



Commissie voor de
milieueffectrapportage



Strategic Environmental Assessment (SEA): scoping for urban planning

The example of the Skopje general urban plan

1 General introduction

The City of Skopje General Urban plan is subject to SEA under the Macedonian SEA regulation. In August 2010, the Skopje Municipality and the Macedonian Ministry of Environment and Physical Planning (MoEPP) had agreed in writing that they would co-operate on this SEA as a learning experience as part of a Dutch Macedonian project on supporting SEA.

The objective of this document is to provide an example on SEA scoping for urban planning by using the City of Skopje General Urban plan by way of illustration. It gives insight into the main issues in relation to urban planning, what are environmental problems and opportunities, what could be alternative ways or options to solve/enhance these etc. As such, this scoping document gives an outline for the SEA, which can be used by other municipalities when applying SEA for urban planning, by SEA expert(s) when undertaking SEA for urban planning and by the MoEPP as a review framework once a draft SEA report is ready.

Currently, the Mayor of the City of Skopje has to make a decision to start the SEA. This is the so-called 'screening decision' (see www.sea-info.mk for with information on screening requirement including supportive forms¹). After that, the tender procedure for the SEA expert(s) will start. This document can therefore also be used to establish the required contents of the SEA (ToR for the SEA expert)..

This document consists of two parts. **Chapter 2 describes the preparatory steps of the SEA.** As SEA is meant to improve the planning and decision making process, it is needed to have a closer look at the planning process first, to design the best tailor made approach for SEA depending on the context of the General urban plan. Once there is a good understanding amongst all stakeholders what the planning process is all about and what the purpose of the SEA for this specific planning process is, then the required contents of the SEA can be better specified. **This is described in Chapter 3. Scoping.**

Pre-ample

This document intends to provide guidance for SEA for urban planning in Macedonia. It presents practical insights on this topic as put together by the Netherlands Commission for Environmental Assessment in the course of 2010 and 2011. The guidance cannot be taken as legal advice nor should it substitute case specific advice by the relevant Macedonian authorities.

This guidance has been developed in the course of a co-operation project on Strategic Environmental Assessment between the Macedonian Ministry for Environmental protection and Physical Planning and the Netherlands Commission for Environmental Assessment. The co-operation was funded by the Dutch Ministry for Infrastructure and Environment, and administered by Agentschap NL, the Agency for the Dutch Ministry of Economic Affairs, Agriculture and Innovation.

The Netherlands Commission for Environmental Assessment thanks Pim Vermeulen from the City of Amsterdam for providing contributions to this document.

¹ The body that prepares the planning document has to take a screening decision, that is checking whether a certain plan requires SEA or not. For this screening step, forms have been developed (SEA rulebook). Based on the forms, an official decision has to be taken, which indicates yes or no SEA, but also gives input for the scope of the SEA. It is a formal step, requires publication on a web site and in case of for instance an urban plan, the signature of the mayor. The decision should be sent to the MoEPP, that can take 2 decisions: against the decision itself or against the scope of the SEA. If MoEPP does not react within 15 days, the plan and SEA can go ahead.

2 Planning and SEA, preparation

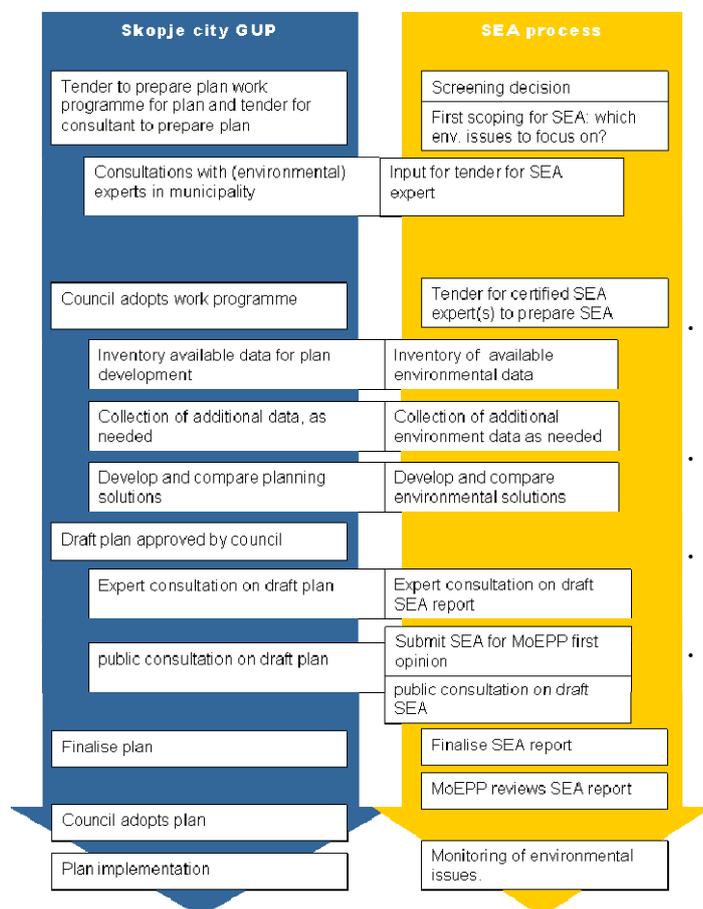
SEA practice has shown SEA to be most effective if it is fully integrated into the plan-making process. SEA is also more efficient when integrated, since several of the plan process and SEA activities overlap and interact. Collecting baseline information, for example, informs both the SEA and plan development. Similarly, scoping of the environmental effects is likely to influence the generation of plan alternatives in the planning process.

To determine what the planning process is all about, the need for and goal of the SEA and how the SEA could be integrated in the plan process, a number of critical questions (see below) can help to properly design the SEA in relation to a General Urban Plan (GUP). By way of example, the answers to these questions are presented in paragraphs 2.1 to 2.8 below for the City of Skopje GUP/SEA. Sometimes examples are inserted from a similar GUP/SEA experience for the City of Amsterdam in the Netherlands.

Critical questions for good SEA design

- 1) What is the stage of planning: is the planning process just starting, half way or is a draft already available?
- 2) What are the problems that need to be solved through the Policy, Plan or Programme (PPP) or in other words: what are the objectives (social, economic, environmental, technical, institutional) of this PPP?
- 3) Who is/are the responsible agency(ies) ('the owner/developer of the planning process')?
- 4) Which are the decisions to be taken in the planning process and when will these be made?
- 5) Spatial and time horizon; is the PPP geographically defined (if yes, how?) and how long will implementation take (10, 20, 30 years or more?)
- 6) Which information (data) is available?
- 7) What is the budget and time-line of the plan process? And how much time and money is available for the SEA? Who will undertake the SEA and who will pay for it? This includes planning and budgeting for public participation.
- 8) What should the SEA do? What is the purpose and scope of the SEA?

2.1 SEA and stage of planning



The figure on the left shows how the plan process and SEA process are linked (general urban planning process in blue, SEA process in yellow).

The Faculty of Architecture won the tender procedure for the Program of work for the General Urban plan, which was finalized in Nov. 2011.

On basis of the Program of work, a draft plan will be made, which will take around 10 months

The draft plan will be presented to the City council, public hearings will be held and in the following 4 months the Plan is finalized.

Now the Program of work is available, the Mayor of the City of Skopje has to make a decision to start the SEA ('screening decision'). After that, the Environment Department of the City of Skopje will start the tender procedure for the SEA expert , which will take between 2 and 3 months.

Good Practice: From the very start, the SEA runs in parallel with the development of the GUP. This offers good possibilities to pro-actively feed the plan with environmental information.

2.2 What are the problems that need to be solved by the plan?

During a preliminary scoping session in October 2010, the following key problems/issues were identified for the General Urban Plan/SEA.

Traffic

- o Key problems are congestion, noise and air pollution, insufficient protection of the urban environment from traffic impacts.
- o The collective transportation system (relying on busses) is insufficient, while there is great need for collective transport to reduce traffic problems and give those on lower incomes transport options.

Green areas in the city

- o Ensuring protection of existing green areas (now being encroached on)

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- o Better incorporate green areas in city design, choose where to locate new green areas, how to link green areas, better balance between green areas and built up areas.
 - o Improve understanding of relevance of green areas for quality of living environment, city climate, water retention etc, so that they can be better incorporated into the urban design.

Infrastructure

- o Key issues are water supply and wastewater treatment (new capacity is needed, so the General Urban plan needs to allocate location for new treatment plant.)
- o Transitioning household heating systems from wood burning to gasification.
- o Possibly additional electricity generation plant needed (gas fired)

Industry

- o Managing existing industrial activity (steel, cement, chemical industry), as well as locations of possible new activity
- o Industrial activity is causing emissions to air, and requires waste water and solid waste management

Good practice: The General Urban Plan will develop a set of planning solutions to deal with these problems. The SEA can help to make the right choices, by assuring that the relevant environmental and social information is available at the right moment.

2.3 Who is/are the responsible agency(ies) and what should they do?

The owner/developer of the planning process is also responsible for the SEA. In this case, the Skopje Municipality will prepare the new Skopje city General urban plan, which provides the overall design of the city. The detailed design is then the responsibility of the 10 sub-municipalities. The City of Skopje municipality therefore is also responsible for the management of the plan development and SEA. This implies control of the developments in both the SEA and planning process, and ensuring that both processes use the same designs, plans, data, etc.

Sound Plan/SEA management is important to achieve optimal integration of the SEA and plan processes, SEA should provide inputs at each stage of planning. It is also considered good practice to involve decision-makers and stakeholders in the process as much as possible. SEA generates information that influences the planning process. During plan development new ideas continually emerge and ideas are being discarded and the SEA procedure should respond to these developments. SEA management therefore is about 3 processes, that need to be managed separately, namely:

- o Integration of SEA findings into planning
- o Process/Dialogue of stakeholder involvement
- o Generation of knowledge and information

Good practice: Clearly agree with all key actors involved in the development of the General Urban Plan and the SEA, such as the Faculty of Architecture, the Agency for Spatial Planning, the City of Skopje Municipality (Department for Urban Planning and Environment Department) and the SEA expert(s) on tasks and responsibilities and who manages what.

Requirements to the SEA Expert(s) to be used as one of the selection criteria

The SEA expert should not only have (environmental) knowledge, but also communication and dialogue abilities to coordinate with planners/decision makers. This is important because knowledge generates information for dialogue with stakeholders and decision makers, but from dialogue also knowledge questions arise. Interacting with planners is essential to find out what their information needs are and when they need it.

2.4 What are the decision(s) about?

The purpose of SEA is to help (improve) plan design and decision making. Therefore it is helpful to discuss in an early stage of planning what kind of decisions will be taken with the General Urban plan.

Example for infrastructure decisions in the General Urban Plan

- Key issues are water supply and wastewater treatment (new capacity is needed, so General urban plan needs to **allocate location** for new treatment plant)
- **Transitioning** household heating systems from wood burning to gasification.
- Possibly additional electricity generation plant needed (gas fired), **if so where?**

Good practice: In determining the scope for the SEA, all parties should clearly agree about the kind of decisions or planning solutions that the plan will consider

2.5 Spatial and time horizon of the General Urban Plan?

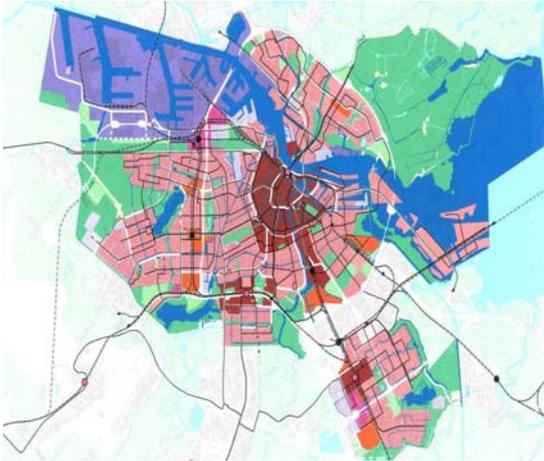
The General Urban Plan will be made for 10 years and is in principle limited to the administrative boundaries. Although the planning horizon is 2012–2022, it is recommended to take into consideration a longer term view (necessary from the perspective of development of the transport system, which will have a much longer time horizon).

For example, the city of Amsterdam in the Netherlands, prepared a spatial structure vision, and applied SEA to develop alternative planning options using a set of pre-defined objectives. In this long term spatial planning strategy it was found that regional level developments influenced local level developments and vice versa. Therefore, the territory considered in the SEA was not limited to the municipality alone but took developments in the wider region explicitly on board (see pictures next page).

Good practice: Although the spatial and time horizon may be well defined, consider to include a longer term view and include developments in the wider region.

Example Spatial boundaries SEA for the Amsterdam City Structure vision 2040

Limited to administrative boundaries



Wider region included



2.6 Information availability

To identify the environmental issues and trends that characterize the areas influenced by the General Urban plan, baseline information needs to be gathered to:

- identify *problems* (which are relevant for the plan) and likely future development of those problems
- establish the *reference situation* which will be used to compare alternatives on the level of achievement of objectives and environmental impact (business-as-usual)

Usually not all information that is needed is available immediately. This doesn't have to be a problem, because much information can be collected during the planning process. Furthermore: the choice of objectives and alternative planning solutions determine whether more information is needed, what information and on what level of detail. As a rule of thumb: limit the information requirement to those themes which are of crucial importance to the questions the SEA will attempt to address, and to the decisions to be taken.

The baseline information on the existing situation should as much as possible be given in the form of maps and tables. As the objectives become clearer, they will help to focus the collection of baseline information, whilst the baseline information helps to identify which SEA subjects are of most concern for a particular plan. For the General urban plan, the environmental situation and problems and key issues are pretty clear and measures to do something about it are well described (see below, sources of information).

Sources of information for the General Urban Plan

- Overview of legislative requirements for spatial planning
- Former General Urban plan (2002)
- Two traffic studies, one by the traffic department of the municipality, the other by the Ministry of Transport.
- JICA study on wastewater treatment feasibility 2009
- Country side strategy on energy supply
- Air quality plan for Skopje
- Spatial plan for the region of Skopje 2010
- LEAP for the City of Skopje
- SIDA studies 2008, Sustainability Review – City of Skopje, Phase 1 and 2
- In preparation for the Skopje GUP, relevant information has been gathered and grouped into 17–20 studies. Much emphasis is put on collecting relevant spatial data (e.g. with Agriculture Ministry, land registration) and for the first time now a geo reference–survey is done of all streets/roads in Skopje

Often available environmental information will record the state of the environment at a point or points in time, providing a historic record or a snapshot. But it is also necessary to examine likely future trends under a ‘no plan’ or ‘business as usual’ scenario. This is the current situation, including autonomous development of activities within the area. ‘Autonomous development’ means: the future development of the environment without implementing the plan (or any of the alternatives). Only existing activities or activities which have been approved and will be implemented, should be taken into account. In case of (large) uncertainties in future developments, it is advisable to use scenarios or ranges of developments.

Good practice: When collecting baseline information it is important that the information is:

- relevant and appropriate to the spatial scale of the plan,
- sufficient to identify the (key) environmental issues for the plan,
- focused on aspects on which the plan may have significant effect and
- relevant to the objectives and indicators of the SEA.

2.7 Budget and timeline of the Plan process and the SEA

The General Urban plan will be drafted between December 2011 and October 2012. According to information provided by the City or Skopje Municipality, the budget allocation for the SEA is 3.000.000 denars (about 50.000 euro) and the SEA will have to be developed in parallel with the drafting of the plan, so will also take about 10 months.

The costs of undertaking an SEA depend on:

- the level of detail of the assessment (good scoping helps!)
- how well the SEA can be integrated into the planning process to which it is applied (Example: the SEA procedure requires public consultation on the SEA report. If the SEA report can be incorporated into the consultation on the plan itself, additional consultation costs for SEA will be minimal).

Good practice: Once the budget and time–line for the SEA are known, decisions have to be taken on :

- SEA experts (team): prepare tender documentation for SEA expert(s), including ToR/scope for the SEA
- whether and when to insert review moments for quality assurance of both SEA contents and process

- **planning AND budgeting for public participation (a specific public participation plan has been designed for the City of Skopje GUP/SEA, an example can be provided upon request by the City of Skopje. Also a generic guidance of Public Participation is available and can be found on www.sea-info.mk)**
- **costs for reporting (e.g. approved SEA report, workshop reports, public consultation documented, copies to be deposited for public access)**

2.8 What should the SEA do?

In Paragraphs 2.1 to 2.7 the General Urban Planning process has been analyzed. This gives a good basis to decide on what objectives of the SEA are. In order to know when SEA results have to be available to influence the planning and decision making, it is needed to explicitly discuss the purpose and scope of the SEA. For the General urban plan, the following goals have been mentioned for the SEA already:

- overcome disconnect between planning decisions and analysis of consequences of those decisions
- provide overview of all issues, overcome fragmentation of assessment and planning across the different departments in the municipality
- provide inventory of relevant plans/policies and information, which are now not sufficiently clear

The objectives for the SEA for the General urban plan will also be determined by the ambition level of the City of Skopje in achieving environmental and sustainable objectives and challenges (see table below).

What should the SEA do? How to determine ambition level?
<p>Before the start of the SEA a clear decision should be taken on the approaches that will be chosen for the SEA:</p> <ul style="list-style-type: none"> • Reactive (avoidance or mitigation) approach: what is the impact of the General urban plan? • Pro-active (planning) approach: what opportunities and constraints does the natural environment provide to take into consideration in the plan? E.g. through providing and including better alternatives? <p>The first approach takes the draft General urban plan as point of departure. Then, social and environmental impacts of each feasible solution are looked at and what kind of mitigating and compensatory measures for social and environmental impacts can be developed. Improvement of social and environmental problems is not an explicit goal in itself in this situation</p> <p>The second approach identifies problems and opportunities from an environmental and sustainability perspective right from the beginning, then the General urban plan solutions that contribute to the solution of environmental and social problems on the one hand and do not cause problems in itself again on the other hand.</p>

Good practice: Although the two approaches are not mutually exclusive, it is important to decide how prominent environmental and sustainability objectives will play a role in plan development.

3 SEA Scoping

The purpose of scoping is to come to a shared vision on **problem analysis, objectives and alternatives**² on which all relevant stakeholders should reach ideally agreement. This then enables to define the required content of the SEA and the scope and topics to be investigated.

The objectives and alternatives for the plan depend on the context of that plan:

- the legal and political ‘conditions’ and ‘opportunities’ for the plan (3.1)
- understanding the current and future situation, which will show the problems that the specific plan has to deal with (3.2)

3.1 Framework for the SEA, consistency analysis

The General Urban plan may be influenced in various ways by other plans or programs, or by external environmental protection objectives such as those laid down in policies or legislation. Knowing these relationships makes it possible to take advantage of potential synergies and to deal with any inconsistencies and constraints.

Questions for analysis during scoping to focus discussion:

- Does the General urban plan already take into account environmental and social objectives?
- If so, is it possible to make a list of these objectives?
- What would be the five main current and potential environmental and social problems in relation to the General urban plan?
- Environmental/social objectives to be achieved can be derived from environmental action plans or other plans that have stated environmental or social objectives. What kind of plans/documents or conventions or treaties could contain these environmental and social objectives?

Good practice: The SEA should make an inventory and analysis of:

- **Which policies/plans/programs generate opportunities for the General urban plan**
- **Which ones set environmental socio-economic conditions (criteria) for the plan**
- **Which ones have the potential to conflict with the new General urban plan and how can these conflicts be solved.**

3.2 Problems and objectives

Some plans are not initiated to solve problems, but to develop activities to achieve desired goals (economic growth, housing, recreation facilities etc). For the General urban plan, probably objectives will be a combination of both solving problems (see 2.2) and achieving desired goals. The SEA helps to make the right choices, that is the “best strategies and measures” according to selected criteria.

² In relation to urban planning, generally ‘planning solutions’ will be used in stead of ‘alternatives’.

Example from the Netherlands: Structure vision Amsterdam

Problems

- Resistance among population to further densification
- Which large scale public transport project to realize first (priorities)?
- Attractive green and water implies increasing use & pressure; fragmentation by transport infrastructure
- Space for the car within the inner city?
- Combining housing, working and recreation is in conflict with interests of enterprises
- Space is needed for sustainable energy production

Objectives/desired goals

- Expanding the highly urbanized core
- Broad package of residential environments
- Regional public transport system
- Cohesion of urban life and public space, green & water
- Variety of commercial activities, accent on knowledge
- Future for the main-ports
- Sustainable climate-friendly & water resistant city
- Socially sustainable & un-segregated city
- Growth of tourism & more spread-out over the city
- Accommodate 2028 Olympics

Objectives for City of Skopje General Urban Plan (from SIDA study 2008)

The General Urban Plan defines the basic solutions for the future development of the city and it serves as a basis for preparing Detailed Urban Plans by the municipalities. The GUP will provide more balanced development of the City of Skopje through:

- Optimizing the size, structure and functions of the city
- Equal physical distribution of the economic and non-economic capacities
- Urban reconstruction and restoration
- Review of the existing spatial conditions and zones of industrial development
- Application of sustainable development principles
- Protection of the historical identity of the city
- Organizing a more efficient system of public transport
- Developing institutional mechanism for implementation of planning solutions and appropriate monitoring

There is a number of planning issues, which have been left out in the previous planning round, that now is proposed to be addressed in the forthcoming work on the General Urban Plan for the City of Skopje. The most prominent issues to be included are:

- Sustainable development principles
- Alternative concepts for spatial development
- Planning measures for environmental protection
- Monitoring the plan implementation through indicators of sustainable development
- Introduction of GIS

Objectives can also be defined more specifically, e.g. for urban development and transport:

Contribute to **environmental** sustainability and climate control

- The urban (transport) system should minimize harmful emissions, noise and vibrations and greenhouse gases. Contamination of land and water shall be kept at a minimum as well as risks and hazards in transporting of goods. It should also be energy efficient in broad terms.

Contribute to **economic** sustainability

- By providing mobility and access for all to all parts of the city, the urban (transport) system should make the city more efficient and thereby promote economic growth.

Contribute to **social** sustainability

- The urban transport system should ensure that city services and employment opportunities are within reach for all citizens regardless of social strata and ethnic belonging and should contribute to an integrated city. Accessibility, mobility, availability and affordability shall be the guiding principles for the transport system.

Contribute to the **livable** city

- The urban transport system should be designed for people, not for vehicles and thereby be part of a safe, attractive, comfortable and healthy living environment.

Contribute to a desired **integrated land use development**

- The urban transport system should facilitate and not counteract a desirable land use pattern and spatial development of the city. Consequently this means that the urban transport system shall be an integrated part of the sustainable development of the City, both in terms of planning and implementation.

Good practice: Discuss the proposed objectives with stakeholders, determine if there should be any other objective and reach consensus on shared objectives and priorities (rough ranking of objectives or highlighting the most important ones). It is also recommended to make objectives and indicators measurable (if possible), so the level of achievement of objectives of the alternatives can be assessed as part of the SEA. This is more easy when objectives are defined more specifically (as in table above).

3.3 Directions of development (phasing/alternatives)

Comparing alternatives is a key issue in SEA. The idea of alternatives is that there are different ways of achieving the plan objectives. The alternatives put forward should be reasonable, realistic, relevant and in line with the requirements of national policies and environmental standards. Alternatives should also be sufficiently distinct in order to highlight the different environmental and social implications of each, so that meaningful comparisons can be made at a strategic level.

The effects of alternatives are usually compared to the reference situation or 'business as usual' scenario. The comparison of alternatives to the no-plan situation gives a clear insight into environmental and social impact and level of achievement of objectives.

It is important to involve stakeholders in the generation and assessment of both strategic and more detailed alternatives. Demonstrating that there are choices to be made is an effective way of engaging stakeholders in the process. The alternatives considered throughout the process must be documented and reasons given on why they are or are not taken forward.

Example for the City of Skopje General urban plan on development of alternatives

In the urban system, there is constant interrelation between “urban fundamentals”, such as land use and socio-economic factors (including e.g. demography) on one hand and “sub-systems” such as technical systems (including e.g., waste handling, energy and water) and transportation on the other.

Within the urban transport system itself, components like private transport, public transport and goods transport also interact. The coordination between transport and technical sub-systems is particularly important and some of these sub-systems – like waste handling – are in fact in themselves logistical issues.

Three alternatives for urban transport and land use will be presented in the following. These alternatives are meant to represent fundamentally different approaches to urban transport that will have different impacts on urban development. This method has been chosen in order to visualize the policy options that are available to Skopje, although in reality it is likely that none of these alternatives will be deliberately formulated nor strictly adhered to. They are rather presented here as a ‘thinking exercise’.

Reference situation & autonomous development:	0 ‘Ad Hoc’ alternative
Alternatives:	1 Car city alternative 2 Public transport city alternative

Building alternatives for the General urban plan, example

Each alternative offers different opportunities for:

- combining the transport scenarios with water and green/nature structures;
- improvement and development of housing, business areas, industry, waste management, energy supply etc.

Interventions can subsequently be worked out for each alternative, and two categories of interventions can be distinguished:

Interventions (already planned and/or decided upon)

- Waste management plant
- Minimal housing need, diversity (living environments)
- Projected transport infrastructure
- Projected improvements in water management system
- Projected business areas
- Projected social & cultural amenities
- Projected green spaces

‘Free’ interventions (to combine with)

- Bus-lanes (network) and BRT system
- Allocation of activities in relation with public transport
- Bicycle routes (network)
- Ecological stepping stones and corridors
- Light rail system
- Parking zones (allocation policy)
- Industrial energy park (synergies)
- Water retention areas?
- Cultural heritage areas
- Improving diversity & quality of business areas
- Restructuring industrial zones

Good practice: As part of scoping, a shared decision has to be reached on which kind and how many alternatives or planning solutions are going to be part of the GUP and will therefore be assessed in the SEA

3.4 Assessment and mitigation of effects

SEA analyzes and evaluates the environmental (and social) effects of the plan/alternatives. Where adverse effects seem likely, possibilities for mitigation have to be considered. Therefore the SEA Report should include a description of measures to prevent, reduce and eliminate as fully as possible any significant adverse effects that implementing the plan is expected to have. Exploration of such mitigation measures is ongoing throughout the SEA process. Often mitigation options are integral to the development of plan alternatives. These measures can include proactive avoidance of adverse effects as well as actions taken after effects are noticed.

Prediction of effects involves:

- Identifying the changes in comparison to the environmental baseline (reference situation) which are predicted to arise from the plan, including alternatives.
- Describing these changes in terms of their magnitude, their geographical scale, the time period over which they will occur, whether they are permanent or temporary, positive or negative, probable or improbable, frequent or rare, and whether or not there are cumulative effects

The SEA can be limited to those effects that are likely and significant. Scoping distinguishes between effects that need to be elaborated further, and effects that are expected to be insignificant, and do not need to be addressed further.

Example: Assessment framework used in the Structure vision for the City of Amsterdam

Within the SEA a framework was developed to compare the alternatives on their impacts and their contribution to the structure vision objectives. It contained the following themes and aspects:

Nature

- impacts on (provincial) ecological corridors
- impacts on national buffer zones
- impacts on Natura 2000 areas

Landscape

- connections, openness
- impacts on visual, culture history elements

Climate proof (physically sustainable)

- energy and CO₂, amount of energy savings and sustainable energy generation
- water: safety, droughts and flooding

Living quality (socially sustainable)

- identity (diversity), flexibility, accessibility and ownership
- noise hindrance, air quality and social safety

Spatial economy

- industrial areas, availability and diversity of working areas

Mobility and accessibility

- transport networks
- modal split (public/private transport)
- accessibility
- accessibility location Olympic Games

Good practice: As part of scoping, it should be discussed which assessment framework will be used. Like in the above example of Amsterdam, a similar assessment framework can be used for Skopje City (see below). However, a variety of SEA methods is available for the assessment of effect of the plan and its alternatives. Before deciding on a method it is helpful to consider the methods available, and select the methods most suited to the range of effects expected, the plan process and the resources available.

Relevant themes and aspects in an assessment framework for the City of Skopje could be:

- Nature: ecology & biodiversity
- Landscape (structure, openness),
- Cultural heritage, Archaeology
- Climate-proof: energy supply, reduction CO₂; water management (flood risks, availability)
- Quality of the living environment (social cohesion): diversity, disturbances, nearness of green and opportunities for recreation; noise nuisance, air quality, risks)
- Spatial economy: peri-urban agriculture, (forestry?), supply and diversity of industrial zones business and service areas, ICT, Airport

Mobility & accessibility: infrastructure (pressure on public space, quality), public and private transport (modal split, capacity), freight traffic

Some points of attention on considering the effects of a plan in SEA:

- Where a plan or programme includes proposals for individual projects, these should be assessed in sufficient level to enable significant environmental effects to be broadly predicted. If EIA is needed later for the project, it is likely to be informed by the findings of the SEA, but it will not usually be appropriate or even possible to provide the level of detail needed for EIA in the context of the plan or programme.
- The effects do not always have to be expressed in quantitative terms. Quantification is not always practicable, and qualitative, broad-brush methods can be equally valid for a strategic assessment study. However, qualitative should not mean “guessed”. The assessment conclusions should be supported by evidence, such as the results of studies undertaken, expert discussions or consultation.
- Effects may be expressed in easily understood terms such as “getting better or worse” or a scale from ++ (very positive) to -- (very negative). But the predictions could also be more detailed and quantitative, e.g. a measurable effect would be: “20% reduction of noise nuisance”
- When using symbols or other ways of presenting information regarding the likely effects (e.g. positive, negative, uncertain, not significant), always explain and justify the choice of symbol with reference to the baseline situation relevant to the SEA objective.
- Consider whether the effect is likely to be permanent or temporary, and the timescale over which the effect is likely to be observed. The timescales themselves will also vary depending on the type of plan or programme and the alternatives being considered.
- Consider the effects of displacement of environmental problems to other areas as a result of the plan or programme
- If there are risks or uncertainties attached to the assessment, these should be clearly stated. If effects are uncertain, it is advisable to work with effect ranges
- Many environmental problems result from the accumulation of multiple small and often indirect effects, rather than a few large and obvious ones. Examples include loss of tranquility, changes in the landscape and climate change. It is at the SEA level that those effects are most effectively identified and addressed.

3.5 Comparing alternatives

It is important for consultation and also for decision-making on the plan, that the report shows which effects will be most serious, and how the effects differ across the alternatives. The environmental objectives that have been devised earlier in the SEA and plan process (Paragraphs 2.8, 3.1 and 3.2), provide a useful tool for evaluation of effects and cross-comparison. Each alternative can be **weighed against the objectives** to see whether it does, or does not, contribute to the realization of the objectives.

In SEA, **matrices and tables** are commonly used to aid comparisons. As an input to a decision about preferred alternatives, it may be useful to summarize the assessment results for the different alternatives in one table. This can help to identify the most appropriate alternative overall. The *reference situation* should be included in this comparison.

Fragment of the SEA summary table for the City of Amsterdam structure vision showing the comparison of the alternatives across the set of criteria.

Alternatives →	Ringzone – plus	Waterfront	South flank
Mobility and accessibility			
transport networks	–	–	–
modal split	+	+	+
accessibility	–	–	--
accessibility location Olympic Games	0	0	++
Water			
safety	–	–	0
flooding	0	0	–
droughts	0	0	0

The 3 considered alternatives differed in:

- location of areas for housing and working
- locations of areas for public transport
- location of the harbor area
- design of water and green areas
- reservation for location for the Olympic games
- use of sustainable energy

In the SEA the alternatives were compared with each other, and also against the reference situation which represents “business as usual”, without the introduction of new policies.

Good practice: Decide on how to compare alternatives. There is not one “correct” comparison of effects and alternatives: different comparisons will reveal different aspects, and more than one may be useful

3.6 Gaps in knowledge and uncertainties

Any difficulties encountered in the assessment (such as technical deficiencies or lack of know-how) should be documented in the SEA Report to improve the credibility of the report. People quickly lose trust in the SEA document and the authority responsible for it when purposefully hidden shortcomings are revealed in

the review stage. For the same reasons, assumptions, for instance about underlying trends or details of projects to be developed under the plan, should also be clearly stated.

The limitations in the SEA information also need to be clear so that the City of Skopje can adequately respond to them. A distinction could be made in three different categories of gaps in knowledge:

- Crucial for decision making: a decision can not be made without this knowledge.
- Relevant for decision making: extra investigation, requirements or monitoring actions are needed
- Not relevant for decision making on this level (information is not needed on a strategic level and can be collected in later stages)

Good practice: In case of (significant) uncertainties in effects it is advisable to present in the SEA report ranges in size and seriousness of effects, significance of differences between alternatives and to what extent the (possible) effects are manageable and/or reversible. To deal with the uncertainties in decision-making it can be useful to define “no-regret options” and additional measures.

3.7 Monitoring and evaluation

For the City of Skopje, the SEA has to develop a monitoring plan on different levels (City and sub-municipalities) and for different themes and aspects. The importance of monitoring was emphasized by the coordinator for the General Urban plan, to be able to adapt to new circumstances if needed within the 10 years timeframe.

This implies an important role for the departments which yearly monitor on different themes and aspects, as e.g. the Research & Statistics department (population, traffic, social, economic and environmental data), the Infrastructure & Transport department (traffic intensities, CO₂ emissions, noise nuisance etc), the Health department (air pollution), and the Ecological monitoring of the Physical Planning department. For monitoring the Skopje General Urban plan, one should start with the instruments which are at the moment available, but the gaps in knowledge should be clearly defined including how these gaps will be filled in the course of time (phasing, related to implementation program). Also monitoring by expert judgments could be considered.

Good practice: Monitoring allows the actual significant environmental effects of implementing the plan to be tested against those predicted. It thus helps to ensure that any problems which arise during implementation, whether or not they were foreseen, can be identified and future predictions made more accurately. Monitoring can be integral to compiling baseline information for future plans, and to preparing information which will be needed for EIAs of projects. Monitoring and evaluation of progress towards objectives and targets can form a crucial part of the feedback mechanism.