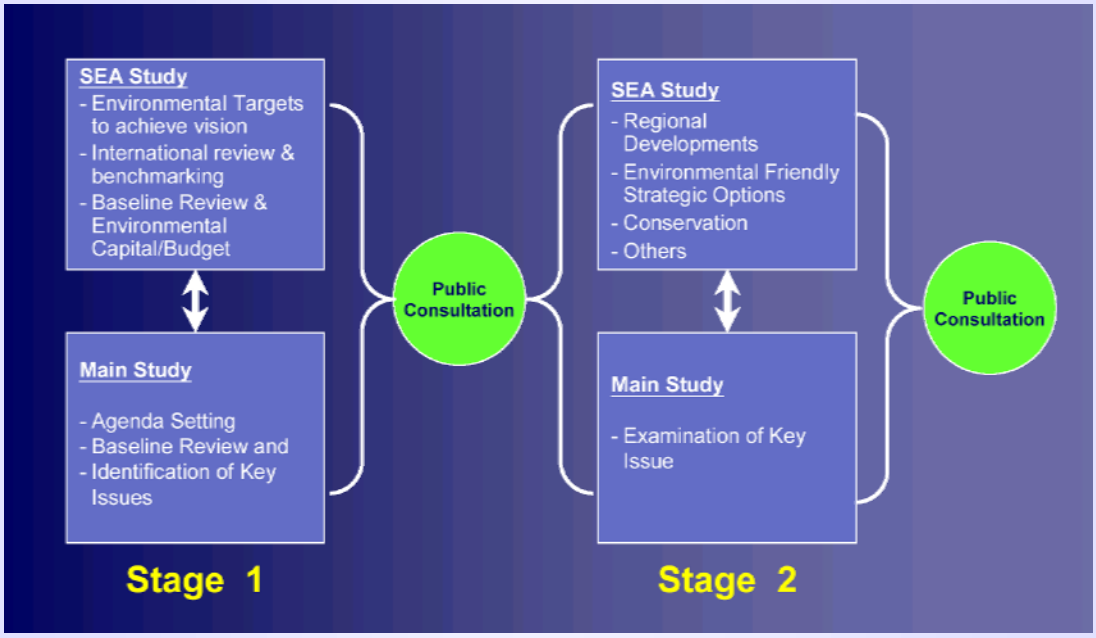


Figure 7a Strategic Environmental Assessment Process HK2030 : Planning Vision and Strategy

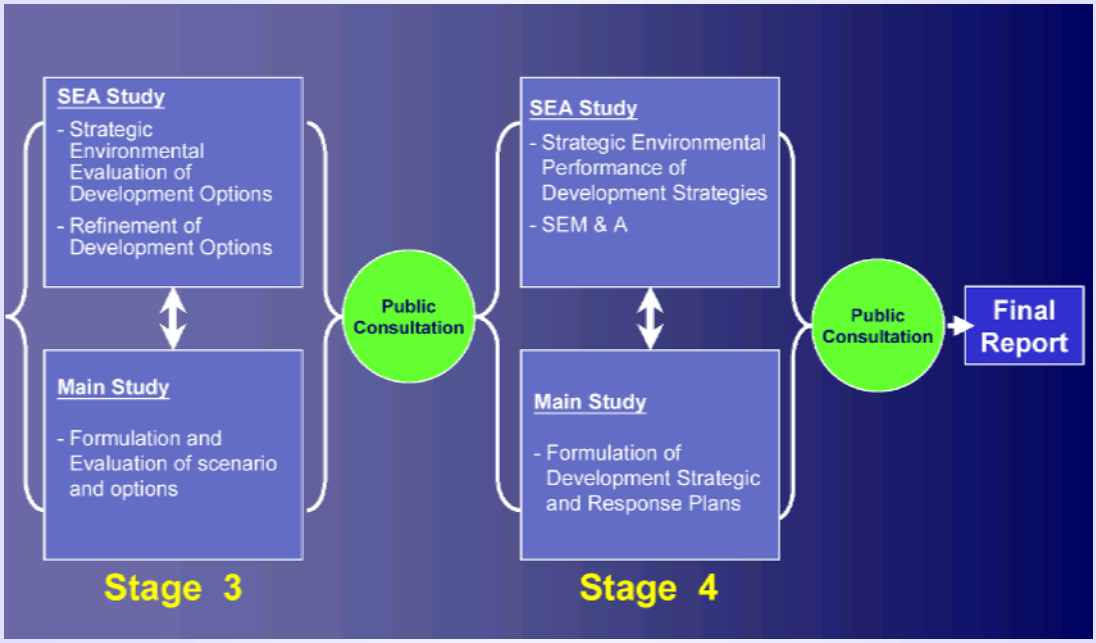


Figure 7b Strategic Environmental Assessment Process HK2030 : Planning Vision and Strategy

Appropriate strategic performance indicators, criteria and evaluation methodologies should be established. Experiences showed that if the performance indicators and criteria are linked at the early stage to sustainability, as well as the environmental carrying capacity, the chance of having a sustainable PPP at the end of the SEA would be much higher. The key concerns, the resultant environmental implications and the performance comparison should be clearly described and quantified where appropriate to enhance the reliability of the findings. If quantification cannot be undertaken, the reasonings, the basis and assumptions behind qualitative judgment should be described and explained in greater details.

Step 3 : Screening and Scoping

This step is to screen areas or issues required for SEA and what aspects of the areas need to be studied.

- ***Screening***

The main purpose of screening is to identify areas or aspects of PPPs having potentially significant sustainability and environmental implications and to decide whether SEA is required and if so, the type and level of SEA that might be required.

There are various methods available for screening such as the use of checklists, inclusion lists, exclusion lists, initial environmental evaluations, seeking professional advices from competent authorities and so on.

How Policy Screening is carried out in Hong Kong

Screening – To help proponents identify areas of PPPs worth for SEA, a one-page checklist was issued in 1998 as part of a government circular. The checklist aims to help proponents, who generally do not have much environmental knowledge, to identify environmental concerns in a structured and systematic manner, and to establish connections between PPPs and environmental implications. For instance, the checklist can prompt the users to check whether their PPPs would link to any environmental policies or issues such as transportation, power supply and consumption, major land use and infrastructure developments, ecologically sensitive areas, or whether there had been relevant environmental comments or views raised by the public. The checklist is shown in Figure 8.

Policy Bureau :	Policy Title :
Scope of Policy or Strategy :	

Screening of Policy Scope	Previous Environmental Issues Raised by the Public, LegCo or ACE	Linkage with Environmental Initiative in CE's Address and Environmental White Paper and the HKSAR's International Environmental Commitments	Previous Environmental Studies or Consultation	Changes associated with the Policy	Interaction with the Environment	Environmental Management
1. Is the policy or strategy ☐ a new one ? ☐ an amendment to an existing policy ? 2. Will the policy eventually involve physical infrastructure development ? ☐ no ☐ yes What are they ? _____ _____ 3. Is it possible that the policy or strategy may lead to changes in environmental policies or initiatives ? ☐ yes ☐ no ☐ not sure at the stage	4. Has there been any complaints from the public or the Ombudsman on the environmental issues associated with the policy or strategy ? ☐ yes ☐ no If yes, what are the environmental concerns ? _____ _____ 5. Has the policy matter been the subject of discussion in the Environmental Affairs Panel of the Legislative Council or the ACE ? ☐ yes ☐ no If yes, what are the environmental concerns ? _____ _____ 6. Has the policy matter or the strategy been the subject of the discussion at the District Boards or Urban/ Regional Councils in respect of the previous matter cases ? ☐ yes ☐ no If yes, what are the environmental concerns ? _____ _____	7. Does the subject matter of the policy or strategy relate to any environmental goals set out in the Chief Executive's Policy Address ? ☐ yes ☐ no If yes, would the policy or strategy enhance or contradict the environ-mental goals and initiative and in what ways ? Please describe. _____ _____ _____ _____ 8. Does the subject matter of the policy or strategy relate to any environmental initiative or actions set out in the White Paper on pollution and its subsequent review ? ☐ yes ☐ no If yes, what are they ? _____ _____ 9. Would the policy or strategy relate to any environmental commitments made by HKSAR under the Hong Kong Guangdong Environmental Protection Liaison Group, APEC and other international agreements ? ☐ yes ☐ no If yes, what are they ? _____ _____	10. Has the subject matter been the subject of any previous studies ? ☐ yes ☐ no If yes, when was the study undertaken ? What are the key environ-mental concerns or solution identified ? _____ _____ _____ _____ 11. Has the policy or strategy been the subject of consultation with the ACE ? ☐ yes ☐ no 12. Have any other studies covered the environmental aspects of the policy or strategy in question ? ☐ yes ☐ no If yes, please state the environmental conclusions or findings. _____ _____ _____ _____ 13. Has ExCo previously stipulated any environmental issues that need to be studied or any environmental conditions for the policy or strategy ? ☐ yes ☐ no If yes, what are they ? _____ _____ _____ _____ _____	14. The Policy may lead to changes in : ☐ land uses/housing supply/ redevelopment ☐ industrial structure (size, type, location, changes in technology) ☐ the planning of infrastructures such as roads, railways & reclamation ☐ choice of transport modes and routes for passengers, or goods vehicles or containers ☐ the loss of or impairment to ecologically sensitive areas or fishery resources ☐ sewage collection, treatment and disposal facilities ☐ wastes & refuse collected (e.g. domestic, chemical, livestock, construction, clinical and radioactive wastes) ☐ waste collection & disposal facilities (e.g. landfills, marine dumping & incineration) ☐ *production / import / export of chemical & refuse or other wastes ☐ power supply and fuel options (e.g. gas Vs coal fired) ☐ energy consumption or demand side management ☐ potentially hazardous installations ☐ none of the above, please describe : _____ _____ _____ _____ _____	15. Changes initiated from the policy may result in : ☐ incompatible land uses (housing estates/schools next to polluting uses, such as factories & highways) resulting from land use changes ☐ change in the transport pattern (e.g. traffic volume / composition / routes) due to land use and transport planning that lead to environmental impacts ☐ change in the quality of marine waters, inland and potable waters resulting from discharge or reclamation ☐ change in the population exposed to *traffic / railway / aircraft noise from transport routes ☐ change in the population exposed to aerial emissions from vehicles and other industrial sources ☐ change in the waste disposal facilities such as landfills, public dumps and incinerators ☐ disturbance of ecologically sensitive areas or causing a loss of flora and fauna, wildlife, aquatic & marine environment ☐ degradation / improvement in energy efficiency ☐ global climate & atmospheric changes due to emissions of greenhouse gases such as carbon dioxide ☐ environmental impacts outside of Hong Kong or in a regional context ☐ none of the above, please describe :	16. The Policy has included or will include : ☐ strategic environmental assessment or EIA or other environment study nature & likely timing of the study _____ _____ ☐ inclusion of environmental initiative in the policy . They are : _____ _____ ☐ provision of environmental infrastructure ☐ provision of measures to mitigate adverse environmental impacts during the detailed planning and design ☐ monitoring and audit programme ☐ corporate environmental management programme ☐ funding for environmental studies or measures ☐ matters regulated by the EIAO ☐ none of the above ☐ not applicable 17. Checklist completed by Name : _____ Post : _____ Tel. No. : _____ Fax No. : _____

Figure 8 Checklist for Environmental Appraisal of Policy or Strategy Submitted to the Executive Council

Source : The former Planning Environmental and Lands Bureau's Technical Circular No. 10/98

- ***Scoping***

Scoping helps define environmental issues to be assessed, to what level of details and by what kind of methodologies during each stage of the SEA. In deciding the level of assessments and types of methodologies, considerations such as funding issues, time allowed for the SEA should

be evaluated. The breadth and depth of the assessment should tally with the level of decision and should at least help to confirm the environmental acceptability and preference of options considered.

If a SEA is to be completed within a tight schedule and only preliminary data and findings are available but with much uncertainty, one of the most important steps is to inform the decision makers of the real situation and limitations so that a conscious decision could be made.

Approaches and methodologies for SEA may vary remarkably ranging from comprehensive to very simple methods. Project proponents should seek assistance from relevant authorities or professionals specializing in SEA at the earliest possible stage to ensure a timely completion of SEA and to avoid late focus of major environmental issues. Early consultations with the Environmental Protection Department (EPD) are recommended.

How Policy Scoping is carried out in Hong Kong

Scoping – To help project proponents to scope relevant environmental issues to be studied in SEA, EPD would work closely with proponents to draft a tailor-made study brief for each SEA (the link to get access to key SEA Briefs is in Appendix 3). Meanwhile, considering that new issues might emerge in the course of SEA, which is a common problem for strategic studies, an Environmental Study Management Group chaired by a directorate officer of EPD, would be formed to manage the SEA study. This also helps facilitate an early dialogue on major issues, and a better coordination and arrangement. It also helps ensure that environmental issues are assessed in a professional and focused manner, maximizing the opportunities for more sustainable outcomes.

Step 4 : Assembling Relevant Baseline or Background Studies

Studies of environmental baseline information allow us to have a better understanding on the existing environment which could in turn facilitate the SEA processes. A good and professional baseline study would help identify environmental issues and opportunities and facilitate a proper screening and scoping exercise.

The baseline conditions should be established using appropriate strategic parameters to such a level of details that further details would not alter the conclusions on the environmental acceptability and preference of the strategic options under consideration. The information should also be able to provide a foundation for assessing the nature and extent of potential implications which could arise from different options being considered.

However, collecting baseline data is a costly and time-consuming exercise. If existing baseline

data are available, and if they are still valid, maximizing the use of existing data is recommended.

Example – Territorial Development Strategy Review (TDSR)

http://www.epd.gov.hk/epd/english/environmentinhk/eia_planning/sea/territorial_dept.html

TDSR's environmental baseline study identified a range of environmental constraints. Among them, environmentally sensitive areas within the territory were identified and their conservation values were recognized, leading to the protection of these areas free from developments (Figure 9).

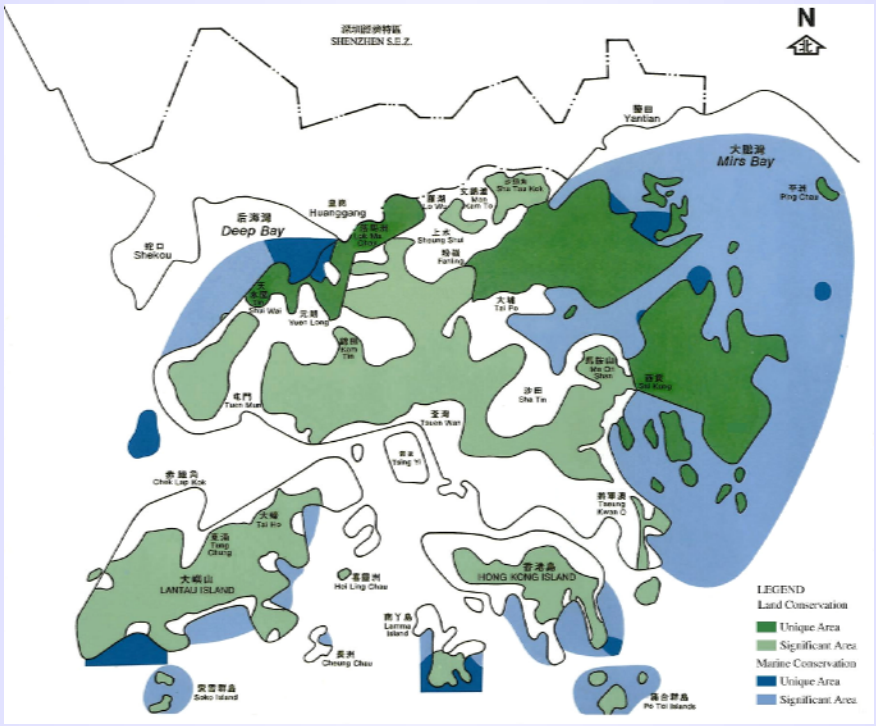


Figure 9 The baseline study of TDSR helped identify environmentally sensitive areas, protecting them free from developments

Example – Extension of Existing Landfills and Identification of Potential New Waste Disposal Sites

http://www.epd.gov.hk/epd/english/environmentinhk/eia_planning/sea/waste_disposal_sites.html

The results of the baseline study were presented in a form of constraint maps on which "Areas of Absolute Exclusion", environmental, ecological and conservation areas across the territory were identified. With other environmental considerations, areas finally identified for exclusion of landfill developments included existing and proposed Country Parks, Marine Parks, Marine Reserves, Sites of Special Scientific Interest; Ramsar sites, water gathering grounds, etc.

Step 5 : Identification & Examination of Relevant Strategic Environmental Issues and Linkages

Based on the findings assembled in Step 4, environmental constraints, issues, opportunities as well as their linkages should be identified and examined, providing inputs to the next step where appropriate. In the identification and examination process, both the characteristics of impact generators and impacts receivers should be taken into account. For instance, in RDS2, the impact generators (i.e. railway networks' and developments' characteristics) and the impact receivers (i.e. the characteristics on environment and sensitive land uses) should be fully considered.

Example – Hong Kong 2030 : Planning Vision and Strategy (HK2030)

http://www.info.gov.hk/hk2030/hk2030content/news/cover.htm

During the Study, the following environmental constraints and their possible opportunities were identified and examined in a systematic manner :

Noise Constraints :

- Traffic noise due to increasing transportation pressure between Hong Kong and the Mainland
- Industrial/Residential interface problem

Possible Opportunities :

- Comprehensive urban renewal
- Requirement for thick glazing, lockable windows and split air-conditioning system
- Noise control at source through the incorporation of new technologies and engineering design

Air Constraints :

- Air movement restricted within many urban areas due to high-rise buildings
- Trans-boundary air pollution

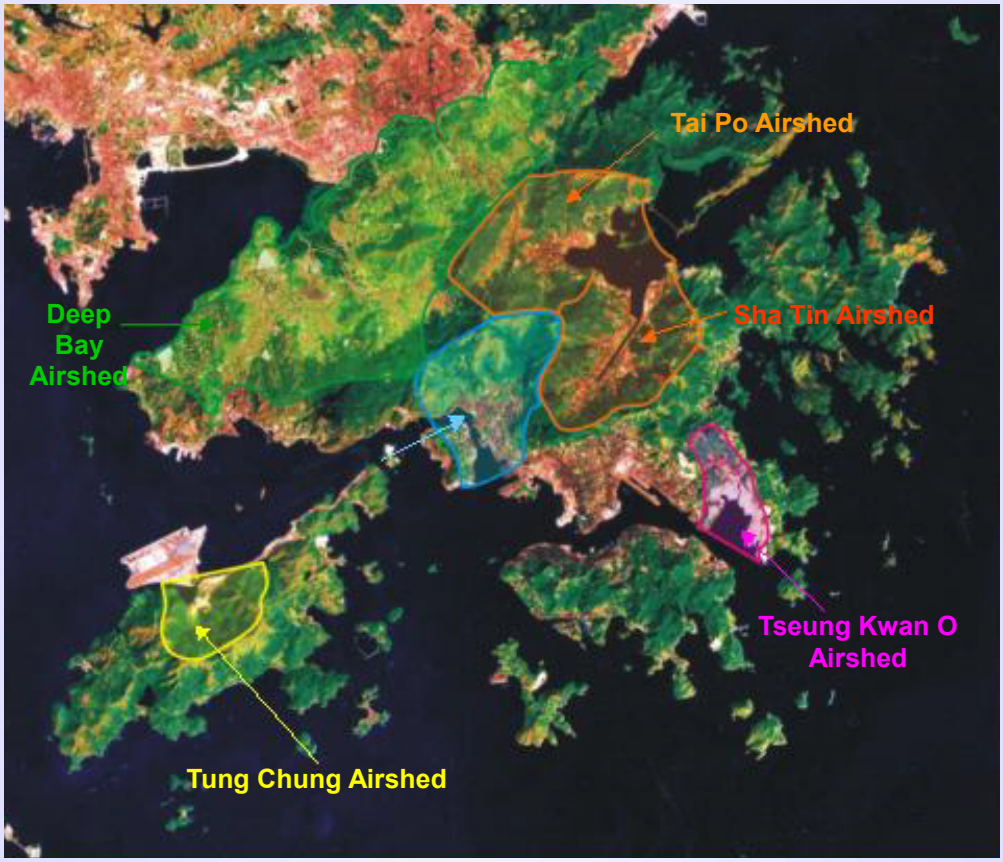


Figure 10 Confined Airsheds identified in HK 2030 : Planning Vision and Strategy

Possible Opportunities :

- Cleaner technology, cleaner fuels,
- Better integration of environmental protection into transport and energy policies and planning.

Water Quality - Significant cross border constraints :

- The pollution discharges from HK's neighbouring area
- The increasing urban population within the Guangdong Province

Figure 11 Territorial Water Quality Constraints identified in HK 2030 : Planning Vision and Strategy

Possible Opportunities :

- Underground and cavern options for possible future sewage treatment plants
- Cooperation with Mainland authorities in avoiding water pollution from new major developments

Waste Constraints :

- Inadequate landfill sites

Waste Opportunities :

- Reuse and recycling of materials required, e.g. via integrated waste management facilities

Energy and Natural Resources :

- Space for facilities for generation of wind energy, biomass, wave or hydroelectric power is a major constraint when identifying viable options for Hong Kong

Energy Opportunities :

- Use of renewable energy
- Enhancing the energy performance or efficiency of buildings

Greenhouse Gas :

- Changes to seasonal ambient temperature, ambient CO2 and alterations to rainfall patterns and intensity may put pressure on some of Hong Kong's native species, reducing the ecosystem's ability to respond to the predicted environmental changes.

Possible Opportunities :

- All opportunities to maintain biodiversity, increase vegetated areas and minimise the release of greenhouse gases must be considered

Risk Constraints :

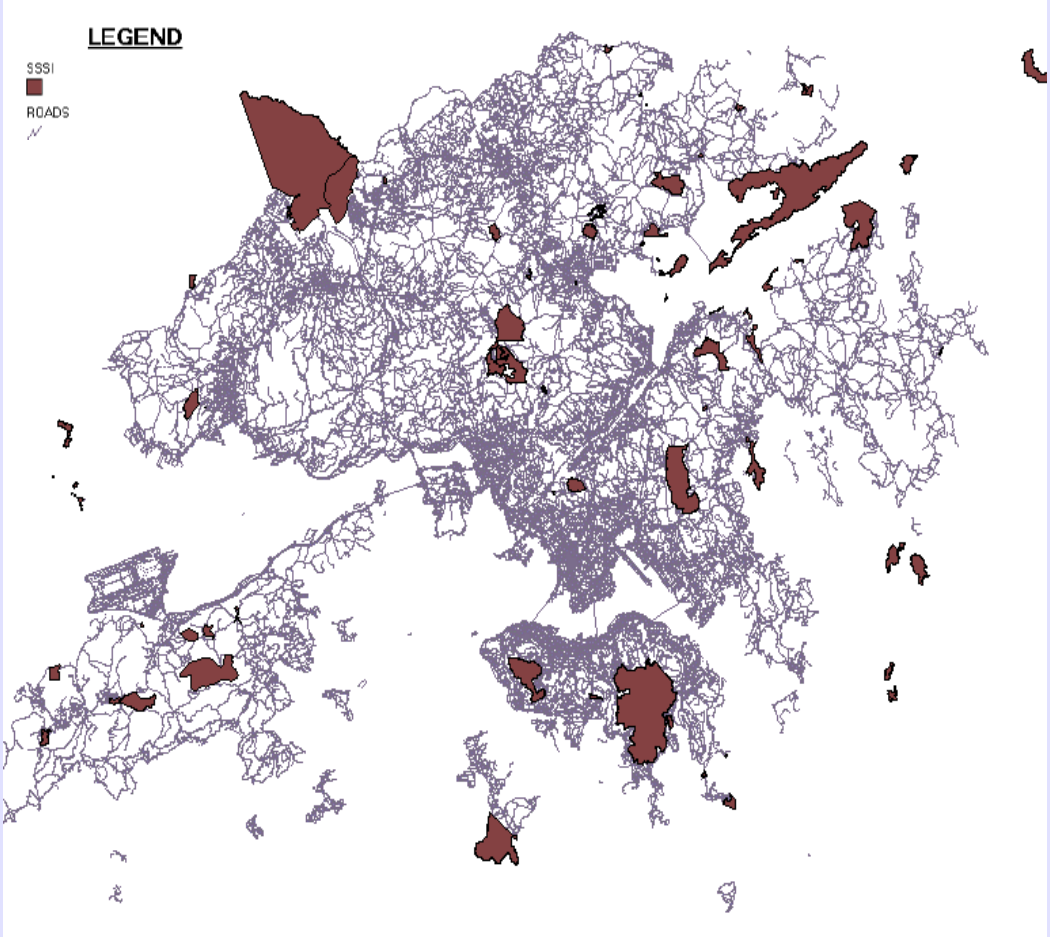
- The existing Potential Hazardous Installations (PHIs) and certain other potentially hazardous linear infrastructure, act as a constraint in terms of the location of future development.

Risk Opportunities :

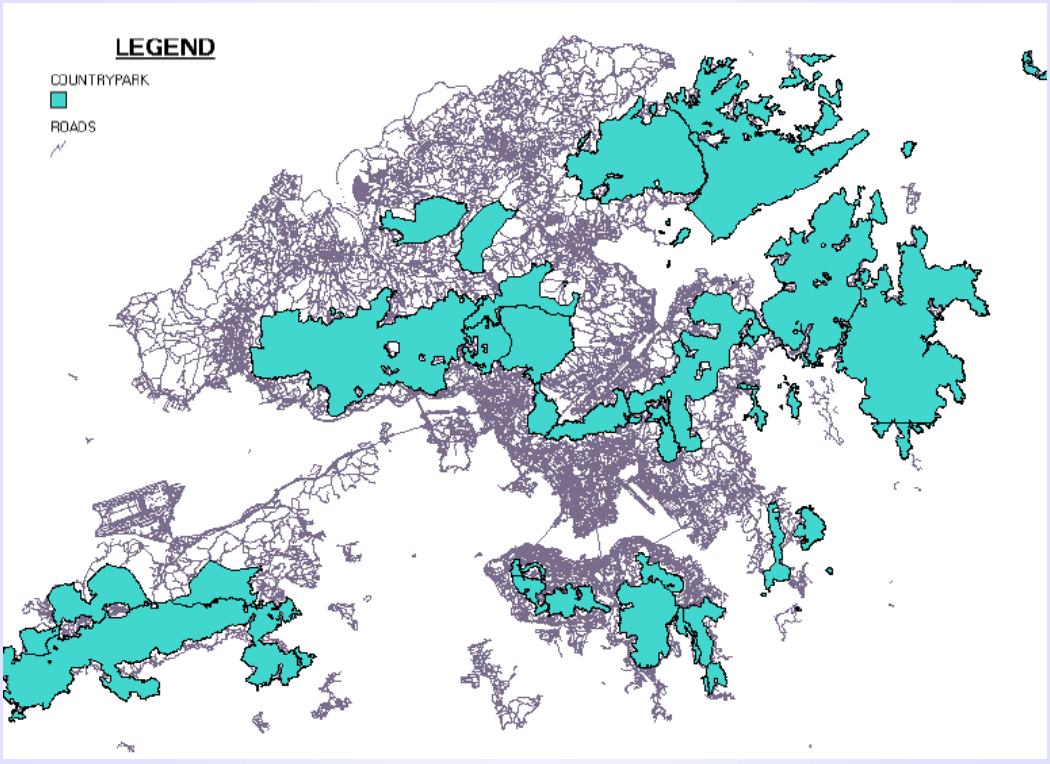
- Cost effective risk mitigation measures, e.g.
  - reduction of hazardous material inventories;
  - provision of plant safety systems;
  - control of residential development near PHIs; and
  - PHI relocation from urban sites to sites in less populated areas.

Besides, the following environmentally sensitive areas were identified and examined :

- Territorial Locations of “Site of Special Scientific Interest”



- Territorial Locations of Country Parks



- Territorial Locations of Marine Parks

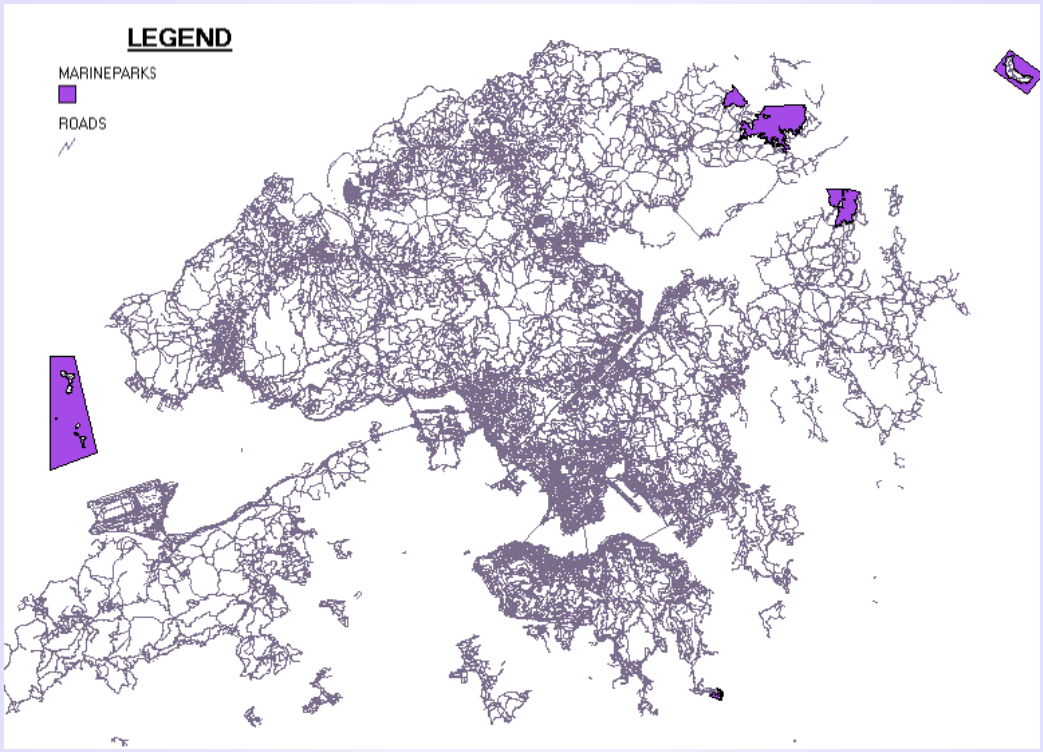


Figure 12 Environmentally sensitive areas identified in HK 2030 : Planning Vision and Strategy

Step 6 : Identification & Evaluation of Possible Options , Alternative Means and their Environmental Implications

With information from the previous steps, all possible options and alternative means for the PPPs should be listed out for preliminary consideration, refinement and evaluation.

In the evaluation process, key environmental implications of the options and alternatives under different scenarios, in particular the "worst-case" scenario should be identified and examined. The issues and consequences of the 'do-nothing' scenario should also be identified, serving as a benchmark for evaluation. Those options and alternatives found to be environmentally infeasible or unacceptable should then be eliminated.

Example – The Second Railway Development Study (RDS2)

http://www.epd.gov.hk/epd/english/environmentinhk/eia_planning/sea/second_railway.html

In the SEA study, environmental unfriendly railway corridors were eliminated in view of their potential adverse impacts on environmentally sensitive areas.

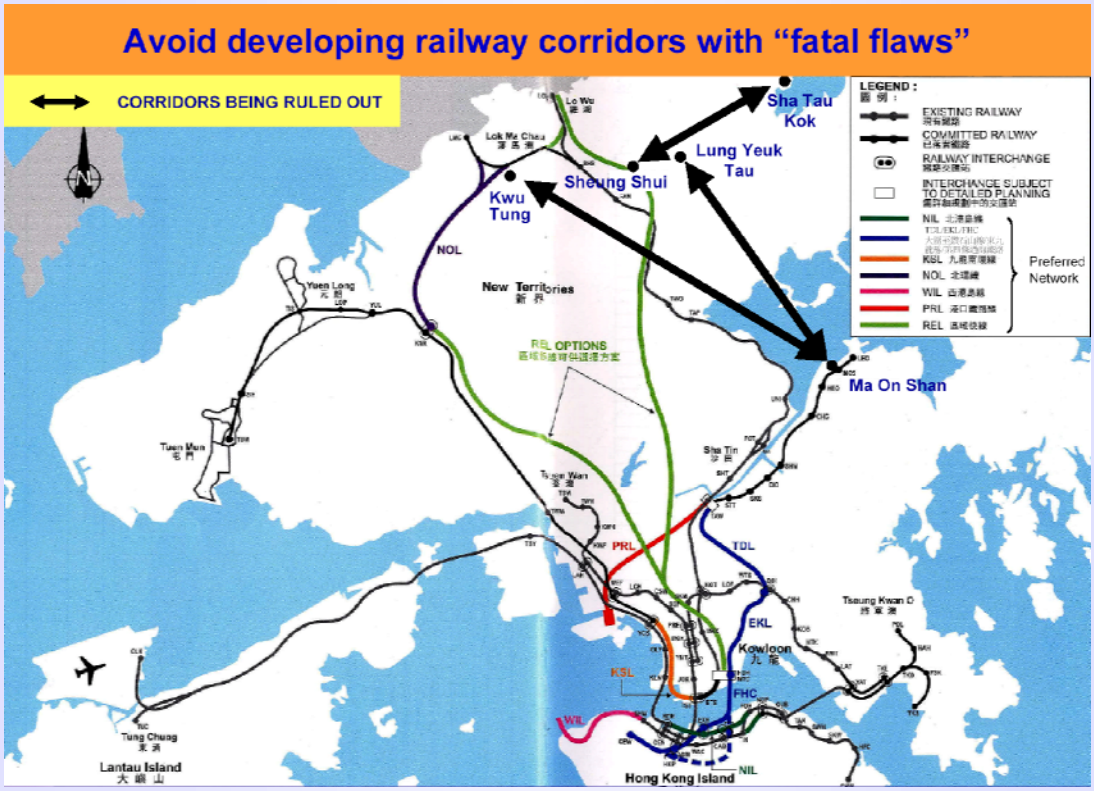


Figure 13 Environmental unfriendly railway corridors identified in the Second Railway Development Study

Environmental implications cover both direct and indirect, as well as cumulative impacts on the environment and environmental sustainability issues. Specific environmental concerns such as environmentally undesirable features and problematic areas should be highlighted. Depending on the scope of the PPPs, considerations might include economic and social sustainability.

After the evaluation, the environmental performance of the options and/ or alternatives should be presented clearly to illustrate the possible extent and scale of their impacts. The objective is to discard options with environmental demerits and bring forward those options with merits.

The objectives of the PPPs as set out in Step 1 should be constantly reviewed. The purpose is to see whether the objectives should be adjusted to achieve better environmental performance of the options and/ or alternatives. The assumptions set behind the objectives of the PPPs should also be re-evaluated to ascertain they are reasonable and valid. If this is not the case, adjustments have to be made to avoid causing environmental damages as a result of implementing a PPP with unrealistic objectives and policy assumptions. In the event that the objectives or assumptions are changed, the previous SEA steps taken should be reviewed to determine if corresponding changes are required.

It is important to bear in mind that alternative identifications should not be limited by the existing policies (e.g. the existing land-use policies). If necessary, it is possible to identify and highlight new policies required along with options identified to substantiate that long-term impacts resulting from the options are preferable. After all, SEA would help to facilitate the formulation of balanced policies and at PPP level, very often the mitigation measures are indeed policy actions such as a new environmental policy to counteract the potential adverse impacts as a result of the implementation of the proposed PPP.

Example – Territorial Development Strategy Review (TDSR)

http://www.epd.gov.hk/epd/english/environmentinhk/eia_planning/sea/territorial_dept.html

> *"The predicted environmental impacts ….. highlight concerns on the long-term sustainability. The many environmental issues brought out by the SEA clearly point to the need to develop a strategic sustainability framework ….."*
>
> *(Page 91, TDSR Final Executive Report)*

> *"The Strategic Environmental Assessment Study ….. reinforces the need to pursue a range of policy issues to reduce or avoid adverse environmental impacts, and re-examine ….. the present development strategies….."*
>
> *(ACE Paper July 1996)*

Learning Points :

- Unacceptable options discarded at early stage
- Focus on cumulative impacts and tiers of sustainability issues
- Identify areas requiring policy change & linkages with other sectoral policies

Example – Extension of Existing Landfills and Identification of Potential New Waste Disposal Sites

http://www.epd.gov.hk/epd/english/environmentinhk/eia_planning/sea/waste_disposal_sites.html

Following the elimination of "Areas of Absolute Exclusion" and other ecologically sensitive areas, a long list of potentially available sites in Hong Kong of the required size were identified which include extension of existing landfills, new marine-based and land-based sites. The long-listed sites were then assessed at a broad-brush level against a number of strategic evaluation criteria including water quality, visual impacts, ecology, air and noise etc; and after the assessment, 15 sites were short listed for further study.

As mentioned before, SEA is not a one-way process so the option identification process is not just aimed at identifying possible options following the procedures described above but also makes considerations to the following areas :

- Justifications on the needs of the project, including forecasts for waste quantities
- Information on the overall waste planning, waste reduction and disposal strategies
- Consideration of different landfill technologies, handling alternatives etc.

Step 7 : Identification and Evaluation of Preferred Options

With refined development options selected in Step 6, their net residual environmental implications upon implementation of mitigation measures should be identified and evaluated. The extent of uncertainties on the prediction of environmental implications and major assumptions due to such factors as long time frame should be stated.

Preferred option(s) should then be determined with their major pros and cons highlighted. If options with the best environmental performance are not selected, justifications or rationale behind the recommendation should be singled out and stated clearly for proper deliberation by concerned stakeholders.

Example – Extension of Existing Landfills and Identification of Potential New Waste Disposal Sites

http://www.epd.gov.hk/epd/english/environmentinhk/eia_planning/sea/waste_disposal_sites.html

Following Step 6, environmental assessments of 15 short-listed sites were carried out in which their net environmental implications were thoroughly discussed and compared. For example, a comprehensive water quality assessment was conducted on the basis of potential sediment contaminant releases; watercourse diversions required, potential impacts on water sensitive receivers; hydrodynamic changes due to reclamations; potential impacts on groundwater and cumulative water quality impacts etc.

The process ultimately identified 5 suitable sites in Hong Kong for further detailed feasibility study with key environmental implications, potential problems, the pros and cons of different options transparently presented to the stakeholders.

Step 8 : Determination of Follow-Up Actions and Monitoring Requirements

To ensure that SEA can make real contributions, it is important to determine environmental issues and mitigation measures of the preferred option(s) and major assumptions of the SEA study that require future audit and follow-up actions.

To be organized, a strategic follow-up plan - Strategic Environmental Monitoring, Audit and Review (SEM&A) is required. Instead of just monitoring the environmental performance, the number one objective of a SEM&A programme is to audit if the assumptions behind the PPP are realistic and materialized or not. A complete implementation of a PPP together with all the associated policy assumptions is very rare in reality. Therefore, it is important to keep track of the actual implementation of the PPP and associated policy assumptions. Once a deviation is identified, appropriate remedial policy actions should be undertaken to ensure sustainability and long term environmental performance.

SEM&A of course also ensures environmental issues arising from the PPP implementation are monitored/ tackled, the associated recommended mitigation measures are implemented as scheduled and in case deviation of assumptions arises, it would trigger a SEA review or further assessments to update the SEA information. SEM&A also allows recommendations of additional measures in view of current situations and provides the most updated information to the relevant on-going studies.

EM&A include action plans setting out clearly that who, when, why and how to facilitate future follow-up actions under different scenarios. The plans are to translate the commitments made in SEA into concrete policies or actions and they normally contain the following items :

- Further studies on environmental acceptability and feasibility of PPPs required before implementations
- Timing and extents on the implementations of PPPs. This is particularly important for controversial actions, for example, restraining the growth or usage of vehicles in which prevailing circumstances and the public's acceptance levels have to be considered.
- Design issues to be pursued during the development of the PPPs particularly strategic PPPs so as to minimize the resulting environmental impacts.

In sum, a EM&A system should include the following requirements:

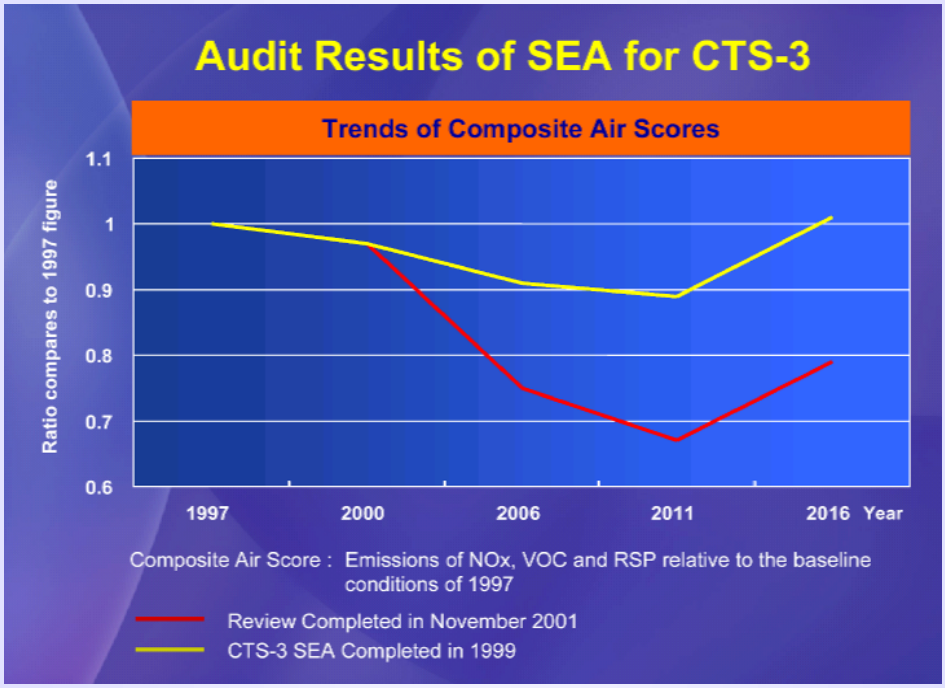
1. Checking of assumptions
2. Monitoring the progress of measures recommended in SEA ensuring their implementation
3. Defining additional measures if necessary based on updated information
4. Allowing provision of feedbacks to higher levels, such as the Strategic Highway Project Review
5. Ensuring reviews or further assessments be triggered if real situations significantly different from previous assumptions adopted

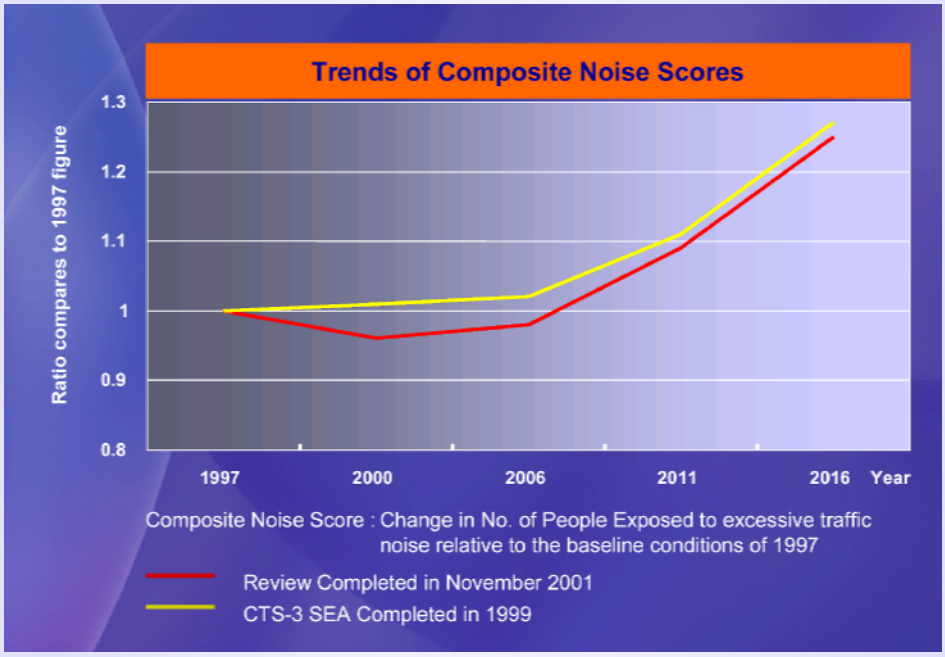
Example – Third Comprehensive Transport Study (CTS3)

http://www.epd.gov.hk/epd/english/environmentinhk/eia_planning/sea/third_comp.html

In preparing the EM&A, a Government Inter-departmental Working Group was set up and working level meetings were convened so as to reach agreements on the objectives and scopes of the SEM&A works well before the commencement of the EM&A.

Under the EM&A system of the study, there was an annual review of the Composite Noise/Air scores providing an up-to-date account of the vehicle emission and noise conditions for the current years.





Meanwhile, there was an annual update taking into account the latest available projection figures on policy assumptions such as population, land use, social, economic and effects of various control measures etc. and thus updating the forecast on the Composite Air/Noise Scores. The results would be used to compare against the 1997 original projections conducted in the SEA so as to identify any trends of possible environmental degradations over time.

All the proposed mitigation measures including: i) Policy Initiatives (i.e. more extensive network of rail service; putting new roads underground); ii) Engineering Measures (i.e. more stringent vehicle emission standards; trolley buses; iii) Near or at source measures (i.e. more extensive use of low noise surface; retrofitting of noise barriers to existing roads) and iv) Management possibilities (i.e. traffic management or speed regulations) were also monitored under the EM&A programme and the status of the implementation were reported to the Inter-departmental Working Group. The process ultimately identified 5 suitable sites in Hong Kong for further detailed feasibility study with key environmental implications, potential problems, the pros and cons of different options transparently presented to the stakeholders.

Key Points of the SEM&A

Review of Input Assumptions

- Assumptions updated based on the best available information
- Consistent with the Strategic Highway Project Review

Findings

- Major assumption (e.g. GDP, vehicle fleet size, cross-boundary vehicle traffic) are lower than the Medium Growth Scenario under CTS3
- Vehicle-km-travelled also lower than the Medium Growth Scenario
- Latest sets of emission factors

Monitoring of Recommended Mitigation Measures

- Report on each recommended measures
- Majority of the mitigation measures progressing well

Identification of new measures

- Reduction in no. of buses in Central Business District (CBD)
- Limiting the period of loading/unloading activities of goods vehicles at CBD to night time
- Park-and-Ride Facilities at newly designed rail stations (e.g. along West Rail)
- Comprehensive footbridge System in CBD (e.g. linking Central / Admiralty and Wan Chai)

Example – The Second Railway Development Study (RDS2)

http://www.epd.gov.hk/epd/english/environmentinhk/eia_planning/sea/second_railway.html

The EM&A system suggested some guiding principles for future reference and follow-up actions. Principles include provision of appropriate facilities at railway stations to facilitate railway usage, general environmental preference of the underground railway option, promotions of better integration of transport and land use planning to optimize environmental benefits and avoid adverse impacts etc.

Aspects to be monitored under the EM&A system include :

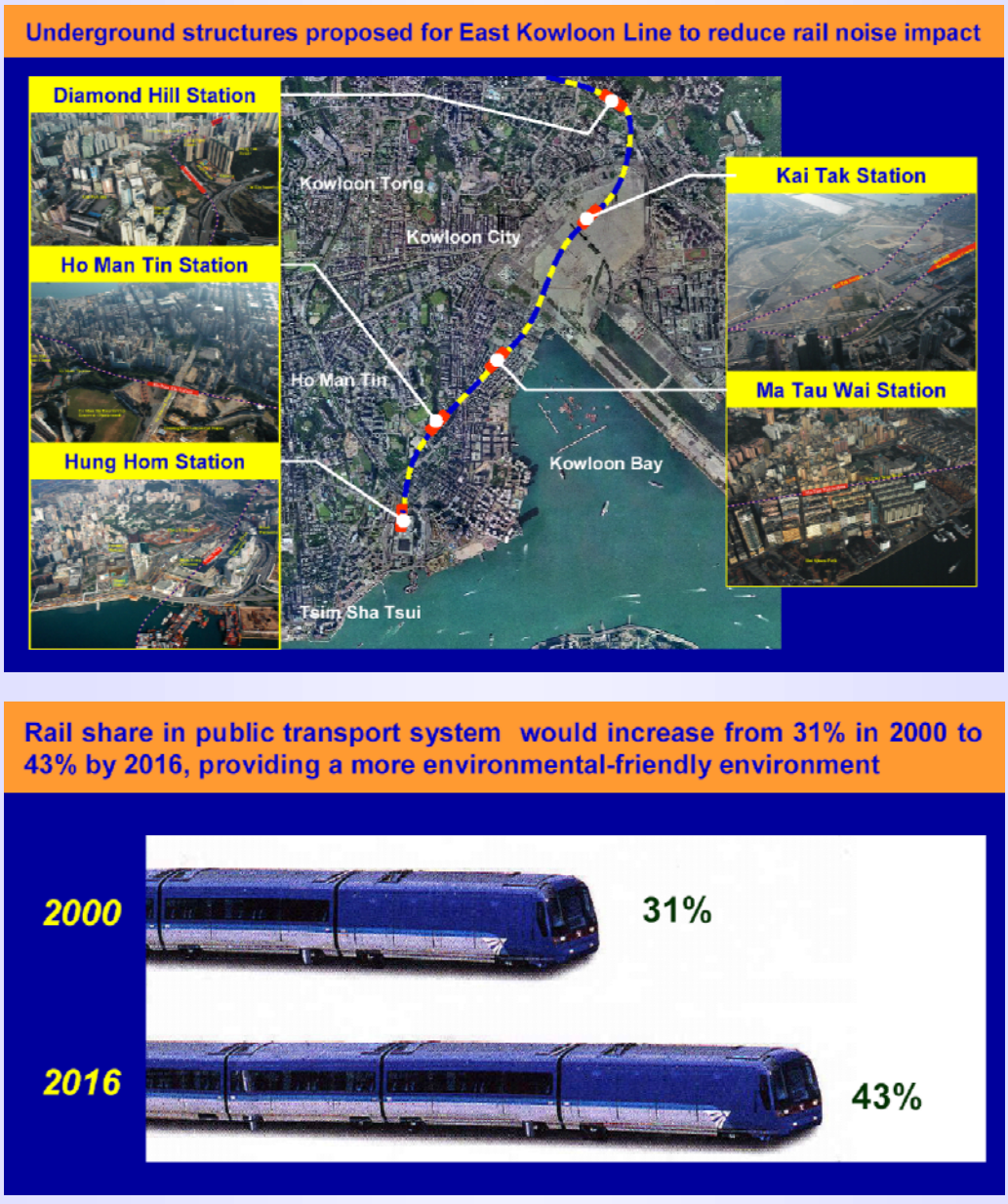


Figure 14 Aspects to be monitored under the EM&A system of the Second Railway Development Study

Example – Extension of Existing Landfills and Identification of Potential New Waste Disposal Sites

http://www.epd.gov.hk/epd/english/environmentinhk/eia_planning/sea/waste_disposal_sites.html

The SEM&A recommended a list of strategic follow-up actions for the extensions and the new landfill site developments. Experiences have proved that with the SEM&A in place, the SEA can make real contributions instead of just being a paperwork left unattended. The major follow-up actions contained in the SEM&A include :

- **To explore interface with complimentary waste management projects –**

  As the two projects progress, it is recommended to draw up a co-ordinated approach to maximize the strategic environmental benefits of utilizing the construction and demolition materials, thus reducing the needs on landfill;

- **To maximize afteruse development opportunities during strategic planning of new marine based landfill sites –**

  Since the new marine based landfill sites proposed in the study are located at remote locations which might be suitable for the afteruse developments, opportunities on this aspect should be explored.

- **To review waste management plans and refine projections of municipal solid waste arisings and construction and demolition materials arisings –**

  As predictions of materials arisings are based on a variety of assumptions subject to external influences, waste management plans should be reviewed and the projections should be refined to facilitate the planning and implementation of the landfill extensions and the development of new sites.

A Continuous Step throughout the SEA Process : Interactions with Stakeholders

Interactions with stakeholders is in line with the spirit of free press and freedom of information enshrined in Hong Kong's Basic Law and is becoming an important step in a SEA. Project proponents should take initiative to communicate with their stakeholders in an attempt to achieve a "win-win" situation.

Project proponents should well communicate with relevant environmental authorities so as to improve the quality, accuracy, and adequacy of the SEA before being finalized and for the sake of effectiveness and efficiency, early communications at all possible stages with all levels are essential.

To facilitate interactions with stakeholders, objective documentation of SEA findings is crucial. As the SEA process is equally important, the entire evaluation should be documented in addition to the final SEA recommendations. SEA analysis and results must be presented and able to be discussed at multi-constituency levels with people from different backgrounds.

For those SEA categorized as Schedule 3 projects under the EIA Ordinance, interactions with stakeholders and members of the public have to be made during the mandatory public consultation period during which EIA reports would make available for public inspection and comments. To facilitate a fruitful and informed public consultation, environmental information of the PPPs should be provided in an user-friendly style easily understood by the public.

For other SEA projects, interactions with stakeholders should be conducted in a form of intra-departmental consultations following relevant Technical Circulars, administrative procedures and guidelines.

The setting up of the Advisory Council on Environment (ACE) also helps enhance the interactions as any SEA selected for submissions to ACE would be considered and discussed thoughtfully by ACE or its sub-committee members before giving advice to DEP for consideration in endorsing the SEA reports.

Example – Hong Kong 2030 : Planning Vision and Strategy (HK2030)

http://www.info.gov.hk/hk2030/hk2030content/news/cover.htm

The study performs a good practice in which SEA was designed to be interlocked with the main study and both are subject to various stages of public consultation.

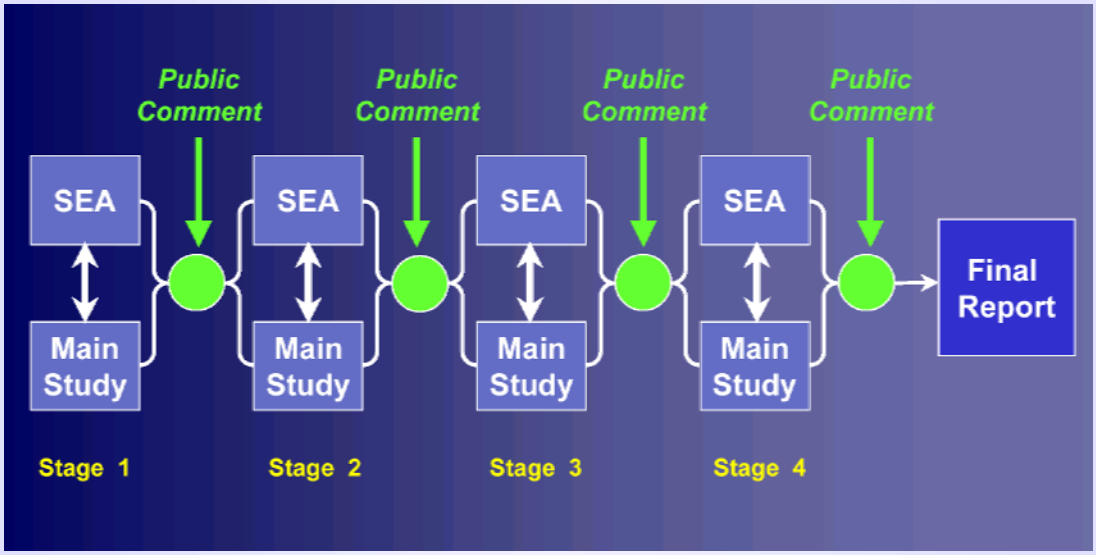


Figure 15 SEA process interlocking with the main study in HK2030 : Planning Vision and Strategy

Public involvements were conducted in many ways which include view sharing workshops involving specialist advisors, major stakeholders and community groups. Besides, interim SEA reports and papers are made public on internet throughout the whole SEA process.

Figure 16 Wide public consultation in HK2030 : Planning Vision and Strategy

View Sharing Workshops in HK 2030 : Planning Vision and Strategy – Key Points

- View Sharing Workshop focusing on environmental friendly options to be incorporated in the strategy.
- Stakeholders as specialist advisors to the Environmental Study Management Group.
- Major stakeholders :
  - ACE members
  - professional institute
  - academics
  - business sector
  - Community groups

Activities during each public consultation stage in HK 2030 : Planning Vision and Strategy

- Press Conference
- Public Forum
- Roving Exhibitions
- Prizes Presentation to Design Winners
- Briefings to Statutory/Advisory/Students
- Focus Group Meetings/ Workshops

"The Magic of Dialogue: Transforming Conflict into Cooperation"

by Daniel Yankelovich

Debate	Dialogue
Assuming that there is a right answer and you have it	Assuming that many people have pieces of answer and that together they can craft a solution
About winning	About exploring common ground
Listening to find flaws and make counter-arguments	Listening to understand, find meaning and agreement
Defending assumptions as truth	Revealing assumptions for re-evaluation
Seek a conclusion that ratifies your position	Discover new options, not seeking closure