

Chapter 5

EXPERIENCE IN COUNTRIES IN TRANSITION¹

Countries in transition are commonly understood to be the ex-socialist states of Europe and Central Asia that are in the process of economic restructuring and political reform. They comprise the countries of Central and Eastern Europe (CEE) and the Newly Independent States (NIS) of the former Soviet Union, which have major differences in their level of development and democratisation. In addition, there are notable differences in the CEE region between countries that have now joined the European Union (EU)² and the Balkan countries of South Eastern Europe³, which are undergoing reconstruction following a period of war, conflict and political instability. Intermediate are countries waiting in the EU accession queue (Bulgaria, Croatia and Romania). By comparison, many NIS⁴ are still in the early phase of introducing political and market reforms, although there are significant differences between European countries, some of which have EU membership aspirations), and the Caucasian and Central Asian countries which face fundamental challenges in governance and democracy.

EIA systems were introduced into the region in the mid-1980s. Today, nearly all NIS and CEE countries have established some type of EIA legislation and many have incorporated provision for SEA under these frameworks. Since 1996, in particular, SEA trends and developments in transitional countries have evolved rapidly and certain countries already have considerable practical experience (notably Czech Republic, Slovakia and Poland)⁵. Elsewhere, the use of SEA in the CEE region is evolving rapidly and many countries in transition (CIT) established legal requirements for SEA in advance of certain EU states, such as Austria, Greece and Portugal. Also, legal provisions for some form of SEA have been made by certain newly independent states, although these are not always implemented in the way intended, experience is still limited and processes are not yet aligned with internationally accepted practice (Cherp, 2001a).

A number of reviews of SEA procedure and practice in countries in transition have been undertaken. Source materials include 'state of the art' articles and volumes on CIT, CEE and NIS experience respectively (Therivel, 1997; Bellinger *et al.*; 2000, Cherp 2001 b,c) and status reports on SEA development prepared as part of the Sofia Initiative on EIA (Mikulic *et al.*, 1998; Dusik *et al.* 2001, Dusik and Sadler 2004). The Sofia Initiative has provided a flexible, co-operative framework for regional networking and exchange of views and information among SEA

¹ This chapter has benefited from information and inputs from a number of SEA experts from the Central and Eastern European region. In particular, we acknowledge the extensive review of an initial draft of this Chapter by Jiri Dusik of the Regional Environment Centre for Central and Eastern Europe (REC), who provided many valuable corrections and additions. Other valuable contributions came from Ingrid Belcakova, Leyli Bektashi, Ursula Rzezsot and participants at a REC workshop on SEA of National Development Plans, Szentendre, Hungary, 28-30 April, 2003.

² The countries in transition that joined the EU on May 1 2004 were Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia and Slovenia.

³ Balkan countries comprise Albania, Bosnia-Herzegovina, Croatia, Federal Republic of Yugoslavia (Serbia and Montenegro), Kosovo (UN administered territory) and Macedonia.

⁴ Newly independent states comprise Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russia, Tajikistan, Turkmenistan, Ukraine and Uzbekistan.

⁵ A review by Therivel (1997) of SEA in the Czech Republic, Hungary, Poland and the Slovak Republic provides a basis of comparison with the situation reported in this Chapter (see Appendix 5).

administrators and professionals (see Box 5.1). Most importantly, it established a body of pilot and demonstration projects on SEA practice and their lessons for CEE application and process development. The examples provided concrete guidance on SEA approaches and methods that work in a CIT context, recognising these need to be adapted to distinctive arrangements and rules in place in national jurisdictions.

Box 5.1: Sofia Initiative on Strategic Environmental Assessment

Under the *Environment for Europe* process, substantial progress has been made in implementing the Environmental Action Programme for Central and Eastern Europe (EAP), which recommends that priority environmental problems should be tackled through a mix of policy, institutional and investment measures. Following the Sofia Conference of Ministers of the Environment (1995), the initiative on the 'Application of EIA' was jointly implemented by the Ministry of Environment of the Republic of Croatia and the Regional Environmental Centre for Central and Eastern Europe (REC) and financially supported by a number of donors. The Sofia EIA Initiative gave a high priority to the development and use of SEA in CEE countries, which built initially on existing requirements in EIA laws or elements in land-use planning laws and later addressed wider institutional constraints and capacity-building for SEA in the region. In this last respect, from 1996 to 2003, the Sofia Initiative on SEA was an important exercise in regional self-help and provides a model that might be adapted to wider application internationally. The main lessons are:

- *Establishment of a sound national consultative process can be seen as the most important starting point for the development of a sound SEA system in each country.* Donor agencies can assist by integrating this as a prerequisite for their support for SEA capacity-building in a particular country. The benefits of this approach are twofold: it strengthens the national institutional and policy processes; and it provides the basic framework for adjusting capacity-building programmes to the particular needs of each country.
- *A comprehensive capacity-building strategy should be developed before individual programmes begin.* Experience from the CEE region indicates that such a strategy should include the following components:
 - *Pilot SEA projects* to test and develop methods and procedures and to highlight good practice;
 - *Promotional materials* to explain the rationale for SEA to planners and decision-makers;
 - *Practical guidance* to explain the key elements of effective SEA to practitioners;
 - *Professional networking* of SEA practitioners to help share lessons and benchmark performance; and
 - *Training* to build core professional capacities to undertake SEA.
- *Capacity-building should facilitate comprehensive learning about all relevant international SEA norms and standards.* Donor agencies often promote a particular SEA system or process. Even though it is unrealistic to expect that they will establish a uniform approach to SEA training and capacity-building, more could and should be done to introduce and compare the advantages and disadvantages of SEA arrangements and practices, recognising these vary more than with project EIA.
- *Regional East-East and South-South networking should replace traditional programmes based on one-way transfer of experience from the North.* The Sofia SEA Initiative was implemented by CEE institutions for CEE participants who jointly addressed the specific needs of the countries involved. It promoted regional and national policy debates on the introduction of SEA and pilot projects to test new approaches. Much of the value from these exercises came from professional exchange and learning from each other.

Source: Dusik (2003b), Dusik and Sadler (2004).

Major changes in SEA systems are underway in CEE countries and may be pending in newly independent states. The eight CEE member states that have joined the EU are in the process of amending or introducing SEA legislation to conform to the requirements of the EU SEA Directive (2001/42/EC). Other CEE countries having accession agreements with the EU almost certainly will follow a similar course in the next few years. In the longer term, it is also likely that certain Balkan states and possibly some NIS will establish SEA legislation that is harmonised with SEA Directive. For NIS, however, the SEA Protocol to the Espoo Convention may be the more important international legal instrument. A number of NIS became signatories to the SEA Protocol at Kiev in 2003 and it is likely that much of the work of the parties on SEA process development and capacity-building will focus on this block of countries.

5.1 Newly Independent States⁶

EIA-type frameworks that include SEA elements are in place in nearly all newly independent states. Although arrangements vary, they have common features based on the system of state environmental review (SER also called "ecological expertise") of all planned actions including strategic proposals. This process was established in the former Soviet Union in the mid-1980s as a largely internalised procedure undertaken by the responsible environmental authority or through an appointed committee of experts (Cherp and Lee 1997). It underwent various reforms before the disintegration of the Soviet Union. Most notably, EIA requirements (called OVOS or assessment of environmental impacts) were established alongside the SER procedure.

The SER/OVOS system was inherited more or less intact by the newly independent states (NIS) that emerged from the end of Soviet Union in 1991. Since then, this system has been variously retained or reformed by individual NIS and there are important regional variations in national legislation and procedure as described below. In comprehensive form, the SER/OVOS regime comprises two interdependent sub-systems, which are regulated by different acts, implemented by different actors and guided by different objectives (Khotuleva 2002). Despite considerable progress, this approach remains firmly anchored on SER foundations with OVOS applied primarily at the project level and both procedures are insufficiently delineated or applied in relation to strategic proposals. As such, SER/OVOS systems represent an interim step toward SEA as understood internationally. It has elements that can be classified as a para-SEA process under the schema outlined in the introductory chapter, although these are difficult to define unambiguously.

5.1.1 Main features of SER/OVOS systems

The distinctive features of SER arrangements that are followed in most NIS include the following (Cherp 2001a, 2002):

- SER is intended to apply to all planned actions, including strategic proposals;
- The environmental authority has a dominant role in the SER process (whereas the developer is responsible for the preparation of an EIA report under the OVOS procedure at the project level);

⁶ Much of the introductory analysis in this section is based on Cherp (2001a).

- In principle, SER applies to all plan or project documents including, where applicable, the OVOS or EIA report and related materials;
- This process addresses the environmental acceptability of the proposed activity as a whole, rather than only identifying the impact on the environment;
- SER resolutions (or conclusions) are legally binding on decision-making. A 'negative' conclusion means that a proposed activity cannot proceed and in all other cases the SER terms and conditions should be implemented.

Procedurally, SER/OVOS systems differ from EIA/SEA frameworks as applied internationally in a number of important respects as identified in a recent World Bank review (Klees *et al.* 2002):

- SER/OVOS processes lack appropriate checks and balances beginning with screening, which is so broad and indiscriminate as to include nearly all proposed actions including minor ones. In turn, the sheer volume of activities reviewed at all levels leads to problems of avoidance, cost and delay on the one hand and to superficial examination of environmental aspects on the other hand. Moreover, scoping is an 'internal' procedure rather than a mandatory requirement under both SER and OVOS provisions of most NIS.;
- Although many NIS have ratified both the Aarhus and Espoo Convention, SER/OVOS frameworks lack transparency and do not fully adhere to the principles of public involvement. For example, legal provisions do not clearly define the rights of the public with respect to disclosure and examination of documents. Only Moldova, and to a lesser extent Georgia and Ukraine, are reported to have addressed these deficiencies directly;
- In most NIS, there is provision for the independent organisation of 'public environmental expert review' (PER) of information and submission of comments. Although this is a potentially far-reaching and internationally significant provision, usually there are no procedural stipulations relating to the review or consideration of comments.

5.1.2 Regional trends and variations

During the past decade, the SER/OVOS systems of individual NIS have been variously reformed in response to both internal and international trends. However, these trends have proceeded at different rates and in several directions, which *inter alia* still fall short in addressing strategic proposals. In Cherp's (2001a ??) schema, their patterns of development and current status are grouped into three main categories (see Table 5.1):

- Five countries (Ukraine, Belarus, Kazakhstan, Turkmenistan and Russia) have retained and reformed the previous SER system through the enactment and implementation of new national legislation. Although, formally, SER must be applied to all planned actions (above), in practice, many strategic proposals are not subject to this procedure;
- Three countries (Armenia, Georgia and Moldova) have introduced EIA systems that correspond to internationally accepted steps and elements. However, their implementation has proven difficult and proceeded slowly and, in practice, this group still relies on SER-based procedure with relatively limited coverage of strategic actions;

- Four countries (Azerbaijan, Kyrgyzstan, Tajikistan and Uzbekistan) continue to follow the old SER procedure and, in practice, there is little or no application at the strategic level.

Table 5.1: SER/OVOS systems in NIS

(Source: Cherp 2001a ??)

Countries	Features of SER/OVOS system
Belarus, Kazakhstan, Russia, Turkmenistan, Ukraine	Soviet SER/OVOS system were strengthened by national EA legislation (1993 onward). Now substantial experience with implementing these procedures
Armenia, Georgia, Moldova	National EA legislation (1995 onward) introduced western elements of EA. Implementation of these procedures still limited
Azerbaijan, Kyrgyzstan, Tajikistan, Uzbekistan	No new national EA legislation introduced and practice, where it exists, follows Soviet-style SER procedure

A somewhat different perspective emerges when NIS legal frameworks are compared with World Bank Operational Policy 4.01 as a proxy for internationally accepted procedural standards. Using five broad evaluation criteria⁷, the Bank ranked SER/OVOS systems on three levels of comparability (Klees *et al.* 2002):

- *High comparability* - indicating a legal framework and process that includes all internationally accepted elements and requires only minor adjustments (only Ukraine qualified from the NIS block);
- *Medium comparability* - indicating evident progress in updating legislation but with issues related to implementation, compliance and enforcement of various provisions and the involvement of the public (Georgia, Moldova, Kazakhstan, Russia, Kryrgyzstan, Uzbekistan, Azerbaijan and Turkmenistan – listed in order of ranking);
- *Low comparability* - indicating limited progress in the development of an EA system (Armenia, Tajikistan and Belarus – in order of ranking). NIS and other countries in this group (mainly from South Eastern Europe) will require significant medium-term assistance to develop EA frameworks and the institutional capacity to deliver them, especially at the strategic level.

⁷ The ranking criteria reflect the provisions of the World Bank, the European Commission and internationally accepted EIA framework and elements, comprising (Klees *et al.* 2002):

- a) firmly established legal basis
- b) transparent screening and well-coordinated scoping process
- c) timely, transparent and meaningful public participation
- d) compliance with all applicable laws and standards
- e) clarity and modernity of EIA and integrated consideration of social, transboundary and global impacts.

5.1.3 Implementation of SER provision and procedure

To date, there are no examples of SEA arrangements in NIS that are comparable to international legal or policy instruments. Nevertheless, SEA requirements and elements have been instituted widely, eg in the Russian Federation although they may not be called that (Grishin 1997). In most NIS, provision for coverage of strategic actions is made under SER rather than OVOS frameworks (which are in place in Armenia, Kazakhstan and Moldova). Strategic actions, *prima facie*, include development plans, national policies and legal acts and regulations (see table 5.2). However, as Cherp (2001c) notes, SER procedure for strategic actions is rarely specified or differentiated from that applied at the project level and there appears to be a mechanical extension of requirements from one to the other. According to Klees *et al.* (2002), OVOS legislation also applies to policies, plans and programmes without specifying the procedure to be followed but, in practice, it is rarely applied at this level.

Table 5.2 OVOS/SER application to strategic proposals
(Source Klees *et al* 2002)

System	Development plans	National policies	Laws, regulations
OVOS	Armenia, Kazakhstan, Moldova	Armenia, Kazakhstan, Moldova	Armenia, Kazakhstan, Moldova
SER	Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russia, Turkmenistan, Ukraine	Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russia, Turkmenistan, Ukraine	Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russia, Turkmenistan, Ukraine

From a SEA perspective, these concerns raise general questions about the adequacy of the SER legal framework and the consistency of its procedural application at the strategic level. These aspects also might be expected to differ with the regional variations noted above; notably, for example, among NIS systems that are rated respectively low, medium and high in comparison with internationally accepted standards. With reference to these categories, a second perspective on the SER/OVOS regime in selected NIS is provided in Box 5.2. In all cases, however, there seems to be a wide gap between legal frameworks and their implementation. In reality, NIS practice is not well known, particularly at the strategic level, and there are differences of opinion on its extent and effectiveness. This is evident, for example, in recent reviews of SER /OVOS experience in NIS (in general) and in the Russian Federation (in particular), although rapid changes are taking place with new facets of SEA emerging (see Cherp and Golubeva, 2004).

Box 5.2: State environmental review (SER) in NIS Countries

In the post-Soviet era, SER procedure (also called state ecological expertise) has been retained as the main cornerstone of EIA and SEA-type processes in the NIS block. With the introduction and adoption of OVOS (as an EIA-equivalent), a dual approach has emerged in which the scope and quality of the OVOS report are determined by SER requirements. As such, SER remains the predominant procedure with or without OVOS (and not all NIS have established this latter system). Where it is linked to OVOS, SER combines the functions of evaluation of the environmental acceptability of the proposed development, particularly its compliance with environmental norms and planning standards), and quality control of an EIA, which is conducted by the developer (i.e. OVOS). SER resolutions are legally binding but, in some cases, this provision does not apply to strategic actions. The comparability of SER frameworks with internationally accepted standards varies from low through medium to high (based on rating against World Bank OP 4.01). For each category, national experience with particular reference to strategic proposals is described for selected NIS.

Belarus (low comparability with internationally accepted standards)

The Soviet system of SER (introduced in 1989) remained in place in Belarus until superseded by national legislation on Environmental Protection (1992) and on State Environmental Review (1993). The provisions of the latter were further refined in 1995 by the Ministry of Environment in the Instruction on the Order of Conducting SER of Project Documentation. SER is mandatory for “all economic and other activities” including development plans and programmes. As its full title indicates, the 1995 Instruction defines the SER procedure only in relation to projects. No guidelines are specified for strategic actions and SER at this level is carried out on an ad hoc, case-by-case basis by staff of the Ministry of Natural Resources and Environmental Protection (Cherp 2000). Other legislation has SEA-related provisions, notably planning norms that require city master plans to include a chapter on protection of the environment, which is subject to SER during the planning process. According to Elizarova *et al.* (1998), this is the only specific and enforceable Belarus law that approximates to a SEA legal instrument as understood internationally, although it does not include key procedural requirements such as consideration of alternatives (see also Box 5.3).

Kazakhstan (medium comparability with internationally accepted standards)

Under Kazakhstan law, SER is mandatory for all projects and certain strategic actions including development plans. The enabling legislation is the Environmental Protection Law (1997, amended 1998, 1999), which mandates SER and public environmental expert review (Articles 63 – 65) and certain requirements for and applicable to EIA (Articles 35 – 42, 46 – 62). Articles 46 and 63 of the Environmental Protection Law refer to SEA. Stipulations regarding EIA and SER of policies, plans, programmes and legislation are included in the Ecological Expertise (Review) Law (1997). However, as in other NIS, these are non-specific and SEA-related requirements and procedures need to be better defined according to a World Bank review of the Kazakhstan legal regime (Klees *et al.* 2002). There are also some positive procedural steps and elements, particularly at the screening phase; for example, types of activities and planning, programme and project documentation that are subject to SER are identified in the Ecological Expertise (Review) Law (1997). In addition, articles in this legislation and the Environmental Protection Law (1997 as amended) establish requirements for the public participation in the OVOS and SER procedure. However, the World Bank review recommends that the government should regulate timely, transparent and meaningful public participation at the national and other levels (Klees *et al.* 2002). As a Party to the Aarhus Convention (2001), Kazakhstan has accepted international obligations in this area.

Ukraine (high comparability with internationally accepted standards)

Ukraine operates a reformed version of the former Soviet SER/ OVOS system, which is relatively well defined in law and practice. Enabling provision is made in the Law on Environmental Protection

(1991). This requires, *inter alia*, the application of SER to all levels of economic activity (Articles 50, 51 and 59). Detailed provision for SER is made in the Law on Environmental Expertise (1995) together with general requirements for OVOS (EIA), which are set out in Article 36. SER application is stipulated for listed types of project and strategic actions and these cannot proceed without a positive conclusion from this process. Detailed guidance on the form and content of EIA materials is given in OVOS Regulations and State Construction Norms DBN A.2.2-1-95 (*Structure and Content of Documents on EIA (OVOS) in Designing and Construction of Business, Houses and Buildings: Main Designing Principles*). The World Bank review of SER/OVOS legislation in NIS gave Ukraine high marks on basic provision and on screening and scoping procedure. But it also notes that transposition of obligations under the Espoo Convention (ratified 1999) still needs improvement (Klees *et al.* 2002). Similar ratings are given for public participation provisions at critical stages in the SER/OVOS process. As with other NIS, Ukraine has ratified the Aarhus Convention (in 1999) and made progress toward transposing its requirements.

Source: Dalal-Clayton & Sadler (1998a) updated from materials cited

5.1.4 SEA practice in NIS

Cherp (2001 a,b,c) provides analyses of SER applications in different NIS and draws several conclusions and observations that appear to apply generally, in many cases, to SER of strategic actions (Cherp 2001c):

- Strategic actions are subject to SER even in more conservative NIS, although the majority are lower level physical plans or schemes and applications to policy are relatively rare;
- The main focus of SER is on compliance with formal provisions regarding the content of planning documentation and mandatory approvals, and on meeting environmental protection norms and objectives;
- Most SER applications that reach positive conclusions impose environmental conditions, but these refer primarily to subsequent project EIA and there is little evidence that strategic actions are modified other than superficially during their preparation;
- These outcomes reflect the basic features of SER features described above, notably the indiscriminate application of the process across a wide range and large number of actions, and the use of relatively simplified, technocratic procedures, which, together, encourages a limited, pro-forma approach;
- Moreover, SER practitioners must decide on the environmental acceptability of a strategic proposal without necessarily having a full understanding of the social and economic effects, or views and information from public consultation (a concern that applies well beyond NIS);
- SEA elements and principles are built into certain strategic planning procedures, particularly land use and urban plans that were elaborated through the former Soviet process of territorial integrated schemes for nature protection (so-called TerKSOPs, see section 5.1.5). Recent reforms in land-use planning did not incorporate a strong SEA dimension for the same reason that this did not occur in the SER/OVOS systems, i.e. internal resistance to intrusion into policy and planning mandates and lack of strong incentive to do so.

- Where reforms are being made to OVOS regulations, as currently (July 2004) in Belarus, the disparity between SER practice at the project and strategic level will become even more evident. It is possible this may lead toward improved SEA procedure, but much may depend on Belarus adopting the SEA Protocol and on the capacity-building activities of international agencies (Box 5.3).

Box 5.3 Status of SEA practice in Belarus

Belarus has inherited a Soviet SER/OVOS system which has been modified by the Laws on SER (1993 and 2000) as well as by several ministry-level regulations (see also Box 5.2). New OVOS Regulations (2004) prescribe EIA procedure for projects in great detail and are at the stage of adoption by the government. Departing from the previous system, they specify a multi-stage procedure involving screening, scoping, preparation of an EIS and public consultation procedure in line with the requirements of the Aarhus Convention. The EIS (OVOS report) and all project documentation should undergo an SER procedure, which ensures the “environmental suitability” of the proposed development.

According to the law, SER is also mandatory for the following strategic documents:

- Concepts, programmes (including investment programmes) and schemes of sector and territorial social and economic development;
- Schemes of complex use and protection of nature resources;
- City construction documentation (general plans of cities and settlements, designs and schemes of detailed designs).

However, there is no legally defined or prescribed procedure for SER of strategic documents. As a result, while SER at the project level is relatively widespread and practice is effective (3000-4000 cases a year with 5-10% of projects rejected or modified as a result of SER), SER of strategic activities is very rarely conducted and, when undertaken, is not based on a systematic assessment procedure. Several SERs of urban master plans of larger cities (e.g. Minsk) have been conducted in recent years, reportedly resulting in environmental improvements in plan content. In addition, an SER of a national programme of industrial development was conducted and an NGO prepared an informal SEA of the National Strategy for Sustainable Development in 2003.

At the same time, there are a large number of programmes in the field of economic and regional development, transport, tourism, agriculture, forestry, energy, etc. developed in Belarus, which are not undergoing any systematic SEA. The government is currently contemplated to sign the UNECE Kiev SEA Protocol and this may improve the situation. The UNDP and REC are currently planning a set of capacity-building activities to facilitate the development of SEA in Belarus.

Source: Prepared by Aleg Cherp (Central European University, Budapest)

5.1.5 Recent developments and issues in the Russian Federation

An in-depth evaluation of the Russian SER/OVOS system was undertaken recently by the World Bank (von Ritter and Tsirkunov 2002). It was precipitated by the abolition of the State Committee of Environmental Protection (SCEP) and the transfer of SER/OVOS responsibilities to the Ministry of Natural Resources (MNR). From a Bank perspective, the immediate concern was

whether or not SER/OVOS implementation in the Russian Federation was sufficiently robust to ensure environmental compliance with the terms of project, programme and policy-based lending agreements. This new operational regime also became the focus of wider attention, internationally and within Russia, where there were differing interpretations. These ranged from the official view that the SER/OVOS system was intact and functioning to NGO concerns that it had collapsed and was unable to implement basic requirements (Khutoleva 2002).

While there is considerable information on SER/OVOS arrangements, far less is known about how this process works in practice, or performs against internationally accepted principles of EIA and SEA (see Box 5.4). Under the applicable Russian legislation, SER is mandatory [SER, Art. 11,12] and OVOS may apply to strategic actions, including policies, plans, programmes, and draft legislation. As in other NIS, however, there are no specific guidelines that apply at this level and implementation of the basic provision depends largely on the interpretation of the competent authority and government. Overall, SER/OVOS implementation and performance in relation to strategic actions has been rated by a World Bank study as low to medium (between 2 or 3 on the following scale⁸) (von Ritter and Tsirkunov, 2002)

- 1 – SEA provision is rarely applied;
- 3 – SEA is sometimes applied, but practice varies because of lack of clear guidance; and
- 5 – SEA is regularly applied in accordance with procedural framework and regulations.

Box 5.4: SEA application in the Russia Federation

Recently, significant modifications have been made to the Russian SER/OVOS regime. While some of these developments are positive, other aspects have weakened its implementation. In practice, there is a lack of clarity regarding procedures and their application, particularly at the strategic level. Also, recent legal and regulatory reforms were initiated without clear direction, interpreted differently and implemented unevenly across the regions (*oblasts*) of the Russian Federation. Since then, on-going restructuring and downsizing has led to declines in institutional capacity to implement EIA and SEA-related processes and to effectively apply SER expertise. A recent review by the World Bank probed into the effectiveness of the Russian SER/OVOS arrangements and their on-the-ground application (von Ritter and Tsirkunov, 2002)

Adequacy of legislation: The legal foundations of Russia's SER/OVOS system are, *prima facie*, reasonably strong. They include the Law on Ecological Expertise (SER, 1995), Regulations on the Assessment of Environmental Impacts (OVOS, 2000) and the recent Law on Environmental Protection (2002). Under the latter, measures have been introduced to integrate the SER and OVOS components or sub-systems, although they still remain separate processes (see below). Certain elements of internationally accepted EIA and SEA processes are present, at least in embryonic form and, over the last 10 years, new features have been added. These include enabling language that allows regions to develop screening guidelines to distinguish among complex, medium, and simple actions and stronger requirements for public participation and information disclosure. Overall, the legal and regulatory framework is assessed as satisfactory (rating of 4 out of 5), providing a supportive framework for EIA and SEA but requiring refinement and attention to procedural gaps.

Effectiveness of implementation: On closer inspection, the SER/OVOS regime is not implemented coherently or systematically and the two sub-systems are not well coordinated. Despite enabling legislation, only a few SER offices have actually developed screening and scoping guidelines, e.g. Moscow City has prepared a draft regulation. Regions give different explanations for this situation,

⁸ Note that points 2 and 4 on this scale are not defined. The intervening score are subjective.

although ambiguity and ambivalence in responsibilities of central and territorial authorities is an underlying factor. Without such guidelines, case-by-case decisions are made and this adds to preparation costs and time, creates uncertainty and, in relation to strategic actions, allows proposals to escape prior SER. Also, only EIA (OVOS) procedures have been developed and, in many cases, these are not designed for SEA application. Certain provisions that might, potentially, be used to address this concern (eg the right of NGOs to organise Public Environmental Expert Reviews (PER)) must be placed in the context of structural realities such as *de facto* state secrecy and control of mass media. Overall, the implementation of the SER/OVOS regime is rated as medium-low, reflecting the reality that requirements are not always followed, opportunities provided by the law to apply the system are missed, and there are perverse incentives to circumvent application to strategic proposals.

Source: von Ritter and Tsirkunov (2002)

Secipiuically, the World Bank study concluded that it, in practice, was reasonable to assume that only a small fraction of strategic proposals is subject to formal SER procedure. The failure to implement this provision is a systemic weakness that relates both to procedural deficiencies noted above and to more fundamental, structural constraints and consequences of recent legal and regulatory reforms (Box 5.4. However, the Bank evaluation also noted a number of positive aspects and examples that can be built on. Box 5.5 provides a case example of a major city plan that was subject to formal SER procedure and included additional SEA-type elements. Other reviews that could be classified as approximating toward SEA were undertaken outside the SER/OVOS system as part of other frameworks, such as the Regional Environmental Action Plan for Greater Rostov and the Sectoral Environmental Action Plan for the chemical industry.

Box 5.5: SEA of the Moscow City Master Plan for the Period to Year 2020

Moscow City has a long tradition of urban planning and this process became progressively more systematic in later part of the 20th century. The Moscow City Master Plan for the Period to Year 2020 was developed in 1997-1999 in accordance with existing Russian planning regulations and subject to SER procedure. Other additional, positive elements of SEA approach were also integrated within (and reinforced) the planning process.

In this case, the major innovation introduced by the developers (the Moscow City Committee for Architecture and Town Planning) was to make the relevant documentation available to all the stakeholders through a permanent exhibition (opened in late 1998). Various aspects of the Master Plan, including environmental, socio-economic, sustainability, health and risk issues, were the focus of expert and public consultation prior to its approval. The Master Plan was adjusted to consolidate the most important comments and suggestions, and was amended later to incorporate the results of the SER of the Plan (carried out in March 1999).

These additional elements helped to overcome some of the typical deficiencies of the SER approach, such as lack of consideration of alternatives and limited public participation. The greater transparency resulted in increased public trust in the mechanisms of planning and decision-making and in the commitment of the government to improve social, economic and environmental conditions of the population. Finally, this example appears to have inspired a number of other regions of the Russian Federation to initiate similar SEA-type approaches (beyond SER procedure) as part of their planning processes.

Sources:

(a) Leyli Bektashi (based on SEA research in countries in transition undertaken at the University of Manchester)

(b) Moscow City Government (2001) Moscow City Master Plan for the Period to Year 2020 and Its Implementation <http://www.mos.ru/progr/genplan2020.htm>

5.2 Central and Eastern Europe⁹

Most of the countries of Central and Eastern Europe (CEE) have made provision for some form of SEA including at the policy level. Recently, the pace of SEA adoption and adaptation in the region has been rapid and impressive. For example, Czech Republic, Slovakia and Poland have established relatively advanced legal frameworks and built a solid record of SEA practice. Other CEE countries are in different phases of SEA process development and implementation as described below. These activities have been assisted by a continuing exchange of information and views on aspects and lessons of SEA experience within the region under the Sofia Initiative. By many standards, this represents one of the more successful innovations in SEA capacity-building, networking and, above all, self-help undertaken by the countries concerned and within the region (see Box 5.6).

This section describes SEA trends, issues and practice in the CEE region with reference to:

- the foundations of SEA arrangements in place in CEE countries;
- regional trends and issues in SEA law, process and practice;
- the predominant relationship between SEA and land use planning;
- recent experience with SEA of national and regional development plans under the EU accession process; and
- emerging developments in SEA practice at the policy level.

5.2.1 *Origins of SEA in CEE*

In the communist era prior to 1989, the majority of CEE countries had well established and relatively sophisticated planning systems. These included macro-economic, sector development and spatial planning systems and procedures. From an environmental perspective, land use planning was a particularly important instrument for overall financial allocations to competing activities and co-ordination of other processes at the local and regional levels, for example, providing an arena for negotiating limits on the use of a territory. This role distinguished the planning experience in CEE countries from that in former Soviet Union, where land-use planning

⁹ This section draws heavily on Dusik, Sadler and Mikulic (2001), Dusik (2003b) and Dusik and Sadler (in press).

Box 5.6: Examples of legal provision for SEA in CEE countries prior to transposition of Directive 2001/42/EC

Currently, several CEE countries have legislative provision for SEA. Key developments are summarised below:

- **Bulgaria:** The Bulgarian EIA system is based on Chapter 4 of the Environmental Protection Act (1991). The stipulations of the Act are elaborated and EIA procedures are defined by Regulation No. 1 (1993). The application of EIA is related to a final decision-making process, such as the approval of a plan or programme, or a specific project. Under the law, an EIA must be carried out for national development programmes, territorial development and urban development plans, as well as for specific projects.
- **Czech Republic:** The Law on Environmental Impact Assessment (No. 244/1992) applied to certain “development concepts” that are submitted and approved at the level of the central authorities of State Administration in the fields of energy, transport, agriculture, waste treatment, mining and processing of minerals, recreation and tourism (Article 14). Under this law, territorial planning documentation and the General Water Management Plan were also ‘concepts’. With the amendment of the Czech EIA Act (100/2001), Article 14 or the SEA component was left as a free standing EIA of Concepts Act (254/2001). In 2004, Czech EIA legislation was consolidated and amended as part of the transposition of the SEA Directive.
- **Estonia:** The Law on Environmental Impact Assessment and Environmental Audit was passed in June 2000. In Article 22, SEA is defined as “an assessment of the potential environmental impact resulting from activities proposed by a plan, national development plan or programme”. The Act requires potential impacts to be assessed in the course of drafting plans. It also requires that the assessment shall be published together with the plan, pursuant to the requirements of the Planning and Building Act, and that the SEA statement constitutes a separate part of a plan, national development plan or programme.
- **Lithuania:** The Environmental Impact Assessment Law (1996) requires initial EIA of all territorial planning. This law, together with the Territorial Planning Law of 1995, regulates the EIA process for development. The development process is defined as beginning with planning and continuing to a full EIA on technical projects, thereby establishing the basis for an integrated approach. Government resolutions 1305 (1996) and 456 (1997) respectively identify requirements for informing the public and activities that shall be subject to a full EIA.
- **Poland:** The Law on Access to Information on the Environment, its Protection and Environmental Impact Assessment (2002) incorporates key requirements of EC EIA Directives 97/11, 85/337 and 90/311, SEA Directive (as then proposed in COM/96/511, COM/99/73) and the UNECE Espoo and Aarhus Conventions. The SEA requirements apply to policies, plans and programmes that are required by law (as opposed to administrative provision). A uniform public participation procedure applies to EIA and SEA and is governed by the provisions of the Aarhus Convention.
- **Slovakia:** The Slovak Law on Environmental Impact Assessment (EIA Act 127/1994, amended 2000) provides for a comprehensive approach to SEA. Part 4 of the EIA Act (Article 35) outlines a brief procedure for EIA which is obligatory for proposed development policies in the areas of energy supply, mining, industry, transport, agriculture, forestry and water management, waste management and tourism and for legislative proposals that may have an adverse impact on the environment. In addition, EIA is required for territorial planning documentation for regional and residential settlement in selected areas and for plans of optional location of liner constructions (transport, pipelines).

- **Slovenia:** Under Articles 53 and 54 of the Environmental Protection Act (nos. 801-01/90-2/107, 1993), EIA is required for physical plans. Specific regulations for EIA of physical plans have not yet been adopted but, according to Article 54.2, a comprehensive EIA study must be prepared by the body responsible for the preparation of the physical planning document or sector plan. Under Article 51, planning, programming and designing of activities shall be based on an environmental vulnerability study.

played a relatively minor role in state decision-making compared to sector and macro-economic development plans, and contributed to differing evolution of SEA in CEE and NIS regions. The three Baltic countries (Estonia, Latvia and Lithuania), although previously part of the former Soviet Union, have a post-communist history that has far more in common with other CEE countries and are now considered part of this larger regional grouping.

Most CEE countries had similar legal frameworks for land-use planning, which included basic rights for citizens to comment on proposed plans and stipulations related to protection of the environment and public health. With the exception of the former Yugoslavia, however, these were only partially implemented. At the regional and local level, for example, environmental analyses were carried out, including mapping environmental vulnerability and resource potentials and identification of the effects of the land-use options on areas of importance for landscape or nature conservation. Only rarely, however, were these analyses influential in decision-making on major industrial developments. Despite environmental and public health standards, centralised state planning under the communist regime resulted in a legacy of severe environmental problems, such as high levels of air and water pollution and large areas of contaminated land.

5.2.2 Recent developments in SEA arrangements and implementation

The collapse of socialist regimes started a period of democratisation, economic restructuring and institutional reforms, including the overhaul and modification of central planning systems and their infrastructure. Land-use planning systems were considerably simplified but remained a major decision-making instrument. Many CEE countries introduced EIA requirements within deregulated spatial or land-use planning frameworks integrated them with elements of traditional environmental analyses (e.g. in Bulgaria, Czech Republic, Lithuania, Poland, Slovakia and Slovenia). In addition, EIA legislation in CEE countries also applies to certain plans and programmes at the sector level. Generally, there is less experience at this level compared to SEA of spatial plans, although sector applications are increasing rapidly in some countries and others have undertaken pilot studies (see Table 5.3).

Some countries, notably Czech Republic, Slovakia and Poland, have provision for SEA of strategies and policies, as well as plans and programmes (see Box 5.6). In the first two cases, SEA applies to ‘concepts’ that are submitted to national governments for approval. These requirements were not systematically implemented in the early phase of EIA development (from 1992 in Czech Republic and 1994 in Slovakia) because there was a lack of understanding of what such a process might entail¹⁰ and, consequently, little or no procedural guidance. Pilot applications

¹⁰ This illustrates the nature of these early reform processes when legal frameworks were often formulated on an experimental “trial and error” basis.

Table 5.3: Overview of the status of SEA provision in CEE countries

(Source: [Dusik and Sadler 2004](#))

Level of SEA	Legal frameworks	Comments on practical application
Plans and programmes within a framework of spatial planning	<p>Partial environmental analyses in land-use planning required in all CEE countries since 1980s.</p> <p>SEA of key spatial planning documents required in Poland (1991), Bulgaria (1992), Czech Republic (1992), Slovenia (1993) Slovakia (1994) and Lithuania (1996).</p> <p>New SEA frameworks to be established by the transposition of the SEA Directive by July 2004</p>	<p>Partial environmental analyses still used extensively within land-use planning systems in virtually all CEE countries.</p> <p>SEA in land-use planning most extensively applied in Poland, where over 300 regional and local land-use plans have been subject to SEA since 1991. SEA also applied for land-use plans in Bulgaria (over 130 SEAs for local urban plans since 1997) and Czech Republic (over 25 SEAs for regional land-use plans since 1992), although both countries report problems in effective integration of SEA into planning.</p> <p>SEA practice in Slovakia, Slovenia and Lithuania still in early stage of development, partly because of a lack of official guidance</p>
Sectoral plans, and programmes outside spatial planning framework	<p>Legal provisions for SEA established in Czech Republic (1992), Slovakia (1994), Poland (2000), Estonia (2000) and Bulgaria (2001).</p> <p>New SEA frameworks to be established by the transposition of the SEA Directive by July 2004.</p>	<p>Practice rapidly emerging in Poland (for instance, over 30 SEAs reported on regional level in 2002–2003).</p> <p>Quite extensively used in the Czech Republic (over 15, mainly national, SEAs till 2003)</p> <p>Initial practices emerging (for instance, 5 SEAs projects up to 2003) in Estonia</p>
Programming documents for EU structural funds in all EU accession countries	<p>EC Regulation 1269/99/EC (EC, 1999) and related EC guidance (EC 1998) requires applicant countries to carry out thorough ex ante assessment that covers also environmental issues for all development plans and subsequent operational programme</p>	<p>SEA applied to 9 national plans and programmes for EU structural funds in the Czech Republic between 2000 and 2003</p> <p>Large-scale pilot SEAs for key programming documents for EU structural funds undertaken with donor assistance in Estonia, Hungary, Poland and Latvia</p> <p>Smaller-scale pilot projects to test possible SEA application within the programming process for EU structural funds in Slovenia and Bulgaria.</p>
Policies	<p>General legal provisions established in Czech Republic (1992), Slovakia (1994)</p>	<p>10 SEAs completed in Czech Republic and 4 in Slovakia for</p>

	and Estonia (2001)	national policies up to 2003. First pilot SEA applications for national policies or strategies undertaken in Poland and Estonia
Legislative proposals	Legally required in Slovakia (1994) and Hungary (1995)	Occasionally applied in Hungary. Practice in Slovakia limited by lack of official guidance

at this level of decision-making began in 1997 when both countries undertook large-scale SEAs of their respective national energy policies. Since then, considerable experience has been gained with SEA of policy, particularly in the Czech Republic. To date, Slovakia remains the only CEE country with provision for SEA of legislative proposals, although there is no specific guidance on this requirement and only a pilot application has been made (SEA of the Slovak Waste Management Act in 2000).

As part of EU accession, most CEE countries have been engaged in a lengthy process of both structural and legal reform, including harmonisation of their planning and regulatory regime with that of the European Community. There have been two particular SEA developments of note in this region, in addition to countries improving existing planning frameworks (e.g. for waste or river basin management) and establishing new ones (e.g. for regional development):

- First, CEE countries were required to assess their proposed plans and programmes for future use of the EU Structural Funds in accordance with EC Regulation 1269/99/EC and subsequent guidance. Several countries have now carried out comprehensive SEA-type processes in that regard, including the Czech Republic, Poland, Estonia, Hungary and Latvia.
- Second, since 2001, CEE countries have worked on transposing the SEA Directive into their national legislation. This process was due to be formally completed by July 2004 following the CEE countries joining the EU and the SEA Directive entering into force.

At the time of writing¹¹, the new generation of SEA arrangements in CEE countries has still to emerge. In particular, it remains to be seen whether those countries that mandate SEA of policy will retain or remove that provision (it is not required by the SEA Directive and is discretionary under the SEA Protocol). This provision is enshrined in the amended Czech EIA Act (000/2004), which maintains the broad focus of SEA (e.g. covering policies, strategies, plans and programs) at all levels of government, while extending the procedure laid down in earlier legislation and the factors to be considered (see Box 5.7). Key requirements relate to early notification of the concept to the affected authorities prior to beginning a strategic planning process, to screening and scoping procedure and to other provisions laid down in Directive 2001/42/EC. Additional specific provisions apply to SEA of a land use plan document. The new Act also extends the scope of SEA to include consideration of the impact of 'concepts' on public health as well as the environment (i.e. consistent with the SEA Protocol).

¹¹ July 2004

Box 5.7: Second generation of SEA arrangements in the Czech Republic

In 2004, Czech EIA legislation was consolidated and amended as part of the transposition of the SEA Directive. The EIA Act (100/2004) includes new Article 10 that stipulates requirements for SEA of 'concepts' in listed sectors. Concepts cover policies, plans, programmes, strategies or other strategic initiatives that are prepared or adopted by public authorities and set a framework for activities that require EIA or that are co-financed by the EU. When such a concept is proposed, the proponent must notify – before formal initiation – the relevant environmental authority and provide comprehensive information about nature of the planning process. This information is used in SEA screening and scoping. If a SEA is required, this phase concludes with a determination of its scope and the manner in which SEA should be undertaken. The SEA report is prepared in accordance with this guidance and once finalised is subject to a public hearing and review by relevant authorities, including environmental and health bodies. The SEA process is concluded by a SEA standpoint on the proposed concept, which is issued by the relevant environmental authority.

Source : Prepared by Jiri Dusik (Regional Environmental Centre for Central and Eastern Europe)

5.2.3 SEA practice in land use planning

Between 1996 and 2003, the Regional Environmental Centre for Central and Eastern Europe (REC) and the Sofia EIA Initiative organised a series of workshops on SEA practice in land-use planning in the CEE region. This process has been instrumental in benchmarking the development and status of this process:

- Land-use planning and SEA procedure have many elements in common. Both require definition of issues, public participation and review of draft documents prior to submission to political decision-making. However, traditional land-use planning gives limited consideration to alternatives and assessment of their environmental and social impacts, and CEE countries have looked to strengthen this relationship;
- A particular issue of concern was whether SEA should be integrated into the planning process or conducted as a parallel, independent process in light of the realities, opportunities and constraints in different countries. These and related issues were addressed in a number of pilot experiments and practical applications undertaken by the agencies responsible (see below);
- Although progress has been made, SEA has yet to be fully integrated into land use planning processes and appropriate procedural and methodological guidance is lacking. Land-use planners in the region are reluctant to modify their procedures to incorporate or replace partial environmental analyses with more thorough assessment of the impact of a proposed plan;
- Other areas and aspects of SEA practice remain superficial. In particular, little or no attention is given to cumulative effects or to health and socio-economic impacts. However, this situation is beginning to change, particularly in respect of health. The latter is the focus of

increasing work as a result of the requirement to address health issues in the SEA Protocol;

- Quality and effectiveness of SEA practice are variable and in many countries have not yet advanced beyond a basic level. This reflects the lack of resources, procedural controls (checks and balances) and methodological guidance. Public consultation in SEA is widely promoted in CEE countries but, often, the reality is that opportunities are restricted and methods are inadequate;
- Despite such concerns, the overall trend is positive in CEE countries. It appears to be leading to better practice regarding SEA of land use plans and related processes. Recent experience indicates that SEA is becoming integrated within land use planning and decision-making processes. But there has been less progress than was expected at the outset of the Sofia Initiative on EIA, and experience varies among CEE countries.

Poland is widely considered to be a regional leader in this area of SEA practice (Table 5.3). For example, Parol (2003) reports that, since 1991, SEA-type processes have been applied to over 300 regional and local land-use plans, although formal requirements for SEA were introduced only in 1995 and applied only to the local level. SEA of regional plans has occurred under informal arrangements and pilot schemes that promote procedural integration of the steps of assessment in land-use planning (Rzeszot, 1999, 2001). By comparison, in the Czech Republic, approximately 25 regional land-use plans had been subject to SEA by the end of 2003. A relatively separate SEA-type process was used to compare land-use options - a compulsory requirement. SEA was based on detailed maps and overlays prepared under the direct supervision of the environmental authority (explain what 'environmental authority' means). A similar approach has been followed in Bulgaria, Slovakia and other CEE countries.

Reviews of initial experience with this approach indicate that a number of deficiencies remain to be addressed. In many cases, SEA was undertaken too late in the land use planning process to provide real input into, or to influence, decision-making. Early applications were hampered by a lack of practical guidance and readily available methods. In the interim, however, much has been learned from SEA practice. Examples of SEA of land use plans from Latvia (Box 5.8), Bulgaria (Box 5.9) and Slovakia (Box 5.10) illustrate evolving realities of CEE practice at this level (see also Table 5.3). These cases may be of wider interest when relating SEA and spatial planning in other transitional or start up situations.

5.2.4 SEA of sector plans and programmes

As indicated in Table 5.3, provision for this level of SEA has been made in several accession countries in the CEE region. Major sectors of SEA application include transport, energy, waste and tourism (and, as such, this experience may be seen as preparatory to implementation of the SEA Directive for the countries concerned). Except for Czech Republic, however, SEA practice is not extensive, although it may be stronger than realised from 'internally-driven' activities (see below). Notably, familiarity and experience with sector plan elements has been gained from SEA application within spatial planning frameworks, and in addition, SEA of sector plans and programmes in the CEE region often has a strong spatial dimension.

Box 5.8: SEA of the Jurmala Territorial Development Plan, Latvia

Located 30km from Riga, Jurmala occupies a narrow coastal strip between the Gulf of Riga and the River Lielupe. The administrative territory covers 8937 ha and is rich in natural resources. The town itself is well known in Latvia as a health resort and has approximately 60,000 inhabitants.

The territorial development plan is the basis for future land use in Jurmala and district. It is intended to establish the environmental and socio-economic pre-conditions for sustainable development. An area-wide assessment was undertaken to clarify resource potentials and optimise land use, with reference to ecological process and to different functions, e.g. cost-effective public transport and energy use, minimising impacts of development activities, setting aside natural areas such as wildlife corridors. In drafting the plan and undertaking the assessment, there were links to other policies and actions in neighbouring municipalities and the larger district, including work on planning for Kemer National Park where coordination was particularly close.

The Jurmala plan was developed during a transitional period in the political and planning systems of Latvia. Local officials were unfamiliar with the SEA-type approach, and with incorporating environmental considerations into decision-making. As a result, the assessment and planning components were not synchronised; public consultation and input into the process was minimal; and lack of experience and limited resources restricted the consideration of alternatives (which were accepted largely on technical rather than environmental grounds).

More positively, assessment primarily resulted in the incorporation of mitigation measures into the plan, including:

- Zoning terms and conditions
- Allocation of green space (eg wildlife corridors)
- Promotion of alternative transport (eg bicycles, footpaths)

In these circumstances, integration was totally dependent on how the early stages of the planning and assessment process were carried out and, equally important, who was present and from which authority. Essentially, the best results occur through personal contact and communication rather than sending out documents for review and feedback. As far as possible, planners and assessors should carry out their work jointly and with a specific aim of learning by doing from each other. This is important in transitional countries and situations where land use planning has not yet taken on a fully comprehensive environmental dimension and there is relatively little experience with the conduct of SEA

(Source: Rotbergh, 1998)

Box 5.9: SEA of the Varna Municipality Development Plan, Bulgaria

Introduction: The Varna Municipality Development Plan (MDP) was part of a World Bank financed programme of development of the Bulgarian Black Sea coast. This programme included the preparation of an Act for management of the Black Sea Coast and the surrounding area, the elaboration of the regional structure for the development of the Black Sea coast and the preparation of development plans for the 14 municipalities of this region. Each plan was subject to a pilot SEA and, collectively, these represented the first practical application of this process in Bulgaria. A number of problems were encountered in carrying out these SEA processes, including determination of the scope of the SEA, organisation of meetings for public discussion of the report and fulfillment of the conditions stipulated in the decisions. The SEA of the Varna MDP exemplifies the advantages and disadvantages of the approach taken.

Background: According to the Varna MDP, the municipality should function as a resort centre with tourism in the littoral zone as a priority development. The area has natural potential (preserved flora and fauna) and elements of cultural and historical heritage. But the quality of air and coastal water in the urban area does not meet required standards and there are concerns regarding the health of the population (high mortality rate). It is proposed to relocate some industries away from the coastal area, concentrating them in existing industrial zones. Infrastructure (water supply, sewerage, power and transport) and health facilities are well developed.

SEA process: The Bulgarian EIA system applies to national development programmes, territorial development and urban development plans as well as projects. SEA of plans is carried out in accordance with the requirements of the Environmental Protection Act (1991), EIA Regulations (1993, 1995) and the Territorial and Settlement Planning Act (date) and the special Regulations. Under this regime, the SEA procedure for plans is determined on a case-by-case basis by the Minister of the Environment and Water and is an obligatory requirement for the approval of a plan. The main purpose of SEA is to integrate environmental conditions into territorial and urban development.

Key elements of this process include:

- Use of registered experts to carry out the SEA independently;
- Public notification of the procedure and access to documentation;
- Mandatory identification of the reasons for the proposal, location, technological alternatives and measures for mitigating adverse consequences;
- Preparation of a statement describing the environmental conditions and impacts of the plan (e.g. on air, water, flora, fauna, relief, soils, landscape, cultural heritage);
- Obligation on the competent body to hold a public meeting to discuss EIA results;
- Opportunity for a legal appeal against the decision.

Dualities in approach to planning and SEA: In Bulgaria, as in other CEE countries, spatial planning is based on analysis of environmental conditions and potentials and of socio-economic infrastructure. SEA focuses on analysis of environmental elements and sensitivities in relation to plan priorities and directions. Inevitably, this duplication of environmental analysis within the planning and assessment frameworks has led to discussion about who should undertake this component (see also below). Similarly, both procedures require public participation when reviewing the final planning and assessment documentation. Potentially, this can lead to two different public participation processes. In reality, the two procedures are implemented by different administrations, which do not always consult each other. In this case, however, practical progress was achieved by the two responsible institutions for planning and assessment held a joint public meeting to review the results of both processes.

Major issues during the SEA process: As with other SEA pilots, there were problems regarding the scope of assessment and the type of information to be included. Regarding scope (particularly the description and analysis of the existing environmental situation), the lack of conformity between the legal provisions for territorial planning and environmental assessment was an issue. It is mandatory that spatial planning includes studying the existing environmental conditions in order to establish the development framework. SEA of plans and actions must also examine the existing situation. There was also considerable debate on whether the SEA should be based only on available data or would require further research.

This remains a major question as it applies to SEA of plans and has not been settled yet. In the Varna case, time and resource limitations meant that only currently available data was used, even though there were complex technical issues to be addressed regarding waste management, water supply and energy. Regional waste disposal is advocated in the plan because of limited space within the municipality but assessment experts preferred a local solution for effective control. Water supply and energy sources lie outside the municipality's territory and proposals for their future development had to be considered through an area wide assessment involving three neighbouring municipalities (Varna, Beloslav and Aksakovo).

Results and implications: When canvassed, the main parties involved in the SEA process made the following points:

- EIA specialists emphasized the importance of applying the SEA procedure from the earliest phase of plan preparation and identified a need to address discrepancies in the role, scope and relationship of the two processes - beginning with their respective laws;
- Decision-makers noted that although this was the first practical attempt to apply SEA in Bulgaria, there was little or no public interest during the SEA review. They also identified the lack of correspondence between the Planning Act and the Environmental Protection Act as a major problem;
- Planners perceived that territorial planning and SEA had the same aim to contribute to the sustainable development of territories; and considered that SEA should have a short scope and that compliance with the planning process must be voluntary;
- NGOs supported the SEA procedure as useful input to plans, particularly because it guarantees public access and improves transparency.

As a result of the above findings, the Ministry of Environment and Water amended the EIA Regulation to clarify the procedure in relation to the planning process.

Key lessons: The effective implementation of SEA of territorial plans depends on:

- Better coordination among all decision-making authorities;
- Early determination of the scope of SEA and the guiding principles of the process;
- Application of SEA in parallel with the planning process rather than after the fact;
- Opportunity for public involvement in all phases of SEA and planning and not just in EIS review;
- Taking account of public input in EIS preparation and decision-making.

Sources: Geopont Intercom, GmbH and Techsistem-Eco (date) and Grigorova and Metodieva (2001)

Box 5.10: SEA of Bratislava land use plan

According to section 35 of the 1994 EIA Act, draft land use plan documents must contain an assessment of the environmental impact and mitigation measures to address the adverse effects. In addition, the plan 'proponent' must discuss the predicted impacts and proposed compensations with the Ministry of Environment. However, there is no official methodology or rules for undertaking SEA in accordance with these and other requirements, although draft guidelines were prepared for SEA of policies (Kozová *et al.*, 1994, 1996, 2000) and land-use plans (Finka *et al.*, 1996, 1997; Krumpolcová *et al.*, 1997, 1998). These have not been approved or issued but remain on file in the Ministry of Environment and can be informally consulted.

New methodological principles for SEA in land use planning proposed in the above documents include:

- Coordination of different sector policies with respect to sustainable development;
- Full consideration of ecological, social and economic issues; and
- SEA as assistance in land-use planning procedures towards sustainable development.

A voluntary SEA of the draft Bratislava Land Use Plan was undertaken between October 2000 and March 2001 to verify the above principles. Environmental issues have been considered in land use planning in Slovakia for many years but the focus has been on describing existing conditions rather than the impacts on the environment of actions set out in plans. SEA provides an opportunity to generate more environmental information, particularly on impacts. It provides both a 'controlling' mechanism and helps to bring greater transparency and democracy into the land use planning process. Related objectives are to increase the quality and acceptance of the plan and to promote citizen involvement in its implementation.

Three 'blueprint' variants of the Bratislava Land Use Plan concept were prepared – each stating a general objective to promote sustainable development but specifying only alternative costs rather than differences in approach.

The SEA procedure followed a two-tier approach:

- First, a strategic evaluation of the goals, aims and aspects of the plan against sustainability principles and criteria – selected from the international literature. A (rather general and abstract) comparative matrix was constructed as a sustainability test;
- Second, a relatively detailed evaluation of the plan against sustainability criteria and indicators, using both tables and map graphics, together with cumulative assessment. Both qualitative and quantitative indicators were used, drawn from relevant case studies in Germany and the UK.

The Slovak Land Use Planning Act requires a public hearing to be held to present and debate draft plans. In this case, some 50 meetings were organised for different stakeholder groups and the general public and focused on particular aspects of the plan (e.g. transport, housing and the countryside). All planning documents were open for public review and comment over a four-month period from December 2000 to March 2001 in Bratislava City Hall. Over 20,000 written comments were submitted but it is not clear how these were used in revising the plan.

The report of the SEA followed a structure similar to that recommended by the EU Directive on SEA.

Sections covered:

- Comparison of the objectives of the Comprehensive Development Strategy of Bratislava City and those of the three alternative land use plans (using a sustainable development test);
- Assessment of environmental quality to identify positive and adverse environmental impacts of individual land-use plan policies (e.g. housing, technical and social infrastructure);
- Selection of individual plan policies to be evaluated and criteria to be used;
- Identification of mitigation measures (mostly for lower levels in the hierarchy of land-use plans and for EIA of projects).

The report was submitted for review to the Ministry of Environment, which provided its comments to Bratislava City Authority (unpublished).

Lessons from experience with this SEA include:

- The SEA was initiated late in the land-use plan preparation process; it would have been far more effective if conducted proactively and initiated at the outset of the planning process.
- SEA should be linked (procedurally and methodologically) to a tiered approach at different levels of land-use planning.
- The sustainability goals set out in the Bratislava Development Strategy were too general.

Source: Belcakova (2003a, b). SEA undertaken collaboratively by the EIA Centre (Slovak University of Technology) and the Faculty of Natural Sciences, Comenius University, both in Bratislava.

For example, the Slovenia Environmental Protection Act (1993) requires that plans and programmes shall be based on environmental vulnerability analysis. This methodology also underpins SEA of sector as well as spatial plans, as exemplified in the SEA of the National Transport Plan (Box 5.11).

A more comprehensive approach incorporates analysis of the consistency of policies and plans as well as a qualitative environmental and health risk assessment as exemplified by the SEA of the waste management plan for the Czech Republic (Box 5.12). In this case, the national-level plan sets a framework for the preparation of regional waste management plans and facility location. Regional waste management plans (which also subject to SEA) set binding targets and suggest preferred approaches that should be considered in the elaboration of specific waste management projects (which are subject to EIA).

Box 5.11: Methodology and approach to SEA of major transport routes in Slovenia

Introduction: A two-part pilot SEA study was undertaken before adoption of the regulations for SEA of physical planning documents (pursuant to Articles 53,54 of the Environment Protection Act, 1993):

- Assessment of the proposed changes to the National Physical Plan for Transportation;
- Development of a proposed methodology for similar, location-oriented cases (the main focus below).

Main objectives of pilot SEA (set in the scoping phase):

- Consideration of certain alignment alternatives: proposed corridors for new highways, railways and roads; and proposed alternatives within one corridor for transport modes;
- Identification of potential environmental impacts and issues, e.g. changes in soil, air, water, landscape, habitats, natural resources and cultural heritage;
- Delineation of relevant impact zone or study boundaries (i.e. Slovenia in its entirety);
- Selection of approach – vulnerability/sensitivity modelling as the most appropriate methodology and geographic information system (GIS) as the most appropriate technique.

Assessment methodology: In the impact assessment phase, the proposed changes were assessed by means of a preliminary vulnerability evaluation of the entire territory of Slovenia, using existing data. A five stage approach was followed:

1) Three distinctive aspects of environmental protection were defined:

- Naturocentric – originating in the demand for nature conservation;
- Anthropocentric – protection of human environment for the present;
- Anthropocentric – conservation of resources for future generations.

2) Vulnerability was defined in terms of areas and/or environmental components with high intrinsic quality or elements, i.e. where transport routes and activity causes a significant loss. Examples of criteria included:

- Degree of wilderness and naturalness (nature protection objective);
- Quality and quantity of drinking water (human health and next generation objective);
- High potential for recreation (resource conservation objective).

3) Relevant vulnerability models, their parameters and rules for combining them into particular and composite vulnerability maps were defined on the basis of expert inputs. An example is the approach for the water environment which included:

- Hydrology – mapping stream buffer zones, water quality, groundwater recharge areas and flood zones;
- Natural heritage – areas of high value rated for their uniqueness, diversity or aesthetic quality;
- Erosion and stability – areas that were sensitive, unstable or slow to regenerate.

4) An assessment was undertaken of the impact of all proposed or potential transport alignments and activities on the vulnerable environments of Slovenia, as well as assessment of each section and activity. Tools and techniques of analysis included use of overlays, GIS, workshops and expert groups.

5) Significance of impacts was defined by reference to five categories: (i) negligible impact, (ii) small impact, (iii) moderate impact, (iv) severe impact, and (v) inadmissible impact. This fifth category denotes activities within the area of the Triglav National Park. Other categories were defined by proportion of vulnerable and protected areas, prime agricultural land, productive resources, etc.

Summary of findings: The proposed plan was adopted without major changes, although the results of the vulnerability assessment were taken into account at lower planning levels. At the higher planning levels, the impact of the transport routes was evaluated as relatively severe in terms of the ratio of vulnerable areas covered. However, the assessors cautioned that this not be automatically construed as a criticism of the

planning. Rather the environmental impact of the national plan was as much a consequence of the spatial qualities and features of the Slovenian territory (rugged relief, narrow valleys, Karst landscapes), although more rigorous environmental standards need to be incorporated into transport planning and design particularly in high vulnerability areas.

(Source: Koblar, 1998)

5.2.5 SEA of programming documents for EU structural funds in all EU accession countries

In addition to internally driven processes, EU accession has been an external force for SEA development at the level of national and regional plans and sector programmes in CEE countries. Specifically Article 41 of Regulation 1260/1999/EC requires applicant countries to undertake an ‘*ex-ante* evaluation’ of such initiatives for the use of structural funds for the period 2000-2006. This evaluation includes the potential environmental impact and applicant countries are expected to follow guidance laid down in:

- Vademecum, Plans and Programming Documents for Structural Funds 2000-2006 (DG XI, 1999); and
- Handbook on Environmental Assessment of Regional Development Funds and EU Structural Funds (DG XI, 1998).

Within a relatively short period of time, CEE accession countries have gained considerable experience in SEA-type work under the above EU regime. The 4th Regional Workshop of the Sofia EIA Initiative, held at Bratislava, May 19-21, 1999, reviewed the SEA experience in CEE countries to identify basic directions for SEA application and capacity building in the CEE region (Box 5.13). Some of the workshop conclusions have been overtaken already by the international regime established by SEA Directive (2001/41/EC), which does not apply to the current phase of structural funding (ending in 2006) but will be in force for the next round. Recently, lessons of experience have been derived from several pilot projects on SEA of large-scale national and regional development plans and programmes¹². These provide pointers to future good practice with SEA of development plans using EU structural funds and the benefits have been recognised by senior decision-makers involved in the programming process (see Box 5.14).

In three countries (Czech Republic, Estonia and Hungary), the SEA pilots highlighted the importance of initial review of analytical components of strategic plans and programmes to ensure that attention is given to environmental trends and linkages, problems and opportunities in subsequent stages of the planning process. By contrast, in Poland, it was not possible to carry out this task because the domestic planning process began with the identification of proposed activities, continued with establishing objectives to fit these activities, and concluded with an analysis to justify proposed interventions. In this case, the SEA started by identifying relevant environmental objectives for the National Development Plan and then evaluated the proposed

¹² Large-scale pilots were undertaken in Czech Republic (Dusik and Sulcova 2001) and REC 2002), Poland (REC 2003b and Rzeszot 2003), Estonia (REC and MAVES 2003 and Rasso 2003) and Hungary (SEA Team 2003). Smaller-scale pilots were carried out in Slovenia (REC and IJS 2003) and Bulgaria (DHV/REC/POVVIK 2003). [All these citations need adding to references]

Box 5.12 SEA of Waste Management Plan of the Czech Republic

Background: Context and Issues: The Waste Management Plan (WMP) was prepared in 2002 as a framework document for the period 2003-2012. It sets out objectives and demand-and-supply measures for managing the main types of waste and will be complemented by Regional Waste Management Plans to identify the technology and location for specific facilities. A mandatory component the WMP involves coverage of hazardous, medical and PCB contaminated waste.

Introduction: The SEA of the WMP was carried out as a separate, parallel process with four main steps:

- Scoping (based on an extensive process of public consultation);
- Review of the detailed terms of reference for SEA;
- Preparation of SEA Report;
- Public review of the SEA Report.

Key feature of SEA approach and methods used:

(a) Consideration of alternatives -- The plan was prepared in two major alternatives:

- An official version of the proposal developed by the proponent (Ministry of Environment);
- A “green” alternative developed by a local network of NGO experts, with financial support provided by the proponent.

(b) Selection and analysis of issues and alternatives:

- Use of a matrix to identify and compare the environmental and health risks of various waste management approaches, including the collection, separation and transport of waste, use of waste as a source of secondary materials and incineration of waste for production of energy;
- Ranking of the waste management options, to provide a basis for general comments on proposed measures;
- Evaluation of environmental risks through collective expert judgement (expressed in relative terms such as poor, good, nearly sufficient, etc.);
- Use of a matrix to identify potential environmental and health impacts of proposed objectives and measures of the WMP and of all specific proposals of the plan through collective expert judgement and a simple rating scale (+ good, 0 neutral, - adverse);
- Review of internal consistency of the plan including whether objectives corresponded with issues raised in the analysis or if suggested indicators were appropriate measures of the attainment of specific objectives.

Based on this assessment, the SEA team identified numerous inconsistencies among plan objectives and measures, issues and indicators. For example, many indicators were considered to be either irrelevant or unrealistic with regard to data gathering. This consistency analysis is strongly reflected in the concluding sections of the SEA Report.

(c) Public participation - a single process was organised for both the planning and SEA. Information was distributed in various ways including a dedicated website and email address for comments. A network of regional coordinators also facilitated the dissemination of information and organised regional workshops. The main opportunities for public participation were provided by workshops organised for key stages of the process:

- Initial review of the draft plan and scoping of issues to be addressed in the SEA (14 regional and 2 national workshops, attended respectively by between 10-25 and 50 persons in each case);
- Review of the detailed terms of reference for SEA at a national workshop (following comments on the proposed assessment methodology in the scoping phase);
- The SEA report was reviewed through 2 national workshops (each attended by approx. 30 persons).

Results and lessons: The SEA showed a number of positive aspects (indicated above). In the final analysis, however, it is difficult to establish the contribution that the SEA made to the WMP process. From a SEA

perspective, the planning process was insufficiently structured and lacked transparency. From a planning perspective, the SEA process was overly concerned with methodology and report preparation rather than influencing decision-making at different stages of plan development.

Source: Dusik (2004) [need reference]

Box 5.13: SEA of National (Regional) Development Plans in CEE

The 4th Regional EIA Workshop of the Sofia EIA Initiative (Bratislava, May 19-21, 1999) brought together 72 participants from ministries of environment and regional development, together with SEE experts from 10 CEE countries. A range of key conclusions were reached:

Role of SEA within Development Planning in CEE

- SEA is an important tool for practical implementation of sustainable development. Governments and institutions responsible for policy-making and planning should encourage its application on both formal and informal basis.
- The preparation of development plans for use of EU structural funds represents an important opportunity for wider strengthening of SEA systems in the CEE region. It is unclear whether the European Commission will require a systematic SEA procedure within *ex ante* evaluation of National Development Plans and related programming documents (Rural Development Plans and Investment Strategies for ISPA). [give ISPA in full]
- The Commission should clearly state its position in respect of SEA as a mandatory requirement and the quality standards that should meet. Without such a statement, it is evident that the National Development Plans of most CEE countries (except Czech Republic, Estonia and Slovenia) will not be subject to this procedure.
- Relatively-easy and transparent procedures for SEA of National Development Plans and related programming documents should be introduced, tested and broadly disseminated in CEE countries prior to the elaboration of more sophisticated SEA methodologies.

Capacity building for SEA in the CEE region

- The quality of SEA in the CEE region is dependent on methodological know-how, availability of adequate information and institutional and professional capacities. There is a pressing need for SEA capacity-building among policy-makers and practitioners.
- In CEE accession countries, building capacity for SEA to EU standards may be facilitated by improved exchange of information between the CEE countries and member states and the Commission and EU member states. An important aspect will be continued exchange of experience among CEE countries themselves under the framework of the Sofia Initiative.
- Both EIA and SEA capacity-building needs are particularly acute and in the non-accession countries of Southeast Europe. Direct exchange of experience among Balkan and other CEE countries should be a matter of priority for the European Commission and other multilateral and bilateral donors. (This recommendation was subsequently taken forward as the regional reconstruction for environment programme).

Box 5.14: SEA of development plans from the perspective of decision-makers

“SEA is not a complicated and theoretical tool. It is a flexible mechanism that gave us feedback from environmental experts. It ran in parallel to the elaboration of the **Estonian** Single Programming Document and provided operative and practical inputs. It helped us to improve quality of the document and increased awareness among NGOs of the entire planning process.”

Ms. Kerli Lorvi, Ministry of Finance, Estonia

“The SEA for the first National Development Plan of **Poland** provided us with useful recommendations for improved consideration of environmental issues. The SEA has a wider applicability and can also be used in elaboration of other documents. We will be able to use the lessons learned and methodology developed in the future.”

Mr. Piotr Zuber, Ministry of Economy, Labour and Social Policy, Poland

“SEA helped us to improve the quality of the **Hungarian** Regional Operational Program. Proponents of this programme often did not take into account natural resources, which form the basis of any economic activity. The SEA team identified the main relevant environmental issues and helped us to consider this information throughout the entire planning process. SEA also facilitated our cooperation with the Ministry of Environment, other sectoral ministries and regional authorities during environmental optimising of the programme.”

Ms. Ágnes Somfai, Prime Minister’s Office, Hungary

“SEA was very useful experience in elaboration of the **Czech** National Development Plan. It had benefits that went beyond its original purpose of ensuring full consideration of sustainable development during the planning process. SEA helped us to improve openness of the entire programming process and established a “bridge” between the planning team and the public. This turned out to be very positive feature that we later very much appreciated.”

Mr. Tomas Nejd, Ministry of Regional Development, Czech Republic

Source: Dusik *et al.* (2003) [\[include citation in references\]](#)

activities and development objectives (see case 5.2). A similar approach was followed in the SEA pilots in Slovenia and Bulgaria, where the entire assessment was based on the review of proposed actions against pre-established environmental objectives and criteria. One of the lessons of the pilots was that objectives-led SEA is a necessary but not sufficient key to good practice (Box 5.15).

5.2.6 SEA of policy

To date, SEA of policies and higher level strategies in the CEE region is limited primarily to the Czech Republic, Slovakia and Poland. All three countries have EIA legislation that applies at this level (Box 5.5). In the Czech Republic and Slovakia, there is now considerable experience with SEA of policies that generally fall under the category of development ‘concepts’ in both countries. SEA practice and case examples from the Czech Republic and Slovakia are notable internationally because the procedure of policy elaboration and SEA application are relatively systematic, involve the public and result in the environmental authority issuing a statement on the proposal. Czech SEA practice is also of interest because it can be implemented through an EIA-derived or an appraisal-based approach, and most assessments comprise a mix of elements.

Box 5.15: Use of environmental objectives in SEA of plans and programmes

The SEA pilots of programming documents for EU structural funds in Bulgaria, Czech Republic, Estonia, Hungary and Poland demonstrated important practical lessons for the objectives-led approach advocated by Sadler and Verheem (1996). The assessment of proposed development objectives and actions against relevant environmental objectives provided an opportunity for early review of proposed strategies and their relation to sustainable development. However, environmental objectives proved difficult to identify because they were:

- Too general (e.g. lacking clear sector- or region-specific objectives);
- Mutually inconsistent or overlapping (as well as conflicting with development policies); and/or
- Irrelevant as benchmarks for evaluating plans and programmes.

As such, SEA cannot rely only on appraisal of consistency of proposed initiatives with pre-established environmental objectives. In addition, critical review and adjustment are needed to ensure their relevance and applicability for each strategic proposal. Examples of the approaches taken include:

SEA of the National Development Plan for Estonia—ad hoc objectives were established as part of the evaluation framework, because those in the National Environmental Strategy did not provide clear benchmarks for integration of environmental issues into development planning.

SEA of the National Development Plan for Poland – objectives were selected from more than 250 specific commitments in plans, programmes and policies, national legal Acts and international treaties signed by Poland. These criteria were used in initial assessment and supplemented by procedural criteria – to evaluate the soundness and consistency of the planning process, and issue-oriented criteria – to evaluate the impact on the environment and resource use.

SEA of the Regional Operational Programme for Hungary – quantitative objectives were selected for the state of the environment and various impact categories from the National Programme for the Protection of the Environment, National Nature Conservation Plan, National Environmental Health Action Programme, National Regional Development Concept and the National Agro-Environmental Programme. In addition, general sustainability criteria were identified to reflect the main social, economic and environmental objectives of the National Development Plan for Hungary.

Source: **Dusik and Sadler (2004)**

In both the Czech Republic and Slovakia, large-scale pilot applications of SEA of national policy began with the energy sector and laid the groundwork for process development and practice (Box 5.16, cases 5.1 and 5.3). This was followed in the Czech Republic by application to a range of other sectors and more than twenty policy concepts have been subject to SEA. For example, the SEA of the National Tourism Policy (2002–2007) was carried out through an interactive process, characterised by strong co-operation between the proponent (Ministry of Regional Development) and the Ministry of Environment and opportunities for public input and comment through a working seminar, public hearings and web-based submissions. The policy document was assessed and altered at key stages of the process in response to public inputs and the SEA findings. In addition, the SEA team initiated changes to the analysis of the situation and the establishment of strategic targets for the sustainable development of tourism.

Box 5.16: SEA of energy policy in Czech and Slovak Republics

SEA of Czech Energy Policy (1997): This identified objectives and measures for the development of the entire sector (electricity, coal and gas) including future privatisation and use of economic instruments. It also addressed the future use of nuclear power, including specific project issues:

- Whether to stop or proceed with a second nuclear power plant already approved and partly built;
- Whether to change the limits for open-cast coal mining, which would result in the destruction of additional villages in North Bohemian and North Moravia.

The SEA process focused mainly on the elaboration of the report. For this purpose, extensive scoping was undertaken, including a national public hearing to comment on the draft policy and the proposed assessment methodology. The scoping process initiated the development of three distinct scenarios of energy mixes that could be achieved by the use of available administrative, legal and economic instruments to regulate behaviour of companies and individuals. These scenarios went through an extensive modelling exercise and were assessed against set of 16 categories of environmental, social and economic impacts. A public review of the draft SEA report was held in the main chamber of the Czech Senate.

SEA of the Slovak Updated Energy Policy (EP 1997): This comprised a number of steps:

- Provision of information to the public about preparation of the EP;
- Expert review, including presentation of opinions for public discussion;
- Public forum on the EP with participation from state and professional bodies, industry, universities and research institutions, non-governmental organisations and the media;
- Statement by the Ministry of Environment (MoE) on the basis of expert opinion, other comments and public discussion;
- Conclusion of the public discussion, with the Statement of MoE and the Statement of the Ministry of Economics sent to all participants;
- Submission of a new version of the proposed EP to the Slovak government - subsequently approved.

Although there were a number of positive features, notably with regard to public consultation and input, NGO representatives strongly criticised the shortcomings of EP-1997 and weaknesses in the SEA process. Specifically, the latter did not provide for all stages of effective procedure and further guidance is needed on screening, scoping, EIA report review and public participation.

Source ??

A series of assessments of Slovak energy policy have resulted its progressive elaboration and updating. This process began in 1995 with an ad hoc environmental review of the policy and was followed by more detailed assessments of subsequent versions in 1996 and 1997. In 2000, a new national energy policy was subject to a systematic process of SEA. This stands as one of the most intensive and interactive processes of SEA of policy applied anywhere and included consultation with neighbouring countries on trans-boundary impacts. Case 5.1 describes the SEA of the 2000 energy policy in greater detail and summarises its advantages and disadvantages..

Other lessons of Czech and Slovak experience that may have broader applicability with regard to SEA of policy include the following:

- When SEA was carried out at the instigation of the Ministry of Environment rather than the proponent, there was little or no consideration of practical alternatives to the proposed policy. In these circumstances, the SEA process *prima facie* did not meet widely accepted

international standards;

- Yet, the transparent and open SEA processes (incorporated in the assessments of Czech and Slovak energy policies) also compensated to some degree for this omission, notably by mobilising public awareness to provide valuable inputs. In practice, a ‘backwards process’ was followed in identifying and assessing alternatives (which occurs in other countries more often than is commonly realised);
- The quality of assessment in the pilot cases was limited by the financial support available for the preparation of the SEA report. Generally this was not considered to be adequate for the purpose of undertaking quick, yet thorough, assessment processes;
- Key principles for SEA of national policy are the same as those for land-use planning:
 - the purpose of the assessment is to inform the decision;
 - screening and scoping are crucial to identify priority issues; and
 - post-SEA monitoring is important to follow through on policy implementation.

5.3 Future development of SEA in the NIS and CEE regions

Recent developments in SEA in the CEE region have been striking, except in Balkan countries where (other than Bulgaria and Croatia) the rudiments of approach have yet to be established. The introduction of this process has built upon a sound basis of technical expertise and a long tradition of formal planning, exemplified by the use of preliminary environmental evaluation in the preparation of regional and local land use plans. SEA at this level is now widely established as a formal procedure, although further action is required to make this process more participatory and transparent. It is less developed with regard to sector programmes and policies, although the EIA legislation enacted by certain countries provides for broad coverage. Particularly notable is the experience of the Czech and Slovak Republics in SEA of major policy proposals and, most recently, the experimentation with SEA of national development plans for use of EU structural funds.

Across the region generally, SEA practice has now reached the stage at which basic principles (as discussed in Chapter 3) have been verified for CEE application (Box 5.17). In addition, these have been further elaborated as priorities for strengthening SEA systems of CEE countries (Box 5.18). Key directions for improving SEA practice include:

- Procedural and methodological guidance on SEA application, e.g. to policies and plans in the major sectors such as energy, transport and agriculture;
- Gradual development of ‘hands on’ skills and competencies through testing and evaluation of pilot SEA applications (particularly in relation to policy);
- Better integration of SEA into planning and policy processes. Specific options and measures for achieving this end are summarized in Table 5.4.

Looking ahead, major changes are also pending across the region, most obviously among the CEE countries that are EU member states and must transpose the requirements of the SEA

Box 5.17: Recommended principles for SEA Application in the CEE region

When supporting the application of SEA in the CEE region, the following baseline principles should apply:

- the agency proposing the programme, plan or policy should undertake the assessment;
- there should be a well-founded basis of SEA requirements;
- the SEA procedures should provide for evaluation of alternatives;
- there should be early and adequate public participation; and
- consideration should be given to human health and socio-economic as well as environmental impacts;
- there should be clear reporting and documentation of the process and of commitments;
- there should be a clear and substantive relationship between the SEA and the decision-making process;
- the SEA process should have in-built checks and balances, both formal and informal.

Source ??

Box 5.18: Priorities for the development of national SEA systems in the CEE region

1. National SEA systems in CEE countries should provide a flexible framework for the integration of SEA elements into the development of 'strategic actions' (policies, plans and programmes). National framework laws with provision for SEA may need to be complemented by administrative orders/regulations that interpret general SEA requirements for the most important strategic actions (e.g. preparation of national policies, etc.).
2. The SEA process should be initiated at the earliest possible development stage of a strategic action. It should begin at the same time as the preparation of a policy, plan or programme (with terms of reference for SEA preferably adopted at the same time as those for the strategic action).
3. The SEA process should run parallel to the decision-making process and should be fully integrated into the different development stages of strategic action (see Table 5.4 for proposed options).
4. Responsibility for carrying out the SEA process should lie with the authority responsible for the strategic action. CEE countries should establish systems that ensure the quality of the SEA process. In cases where there is no institutional capacity for carrying out SEA, a formal review of SEA findings may be needed.
5. The SEA process should review:
 - Environmental/health problems relevant to the sector or region covered by the strategic action;
 - Environmental/health (sustainability) goals and targets of the strategic action;
 - Key alternatives of the strategic action—attainment appraisal of environmental/health goals (sustainability) and targets;
 - Specific environmental/health impacts of proposed implementation measures;
 - Monitoring of environmental/health impacts of the strategic intervention.
6. Consultation with environmental and health authorities and the general public should be organized throughout the SEA process. At least two stages of consultation should be carried out; during scoping (review of the environmental goals and targets of the strategy) and after the completion of the SEA findings. Additional stages of consultation may be organised as required. The SEA process should also enable access to information in accordance with the requirements of the Aarhus Convention.

7. The findings of the SEA process should be published for the purpose of external review (by public bodies, national environmental and health authorities, etc.). SEA findings, whether draft or final, should be made publicly accessible and should be communicated to the concerned public in due time and form.
8. Authorities responsible for development and/or approval of strategic action should take due account of SEA findings and of public comments in their decision-making.
9. Public participation provisions and access to justice is an important element in designing SEA systems. Given the importance and difficulty of this subject, further CEE-region wide discussions should be organized.
SEA systems should ensure proper monitoring of the actual effects of strategic action on the environment, human health and/or sustainable development. Monitoring reports should be made publicly accessible and should be communicated to the concerned public.

Table 5.4: Proposed options for incorporating SEA into strategic planning processes in the CEE region (REC, 2001)

Authority responsible for strategic action		SEA administration by environmental authorities
<i>Development of strategic action</i>	<i>Role of SEA</i>	
Terms of reference for strategic action	Terms of reference (TOR) for SEA	Comments on TOR for strategic action and joint preparation of TOR for SEA including specification of public participation procedure)
Analysis of past developments/trends of the area or sector covered by the action	Review of strategic intervention – whether it properly reflects past environmental/health problems in the respective area or sector	Overall co-operation in strategy development including provision of information and supervision of the SEA process
Determination of goals and targets to be achieved by the action	Review of goals and targets – how they relate to relevant environmental and health (sustainability) goals and targets for the area or sector	Overall cooperation in strategy development including provision of information and supervision of the SEA process
Design of scenarios for the action	Objective-led appraisal of key scenarios – how they relate to relevant environmental/health goals and targets	Overall cooperation in strategy development including provision of information and supervision of the SEA process
Design of implementation measures and management and monitoring	Assessment of specific environmental/health impacts of implementation measures for selected scenario Identification of proposed environmental monitoring and management system	Overall cooperation in strategy development including provision of information and supervision of the SEA process
		Optional external review of SEA Report
Decision on the strategic action		
Monitoring of implementation of strategic action		

[The last three rows of table are unclear. In which columns do the texts fit?]

Directive into national legislation. At the time of writing¹³, there are two key uncertainties surrounding this process:

- First, will those SEA systems currently applying to policies (and, therefore, go beyond the scope of Directive 2001/42/EC) be scaled back so that they cover only plans and programmes? It is encouraging this has not happened with the new Czech EIA Act (2004). Both retain coverage of concepts or policies.
- Second, will CEE member states (and accession countries) opt to follow the letter of the Directive or will they attempt to customise its provisions to their traditional planning (and policy-making) processes, style and culture?

In the NIS block, progress has been more modest, but is increasingly using elements of the SEA approach within the hybrid EIA/SER system inherited from the former Soviet Union. However, further structural reforms will be necessary to develop SEA to meet internationally-accepted legal standards as defined in the EU SEA Directive and UNECE SEA Protocol. In that regard, the programme of activities to be carried out under the SEA Protocol could provide an important first step, given that many NIS and Balkan countries have adopted this instrument already. This focus is officially endorsed in the Cavtat

Declaration (agreed at the third meeting of the Parties to the governing Espoo Convention, June 2004):

“...Signatories of the Protocol on SEA to develop capacity for the ratification and implementation of the Protocol on the basis of demonstrated need, giving particular support for the countries of Eastern Europe, the Caucasus and Central Asia and, wherever possible, working with regional institutions to make the expertise and resources available as necessary”

(paragraph 14, ECE/ENHS/NONE/2004/14)

¹³ May 2004

Case 5.1: SEA of Slovak Energy Policy (EP 2000)

Introduction

During the 1990s, several energy policies were adopted in Slovakia. The 1993 'Energy Policy for the Slovak Republic to the year 2005' was the first to be issued following independence. It emphasised energy saving, notably through macro-economic measures, pricing and modernisation of production processes. An 'Updated Version of the Energy Policy for the Slovak Republic to the year 2005' (with a perspective up to 2010) was prepared in 1995, and subjected to a simple SEA in accordance with Article 35 of the EIA Act (1994). Further processes of SEA were applied to a subsequent version of that policy (1996-1997), and to a new energy policy initiated in 1998 by a newly elected government and accelerated as part of the EU accession process. This last round of policy development was characterised by a high level of public participation and improvements to SEA procedure and implementation.

Policy context and objectives

Earlier versions of the energy policy, notably the 1997 document, outlined broad directions and perspectives to 2010. Key objectives included security, safety and stability of supply, energy efficiency and savings, reducing the adverse impact of the energy sector on the environment, and increasing the utilisation of renewable energy sources. The responsible authority, the Ministry of Economy, also included "nuclear" alternatives as part of the policy review.

In comparison, the objectives of the 2000 energy policy (EP 2000) were elaborated in more detail and broken down into short-, medium- and long-term criteria. Short-term objectives were stated for individual energy industries (electric energy, supply of heat, oil, natural gas and coal) as well as the means for their achievement. Longer-term strategic goals included meeting international agreements such as the Kyoto Protocol, reducing energy intensity to the level of EU member states, building emergency oil stocks (until 2010) and managing the radioactive fuel cycle in nuclear power plants.

Nature and scope of issues

In the SEA of the 2000 energy policy, the circle of issues expanded beyond the 1997 agenda, which itself was relatively broad. On the environmental side, the 1997 review focused on achieving gains through energy demand and conservation measures (e.g. co-generation and improved thermal efficiencies in power plants) as well as through the increased use of renewable energy resources. The 2000 energy policy also specifically addressed issues of sustainable development of the Slovak energy sector. A key concern was with technically and economically acceptable ways and means of achieving the Kyoto Protocol goals before 2008, for example, higher utilisation of natural gas to minimise CO₂ emissions and other pollutants.

Other areas and issues considered in EP 2000 included:

- Nuclear policy including the close-down of an operating power station and completion of the back-end fuel cycle;
- Restructuring and privatisation of the energy sector;
- Pricing and subsidy policy; and
- Preparation for integration into the internal market of the EU.

SEA process and procedure

Article 35 of the EIA Act prescribes the specific duties of the main participants in the SEA process: the Ministry of Economy as the policy proponent or authority responsible for drafting the proposal; and the Ministry of Environment as coordinator of the SEA processes. Other expert, administrative and competent bodies (district and regional authorities, Slovak Environmental Agency, etc.) were involved formally through the statutory bodies. An SEA team was established to work in parallel with, but independently of, the proponent team. In addition, NGOs and others interested in environment, energy and sustainable

development participated in the process. In some cases, they played significant roles in policy development (e.g. as members of a task group) and public review and discussion.

The SEA of EP 2000 comprised five key steps:

- 1) Pre-consultation during the initial phase of policy preparation (January-June 1999). The Ministry of Economy first developed an outline for NGO comment, and then drafted a discussion document for meetings held by the Parliamentary Committee for the Environment and Nature Conservation. NGO representatives also had input to the SEA schedule and public consultation procedure.
- 2) Public information and review of scope (July-September 1999). This phase started with a notification in the Economic Newspaper and release of the full text of the draft energy policy (available on the internet and at government offices). A two-month period was allowed for public review and submission of comments. The Ministry of Environment received over 400 comments and an alternative energy policy was submitted by an NGO coalition (Energy 2000). In contrast to the 1997 review, expert opinion was sought only at the end of this phase as a part of consultations to determine the scope of SEA assessment, key issues and impacts and matters of documentation.
- 3) Public hearing and statement on energy policy 2000 (September-November 1999) The public hearing on EP 2000 was attended by more than 150 participants, including experts and representatives of national bodies from countries bordering the Slovak Republic. Both the official draft of EP 2000 and the alternative proposal were reviewed in accordance with pre-determined rules of procedure (e.g. time limits, discussion moderated by independent facilitators). A transcript of the proceedings was issued and contributed to the statement of the Ministry of Environment on EP-2000, which was finalised following consultation with the agency responsible for preparing the draft policy (as required by § 35.2 of the EIA Act).
- 4) Policy submission and approval (November 1999-January 2000) A final version of the proposed energy policy, which took account of SEA conclusions and recommendations, was submitted by the Ministry of Economy and received government approval in early 2000 (see Tables 5.1.1 and 5.1.2). Compared to the original draft, the version finally adopted was substantially different and, *inter alia*, incorporated ideas generated through the SEA process and in the statement of the Ministry of Environment. This aspect is an important measure of SEA effectiveness and is described further below.
- 5) Monitoring of policy implementation and SEA terms and conditions (started January 2000). This is the weakest link of the SEA processes in Slovakia. In this case, the NGO evaluation of the quality of the SEA process for SEA of EP-2000 provides a framework for follow up to draw lessons from the experience.

Results and outcomes

The SEA appeared to make a definite contribution to EP-2000 as approved. At a comprehensive level, the degree of policy acceptance of several broad directions related to sustainable development is briefly evaluated in the table below. Although circumstantial, it conveys a sense of the strategic impact or purchase of the SEA process on energy policy design and decision-making. Moreover, a follow up review by Slovak EIA experts indicated that EP-2000 meets several principles of sustainable development. It used a test based on its likelihood of changing the behaviour and attitude of social groups (e.g. toward the environment, the needs of future generations, etc.). In addition, a number of specific recommendations were taken up in EP 2000, for example, those related to disposal of nuclear wastes. Despite certain omissions (see below), the quality of the SEA statement and the influence on decision-making can be compared favourably with the earlier process (SEA of EP-1997).

Table 5.1.1: Relationship of SEA to policy development

SEA statement	Adoption in EP-2000			
	Yes	Part	No	Evaluation of policy acceptance
Promote transition towards sustainable development, abandoning nuclear generation (long-term) and not expanding current operating units		X		Positive in that EP-2000 addresses use of renewable sources and energy savings. But no assessment of social impacts of energy development, risks of nuclear energy or cumulative effects from viewpoint of sustainable development principles
Include aims of key environmental and sustainability policy documents		X		Some elements of these documents are incorporated in EP-2000
Provide international perspective and commitments, e.g. to EU integration	X			Included detailed analysis of international documents on energy and environment and preparing for integration with single market. But no analysis of Aarhus convention
Define main goals, instruments, timelines and relationship to other policies		X		Mixed. Identifies long-, medium- and short-term goals, but not their relationship to other policies. Key targets are missing, e.g. for use of renewable energy and non-nuclear alternatives
Promote energy self-sufficiency for local and regional communities			X	No evident connection to existing or proposed regional energy concepts
Overall attention to environmental and social concerns		X		In contrast to previous versions, major attention is given to environmental concerns, although not all aspects are taken into account and indicators of the impact of energy on the environment are inadequate
Overall relation to policy-making		X+		The government resolution on EP-2000 adopted a number of SEA findings on, for example, disposal of spent nuclear fuel, procedures for abandonment of nuclear energy installations, and rationalisation of fuel and energy consumption

Process effectiveness

As indicated above, the SEA process appeared to ‘make a difference’ to decision-making, providing information and advice that added value to the content of EP 2000, although the measure of success is relative and open to qualification. Similarly, the particular components of the SEA procedure that supported or facilitated this contribution can be interpreted only broadly, as reflected in the general rating scale below (Table 5.1.2).

Public participation stands out as the single most important success factor. By many standards, this was an open, transparent and interactive process, which was well organised and based on sound information and documentation. Expert and NGO involvement was constructive and, generally, interventions at the public hearing were of high quality. Co-operation between the two key ministries (Economy and Environment) was much improved compared to the SEA of EP-1997 and also played a part. Finally, making available the NGO-alternative policy for public discussion added to the credibility of the SEA process.

The scope and depth of assessment of the impact of EP 2000 on ecosystems, health and socio-economic aspects were considered to be superficial and inadequate, particularly by NGO representatives. Information

Table 5.1.2: Evaluation of major components of SEA of Energy Policy 2000

Assessment components	Rating	Evaluation
Consideration of alternatives	2	Broad range of alternatives considered, but only superficial analysis of energy development scenarios
Impact assessment	1	Inadequate analysis of ecosystem, health and socio-economic impacts
Public participation	2-3	Comprehensive provision of information with appropriate opportunities to review and comment
Procedural compliance	2	Other than monitoring, implementation of checks and balances generally satisfactory

Rating scale: 0 – non-existent, 1 – low, major deficiencies, 2 – moderate, some problems, 3 – good, functioning well Evaluation by Slovak EIA experts

was missing on certain impacts on the environment (e.g. those arising from the extraction of fuels and waste disposal), on health and social impacts, and on risks of energy development, particularly nuclear power. On this basis, an evaluation of the process by Slovak EIA experts considered that it was incomplete and fell short of being a thorough assessment (as required by s35 of the EIA Act). In contrast, the range of policy alternatives considered in EP-2000 was extensive and complemented by an entirely different draft proposal. The high level of expert opinions, public discussion and inter-agency consultations contributed to the review of alternatives, and also partly compensated for the analytical deficiencies noted above.

Implications and lessons for improving SEA

First, implementation of the SEA procedure in the Slovak Republic could be improved through better guidance on good practice. In this case, the draft Regulation on SEA (prepared over a long period) was referred to informally, together with draft handbooks on SEA of policies, territorial planning and legislation. A new handbook on SEA was completed at the end of 2000. It incorporated the (then) most up-to-date version of the SEA Directive, with case examples including EP-2000. Guidance on SEA procedure and methodology can be advisory or enshrined in regulation; but, ultimately, the effectiveness of SEA depends on the goodwill and willingness of all parties involved to participate co-operatively and constructively (e.g. to realise environmentally friendly options and solutions).

This case reconfirms public involvement plays a critical role in quality control and assurance in the SEA process. But this is not formalized in the Slovak Republic. Article 35 of the EIA Act (1994, as amended) does not prescribe an arrangement for participation other than for the Ministry of Environment and the proponent. At a minimum, as suggested by Article 6 of the EU SEA Directive (2001/42/EC), the Ministry of Environment should establish a list of statutory authorities, administrative bodies and professional and NGOs that must be consulted. This would include organisations with expertise or interest in the field of environment and sustainable development and the policy fields listed the EIA legislation as being subject to concept assessment. Ideally, funding and support should be allocated to support the participation of independent experts, NGO representatives, community groups and the general public.

Source: adapted from Kozová and Szollos (2001)

Case 5.2: Framework SEA of the Polish National Development Plan 2004-2006

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Background

The National Development Plan (NDP) is a programming document prepared by the Ministry of Economy with the aim of improving and strengthening the international competitiveness of the national economy. In addition, it is intended to support continued and balanced economic and social development, in accordance with the principles of sustainability. Once Poland becomes a member of the European Union, it will apply for EU Structural Funds support to implement the plan. Such support requires co-financing from national funds (state, local or private), so the NDP will, to a large extent, influence the way in which public money will be spent in the years covered by the plan and the type and scale of the developments that will be undertaken.

With the agreement of the Ministry of Economy, a framework SEA of the Polish NDP (2004-2006) was initiated by the Polish Office of the Regional Environmental Centre for Central and Eastern Europe (REC) and undertaken by a team of independent experts¹⁴. In parallel, similar SEAs were carried out in Hungary and Estonia – as part of a larger project coordinated by the REC.

The NDP did not formally require an SEA. According to the regulations governing EU Structural Funds, environmental issues are included in the ex-ante evaluation. Under Polish law, only the plans and policies that are required to be prepared by an act of law are subject to mandatory SEA; and, since the NDP is not required by an act, no SEA was compulsory. Nevertheless the Ministry of Economy granted the SEA team full access to draft documents and helped to arrange meetings with the planning teams and coordinators of the NDP. It also took the conclusions of the SEA into account in preparing the final version of the NDP, and included information about SEA in the text of the document.

Approach

The assessment was carried out as an “objective-led-appraisal” approach, with the main aim of improving the final NDP document, making it “greener” and more sustainable, rather than producing a judgmental opinion on its shortcomings. The team tried not only to assess the environmental consequences of the proposed actions and the significance of environmental issues discussed in the NDP, but also formulated recommendations to improve the NDP.

The NDP had to be developed within a very limited time frame in order to be submitted to the European Commission by the end of the year 2002. The SEA project was initiated in Spring 2002 (and completed by October 2002), and, at that time, a draft version of the NDP was not available. So an SEA was first undertaken on Sectoral Operational Programmes (SOPs) in parallel to the preparation of the NDP¹⁵. Before starting the SEA, the team produced an ‘opinion’ on the SEA which was placed on the REC’s website and provided to the team undertaking the ex-ante evaluation of the NDP.

¹⁴ The team comprised was led by Andrzej Kassenberg, and also included Krzysztof Kacprzyk, Zbigniew Karaczun, Urszula Rzeszot, Bożenna Wójcik. Małgorzata Koziarek, of the Polish REC Office acted as project coordinator and expert advice was provided by Jiri Dusik, of REC Head Office.

¹⁵ As originally envisaged, the SEA was to cover the NDP, except the Regional Development Programme. The sectoral operational programmes (SOPs) were excluded due to limited available time and funds. However, as the draft SOPs were available before the draft NDP, the project team decided to carry out an informal assessment of the Operational Programmes.

The SEA was organised in several key stages: selection of assessment criteria; initial assessment; integration of selected criteria and sustainability criteria; and preparation of the final version of the assessment. Methods were chosen to suit the materials and time available

Selection of assessment criteria:

The NDP document had to meet both EU and Polish standards, so the SEA team decided to draw upon major legal acts both national and international to define assessment criteria against which proposed actions could be assessed. An initial list of over one hundred acts was prepared and then the 14 acts most relevant to the task were chosen through 'expert scoring'. These acts were then analysed in detail and an initial set of 250 assessment criteria identified. These criteria were then reformulated to obtain a final set of 52 detailed criteria, concerning general issues as well as issues addressed by the SOPs, and organised in two groups:

- *Resource management:* general and horizontal issues, transport, energy, agriculture, nature and landscape, forestry, and water management and fisheries;
- *Changes in the environment:* air, noise and radiation, soil and wastes, water, nature, and others.

Initial assessment

The initial assessment used a matrix format to 'map' the actions proposed in the SOPs which, in turn, would influence the selected detailed criteria. The actions were defined only in general terms, and their potential impacts (positive or negative) depend on the size, number or location of the technical options chosen. A scale of 1 to 3 was used score the impact of individual planned activities on achieving each criteria. At this stage, there was no detailed consideration about whether the potential impact was predominantly positive or negative.

The assessment was carried out in close cooperation with the SOP programming teams: representatives of the SEA team met with each of the programming teams to explain the SEA approach; draft assessment matrixes were forwarded to the teams and discussed; a joint meeting was held to discuss issues where the teams disagreed; and the final version of the assessment was made available.

Integration of selected criteria and sustainability criteria

Once the draft NDP became available, it was assessed. The detailed criteria used for the initial assessment of draft SOPs were considered inappropriate for this purpose. So a new set of 23 general criteria was adopted, drawn mainly from international and national sustainability criteria and split into two groups: 12 formal criteria and 11 issue-oriented criteria (Box C5.2.1). These criteria were not formally approved by the Ministry of Economy.

The criteria were formulated as questions, in part to make them useful to the NDP planning teams. For each one, both a general and a detailed assessment was undertaken. The general assessment involved a relatively short and direct answer (yes, probably yes, probably no, definitely no, not applicable). The detailed assessment provided a longer commentary on key parts of the text of the NDP and suggested general or detailed changes and conclusions. The general changes pointed out issues that were lacking or insufficiently addressed in the NDP and that would need to be added or considerably changed. The detailed changes suggested modifications of the existing document to make it "greener" and more sustainable.

The NDP did not specify types, extent, location and grouping of activities and, therefore, locally, the predicted impacts/effects might be greater or less than assessed by the SEA. In addition, long-term and multi-sectoral effects of activities to be undertaken during implementation of the NDP were not fully considered, partly because the draft NDP did not state clearly which other policies were to be implemented in parallel with the NDP. The interdependence of proposed NDP activities was insufficiently clear to allow for reliable analysis of cross-sectoral impacts.

Box C5.2.1: Sustainability criteria for assessing the Polish National Development Plan, 2004-2006

Formal/procedural criteria

- Were diagnosis and SWOT (strengths, weaknesses, opportunities and threats) analysis prepared taking into account sustainable development?
- Were environmental aims and goals suggested?
- Are proposed actions in accordance with environmental policy documents?
- Were negative environmental impacts quantified?
- Is publicly accountable EIA envisaged for proposed activities?
- Are sustainability indicators taken into account?
- Is 'green purchasing' promoted?
- Did the document undergo public consultations and were the results taken into account?
- Are sustainability aims in different sectors coherent?
- Are environmental criteria for the choice of project suggested?
- Are diagnosis, aims, proposed activities and monitoring indications coherent and sustainable?
- Is the role of environmental protection authorities made clear?

Issue-oriented criteria

- Will proposed activities result in effective use of resources (production, consumption, management)?
- Will proposed activities result in decreased use of non-renewable resources?
- Is eco-innovation promoted?

And do proposed activities:

- Promote sustainability (including mitigation measures and monitoring)?
- Improve the state of the environment?
- Take into account nature and landscape protection (in particular NATURA 2000¹⁶)?
- Reduce environment-related health risks?
- Maintain cultural values?
- Create conditions for fair competition in the use of the environment?
- Raise environmental awareness?
- Improve spatial management structure?

This assessment was carried out for the general part of the NDP and for each of the parts describing the basis for action to be undertaken in the SOPs.

Preparation of the final version of the assessment

In the final assessment, the findings of both the general and detailed assessments, based on sustainability criteria (Box C5.2.1), were taken into account. A total of over 60 general and detailed recommendations were formulated in order to make the findings as "user friendly" as possible for the programming team. Thus, where the programming teams decided not to make major modifications to the text of the NDP, it was still possible to use the detailed recommendations to improve the existing documents.

¹⁶ EC designation - explain

Participation

The draft version of the assessment was forwarded to the programming teams, made available for public consultations and put on the REC website. Individual SEA team members alerted their contacts to the draft SEA report to encourage comments but, unfortunately, the NGO network was not notified.

There was no effective public participation in the process and no comments were received from the public. This may be partly due to the restricted time and the effort required (those commenting would have had to be aware of the contents of both NDP and SEA as well as the general context of those documents). In addition, when the draft SEA was made available, public consultations were being undertaken on the draft NDP and this is where most organisations probably concentrated their efforts. Some NGOs, when asked why they had not commented on the draft SEA, replied that it was because they supported its findings.

The limited comments received were incorporated into the final SEA document.

A summary of the findings of the SEA accompanied the draft NDP during the NDP consultation process.

The SEA team subsequently carried out a general review of the final version of the NDP document to identify which recommendations has been included.

Outcomes

Although not required to do so, the Ministry of Economy took the SEA into account and some of the changes suggested in the SEA report and during the consultation process were made to the NDP. These included:

- Broader approach to environment;
- Better structure and coherence of the NDP document;
- Changes in diagnosis concerning:
 - organic farming – now seen as an opportunity;
 - Polish environment now considered as an asset;
 - environmental aspects of competitive economy discussed;
- Sustainable development (limited) is now promoted as a new ‘axis’ in the NDP;
- A number of detailed provisions are included for:
 - environmental impact assessment;
 - environmental requirements in project implementation;
 - Environmental Monitoring Sub-Committee;
- Greater consideration of environmental issues by sectors:
 - opportunity for ‘green jobs’ perceived;
 - some support for renewable energy sources;
 - changes in flood control approach

A number of changes suggested in the SEA were not included in the final NDP, including:

- Monitoring of implementation against sustainable/sustainability indicators;
- Promoting innovation through increasing the effectiveness of resource use and reducing impacts;
- Education and staff training to improve understanding the idea of sustainability;
- Incorporating environmental preferences in project criteria (*yes* to environmental gain; *no* to environmental impact);
- Subjecting development of transport infrastructure to environmental and economic justification – this is currently lacking in the strong preference for road building (in particular motorways)

The Ministry of Economy used the SEA assessment criteria and methodology for an internal evaluation and quality control exercise

Lessons

For the next programming cycle or indeed future assessment, the main lessons are:

- Try to start early and make sure that the assumptions and aims of both NDP and SEA are made clear and are mutually understood by the programming and assessment teams;
- A broad consensus is required on the aims, which ideally should also be subject to public participation;
- Better cooperation is needed between the NDP programming SEA teams;
- Continue assessment for all of NDP (including SOPs, Regional OP and complementary documents) and all of the programming cycle, including noting lessons for next cycles

Case 5.3: SEA of Energy Policy of the Czech Republic (EP-CR)

(Source: Dusik, 2003c)

Background: context and issues

The Energy Policy of the Czech Republic (EP-CR) was drafted in 1998. It was the first comprehensive strategic document to set out objectives and measures for development of entire energy sector (electricity, coal and gas). The SEA addressed four main issues for decision-making:

- Whether to enforce limits on coal mining (established in 1992) that lead to gradual closure of main coal mines in the country
- Whether to stop or proceed with already initiated building of the second nuclear power plant (NPP Dukovany)
- Whether more extensive state support should be provided for energy savings and alternative energy sources
- What should be the rate or speed of internalisation of external environmental costs in energy market

The role of the SEA

SEA of the EP-CR was the first pilot SEA in the Czech Republic. It started after the draft was prepared by the proponent (Ministry of Industry). It was a mono-alternative proposal and the proponent learned about necessity to apply SEA only during initial submission of the policy to the Czech Government. SEA was initiated on the basis of the Czech EIA Act (Art. 14 dealing with SEA of concepts) by the request of Ministry of Environment. Subsequently, an external consultant (SEVEN) was hired to carry out the SEA.

The SEA team focused mainly on the preparation of the SEA Report and applied the following steps to that end:

- Scoping (1 national public hearing to comment on the draft plan and on the proposed assessment methodology);
- Preparation of the draft SEA Report;
- Public review of the draft SEA Report (1 national public hearings in the main chamber of the Czech Senate).

Two external expert teams were established to help in carry out the SEA. Team A comprised 13 multi-stakeholder experts whose task was to define the scope of SEA, including:

- Delineation of main alternatives of the policy;
- Determination of time-frames for evaluation of impacts (e.g. whether only immediate or long-term impacts should be analysed and over what timeframe(s));
- Establishment of main environmental indicators to compare alternatives.

Team B comprised 19 experts whose task was to carry out the actual assessment. The terms of reference for the Team B, *inter alia*, were to:

- Describe, as precisely as possible, each of the main alternatives in terms of their outputs to the environment;
- Quantify environmental indicators established by the Team A for each alternative;
- Evaluate impacts against the quantified environmental indicators;
- Design measures to offset or mitigate negative environmental impacts.

After completion of the above assessments, another small expert team was established to carry out multi-criteria comparison of alternatives. This team organised a survey among sample of 32 representative respondents to define social importance (weight) of each impact category and each indicator used.

Approach and Methods Used

Development of alternatives

SEA Team A defined three main policy alternatives (described below). Each alternative meets the following assumptions:

- Annual GDP growth is 2-4%
- Energy demand of the economy (expressed by index of primary energy sources per GDP unit) steadily decreases
- Czech Republic meets all international obligations, including Kyoto targets
- All alternatives are fully aligned with EU legislation

Alternative A proposes development of the energy sector based on locally available sources of fossil fuels (black and brown coal). Previously established limits of coal mining are not enforced and economic burden of current energy process does not increase (i.e. there is no further internalising of external environmental costs, carbon tax and energy tax are not introduced). Use of primary energy sources will slightly increase. Growth of energy use is higher than growth of primary energy sources. The second nuclear power plant will be finalised by 2004-2005.

Alternative B proposes development of the energy sector based on locally available sources of fossil fuels, . Previously established limits of coal mining are enforced. This is compensated for by import of electricity and gas. Energy prices will be probably higher than under Alternative A – triggering changes in the structure of energy sources. There will be more use of energy saving schemes and alternative energy sources will increase as well. Growing use will be made of cogeneration units. Use of primary energy sources will not increase. Energy use may slightly increase. The second nuclear power plant will be finalised by 2005.

Alternative C proposes energy savings schemes (including increased efficiency in energy use) and rapid increase of alternative energy sources. Increased efficiencies are supported by stimulation of business dealing with energy savings and by targeted state actions (.e.g. major energy savings in state-own facilities, funding and technical assistance programs for technological changes in private enterprises). The target is to reduce use of primary energy sources by 1,5% annually, i.e. by 16% by 2010. Energy use will decrease. The following alternative energy sources will be developed: biomass (by maximum of 90 PJ), small water plants (by 4 PJ), wind (up to 5 PJ), solar collectors (by 3 PJ) and photovoltaic cells (limited use). Energy prices increasingly reflect external environmental costs leading to growing use of cogeneration units. The second nuclear power plant will not be finalised. Previously established limits of coal mining are enforced.

Selection of issues and indicators

The set of indicators defined by the SEA Team to analyse the proposed policy are described in Table C5.3.1.

Impact analysis and comparison of alternatives

The main SEA contractor and external consultants defined a set of implementation measures for each alternative. A comprehensive mathematical modelling model (MARKAL) provided data for the majority of indicators. Collective expert judgments were used only for three indicators: “waste waters”, “radioactive waters”, and “impacts on employment”.

Table C5.3.1: Indicators for analysing the Energy Policy

Impact Category	Weight of Category	Impacts and main indicators	Weigh of impacts	Weight of indicator
Environmental impacts	30%	Air emissions	58%	
		CO2 (tons)		12%
		CH4 (tons)		15%
		SO2 – total (tons)		21%
		SO2 – local (tons)		5%
		NOX – total (tons)		22%
		NOX – local (tons)		7%
		Particulate matters (tons)		18%
		Water pollution	21%	
		waste waters from mining (m3)		50%
		other waste waters (m3)		50%
		<i>Impacts on soil</i>	18%	
		Land occupation by mining (km2)		30%
		Land occupation by flooding (km2)		10%
		Land occupation by landfills (km2)		35%
		Land occupation by new installations (km2)		25%
		Annual production of waste	3%	
Ash from power plants (tons)		20%		
Unused gypsum (tons)		10%		
Used nuclear fuel (tons)		30%		
Radioactive waste tons)		40%		
Impacts on resources	20%	Impact on Energy Sector	20%	
		Reduction of primary energy sources (tons)		10%
		Reduction of gypsum sources (tons)		25%
		Share of renewable energy sources in primary energy sources (%)		25%
		Use of primary energy sources per capita (GJ/person)		25%
		Use of primary energy sources per economic unit (GJ/GDP)		15%
Social impacts	20%	Impact on Infrastructure	20%	
		Number of people to reallocated		
		Impact on Employment	80%	
		Employment changes by energy savings		50%
		Employment changes by energy production		X
Employment changes by changes of mining		50%		
Economic impacts	30%	Impact on Economy	-	-
		Investment costs per 1GJ unit	-	-
		Running costs per 1GJ unit	-	-
		Costs of energy saving schemes	-	-
		Costs of measures to offset and mitigate adverse environmental impacts	-	-

Indicators were estimated for all three alternatives. In order to mutually compare all alternatives, alternative A was used as a baseline (i.e. impacts of alternatives B and C were compared against baseline situation established by alternative A). This can be exemplified by a comparison of all alternatives using the indicator of “CO₂ emissions”: CO₂ emissions for alternative A were classified as 100%, alternative B then

produced 95% of CO₂ emissions compared with alternative A, and alternative C produced only 87% of CO₂ emissions compared with alternative A. Such comparisons were done for all indicators.

After completion of this analysis, it was evident that Alternatives C and B score much better on almost all indicators than Alternative A (the only exception were economic indicators where Alternative A scored best).

This conclusion however did not reflect social values attributed to each category impact. For this purpose, a multi-criteria comparison of alternatives was carried out. A survey of 32 representative respondents was used to define the social importance (weight) of each impact category and each indicator used.

The multi-criteria analysis (including sensitivity analysis) resulted in similar conclusions as the original analysis of alternatives. The assignment of weights to impact categories did not alter the basis finding that Alternatives C and B performed much better on almost all indicators than Alternative A.

This main conclusion was presented in the draft SEA Report to the proponent (Ministry of Industry). It was agreed that the proponent would consider these findings in selecting an optimal alternative. Detailed mitigation measures and a monitoring scheme were to be designed for the alternative finally selected.

Public participation

Identification of stakeholders

A separate public participation process was organised for the SEA. Measures for the identification and notification of the public were included:

- A web page with announcement of the SEA process and background documents for the SEA;
- A special e-mail address to gather comments

In addition, NGOs established a network of 6 regional coordinators to disseminate information about the SEA, organized 6 regional public workshops and forwarded comments to the SEA team.

Mode(s) of involvement

First, a national public workshop was held to undertake an initial review of the draft policy and scope the SEA. The workshop was highly interactive with participants breaking into small groups to define specific impacts and comment of the proposed alternatives. Approximately 80 people attended the workshop (mainly EIA experts, energy experts, energy lobbies and NGOs).

Second, a national public hearing was held on the draft SEA report. The hearing took place in the Czech Senate (under personal auspices of the speaker) and was organized in a formal manner. It was attended by approximately 170 people (mainly municipalities, energy lobbies, NGOs, members of the Senate and of the Parliament).

Comments on effectiveness of public participation

Evaluation of responses and comments revealed that participants were quite satisfied with both events. The involvement of the Senate contributed to the prestige and transparency of the entire SEA process.

Results and Lessons

Contribution of SEA to decision-making

The SEA process lasted approximately 12 months and the draft report was given to the Ministry of Industry shortly before a change of government. The incoming government decided to prepare a new energy policy – it strongly preferred Alternative in line with its own priority to maintain energy intensive industries and

development of the second nuclear power plant (NPP Dukovany). Since the SEA had documented major environmental problems with these proposals, the Ministry of Industry decided to ignore the findings. It drafted a new energy policy and commissioned another SEA. Neither the new policy nor the new SEA were prepared in a publicly transparent manner and were made publicly available only shortly before submission to the Government. Both documents were heavily criticised (completion of NPP Dukovany then became the subject of a major diplomatic dispute between the Czech Republic and Austria). The SEA was considered to be of very poor quality and highly biased SEA.

What are the conclusions for SEA good practice

The earlier SEA process had a number of elements of good practice (eg comparison of alternatives, public hearing) and the report was of good quality. But it could have been concluded much quicker, if additional complicated analyses (i.e. multi-criteria analysis) has not been performed. The main environmental issues and trends associated with implementation of each alternative were evident already from prior evaluations. If the SEA had been completed in shorter time it would have provided an earlier input into decision-making on the policy. However, it questionable whether this would have made any difference to the incoming government in terms of acceptance of the finalised policy; most likely, it would have drafted its own new policy anyway.

The main lessons for the SEA practice are:

- Always use the simplest technique available to carry out the given task. It will save time and money;
- SEA takes place within the larger context and climate of political decision-making. The report is only a decision-support document that is meant to inform, not bind, choice. It is likely to be ignored when the findings run counter to major priorities of a government.

Key information sources

This project has not yet been reported in international or national literature. Further information on the overall design of the SEA procedure (including public participation) can be obtained from Jiri Dusik (jdusik@rec.org). More information on the SEA Report can be obtained from Mr. Jiri Zeman (jiri.zeman@svn.cz).

