



**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. 4\_EN

## **Scoping - An Outline of Contents**

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7 July 2007

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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)

How to cite this CHINA-EPI-SEA Paper:

Bina, O. and Ricci, A. (2007) *Scoping - An Outline of Contents*, CHINA-EPI-SEA Paper No. 4\_EN, Wuppertal Institute: Wuppertal.

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## 1) About this report

[1-2 pages]<sup>1</sup>

- Explain the purpose of the report;
- Explain how scoping fits within the overall SEA process for Xichang's new Energy Plan
- Include a flow chart of the SEA Process – see examples from Olivia and Holger's presentations
- Who drafted it, who contributed;
- If you plan to use the scoping report as a draft for consultation – explain who will be responsible for collecting feedback, and detail who you intend to involve in the consultation (e.g. leaders from the Government departments for industry, urban affairs, minorities, etc.)
- Explain how the report will act as a permanent guidance to the whole SEA process, and that elements of it will be constantly updated as the planning and assessment process advance (for example, additional baseline data, revised targets, revised timeline etc.)
- Finally, using the flow chart of the SEA Process (above) illustrate how many other reports are to be expected as part of the SEA process, so that readers have the overall picture.

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<sup>1</sup> Throughout the report we make *suggestions* about the approximate length of each section in [...]. These are only indicative.

## 2) Introducing the Energy Plan

[10-12 pages]

Brief introduction to the plan, its objectives, process and decision-making stages.

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

Brief summary of the origins of the proposed Plan:

- Is it legally required? what is the relevant policy or legislation that requires such plan?
- Or is it voluntary? In which case, who decided to develop the plan and why?
- Is the plan a continuation of a previous Energy 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)

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

**List** relevant policies, plans, and legislation that are directly or indirectly relevant to the proposed 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
- How can this inform / influence Xichang's plan?
- How can 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 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

**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

**Key findings from the institutional and policy context analysis**

This table will effectively summarise the range of issues and / or objectives that are of relevance to the proposed Energy Plan. See link with Questionnaire – section 3A

Theme*	Detail

\* = Organise the Key findings from the analysis of relevant plans and legislation according to the **main themes** of the proposed energy Plan for Xichang, for e.g.:

- Energy sources
- Energy demand reduction
- Energy saving
- Air quality improvement
- Overall Government priorities and principles for environmental protection and sustainability (e.g. form the 11<sup>th</sup> Five year plan)
- Minorities’ use of energy
- Etc.

***Proposed Plan objectives***

Please describe the proposed Plan objectives, and relate these to the findings above. Again, this could be done in table format. See link with Questionnaire – section 3A

**List of proposed Plan objectives**

Theme*	Detail	Detail of sources of such objective/target (eg. expert opinion, policy, law etc.)

### Consistency analysis

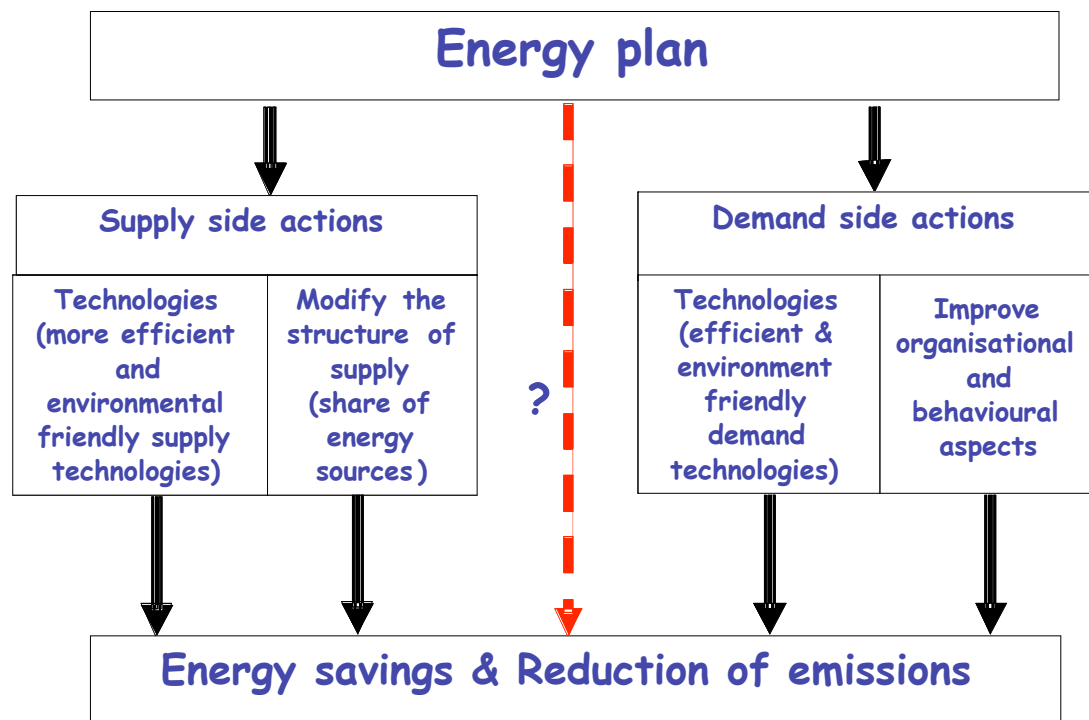
Explain the way the proposed objectives support and contribute to the objectives of existing plans, policies and laws.

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.

### Principal elements of the proposed Plan

The Xichang Energy Plan should ultimately identify and describe a series of measures to be implemented over the Plan period that are deemed the most appropriate to jointly achieve (i) the sectoral (energy related) objectives and (ii) the environmental objectives deriving from the Plan SEA.

The diagram hereafter illustrates the overall Plan logics: it is based on the assumption that the Plan is driven by the dual goal of (i) achieving energy savings and possibly reducing energy consumption, and (ii) reducing pollutant and GHG emissions.



This section must describe the Plan development process in such a way that the interactions with the SEA process are clearly identified. In a way, it must summarise the early stages of the Plan preparation, from the definition of strategic (sectoral) objectives to the identification and description of the strategic alternatives that must undergo the scoping exercise.

**Step 1**

The first step is to specify how the general objectives of the Plan (i.e. achieving energy savings + reducing energy consumption, and reducing pollutant and GHG emissions) translate into overall sectoral targets, such as, for instance:

- Decrease the PM<sub>10</sub> concentration in the air by x%
- Decrease overall CO<sub>2</sub> emissions by y%
- Increase average energy efficiency by z%
- Reduce total energy consumption by t%
- Etc.

These targets can be multiple. Although it is important that they represent a globally realistic perspective (and must therefore be based on a rough, preliminary appraisal), they are mainly the result of a high level policy decision process, reflecting for instance sectoral priorities at the national and/or provincial level.

How, and when, these sectoral objectives are discussed with the team in charge of the Plan SEA should be specified.

**Step 2**

The Plan development process must then concentrate on setting the scene for the appropriate identification of measures and actions. This mainly consists in

- establishing and interpreting the local energy balance (current)
- establishing and describing the “do nothing”, or “reference” scenario, which must notably include the projected estimates of those variables/indicators that measure the performance against the targeted objectives (energy consumption, emission levels, air quality).

While the Energy Plan in its full form is expected to illustrate the two issues above in the greatest possible detail<sup>2</sup>, for the purpose of the Scoping Report aggregated summaries are sufficient. Tables T1 and T2 presented below can be used as reference.

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<sup>2</sup> For instance, supply side figures should distinguish between the various technologies within each source, demand side figures should distinguish between the various end use technologies within each end use sector, etc.

**Table 1: supply side**

Primary energy	Production	Import (+)/ Export (-)	Available
Coal			
Oil			
Gas			
Wood, biomass			
Hydro			
Solar			
Other			

**Table 2: demand side**

Final energy demand		Residential	Industry	Transport	Services
Thermal	Coal				
	Wood, biomass				
	Oil				
	Gas				
	Solar				
Electricity	Coal				
	Oil				
	Gas				
	Hydro				
	Solar				

The do nothing scenario corresponds to the assumption that no new interventions in the energy sector are undertaken. It is therefore directly related to the baseline of the scoping report (see below section xxx...).

As an immediate outcome of the above, the Plan (and the Scoping Report) should provide a first gross measure of the performance gaps to be addressed, e.g. “without appropriate actions, energy demand will grow by X with respect to current levels, which, when compared to the target pursued, means a potential gap of Y”, etc.

### **Step 3**

The Plan should then proceed to the systematic review of all actions than can possibly contribute to the achievement of the objectives. As illustrated in the diagram above, such actions must include interventions on both energy supply and demand.

Within the former (supply side), the Plan should differentiate between

- actions that will increase the energy efficiency of individual energy sources/processes, notably through the introduction/promotion of more efficient supply technologies, and
- actions that will modify the structure of supply (i.e. by promoting/incentivising specific individual energy sources, e.g. renewables, thereby increasing their absolute and relative contribution to the overall supply).

Within the latter (demand side), the Plan should differentiate between

- Actions that will increase the energy efficiency of the energy end uses, notably through the introduction/promotion of more efficient demand technologies, and
- Actions that aim at reducing energy demand by encouraging a more rational use of energy (i.e. modifying consumers behaviour).

While the Energy Plan should consider each such possible action at a fairly disaggregated level (e.g. the introduction of a minimum efficiency standard for electric appliances might have different effects on consumption than a programme based on energy labels, etc.), for the purpose of the Scoping Report broader sets of actions are sufficient, that translate e.g. in the assumption that the market share of appliances incorporating Best Available Technologies (BAT) increases by x% etc.

The Plan should further include estimates of the technical potential associated to each measure (what are the maximum energy savings that can theoretically be achieved if the measure is fully implemented, e.g. if BAT achieve maximum diffusion?). Such quantitative elements, however, are not directly relevant for the Scoping exercise.

**Step 4**

Following the above characterisation of each possible action, the Plan should then analyse them in terms of their economic potential, i.e. their cost-effectiveness: for each RMB invested, how much energy can we save? (or how many emissions, etc.). In principle, measures can thus be ranked in decreasing order of cost effectiveness, dictating priorities for implementation. In practice, priorities are also derived from other, more policy-related criteria, such as e.g. the need to decrease dependency from energy imports, or the need to promote job creation in specific sectors etc.

For the purpose of the Scoping Report, however, more aggregated information is sufficient, in the form of (a limited number of) “policy packages”, each corresponding to a major policy option. These should be sufficiently “contrasted” to reflect the nature of the choices to be made, e.g. a “gas scenario” Vs a “solar scenario”, or a “coal phase out scenario” Vs a “clean coal scenario”, etc.

In any instance, the proposed alternatives must be “reasonably feasible” (both technically and economically), hence the need to carry out sufficiently detailed assessments in the Energy Plan.



## 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.

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

Does the law (or 2003 guidance) specify institutions that will **need** to be consulted?

Outline when and how (the various methods) you plan to involve other institutions.

Outline when and how (the various methods for public participation) you plan to involve the public. To do so, you should also refer to the timeline and windows of opportunities identified above. You should refer to both formal and informal consultation, and identify the key deliverables/outoputs from SEA and planning - that will be consulted upon.

### ***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***

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

When collecting baseline data, the aim is to assemble sufficient data on the current and likely future state of the area to enable the proposed Plan's effects to be adequately predicted. A key aim is to ensure that, where possible, each of the environmental and sustainability objectives is 'underwritten' with comprehensive and up-to-date baseline information. This would require feedback between this section of the report and the following two on environmental issues and objectives. Baseline information also provides the basis for monitoring effects and helps to identify sustainability problems and alternative ways of dealing with them (Kent County Council *et al.* 2005).

For each indicator selected, enough data should be collected to answer a series of questions including (Kent County Council *et al.* 2005):

- How good or bad is the current situation?
- Do trends show that it is getting better or worse?
- How far is the current situation from any established thresholds or targets?

### **Identify 'comparators'**

In order to gauge Xichang's current and future performance in relation to each indicator, various 'comparators' can be identified. These provide a benchmark against which the current data for Xichang can be compared. These comparators take the form of:

- (i) past data for the same indicator – showing the extent of change in Xichang over time;
- (ii) data for a wider geographical area – showing how Xichang's performance compares with that of the Province and China as a whole; and
- (iii) an agreed target – showing how well (or otherwise) Xichang is performing in relation to a certain goal (Kent County Council *et al.* 2005).

### **Data gaps and availability**

Give details of the major data gaps

### ***Xichang baseline***

### **List of indicators and include comparators where available**

### **Future trends under 'business and usual'**

### ***Key messages from the baseline review***

Following collection of the available evidence, each indicator should be classified as:

- Good performance (green)
- Reasonable performance – needs action (yellow)
- Poor performance – priority for action (red)
- Uncertain or unclassifiable (grey)

Note: Where an indicator is classified as 'grey', please identify how this data/information could be obtained in the future to strengthen the baseline for energy related SEAs.

## 6) Environmental and sustainability issues

[4-6 pages]

Identify issues and problems through the baseline review and informal brainstorming sessions with representatives from the relevant organisations (see above). A table format is suggested below.

Identify also the *principal* environmental and sustainability issues that might arise from the other relevant plans, policies and programmes that you already identified as potentially affecting this plan.

Issue / problem	Background data / indicators from baseline review	Possible causes
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).

If the proposed Plan objectives (above) already included an exhaustive list of environmental and sustainability objectives, these should be identified in this section as a key element of the SEA framework. However, even when the PLAN has identified environmental objectives, it is common that the list of such objectives is further refined after the completion of the draft baseline data and initial analysis of indicators.

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

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

### ***Compatibility analysis***

Following the development of the SEA objectives, compatibility analysis can then be undertaken with the Plan objectives, identifying where there may be conflicts between SEA and Plan objectives. For example:

## Criteria for assessing objectives

1. **Energy Efficiency**  
Will the strategy objective be likely significantly to encourage greater energy efficiency?
2. **Pollution**  
Will the strategy objective be likely significantly to minimise pollution?
3. **Non-Renewable Resources**  
Will the strategy objective be likely significantly to reduce consumption of non-renewable resources?
4. **Renewable Resources**  
Will the strategy objective be likely significantly to encourage the development and use of renewable resources within the limits of their replenishment?
5. **Biodiversity**  
Will the strategy objective be likely significantly to conserve/enhance biodiversity?
6. **Environmental Quality and Distinctiveness**  
Will the strategy objective be likely significantly to restore, conserve or enhance local environmental quality and distinctiveness?
7. **Environmental Equity**  
Will the strategy objective be likely significantly to contribute towards greater environmental equity?

D Tyldesley and Associates 2003:74

## Matrix - example

Assessment of the draft Midlothian local plan strategy								
Strategy Objective	Criteria							Comments
	1	2	3	4	5	6	7	
1. Protecting and enhancing Midlothian's countryside and rural environment	✓				✓	✓	✓	Significant environmental benefits
2. Protecting and enhancing the built environment of Midlothian's towns and villages	✓				✓	✓	✓	Significant environmental benefits
3. Protecting and enhancing the high quality landscape of the Green Belt	X	X	X		?	?	✓	Significant environmental benefits in green belt but its protection can increase travel distances and pressure on urban spaces and countryside/natural resources beyond the green belt
4. Attracting economic investment for the benefit of all Midlothian's communities.	✓	✓	✓		?	?	?	Significant socio-economic benefits but potential for policy conflict and divergence, highly dependant on cross compliance
5. Reducing traffic congestion by improved public transport and traffic management	✓	✓	✓				✓	Significant environmental benefits

D Tyldesley and Associates 2003:75

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

[2-3 pages + outcome of consultation]

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

Agree on 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 will be used.

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

Ideally, this consultation with key government and stakeholders (e.g. industry, NGOs etc) should be carried out while drafting the scoping report, and the result of the consultation should be reflected on and summarised here. Consultation can be organised by sending a draft of the report to key organisations and stakeholders, and also placing the report on the web site.

Outline the purpose and methods of your consultation. To do so, you should also refer to the timeline and windows of opportunities identified above.

## **9) Next steps**

[1-2 pages]

Who needs to do what. You should also refer to the timeline and windows of opportunities identified above.

## **Appendices**

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

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

***b) Relevant existing plans, policies and programmes that may influence the Plan being assessed***

***c) GIS Maps***

***d) Baseline indicators tables***

## References

- 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.