



**Policy Instruments for Chinese Sustainable Future:  
Environmental Policy Integration and  
Strategic Environmental Assessment  
for the Energy and Transport Sectors**

An Action under the  
European Union's Asia Pro Eco II Programme  
Project No. 122184

CHINA-EPI-SEA Paper No. 5\_EN

**SWOT-Analysis – Provincial  
Transport Plan  
An Outline of Contents**

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## Project outline

Policy Instruments for Chinese Sustainable Future focuses on the integration of the environment into transport and energy planning in China, both at the policy level and in terms of concrete measures for the two administrative levels of provinces and municipalities. The implementation of this project will help to build transportation and energy-use systems that are environmentally sound and capable of achieving sustainable development in China. As part of the Asia Pro Eco II Programme the project contributes to the programme's main themes for China: energy savings, improved air quality and reduced emissions of GHGs.

At the heart of this project are two closely related mechanisms that are central to the EU efforts to promote sustainability: Environmental Policy Integration (EPI) and Strategic Environmental Assessment (SEA).

The action targets the inadequate reflection on environmental policy objectives and the weakness of the environment as a cross-sectoral priority and the need for information and knowledge of technical/practical solutions that can lead to immediate improvements in the development of sectoral plans. The 30 months Action consists of four work packages and multiple activities.

For further information please look at:

[http://www.epi-in-china.com/project\\_information/summary.html](http://www.epi-in-china.com/project_information/summary.html)

N.B.

This report provides CATS and ACEE with our *suggestions* for completing each section.

There may be issues that we have missed and which you should include based on your insight into the process of planning and assessment.

In [...] our suggestion of approximate length in pages, but much will depend on the material you have.

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## 1) About this report

[1-2 pages]

- Explain the purpose of the report;
- Key task of the report is to analyse the strength and weaknesses of the actual transport plan and the SEA.
- Include a flow chart of the Planning and the SEA Process – see examples from Olivia and Holger's presentations
- Who drafted it, who contributed at which stage

### NOTE:

Following discussions at our meeting in Beijing, it is recommended that CATS include comments that reflect their experience with the other 10 SEAs of this kind carried out before the Shaanxi case. Therefore:

- Where weaknesses are identified here in relation to the Shaanxi SEA, it is useful to know whether such weakness was present in the previous cases or not – and why so.
- The same for the elements of strength.

## 2) Introducing the Expressway Plan

[10-15 pages]

### ***Origins of the proposed Plan***

Brief summary of the origins of the Plan:

- Is it legally required? What is the relevant policy or legislation that requires such plan?
- Is the plan a continuation of a previous Transport Plan? If so, give a few details of how this plan aims to take the previous work forward.

Geographical boundaries (maps of the area to be covered)

### ***Basic information***

Based on the presentations and discussions at the kickoff meeting(s)<sup>1</sup>, it is expected that the following basic information and data are available, and should be presented in the SWOT report:

- a) Transport statistics, notably including the following.
  - Infrastructure (kms), disaggregated by mode, type (e.g. road category)
  - Past and present demand (vehicle.kms, ton.kms, passenger.kms), disaggregated by mode, vehicle type (e.g. HGV Vs cars), infrastructure type
- b) Estimation of future demand (e.g. projections based on correlation with economic growth), disaggregated as available
- c) The main features of the Transport Plan of the Shaanxi Province, possibly including mitigation measures already identified, and the corresponding estimated costs

### ***Links with the institutional and policy context***

**List** relevant policies, plans, and legislation that are directly or indirectly relevant to the Plan (a Table format is provided below) (Scott and Marsden 2003). See link with Questionnaire – section 3A

For each item (plan, law etc.), **consider the following** (Kent County Council *et al.* 2005):

- Purpose / relevance
- Potential overlaps / synergies
- Potential conflicts / constraints

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<sup>1</sup> Specifically:

- Zhao Jianxun in Beijing
- Yang Yunfeng in Xian
- Zhang Xiaofeng on Xian
- Chen Jiding in Beijing

## SWOT-Analysis – An Outline of Contents

- How does this inform / influence Shaanxi plan?
- How does this inform / influence the SEA framework?

Details of this analysis should be provided in an Appendix.

The **key findings** from this analysis should be summarised in a table (see below).

### List of relevant policies, plans, programmes, strategies and initiatives that are directly or indirectly relevant to the Plan

See link with Questionnaire – section 3A

Source (e.g. Author/ Department)	Date	Level I, N, P, M*	Title

\*= Governance level of each source:

I – International

N – National

P – Provincial

M – Municipal, local

### List of relevant legislation that is directly or indirectly relevant to the proposed Plan

See link with Questionnaire – section 3A

Source (e.g. Author/ Department)	Date	Level I, N, P, M*	Title

\*= Governance level of each source:

I – International

N – National

P – Provincial

M – Municipal, local



### **Consistency analysis**

Explain the way the proposed objectives of the Expressway Plan support and contribute to the objectives of existing plans, policies and laws reviewed above:

- Were overall visions, strategies, policies recognised? If yes, please describe how?
- Explain whether there are any likely conflicts with the objectives of existing plans, policies and laws (for example, key environmental or social objectives) – and how you propose to address these.
- Make recommendation on how to improve the consistency between the Expressway plan and the existing plans, policies and laws reviewed above – special attention should be given to the other transport mode plans.

### 3) Planning timeline and windows of opportunity

[2-3 pages]

#### Describe the main stages in planning and assessment

Please identify the main stages in planning (windows of opportunity) that should have been informed and influenced by the SEA, and specify the approximate timeline for each stage. Such stages have been defined as: ‘moments in the decision-making process where critical choices are made, which have an environmental implication’ (Bina *et al.* 2004:88). In an ideal case, this section would provide the core on which to design the whole SEA process and build an effective assessment.

Once you have listed all the stages, please explain how the SEA actually interacted with each stage (or not, as the case may be).

Please explain the problems that lead to failure to integrate the SEA process more consistently.

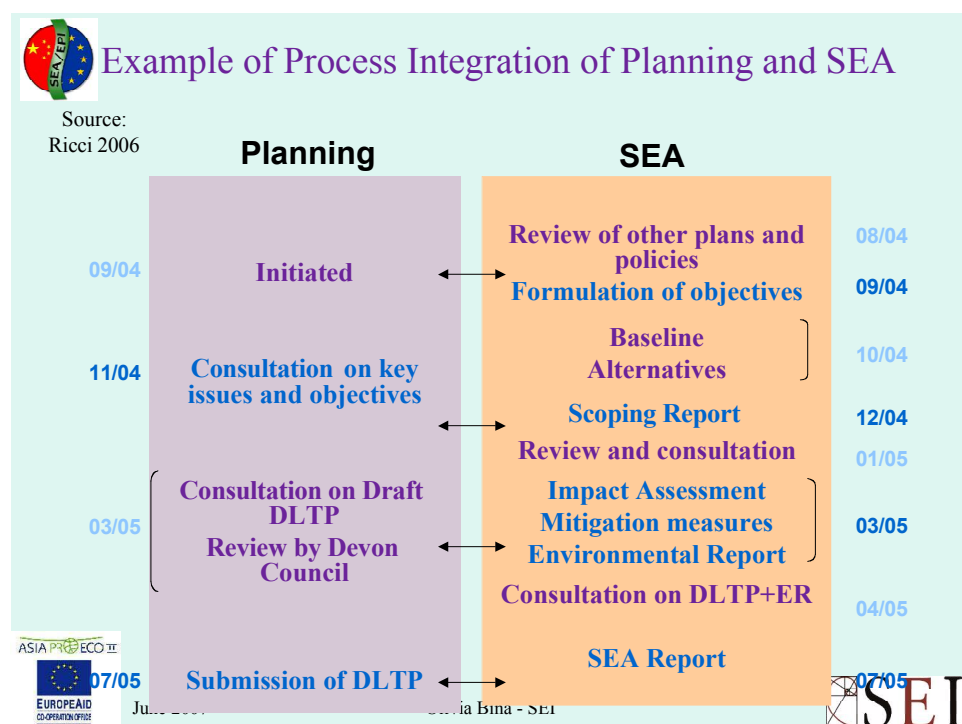
Dates	Planning task (1)	Lead organisation	Inputs required (2)	Analysis proposed (3)	Outputs expected (4)
June 2006	Final draft	MoC?		X Y Z SEA (by CATS)	A B C SEA Report
	Demand modelling?				
	SEA	CATS	Demand models Routes Etc.	Indicators based evaluation....	Constraint maps SEAREport
Nov. 2006	Analysis of results from assessments	MoC?	SEA Report	Revision of the report by ???	Memo explaining how the results were considered ???
Feb 2007	Plan Approval	Prov. Gov (with DRC)	Final Draft Plan	Council Depate??	Final Plan

1 = Many of these tasks, as well as the specific actions (inputs, analysis and outputs) could represent a ‘window of opportunity’ for SEA to influence and guide planning. For example, the setting of Plan Objectives, or the discussion of alternatives and of the type of assessments required for the plan. You should highlight these with a colour as they will represent the main entry points for the SEA process (as it should

have been carried out). You should then highlight the planning stages that were ACTUALLY used to integrate SEA into planning (i.e. the final draft stage).  
 2 = Collecting either qualitative or quantitative data and information (INPUTS);  
 3 = Analyse the data using formal or informal tools, techniques and assumptions (ANALYSIS/DISCUSSION);  
 4 = The outcomes of the analysis are expressed as outputs: they can be a report, a tool, a seminar etc. They are then discussed either implicitly or explicitly in order to inform the decision (DISCUSSION/OUTPUTS).

## Summary graph

Please develop a summary graph. See example below:



## Compare to IAIA criteria

Evaluate the interaction between the Plan-making and the SEA according to good-practice.

Please use the IAIA performance criteria (attached)...

- Iterative
- Participative
- Accountable focused
- Sustainability-led
- integrated

## 4) Actors and responsibilities

[3-5 pages]

### **Key actors**

Organigramme of interested actors – please use flow diagrams and tables to summarise:

- the institutional actors and leading individuals involved in planning AND assessment;
- the actors indirectly involved etc;
- **emphasise** which environmental and social organisations are being involved in planning and assessment.

It is useful to refer back to the planning timeline discussed in section 3, and to illustrate how the lead actors involved in each action have interacted with environmental authorities and with other key actors.

### **Consultation, collaboration and public participation**

Outline when and how (the various methods) other institutions were involved.

Outline if, and if yes when and how (the various methods for public participation) the public was involved. To do so, you should also refer to the timeline and windows of opportunities identified above.

### **Contacts**

Contact points for the planning and assessment (names, telephone no., emails etc) – give at least one for each process.

## 5) Baseline Information

[12-15 pages]

### ***Introduction - the use of indicators and targets***

#### **Describe the indicator typology**

Give a brief introduction to the concept and nature of the indicators you used. For example (Kent County Council *et al.* 2005; Scott and Marsden 2003):

Describe the indicator selected and the data base you use.

Reflect the indicators under the following criteria:

- Do they reflect the current situation?
- Were trends identified ?
- Were the trends compared with the current situation?

#### **Data gaps and availability**

Give details of the major data gaps. Describe which indicators were NOT used and why.

For the Environmental data (cf. Presentation of Zhang Xiaofeng)

### ***Baseline for Shaanxi***

#### **List of indicators used**

including the list of indicators and target values associated to those – cf. section 7

#### **Future trends under ‘business and usual’**

If this was done as part of the SEA. Otherwise, please comment as to whether you think it would be useful to do so in the future.

## 6) Environmental and sustainability issues

[4-6 pages]

Describe the issues and problems which are identified during the SEA. Please identify which problems are covered (and in which way) and identify the gaps. In other words, which problems and issues are NOT covered by the SEA.

Which problems/issues are covered?

<b>Issue / problem</b>	<b>Background data / indicators from baseline review</b>	<b>Possible causes</b>
E.g. High and growing level of energy demand		Economic growth trends; improving lifestyles; etc
E.g. Poor air quality		
<b>Eg implications for climate change</b>		

Which problems/issues are not covered?

<b>Issue / problem</b>	<b>Background data / indicators from baseline review</b>	<b>Possible causes</b>
E.g. High and growing level of energy demand		Economic growth trends; improving lifestyles; etc
E.g. Poor air quality		

## **7) Environmental and sustainability objectives and targets**

[3-5 pages]

### ***The importance of objectives in SEA***

SEA is essentially an objectives-led approach whereby the potential impacts of a plan are gauged in relation to a series of objectives for environmental protection and sustainable development. The objectives provide a methodological yardstick against which to assess the effects of the plan. For this reason, the key elements of an SEA framework include: objectives and associated targets (where these exist) as well as indicators (Kent County Council *et al.* 2005).

### ***List of environmental and sustainability objectives***

Describe the proposed objectives of the SEA. Which objectives were set? Which indicator is used?

Provide these in a table and provide details of how they relate to key policy documents and/or legislation (see above) in appendix.

Describe where key objectives are missing. Does the SEA reflect the key policy strategies identified before?

## **8) Scope of the SEA**

[2-3 pages]

### ***Proposed SEA approach, purpose and methodology***

- Describe the purpose, meaning and implications of the SEA for the planning and decision-making processes;
- Clarify the scope and limitations of the SEA;
- Specify the type of methods and tools that were used.
- Describe in details which method do you use for the assessment. Describe the strength and weaknesses of the chosen methodology.
- Do all the methodology fit the purpose and where the best available technologies used.
- Identify the strength and weakness of the chosen methodologies.
- Identify further methodologies which should be used to cover the suggested objectives and indicators (see above)

### ***Consultation on the scope of the SEA***

Outline the purpose and methods of the consultation. To do so, you should also refer to the timeline.

Here you could refer to the consultations carried out in previous SEAs.

## 9) Alternatives

Were there any alternatives assessed?

Describe the geographical scale of the alternative.

Describe the alternatives and the assessment, which was carried out.

Use the table below.

Alternative	Related Objective	Related Indicators

Evaluate the chosen alternative by using the following criteria:

- Achievement of objectives
- Effectiveness of problem solving
- Appropriate alternatives (meeting the objectives)

Discuss, if there are any further alternatives which were NOT part of the SEA.

Comment as to whether any additional idea came as a result of the SEA. In principle one should be able to go back and revise a plan, even to include new alternatives in the light of the SEA. Although this was not the case, please record here any idea of alternatives that arose from your analysis.

## 10) Assessment

- Describe in details which method do you use for the assessment. Describe the strength and weaknesses of the chosen methodology.
- Does all the methodology fit the purpose and were the best available technologies used?
- Identify the strength and wekanesss of the chosen methodologies.
- Identify further methodologies which should be used to cover te suggested objectives and indicators (see above)

## 11) Environmental Report

### Summary of contents

Please describe the content of your environmental report.  
Based on the information from your SEA report please fill in a SUMMARY table

An example is provided below – this is just as illustration.

Appraisal Summary Table				
Option		Description	Problems	Present Value of Costs to Public Accounts £m
OBJECTIVE	SUB-OBJECTIVE	QUALITATIVE IMPACTS	QUANTITATIVE ASSESSMENT	ASSESSMENT
ENVIRONMENT	Noise			net population win / lose NPV £m
	Local Air Quality			Concs wtd for exposure
	Greenhouse Gases			PVB £m
	Landscape			Score
	Townscape			Score
	Heritage of Historic Resources			Score
	Biodiversity			Score
	Water Environment			Score
	Physical Fitness			Score
	Journey Ambience			Score
SAFETY	Accidents			PVB £m
	Security			Score

ECONOMY	Public Accounts		Central Govt PVC, Local Govt PVC	PVC £m
	Transport Economic Efficiency: Business Users & Transport Providers		Users PVB, Transport Providers PVB, Other PVB	PVB £m
	Transport Economic Efficiency: Consumers		Users PVB	PVB £m
	Reliability			Score
	Wider Economic Impacts			Score
ACCESSIBILITY	Option values			PVB £m
	Severance			Score
	Access to the Transport System			Score
INTEGRATION	Transport Interchange			Score
	Land-Use Policy			Score
	Other Government Policies			Score

(Source Department for Transport(UK) 2004) -  
[http://www.webtag.org.uk/webdocuments/2\\_Project\\_Manager/7\\_Transport\\_Appraisal\\_Green\\_Book/2.7.2.pdf](http://www.webtag.org.uk/webdocuments/2_Project_Manager/7_Transport_Appraisal_Green_Book/2.7.2.pdf) )

### ***Summary of the main environmental implications of the Plan***

Describe these and reflect on whether the SEA carried out was sufficient and adequate to help planners to improve their Plan.

## **12) Integration into decision-making process**

Describe how the process of SEA influenced the plan – refer to Section 3 above.

Describe how the final Environmental Report has influenced the plan, how the recommendations were taken into account.

Describe how you expect the next stages in the SEA to influence the implementation of the plan.

## 13) Recommendation

Summarise the key results from the former chapter. Highlight the strengths and weaknesses of the SEA, bearing in mind the good practice principles illustrated during our June kick-off meeting and seminars.

Provide recommendations how to improve the SEA for any future use.

Use the following table to summarise the key results.

Stage	Key issues	Strength	Weakness	Recommendations
Planning timeline	1)			
	2)			
	3)			
Actors and Responsibilities				
Baseline Informaton				
....				

## **Appendices**

For example, the following data could be placed in Appendices:

***a) Details of Actors involved***

***b) GIS Maps***

***c) Baseline indicators tables***

## References

### Bibliography

- Bina, O., MacGillivray, A., Caratti, P., Tamborra, M., Tarquini, R. and Nilsson, M. (2004) The ANSEA Approach. In *Analytical Strategic Environmental Assessment: Towards Better Decision-Making* (Eds, Caratti, P., Dalkmann, H. and Jiliberto, R.) due in 2004, Edward Elgar Publishing Ltd., Cheltenham.
- Kent County Council, Scott Wilson and Levett-Therivel (2005) *SEA / SA of Kent Minerals and Waste Development Framework, Joint Municipal Waste Management Strategy and the Local Transport Plan for Kent SCOPING REPORT*, Scoping Report [Consultation Draft], Kent County Council.
- Scott, P. and Marsden, P. (2003) *Development of Strategic Environmental Assessment (SEA) Methodologies for Plans and Programmes in Ireland*, Synthesis Report (2001-DS-EEP-2/5) prepared for the Environmental Protection Agency [<http://www.epa.ie>], Wexford, Ireland.