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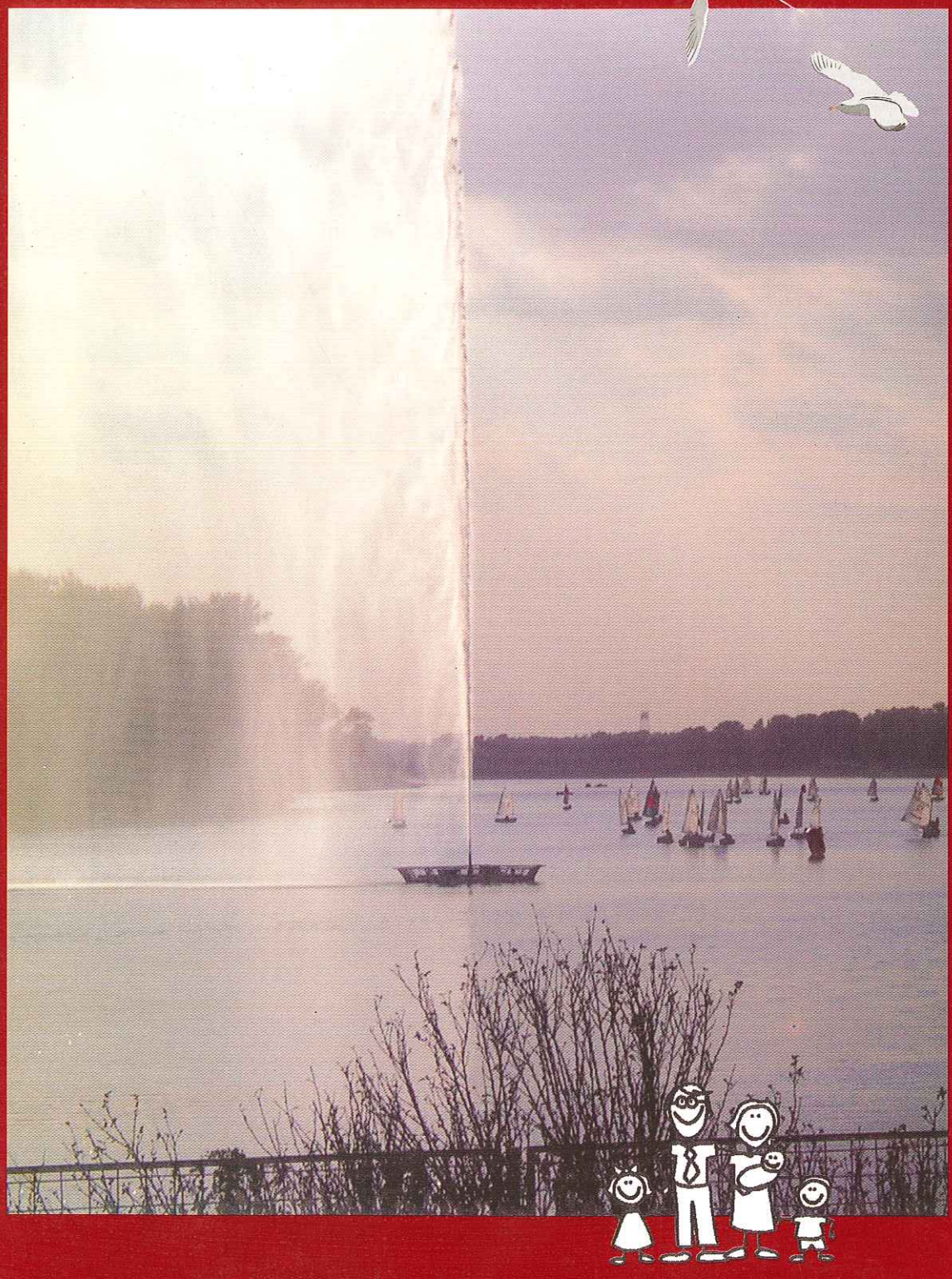

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SCOPE AND AIMS

The review is concerned with a multi-disciplinary approach to regional and urban planning and architecture, as well as with different aspects of land use, including housing, environment, etc. It attempts to contribute to better theoretical understanding of a new spatial development processes and to improve the practice in the field.

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The Institute of Architecture and Urban and Spatial planning of Serbia jointly with the School of Built Environment – Oxford Brookes University and British Council Serbia and Montenegro started the pilot project on "Sustainable Planning" last year. The agreed objectives of the project include harmonisation of methodologies and tools for sustainable/environmental planning and implementation of EU standards; link with European and UK networks for environmental planing; communication and sharing of experience in academic delivery and practice in environmental planning with institutions in the UK and developing techniques and tools such as Strategic Environmental Assessment, EIA, ecological evaluation and GIS.

During that first year of the project, British Council hosted three guest speakers from Oxford Brookes University and organised the seminar on "Sustainable Planning" which gathered about thirty leading local specialists and covered various aspects of sustainable planning like regional planning and sustainability, environmental planning of infrastructure corridors in Serbia, cumulative assessment, tools for sustainability and Web based knowledge network for planning and development.

Considering the importance of this joint project, the editorial board of SPATIUM decided to publish a special issue of the journal covering main topics of the seminar and presenting the results achieved so far. It also looks into the perspective for further development of the network within the region and Europe.

The editorial board would like to thank everyone who contributed to our joint effort. A special thanks goes to British Council Serbia and Montenegro for their generous support.

REGIONAL PLANNING AND SUSTAINABILITY – TOWARDS INTEGRATION IN THE UK AND EU

John Glasson

A key premise of the paper is that the regional level of planning is a particularly appropriate level for the integration of bio-physical and socio-economic development issues. The UK, and the European Union (EU) more generally, have witnessed some important developments in regional planning practice over the last decade which have sought to encourage such integration. The paper reviews examples of innovative applications of Strategic Environmental Assessment (SEA) and Sustainability Appraisal (SA), in relation to EU Structural Funds, the new generation of UK Regional Plans, and UK Multi-Model Transport Corridor studies. It concludes with an appraisal of progress to date towards the goal of a more integrated approach.

INTRODUCTION AND BACKGROUND

Socio-economic development and a high quality natural and built environment can be uncomfortable, and often incompatible, partners. Economic development and environmental degradation can be a causal downward spiral which is hard to reverse. In the European Union, several decades of Environmental Action Plans have had mixed impacts on various environmental indicators, as reported in the European Environment Agency's latest state of the environment report for Europe (Environment Agency 2003). Yet the adoption of the concept of sustainable development has offered a way forward which is potentially more positive, if the good intentions can be converted into good practice.

In this context, regional planning may have a particularly central role to play as the focus for 'territorial integration' – between the natural and socio-economic systems within a territory. In the UK the legacy of Ebeneezer Howard and his healthy Garden Cities can be traced through into regional plans, with new towns and corridors of development, and an attempt to balance the pressures of development and environmental conservation. In the US, Friedmann and Weaver (1979) have reminded us of important innovative regional schemes, exemplified by comprehensive river based regional development schemes such as that for the Tennessee Valley. Others (for example Roberts, 1994) have argued that the regional level, regional agencies and the regional planning process are perhaps best placed to secure the vital integration needed between socio-economic development and the bio-physical environment.

But can we deliver such effective integration at the regional level? Regional planning practice has been severely constrained by the 'means' to deliver the 'ends'. There are both institutional constraints and also methodological constraints. Institutionally, regional planning is often seen as the cuckoo in the nest between local and national levels. It often lacks the power base and legitimacy of the other levels of government and planning, and can be viewed with mistrust from both above and below, for 'empowered' regions can be a significant force in the country. It can be a contested area between many stakeholders with their varying interpretations of regional planning objectives – physical/land use planning or economic development; intra-regional planning or inter-regional planning? Yet there has been a renewed interest in regionalism in many countries in the European Union, as will be discussed further. But even if the institutional context is improved, can we overcome the methodological constraints involved in socio-economic and bio-physical integration? In this context, the recent and rapid rise of Strategic Environmental Assessment (SEA) and Sustainability Appraisal (SA) offers promising ways forward.

This paper focuses on approaches to overcoming the institutional and methodological constraints in three contexts – the European Union and sustainable regional development (through the Structural Funds and SEA/Environmental Appraisal); the revival in English regional planning and Sustainability Appraisal; and a sub-regional transport sector example, using the currently popular UK example of transport corridor multi-modal studies, drawing on a case study from South Wales. As a preliminary to these three cases, the next section seeks to illustrate the many dimensions and levels of UK and EU regional development and planning in practice.

UK AND EU REGIONAL DEVELOPMENT AND PLANNING – A MULTI-LEVEL CONCEPT

Figure 1 provides a simple overview of five 'levels' of regional/sub-regional planning and development in the UK and the EU. At the macro EU scale, regional planning and development can be seen as embracing both the long standing, imperative and highly resourced Regional Policy, which uses the strength of the Structured Funds to help the

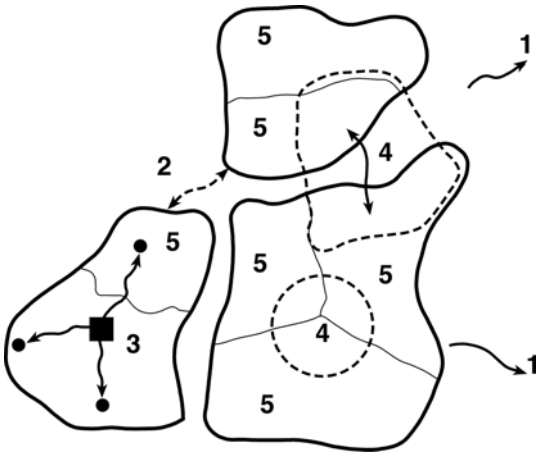
weaker EU regions; and the much more recent, indicative and very tentative European Spatial Development Perspective (ESDP) with its ideas for spatial planning in macro cross border regions and innovative planning concepts (for example – polycentricity in regional planning) (CEC, 2004; 1999).

Within the UK, there has been a long standing 'inter-regional' planning policy which has sought since the 1920s to assist the more economically distressed regions, which are primarily in the North and West of the country (for example Merseyside (Liverpool), Clyde-side (Glasgow) and South Wales). Within our large planning regions (see Figure 2), another level of planning, 'intra-regional' or regional spatial planning seeks to achieve the best distribution of land uses and development over planning periods of approximately 15 years. Such plans may identify sub-regions for particular development attention, for example the Milton Keynes area or the Thames Gateway area in the South East Region, which are then the focus for sub-regional planning. The lowest level of strategic planning in the UK is that of Structure Planning for the English Counties – soon to be ended under the 2004 reforms of the English planning system (ODPM, 2003).

Case 1: The EU and sustainable regional development

The EU is on an integration path, moving from free trade area, to common market, to various degrees of economic and monetary, and to some extent political, union. The aim of the Single European Act (1992) was the further elimination of barriers (non-tariff, such as restrictive practices, as well as tariff) and the creation of a powerful and competitive single market, well equipped to compete globally. The EU is also growing in terms of Member States and population. The EU of 15 Member States has a population of 380 millions. This will increase to 455 millions with the addition of the 10 Accession States in May 2004, and to 485 millions with the planned enlargement to 27 Member States, with the subsequent addition of Bulgaria and Romania. But the addition of new members usually brings problems of economic disparity. For example Bulgaria and Romania together would add a further 8% to EU population but under 1% to

Figure 1: The Range of level EU/UK Regional development and Planning Practice

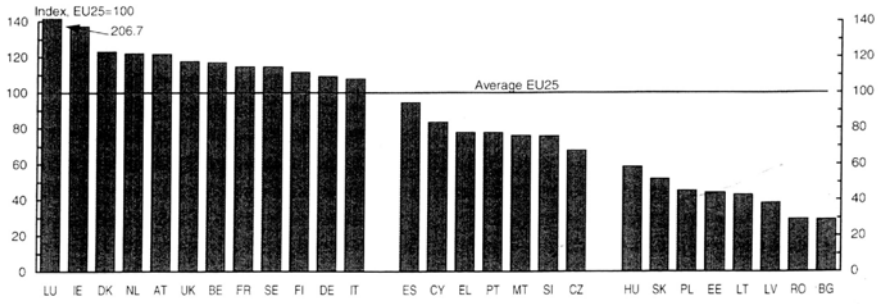


1 EU level spatial planning (eg ESDP; Regional Policy)
2. UK inter-regional planning (eg Assisted Areas Policy)
3 UK intra-regional planning (eg SE Regional Planning Guidance (RPG); and Regional Spatial Strategy (RSS))
4 Sub-regional planning (eg Milton-Keynes Sub-Regional Plan)
5 Structure planning (eg Oxfordshire Structure Plan)

Figure 2: Map of the English Regions (DTLR,2002)

GDP (CEC, 2004). The removal of barriers to trade and factor movement within the EU can also emphasise the 'centre-periphery' model of differential prosperity. Figure 3 shows a division of the enlarged EU into three groups of Member States according to GDP per capita. The first group consists of 12 of the present 15 Member States, with GDP per capita at least 10% above the EU 25 average. In the second group, including the remaining three of the 15 Member States, Spain, Portugal and Greece, plus Cyprus, The Czech Republic, Slovenia and Malta, GDP per head is between 68% and 94% of the EU 25 average. In the third group of 8 countries (including Bulgaria and Romania), it is under 60% of the average.

Figure 3: EU States – GDP per head (PPS), 2002



Source: Eurostat, National accounts

The EU must be fair as well as free, and over time a counterbalancing regional policy has been developed to aid the development of problem regions in Member States. EU regional policy uses a variety of funding mechanisms, the European Regional Development Fund (ERDF), the European Social Fund (ESF), the Cohesion Fund, and others to support investment in infrastructure and people in the regions. The funding is now immense, almost half of the EU budget, and is targeted at the most disadvantaged (Objective 1) regions. But all development – new high speed train systems, major roads, energy facilities and the like – have environmental impacts, and there is a danger of EU regional policy objectives and actions clashing with those of the EU environmental policy. The Single European Act also stresses that the EU will aim for a 'high level' of environmental protection, with objectives 'to preserve, protect and improve the quality of the environment, to contribute towards protective human health, and to ensure a prudent and rational utilisation of natural resources'. To such ends, there have been many environmental Directives, including the pioneering 1985 (amended 1997) Environmental Impact Assessment Directive (CEC 1997). The latter applies to projects, and has been applied, with some inconsistency, to developments across the 15 Member States (Glasson et al 2004). However, the introduction of Strategic Environmental Assessment (SEA) for the higher tiers of development actions - programmes, plans and policies - has been problematic. The EU has wanted such a facility for many years, but has been blocked by Member States claiming 'national susbsidiarity' for such measures.

Yet an interesting way forward was found by the EU, using the strength of EU regional policy funding. Under the Fifth Environmental Action Programme (EAP) (CEC, 1992), an Integration Unit was established in the European Commission (EC) Environment Directorate which had as one of its objectives, the undertaking of environmental assessments of EU actions. EU regional policy became a suitable case for treatment. To access the Structural Funds, 260 bn. Euro (2000-2006), Members States must produce regional development plans pulling together investment requirements for the region/sub-region in question. From 1994 onwards such plans had to be accompanied by an 'environmental profile' (see Table 1), which should provide an overview of the most significant environmental issues and the most acute environmental problems of a region. Over 150 plans, submitted by Member States between 1994-1999, were subject to the new requirements.

Table 1: EU Environmental Profile for Regional Development Plans

Key environmental issues	A description (quantified where possible) of the key environmental issues in the region including: – the location of zones of special environmental interest; – the nature and location of acute problems of pollution and the population affected (e.g. where Community standards are exceeded, where potentially irreversible damage to the environment has occurred); and – problems and/or areas of serious stress on the ecosystem (e.g. with reference to water quality and quantity, soil quality)
The legal and administrative framework	A description of: – the legal and administrative framework within which areas of environment interest are designated and protected; – the legal and administrative framework within which the regional development plan and environment policies are conditioned (e.g. through land use planning, project design and approval; – the role of environmental authorities in planning implementation of the development plan; and – the procedures for providing the public with information (and where appropriate consultation) on projects.

The Impact of regional developments plans on the environment	A description of: – the expected change in acute problems of pollution and stress on the ecosystem, as a result of the actions arising from the development plan (quantified where possible); – expected improvements to human skills; – whether (and if so how) preventative action is incorporated into the development and design of major infrastructure projects and regional aid schemes; and – existing and planned environmental information and monitoring systems.

(Source: CEC, 1993)

An EC review of the environmental profile process (see Glasson and Gosling, 2001) indicated that it had produced plans of greater environmental content, both vertically (ie. the addition of specific environmental measures) and horizontally (ie. the inclusion of environmental concerns across all measures). There were of course some limitations; the measure was introduced quickly, and the profiles were weak on quantification. But they did represent an important example of confronting institutional and methodological issues. The institutional context was significant, in that it brought together Environment and Regional Policy Directorates, using the financial clout of the Structural Funds as the 'carrot' to implement the profile. The profile itself was simple in its requirements; later rounds of implementation will build on this format.

In a wider context, after 25 years of discussion and negotiations, the EU finally agreed the SEA Directive (CEC, 2001), to become operational from July 2004. It applies to plans and programmes in Member States, including regional plans, but agreement could not be reached on the inclusion of policies. The Directive relates to plans and programmes for agriculture, forestry, fisheries, energy, industry, transport, waste management, telecommunications, tourism, town and country planning or land use. Table 2 provides a summary of the requirements of the Directive. The introduction of the Directive, and its translation into national legislation and guidance (see Chap 12, Glasson et al, 2004 for UK guidance) provides a further step forward in overcoming the institutional and methodological constraints.

Table 2: Requirements of the EU SEA Directive

Preparing an environmental report in which the likely significant effects on the environment of implementing the plan, and reasonable alternatives taking into account the objectives and geographical scope of the plan, are identified, described and evaluated. The information to be given is (Article 5 and Annex I): a) An outline of the contents, main objectives of the plan, and relationship with other relevant plans and programmes; b) The relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan; c) The environment characteristics of areas likely to be significantly affected; d) Any existing environmental problems which are relevant to the plan including, in particular, those relating to any areas of a particular environmental importance, such as areas designated pursuant to Directives 79/409/EEC and 92/43 EEC; e) The environmental protection objectives, established at international, Community or national level, which are relevant to the plan and the way those objectives and any environmental considerations have been taken into account during its preparation; f) The likely significant effects on the environment, including on issues such as biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship between the above factors. (These effects should include secondary, cumulative, synergistic, short, medium and long-term permanent and temporary, positive and negative effects); g) The measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the plan; h) An outline of the reasons for selecting the alternatives dealt with, and a description of how the assessment was undertaken including any difficulties (such as technical deficiencies or lack of know-how) encountered in compiling the required information; i) a description of measures envisaged concerning monitoring in accordance with Article 10; j) a non-technical summary of the information provided under the above heading. The report must include the information that may reasonably be required taking into account current knowledge and methods of assessment, the contents and level of detail in the plan, its stage in the decision-making process and the extent to which certain matters are more appropriately assessed at different levels in that process to avoid duplication of the assessment (Article 5.2).
Consulting: • authorities with environmental responsibilities, when deciding on the scope and level of detail of the information which must be included in the environmental report (Article 5.4) • authorities with environmental responsibilities and the public, to give them an early and effective opportunity within appropriate time frames to express their opinion on the draft plan and the accompanying environmental report before the adoption of the plan (Article 6.1, 6.2) • other EU Member States, where the implementation of the plan is likely to have significant effects on the environment in these countries (Article 7).
Taking the environmental report and the results of the consultations into account in decision-making (Article 8).
Providing information on the decisions: When the plan is adopted, the public and any countries consulted under Article 7 must be informed and the following made available to those so informed: • the plan as adopted • a statement summarising how environmental considerations have been integrated into the plan and how the environmental report of Article 5, the opinions expressed pursuant to Article 6 and the results of consultations entered into pursuant to Article 7 have been taken into account in accordance with Article 8, and the reasons for choosing the plan as adopted, in the light of the other reasonable alternatives dealt with; and • the measures decided concerning monitoring (Article 9).
Monitoring the significant environmental effects of the plan's implementation (Article 10).

(Source: ODPM, 2003)

Case 2: the UK regional revival and the example of SE England regional planning

UK regional planning (taken here as regional strategic planning for a region, or intra-regional planning) prospered in the 1960s and 1970s. But by the 1980s Breheny and Hall (1984) were writing about 'the strange death of strategic planning'. Fortunately it was a case of hibernation rather than death, and there has been a major revival of regional activity in the 1990s and beyond, particularly following the election of a Labour Government in 1997. Examples of this revival include institutional reform. Scotland and Wales have their own Assemblies, with responsibility for planning amongst other activities. Each of the eight English regions (Figure 2) has a Regional Development Agency (RDA) charged with the task of promoting the sustainable economic development of its region. The RDAs have substantial budgets, and provide a new resource lever for policy and plan implementation at the regional level. There are also regional Government Offices which co-ordinate the functions of Central Government in the English regions. The latter do not yet have directly elected assemblies as in Scotland and Wales, but there are appointed Regional Assemblies for the English regions and they are becoming a more significant player, especially in regional planning.

The regional revival has also had a procedural/methodological dimension. Activity in the 1990s was based around the production of Regional Planning Guidance (RPGs) for each of the English regions. Early examples had quite a narrow land use planning format and were stronger on analysis and strategy formulation than on implementation. Later examples adopted a wider brief. For example the 'Regional Guidance for the Spatial Development of the East Midlands' (EMRLGA, 1998) saw its role as follows:

> 'to set out an integrated spatial development strategy which encompasses proposals for the development of the region's economy, its infrastructure, its housing and other land use needs, and proposals for the conservation and enhancement of the natural and cultural environment for the benefit of all the region's citizens; to incorporate the key elements of the Regional Transport Strategy: to set the spatial development strategy within the context of moving towards more environmentally sustainable living patterns; to involve all the region's stakeholders in a debate about the future direction of the region; to provide a framework (for other plans and programmes).'

New national Planning Policy Guidance on regional planning (PPG11) (DETR, 2000) further advanced the changing nature of the context and process of regional planning. The widening content included additional issues such as health and energy; other aims for revised RPG included more focus on policy integration, within and between policy fields, and between policy levels, and policy innovation. But resource constraints on regional planning activity continue to be apparent in most regions; regional planning operates on a shoestring, plus a great deal of good will from various levels of government and from relevant agencies.

The latest stage in the evolution of regional planning has come out of a major review of the UK planning system, encapsulated in the Planning and Compulsory Purchase Bill (ODPM, 2003). This provides for Regional Spatial Strategies (RSSs) to replace RPGs. The key differences between the two are:

- holistic approach – RSSs will cover even wider topic areas than the traditional land use and transport, including for example: health, education, skills and training, crime, social inclusion, and climate change;
- greater integration – covering regional and sub-regional priorities and stronger links between plans;
- statutory status – RPG was 'guidance'; RSSs will be statutory documents; and
- greater engagement – with an emphasis on broader engagement, and on including groups not previously engaged in the process.

During the 1990s there was also an increasing interest in building sustainable development into the regional planning process. A key UK Government document, 'A better quality of life – a strategy for sustainable development for the UK' (DETR, 1999a) broke down the sustainable development definition into four key objectives:

- Social progress which recognises the needs of everyone;
- Effective protection of the environment;
- Prudent use of natural resources; and
- Maintenance of high and stable levels of economic growth and employment.

It stated that sustainable development would have a place in all strategic documents produced by public bodies at the regional level. The Government also wished to see high level sustainable development frameworks for each English region by 2000. A further publication (DETR, 1999b) produced a set of indicators for a strategy for sustainable development; another (DETR, 2000) provided guidance on preparing regional sustainable development frameworks.

South East England provides a regional example of some of the recent developments. It is the largest of the English regions, covering 19,000 sq.km., and is home to over 8,000,000 people. Its location close to London and to Europe help to give it significant economic advantages, making it an 'economic powerhouse' for the country and, along with London, one of only two UK regions that positively contribute to the Exchequer. Its dynamism also brings pressures; transport, affordable housing, availability of development sites, and erosion of environmental quality are key issues.

The current SE Regional Planning Guidance (RPG9) (GOSE 2001) did involve the application of sustainability appraisal. But a major advance was made with the publication of 'A Better Quality of Life in the SE – the Regional Sustainable Development Framework' produced by the SE England Regional Assembly (SEERA 2001). The document included a set of Sustainable Development Guiding Principles for the SE (see Table 3), plus a more specific set of Objectives and Indicators (see Table 4). These objectives and indicators have since been used to assess the sustainability of follow up studies to RPG9, for specific sector strategies – transport, tourism, waste management and renewable energy.

Table 3: South East Sustainable Development Guiding Principles

• Adopt an **integrated approach** to decision-making promoting economic, social and environmental objectives simultaneously. • Take a **long term perspective** rather than focusing on the short term. • Adopt a **culture of responsibility** where those responsible for environmental damage or social disadvantage, rather than society at large, pay for this to be rectified. • **Respect environmental limits**, particularly in respect of natural resources such as water and biodiversity, and the release of pollutants into the environment. Defining such limits is often difficult, and where this is not possible but a risk of exceeding them is evident, the precautionary approach should be taken. • Adopt the **precautionary principle**, defined in the Rio Declaration as 'where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation'. • Adopt an **informed approach** using the best available information, including the likely impacts of policies and actions within and outside of the Region, and of their likely costs and benefits including those that cannot be easily valued in financial terms.	• Be **proactive** in taking action to realise economic, social and environmental opportunities, and to avoid problems rather than reacting to symptoms of unsustainable development. • Adopt **open and collaborative approach** to decision-making, respecting cultural diversity and encouraging widespread and informed public participation, and partnerships involving all sectors of the community. • **Meet local needs locally** where this is possible and has the most benefit. This can help reduce local and global environmental damage through reducing travel and the need to travel, reducing emissions of pollutants and greenhouse gases, whilst benefiting local and regional economies and saving time for business and for people. • **Increase awareness of sustainable development** among all audiences from schoolchildren to international companies, as progress will depend upon the actions of everyone.

(Source: SEERA, 2001)

Table 4: SE Region Sustainable Development Framework - Objectives and Indicators

OBJECTIVES	INDICATORS
Social progress which recognises the needs of everyone	
1. To ensure that everyone has the opportunity of a decent and affordable home.	*1. Homelessness and housing need.* *2. Affordable homes within total housing stock.* *3. Homes judged unfit/non-decent to live in.*
2. To improve the health and well-being of the population and reduce inequalities in health.	*4. Death rate from coronary heart disease and stroke, cancer and accidents.*
3. To reduce poverty and social exclusion and close the gap between the most disadvantaged communities and the rest.	*5. Children living in low-income families.* *6. Working age people in workless households.* *7. Fuel poverty.*
4. To stimulate economic revival in Priority Regeneration Areas.	*8. Business start-ups and survival rates across the South East.*
5. To raise educational achievement levels across the Region and develop opportunities for everyone to acquire the skills to find and remain in work.	*9. Adults with NVQs and above.* *10. Adults with basic literacy and numeracy skills.* *11. Retention of young people in education beyond minimum leaving age.*
6. To reduce crime and fear of crime.	*12. Level of crime.* *13. Fear of crime.*
7. To create and sustain vibrant communities.	*14. Population with access to key local services and facilities.*
8. To encourage the development of, and participation in, cultural, creative and sporting activity, and a buoyant sustainable tourism sector.	*15. Participation in cultural, sporting and arts activities.*
Effective protection of the environment	
9. To improve efficiency in land-use through the re-use of previously developed land and existing buildings, and encourage urban renaissance.	*16. Development on previously developed land.* *17. Derelict land and empty properties.*
10. To reduce air pollution and ensure air quality continues to improve.	*18. Days when air pollution is moderate or high.*
11. To maintain and improve the water quality of the Region's rivers and coast.	*19. Rivers with good or fair water quality.* *20. Compliance with EC Bathing Waters Directive.*
12. To address the causes of climate change through reducing emissions of greenhouse gases.	*21. Emissions of greenhouse gases.*
13. To conserve and enhance the Region's biodiversity.	*22. Populations of wild birds.* *23. Condition of Sites of Special Scientific Interest (SSSIs).* *24. Extent and condition of key habitats.*
14. To protect, enhance and encourage enjoyment of the countryside.	*25. Land covered by management schemes.* *26. Extent and condition of key habitats.*
15. To reduce road traffic and congestion through reducing the need to travel by car and improving travel choice.	*27. Growth in traffic.* *28. Traffic congestion.* *29. Proportion of travel by car.* *30. Investment in public transport, walking and cycling.*

OBJECTIVES	INDICATORS
16. To maintain, enhance and make accessible the historic environment and assets of the Region.	*31. Building of Grade 1 and II* at risk of decay.*
Prudent use of natural resources	
17. To achieve sustainable water resource management.	*32. Per capita consumption of water.*
18. To reduce the risk of flooding that would be detrimental to public well-being, the economy and the environment.	*33. Properties at risk from flooding.*
19. To reduce waste generation and disposal, and achieve sustainable management of waste.	*34. Waste generation and method of management.*
20. To increase energy efficiency	*35. Energy use per capita.*
21. To increase the proportion of energy generated and consumed in the Region from renewable sources.	*36. Installed capacity for energy production from renewable sources.*
Maintenance of high and stable levels of economic growth and employment	
22. To ensure high and stable levels of employment so everyone can benefit from the economic growth of the Region.	*37. Working age people in work.*
23. To sustain economic growth and competitiveness, and ensure better distribution of economic activity across the Region.	*38. GDP per capita.*
24. To invest to secure our future prosperity and quality of life.	*39. Social, R&D, and total investment.*
25. To develop the knowledge economy by focusing on high value, lower impact activities.	*40. Labour productivity (GVA per head for manufacturing and whole economy).* *41. Knowledge economy (in development).*

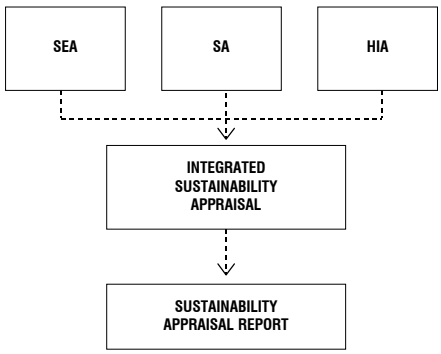
(Source: SEERA, 2001)

SEERA is now midway through producing the first SE RSS (to be known as the SE Plan) to provide a statutory regional planning framework to 2026. Appraisal methodology moves on, and latest ideas on the appraisal/assessment process suggest a combination of the SE Sustainability Appraisal approach noted above, with the requirements of the new SEA Directive, and enhanced by the interesting addition of a Health Impact Assessment (HIA) to asses the potential effects of the RSS on the health of its target population. Figure 4 provides a diagrammatic representation of how this process will contribute to an Integrated Sustainability Appraisal! Overall this rapid evolution of regional planning and a sustainability approach reflects another positive response to the institutional and methodological constraints which have bedevilled sustainable UK regional planning.

Case 3: a sub-regional transport sector appraisal the South Wales M4 Corridor Common Appraisal Framework study

In parallel with the regional plan appraisal initiatives over the last few years there have been a growing number of innovative studies seeking to appraise Multi-Modal options to resolve particular transport issues, and drawing on a new government appraisal framework for major road projects (DETR, 1998). These normally relate to attempts to improve transport along congested corridors. In SE England they include for example the A34 Corridor, the South Coast and others (see SEERA's Transport Strategy, 2003). However one of the pioneers of such studies was the 1998-1999 Common Appraisal Framework study for part of the M4 Corridor in South Wales. The aim was to consider options to resolve traffic congestion on the section of the M4 around Newport, East of Cardiff. Options to be appraised, on the basis of acceptable environmental, financial, economic and safety criteria, included: do minimum; M4 relief road; enhanced public transport; traffic demand management; and a hybrid approach. The study was undertaken by Ove Arup, for the Welsh Office (subsequently Welsh Assembly). This author was one of a panel of three academics who provided advice on the project.

Figure 4: SE Regional Spatial Strategy: Structure of Appraisal Process



Source: South East Plan – Spring Debates documentation (SEERA 2004)

The options for appraisal were developed from an investigation of alternative transport measures identified from good practice in the UK and abroad. Possible measures that were seen as making a realistic contribution to reducing congestion, with costs commensurate with likely impacts, were packaged into three basic scenarios for testing. Figure 5 shows the road building scenario, with a 24 km M4 Relief Road. Figure 6 shows the key elements in the traffic/demand management scenario. Enhanced public transport made up the third basic scenario. The hybrid scenario was developed following preliminary assessment of the other three.

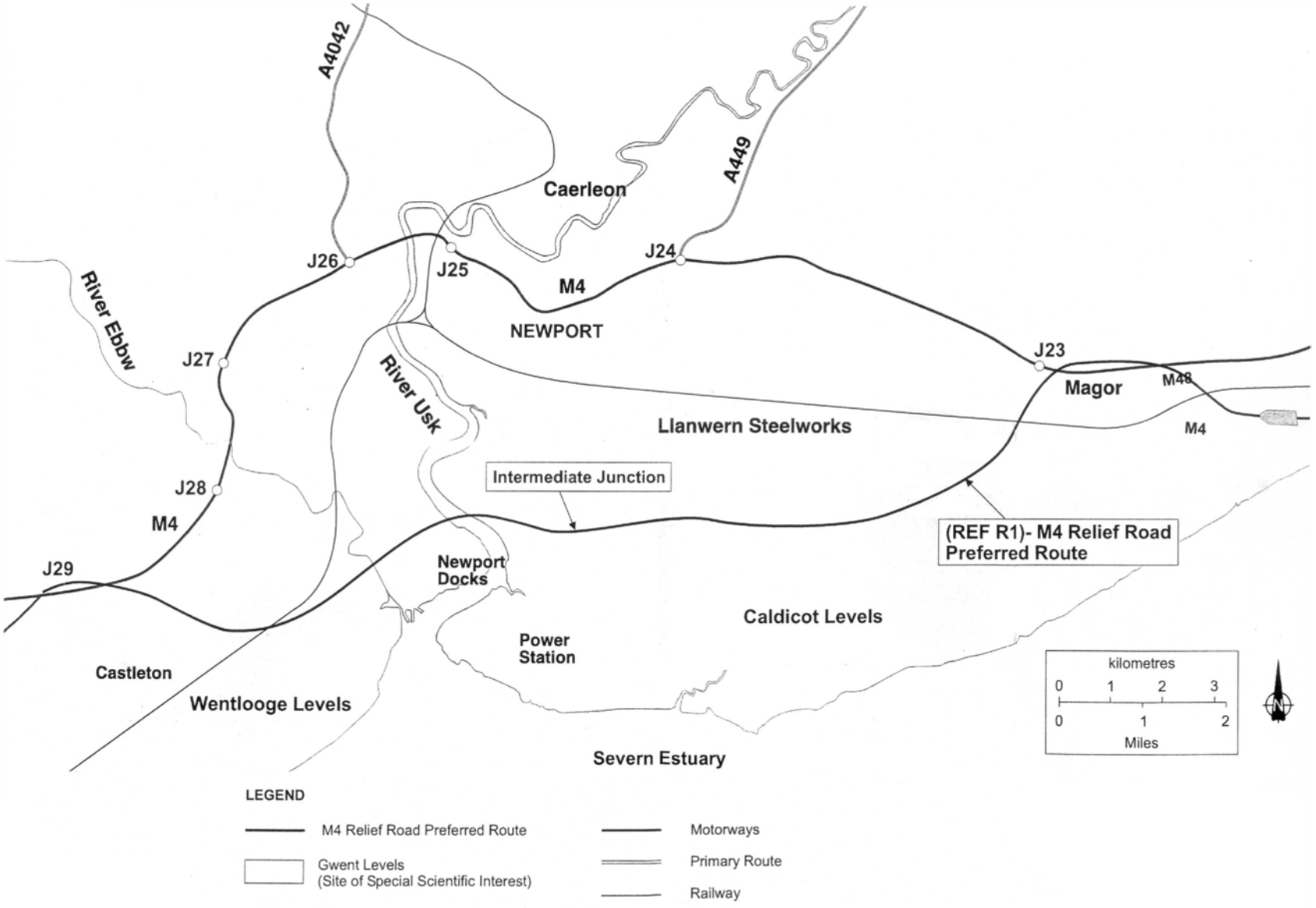


Figure 5: M4 Common Appraisal Framework : Road Building Scenario

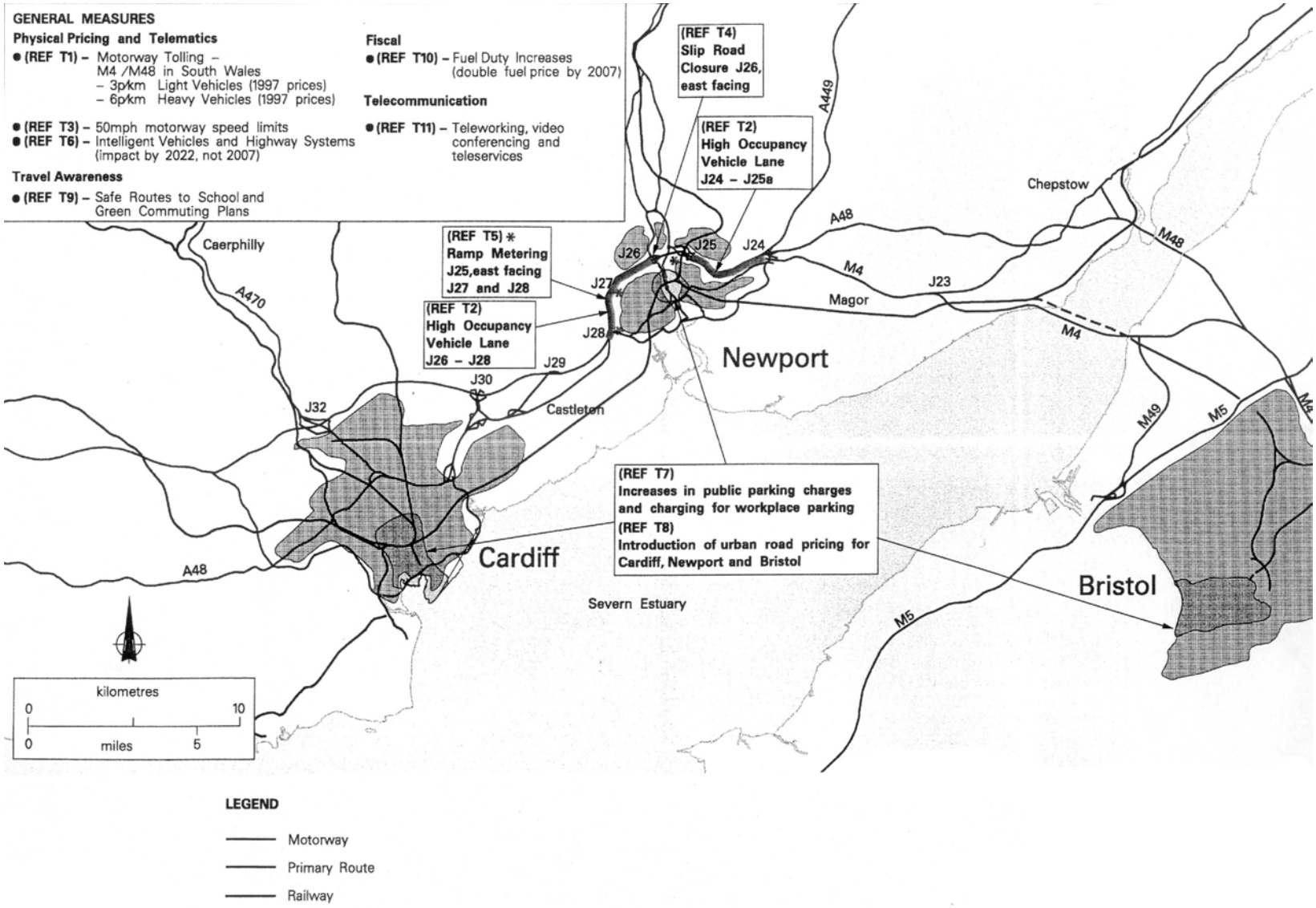


Figure 6: M4 Common Appraisal Framework : Traffic/Demand Management Scenario

The appraisal methodology involved assessment of scenarios against performance indicators for particular objectives. For example, the objective of 'emissions from transport affecting local air quality are minimised', was assessed by an indicator 'length of highway experiencing a change in NO_X emissions'. An array of findings was brought together in a Common Appraisal Summary Table (Table 5), which included Transport, Environmental and Economic Issues. The road building scenario would achieve the M4 congestion reduction objective, have economic benefits, but not assist national transport policy objectives and would have damaging environmental impacts on important sites in the lowest levels. In contrast, whilst the public transport scenario would assist national policy, and would be generally good for the environment, the primary objective of reduction in M4 traffic would not be met in any significant way. Perhaps, predictably, it was the hybrid scenario which came through the process best.

The appraisal had many innovative features in its methodology, and the study itself was awarded the UK Institute of Logistics and Transport Award for Public Planning of Transport 2000. Unfortunately institutional support was less strong. Welsh Assembly officials believed that the motorway toll (demand management measures) built into the hybrid scenario, would be bad for the competitive position of Wales, would divert traffic onto local roads and could not offer a long-term solution to congestion. Such views were reinforced by the Welsh Assembly politicians who refused to support the proposed package of measures.

CONCLUSIONS

The initial premise of this article was that the regional level of planning, reinforced by the concept and practice of sustainable development, was particularly appropriate for achieving the better integration of socio-economic development with a high quality natural and built environment. Yet recent history had shown that there were constraints on such integration, and these could be broadly packaged as institutional and methodological. The purpose of taking the three cases was to assess whether there was evidence of any progress in overcoming these constraints, at three levels of regional intervention – EU, UK regional, and UK sub-regional. The three cases show considerable innovative activity in what has been a dynamic regional environment in the last decade.

Table 5: M4 Common Appraisal Framework: Summary Table

Indicator	Objective	Road Building scenario	Enhance Public Transport scenario	Traffic/Demand Management scenario	Hybrid scenario
Transport: Local Issues	Optimise local impact (eg. J25-26, 2007)	M4 objective achieved – 43% reduction. Minimal impact on Newport	M4 objective not achieved – 6% reduction. Small beneficial impact on Newport.	M4 objective achieved – 77% reduction. Increase in traffic in Newport (11% by 2007).	M4 objective achieved – 58% reduction. Increase in traffic in Newport (24% by 2007).
ie. Relief to M4, avoid adverse impact on Newport					
Transport: Strategic issues	Assist national transport objectives	Does not assist these objectives	Assists these objectives	Neutral to these objectives (due to lack of facilities for suppressed highway trips).	Assists these objectives
ie. Accessibility, integration, freight					
Environmental: Local Issues	Minimise adverse local impact	Local benefits to existing M4 corridor. Local adverse effects on the Levels.	Improvement in local conditions, but some areas deteriorate.	Complex effects on local conditions, some improvements but adverse effects from traffic diversion.	Complex effects on local conditions, some improvements but adverse effects from traffic diversion although less than T/DM.
ie. Noise, NO_x emissions					
Environmental: Strategic Issues	Minimise adverse strategic impact	Increase in CO_2 emissions (2% peak hour). Loss of 73ha from SSSI.	Reduced CO_2 emissions (4% peak hour). Loss of 22ha from SSSI.	Large reduction in CO_2 emissions (16% peak hour). No landtake from SSSI.	Reduced CO_2 emissions (8% peak hour). Loss of 1.2ha from SSSI.
eg. greenhouse gas emissions, designated sites of national importance.					
Economic: Local Issues	Maximise traveller benefits	Traveller benefits: £440m	Traveller benefits: £1038m	Traveller benefits: - £3556m	Traveller benefits: - £464m
	Maximise accident savings	Accident cost savings: £56m	Accident cost savings: £83m	Accident cost savings: £241m	Accident cost savings: £74m
Economic: Strategic Issues	Maximise economic value	Net Present Value of: £273m	Net Present Value of: £1103m	Net Present Value of: £549m	Net Present Value of: £1332m
Capital Cost of Scenarios* (undiscounted) Total** Attributed		 £340m £340m	 £930m £255m	 £176m £176m	 £653m £129m

* the capital costs would be met from a variety of sources, and would, in some cases be off-set by revenue

** these costs are non-attributed and are likely to generate benefits elsewhere – these are an issue outside the scope of this study

In terms of institutional support, the EU has been a strong supporter of both regional intervention and of seeking to achieve sustainable development. EU Regional Policy, underpinned by very large financial support from the Structural Funds, is very well established. But there can, and have been, inter-Directorate General tensions between the aims of Regional Policy and Environment in the EU. The 'back door' introduction of the environmental profile for regional development programmes was one positive step. Hopefully the implementation of the SEA Directive from 2004 will be another, although it is unfortunate that policy SEA is omitted to date – because environmental problems sometimes fall more in the policy arena than the plan arena. But, one step at a time – there is evidence of EU progress!

Within the UK the regional revival has been quite dramatic, and almost frantic with new initiatives – Scottish and Welsh Assemblies, English regional reform and Regional Assemblies, Regional Development Agencies, a reform of the planning system – and a rapid evolution from RPGs to revised RPGs to statutory RSSs. Yet, with the exception of Scotland and Wales, the institutional support for new regional bodies is partial. English Regional Assemblies do not have the strength of being directly elected and accountable, and the regional planning activity is thinly resourced, drawing much on the services and goodwill of the adjacent tiers of government. Of course, even where there is accountability and more resources, as in Wales, the rejection of the findings of the M4 Common Appraisal Framework study shows that the views of powerful stakeholders and the economic development imperative may still be dominant.

In terms of methodology, the three cases indicate the importance of a 'SEA-change' in appraising regional planning activity. This has both 'top-down' and 'bottom-up' dimensions – as has the institutional change noted earlier. UK Central Government and regional and local activities over the last decade have pioneered some innovative approaches to environmental appraisal. Most recently they have resulted in some acceptance and adoption of a tiered approach to sustainable development and quality of life indicators, which adopts a simple but broad brush sustainability appraisal, including a combination of bio-physical and socio-economic objectives and indicators. More detailed plan/programme studies, such as the transport corridor multi-modal studies, have sought to develop appraisal methods in more depth, and to confront the difficult issues of combining bio-physical 'apples' and socio-economic 'pears'. The implementation of the EU SEA Directive into Member States' legislation and guidance (for the UK, see Glasson et al 2004, Therivel 2004) will also help to develop methodology. However, the SEA Directive also raises another issue of scope, in parallel with the omission of the policy level noted earlier. The Directive is much more bio-physical in focus than the emerging Sustainability Appraisal approach in the UK. Advocates would argue that this helps to avoid the side-lining of crucial bio-physical environmental issues. Others would argue that it is better to recognise in the appraisal process that there will always be trade-offs between the economy and the environment – best covered in a more holistic Sustainability Appraisal.

An interim conclusion must be that there is good progress to report, but there are still many contentious institutional and methodological issues on the road to an integrated approach to bio-physical and socio-economic issues at the regional level.

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THE SEARCH FOR A NEW DEVELOPMENT PLANNING/POLICY MODE: PROBLEMS OF EXPERTISE IN THE TRANSITION PERIOD

Miodrag Vujošević

The former system and practice of planning in Yugoslavia collapsed as early as towards the end of 1980s, not to be substituted for in the sequel by a new and legitimate development planning mode that has been compatible with the key processes and factors of the post-socialist transition, i.e., political pluralisation, privatisation, marketisation, and so forth. Under the recent circumstances, a number of new 'ideologies of planning' came to the surface, thereby rendering the current practice a peculiar mix of various concepts of 'quasi/pseudo planning' exercises, imbued with new biases, partisanship dominating the public scene, the notion of public interests almost lost, low transparency regarding the value and interest background of planning, etc. In effect, two general practices have been dominating the planning area, i.e., 'crisis management', and 'planning-supporting-the-wild-privatisation-and-marketisation'. To a large extent, this has been caused by a poor experience, i.e., a lack of planners/experts to work under the new circumstances ('transition'), paralleled by a lack of critical mass of social and economic actors interested in the sustainable development matters and supportive to them, and a wide spread anti-planning stance among the political and economic elites ('architects of the transitional reforms'). A more modernising and emancipatory model, e.g., 'planning-supporting-complex-transformation of society', seems to be still out of sight for some time to come. As the new coherent planning theory might not be expected for a longer period, preferably a preliminary planning heuristics would have to be elaborated, to more or less 'safely' direct the practice within the strategic framework defined. In this context, a number of specific issues of expertise would also have to be resolved, ranging from general theoretical and methodological issues, via practical methodologies, to the key issues within the triangle power – knowledge – action.

Specifically, this should also apply to the majority of development planning policy documents that have been worked out in the recent period.

***Key words:** planning legitimacy lost; disputed public interests; insufficient expertise; institutional and organisational arrangements; new development planning/policy heuristics*

INTRODUCTORY NOTE

A radical change has taken place in the formerly established balance within the state (power) - market - planning - privatisation quadrangle as from the very beginning of the post-socialist transition. In this context, a new balance has also been searched for, thus influencing each and every segment of development planning/policy. Especially, planning approach and methodology would have to be radically changed, to cope with the respective impacts of the key factors in question. Most likely, this will involve setting in motion a number of adjustments regarding many planning elements, viz.:

- Legitimising a new role of planning.
- A search for new, legitimate public interests.
- Planning evaluation.
- Balancing the planning-cum-market-interventions syndrome.
- Balancing the visions-versus-implementation syndrome.
- Search for a workable model of sustainable development.

On the other hand, there is a lack of both theoretical and methodological knowledge on the veritable options of future planning modes and arrangements, in large part as a result of insufficient research. This is manifested as a 'crisis of expertise' in planning theory and practice.

In this contribution, a number of characteristics of the current planning system and practice in Yugoslavia (Serbia&Montenegro) is presented first, followed by a short critical review of the work on the preparation of a selected number of spatial and urban plans and other develop-

ment policy documents that have been worked out in the more recent period.[1]

The paper concludes with a number of suggestions pertaining to a new planning heuristics and concomitant institutional and organizational arrangements.

THE COLLAPSE OF THE PLANNING SYSTEM AND A SEARCH FOR NEW INSTITUTIONAL ARRANGEMENTS

Already in the second half of 1980s, the system and practice of planning in the former Yugoslavia (now: Serbia&Montenegro) were both in a deep crisis and grossly hypertrophied. A **new system** was sought, based on appropriate market-cum-planning / planning-cum-market approaches. The claims were then still formulated within the socialist ideological 'narrative', with the aim of introducing more rigour into the over-regulated self-management 'p(l)andemonium'. At that time, Yugoslavia was still ranked among the planned-most, the participative-most, and the decentralised-most countries in the world (after Simmie, 1989).

The later course of events happened to be disappointing vis-à-vis the early expectations. It posed the key problem on the other track, that of 'deregulation-cum-de-etatisation'. A fairly unhappy experience with the former planning fuelled a **wide spread rejecting of planning**. Such an attitude is especially manifested among the architects of the transition reforms, mostly the so-called 'econocrats' of the neo-liberal ideological provenance. In general, the majority of them tend to completely discard any more ambitious notion of planning, thereby reducing its role to the so-called 'project-led cum market-based' planning approach and concomitant methodologies.

As elsewhere in the ex-socialist countries (cf. Nedovic-Budic, 2001), the former planning system in Yugoslavia was dismantled as from the beginning of 1990s, and the planning practice has from then onwards been steered by a peculiar mixture of old habits, few institutional innovations and the social, economic and political turbulence of the transition period.[2] The previous system and practices of socio-economic planning collapsed, not to be replaced for so far by new arrangements, to match the impact of the key factors of the transition period, i.e., political pluralisation/democratisation, privatisation and marketisation. On the other hand, although the system of spatial/urban and environmental planning was 'touched-up' in the 1990s, and additional legal changes introduced in 2002-2003, the adjustments undertaken have not been harmonised with the factors mentioned above.

At present, both the system and practice seem not to have developed to a **genuine planning mode**. Instead, they resemble more the so-called **quasi/pseudo-planning**. Three **heuristic modes** dominate the planning landscape of Serbia and Montenegro (and another one emerging only recently):

- Planning as crisis management.
- Planning supporting and enabling wild privatisation and marketisation of public goods.
- Planning as a means of political pluralisation and democratisation.
- Planning as supporting complex societal transformation and modernization.

In terms of their respective **political functions**, the majority of spatial, urban and other development plans, which were prepared over the recent decade or so, seem to have been following other purposes than those conventionally attached to the 'true' plans. They have thus more manifested themselves by what was 'beneath the surface' (Sillince, 1986:184-9), than through the declared (nominal) values, aims and objectives, viz.: (1) Creating confidence. (2) Providing symbolic reassurance. (3) (Merely) countering criticisms. (4) Simple monitoring. (5) Generating commitment by others. (6) Back covering. (7) Bidding for resources. (8) Making everything legal and aboveboard. (9) Establishing arena for debate; etc.

To sum up, the existing situation in the planning system and practice reads as follows (Vujosevic, 2003).

- The system has almost **lost its legitimacy**, partly because the majority of the former public interests collapsed, and new, indisputable public interests have not been established. Now, planners face the basic dilemma **of what is to be denoted as new public interests:** 'general public opinion'?; the 'sum of the most numerous interests at some point of time'?; the 'bundle of current particular compromises'?; the 'interests of the most vociferous-and-powerful actors'/'would-be-winners'?; the 'veritable democratic interests of the overwhelming majority of actors'?; the 'potential interests of the disadvantaged-and-disempowered-and-deprived' (the now prevailingly apathetic and dormant public)?; etc. Under such circumstances, new planning are hardly known to the public at large, in part as a consequence of an overall anti-planning stance among the majority of political, economic and expert elites.

- Inertia rules the professional landscape, since there has been **a lack of new approaches and methodologies** to match the impact of new dominant factors and the miserable social and economic conditions in the country. Regarding the approaches and methodologies applied, the traditional *ex ante* planning evaluation still prevails, and more *ex post* and *ex continuo* evaluation is still missing.

- The **planning system is too centralised**, since the radical re-centralisation of

[1] The following plans and other development documents have been scrutinized for this purpose: (1) *Prostorni plan Republike Srbije/The Spatial Plan of the Republic of Serbia* (1996). (2) *Prostorni plan područja eksploatacije Kolubarskog lignitskog basena/Spatial Plan for the Kolubara Lignite Basin* (2000-2003). (3) *Prostorni plan područja eksploatacije Kostolačko-kovinskog lignitskog basena/Spatial Plan for the Kostolac – Kovin Lignite Basin* (2002-2003). (4*) Prostorni plan područja infrastrukturnog koridora Niš - granica BJR Makedonije/Spatial Plan for the Infrastructure Belt from Niš to the Border of FYROM* (2002). (5) *Regionalni prostorni plan Administrativnog područja Beograda/Regional Spatial Plan of the Belgrade Administrative Area* (2002-2003). (6) *Generalni plan Beograda 2021 /Master Plan of Belgrade 2021* (2001-2003). (7) *Generalni urbanistički plan Budve/Master Urban Plan for Budva* (1995; 2001-2003). (8) *Pravci razvoja Crne Gore ekološke države/Development Directions of the Montenegro Ecological State* (1996-2002). (9) *Strategija privrednog razvoja Srbije do 2010. godine/Economic Development Strategy of Serbia till 2010.*

[2] In terms of new institutional and organisational arrangements for planning, a similar situation in six Balkan countries (Albania, Bulgaria, FR Yugoslavia, FYROM, Greece, and Romania) is reported on in Vujošević (2001). Of particular relevance here are: poor 'social mobilization' for planning; and a lack of a critical mass of actors supporting the case of development planning/policy. Greece represents only a slight exception to this regional pattern.

Serbia and was undertaken in 1990, and subsequently the sub-national tiers were deprived of almost all effective planning instruments. In addition to this, the majority of regional entities ('districts') and communes lack competent administrative machinery and expertise, as well as other support (e.g., research, planning information support, etc.) for effecting autonomous planning policies.

- There has been **no more ambitious strategic planning** (which is, however, somehow understandable vis-à-vis only recently terminated international sanctions and isolation of the country).[3] On the other hand, the majority of the development documents that have been passed in the meantime, grossly lack elaborated **implementation devices** (policies and instruments). Especially in the field of urban planning, detailed ('regulatory') schemes prevail over more strategic development schemes for larger urban and regional areas. Specific development projects (and, only sometimes, more harmonised programmes) by far outnumber other planning schemes.

- The **integration and harmonisation of various aspects of planning and policy**, i.e., social, economic, spatial/urban, environmental, is very poor. In effect, **physicalism** still dominates the scene in spatial and urban planning, and the elements of implementable socio-economic development and environmental policy concepts are scarce within this block.

- The stipulated legal propositions pertaining to the **openness, participativeness and transparency of the planning/policy procedures** easily fall by the wayside in the planning practice, resulting in very poor content in this regard.

- **There has been a lack of planners and other experts experienced and knowledgeable in practicing planning under the new circumstance of political pluralism and radically changed structure of stakeholders and concomitant institutional arrangements.** This also applies to 'educators' in general, since the prolonged international isolation of the FR Yugoslavia has made the gross of their knowledge and capabilities irrelevant. In sum, it seems that many planners would not be able to assume new roles expected of them on the part of the society at large.

- The **planning/policy information, research, institutional and other support provided by the state and other public agencies** often does not satisfy even the barest needs, partly for a general scarcity of resources concomitant to the overall and deep social, economic and political crisis the society found itself in as from the beginning of the 1990s, and apparently even more for a still poor institutional culture in the public sector.

- Worst of all, **manipulation, paternalism and clientism** still represent dominant forms of power, which is a problem in itself, Serbia & Montenegro being one of the most corrupted countries in the world. What is now most missing is a **non-manipulative persuasion**, as well as the **authority of rational professional values**, as the forms of communication and interaction that seem to provide the only hope for the development of a democratic, emancipatory and transformative planning mode.

A Brief Assessment of Nine Spatial and Urban Plans and Other Development Policy Documents – The Key Problems of Expertise

In the terms of the approach applied, the steps undertaken so far do not seem to match the new expectations, as they failed either to satisfy a number of methodological and other standards, or to introduce necessary innovations. In what follows, a brief assessment of the work done so far is presented:

- The **roles of the documents scrutinized** are poorly defined, which is strange in relation to the pronounced thesis on the 'supreme role of market', which raises questions as to their veritable social and political mission.[4] In addition to this, **physicalism** features as the key characteristic of the majority of these documents.[5] The strategic spatial and urban plans will however have to assume a part of socio-economic development planning and policy as well, because the latter is not likely to get replaced in some time to come. Furthermore, the social, economic and environmental problems of the pertaining cities and areas are so grave, that they must not be ignored in the development documents like those in question.

- There has been **no sound concept on the public interests developed within the exercise**, particularly under the circumstances of a large number of legitimate individual interests fast emerging on the political scene, some of which also persist in imposing themselves as new and legitimate public interests.

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[3] The most notable manifestation pertains to a complete abandonment of the former legislation on the socio-economic development policy and planning. In effect, as from the 1990s there have been no specific legal documents (i.e., laws, by-laws, etc.) pertaining to this issue (apart from few constitutional provisions).

[4] The Act was assessed as a 'blunt retrogression', well bellow the already established standards of planning theory and practice in Serbia. In addition to this, the legislators have been found almost completely non-flexible upon the impact of the key factors of the transition period, i.e., political pluralisation/democratisation, marketisation and privatization (Vujošević, 2002b). The role of a regional plan is defined by the Planning and Construction Act (article no. 22, par two) as 'working out of the spatial organization principles, and defining the objectives of spatial development, organization, protection and utilization of space, as well as of other relevant elements.' The content is stipulated for in very broad terms (article no. 22, par three), a plan to be comprised of text and graphical interpretation. Similarly, the *Planning and Construction Act* defines the role of a master plan as 'defining a long term perspective of settlement development and spatial organization' (article no. 36). In terms of its contents, the *Act* stipulates for the following key issues/themes, viz.: defining building areas; dominant planned destinations therein; defining the key spatial parameters for various types of technical infrastructure (i.e., transportation, energy, water supply, utilities, etc.); and zoning for specific urban plans. Within the legal framework indicated to, all spatial and urban master plans effectively act as strategic physical plans, also comprising some elements of socio-economic development and environmental policy.

[5] Two spatial plans, namely, *Spatial Plan for the Kolubara Lignite Basin*, and *Spatial Plan for the Kostolac-Kovin Lignite Basin*, represent an exemption to this pattern. They contain, *inter alia*, a number of elaborate schemes concerning various aspects of social, economic, and cultural development, as well as of environmental policy. They are also comprised of many propositions for the implementation, including a number of support schemes (e.g., institutional, research, information, and so forth). However, it is still to be seen whether the responsible authorities would accept such documents, i.e. documents containing a large number of obligatory commitments in terms of their implementation.

This results in a feeble notion of the **existing and predictable future conflicts**, as well as of the planning mechanisms and instruments that will be used in their control and management. Thus, a **power/interests map** (i.e., an elaborated account of the 'power geometry') of the planned area is still missing in each and every document commented on here.

- The **concept of sustainable development** has been only 'flirted with' in the plans under scrutiny, whereby a sound doctrine upon which development is to be directed and articulated is also missing (i.e., that which is of relevance for a territorial entity with the GDP of not more than some US $ 1,500 per capita). In this context, no system of operational and analytical concept of sustainable development indicators, applicable to a concrete city/area has been worked out.[6]

- No efforts have been made to introduce more relevant methodological approach, i.e., one which would contrast the miserable socio-economic and environmental fixities, viz.: (1) A more rigorous ex post evaluation of past decisions has not been performed, implying that future steps will be undertaken upon rather anecdotal insights into the existing power structure, institutional and organisational arrangements and dominant communication and interaction modes in planning.7 In the same context, the most significant problem of the areas or cities in question, i.e., how to approach the economic and ecological renewal and rehabilitation of its economy, has hardly been paid sufficient attention to. (2) Although the intention of the whole exercise is to work out a 'hard product', i.e., an urban development plan, no ex ante evaluation scheme has been produced so far, implying that the job is not being performed lege artis. Apart from other implications, this failure is particularly handicapping regarding the criteria of ex ante evaluation, leaving the professional audience and the public at large without sound answers to key questions: What are the criteria upon which the evaluation has been undertaken? Whose are they? What interests stand behind them? Who decides on the criteria that will be applied? Apart from softening the rigour of the expertise, this flaw also allows for too ample a 'manoeuvring space' for the subsequent arbitrating to be performed by the politicians.

- A trend-based extrapolation has been used as the **key prognostic technique**, which is absolutely unacceptable, keeping in mind the poor predictive power (1), unstable institutional arrangements in planning and elsewhere (2), and missing period (3).[8] Instead, the political community would necessitate a number of **veritable and/or plausible alternative scenarios of possible/desirable future development** elaborated and presented for discussion, deliberation and decision-making in expert arenas and public forums.

- Perhaps the weakest parts of the majority of the documents assessed refer to the issue **of implementation of planning decisions**, giving way to 'visioning' (in effect, to an another planning 'phantasmagoria'), which is again unacceptable vis-à-vis the pressing and burning development realities.[9] Even in the case of the plans that carry a more elaborated part for the implementation of the key development objective, the implementation most often fail for the lack of political will to undertake necessary steps to that end.[10] Consequently, there has been a **sharp discrepancy between 'is' and 'should'** in the majority of the documents examined. For example, no corroboration has been extended, in terms of the available resources and implementation instruments, as to how to bridge the gap between the grave existing situation and veritably poor development prospects, on the one hand, and the extremely optimistic and enthusiastic future growth path, on the other.[11]

- Finally, an open, transparent and publicly verified **'offer to strategic partners'** will also be needed, as the cities and regions of Serbia and Montenegro simply do not possess enough indigenous resources to cope with the problems of their economic, social, physical and environmental renewal and rehabilitation.

In sum, **major improvements are needed regarding the planning approach and methodology** applied in the preparation of the strategic development documents evaluated here. As most of these projects are likely to carry considerable demonstrational effects throughout the planning scene in Serbia and Montenegro, their highly professional execution is a necessity. However, as the majority of

[6] This particularly applies to the most ambitious document of the kind, namely, to *Pravci razvoja Crne Gore ekološke države/Development Directions of the Montenegro Ecological State* (2002). The document in question does not contain a single notion of the general principles and criteria of sustainability operationalized in accord with the development fixities of Montenegro.

[7] For example, Gilg and Kelly (1996) suggest that a solid and rigorous *ex post* analysis of past planning decisions should preferably be comprised of four levels ('ways') of assessment, viz.: (1) Simple statistical and cartographic analysis. (2) Technical analysis of the decision-making process as a source or information, or as a way of testing hypotheses about the effectiveness of planning policies ('logical positivism'). (3) Examining the decision-making process as a power struggle. (4) Examining the planning process in a 'post-modern' way, i.e., as a sequence of events.

[8] Namely, the 1980s were a decade of economic stagnation, while in the 1990s the country (then FR Yugoslavia) experienced almost complete collapse of all key social, economic, health, cultural and other development parameters.

[9] Vujošević and Filipović (2002) report on more than 15 key problems of development in Yugoslavia (S&M), which would have to be addressed by a new generation of development policy documents. Among others, the most burning/pressing are the following problems: very low level of GDP per capita (ca. 1,500 USD); extremely high unemployment (ranging from 30% to even 50% of the labor force, depending on the estimate); the extremely high total foreign debt; largely insufficient capital and other investments; poor social, health and cultural indicators; poor economic growth; a large number of refugees; obsolete economic structure; pauperization of the majority of population and concomitant social polarization; structural crisis of public finances; devastating 'brain drain'; extremely high environmental pollution, in comparison to the socioeconomic development attained; large housing deficit in cities; etc.

[10] This most notably applies to the Spatial Plan of the Republic of Serbia (1996).

[11] For example, in the Master Plan of Belgrade 2021 (p. 905), the GDP per capita is predicted to grow at an annual growth rate of 5.3% over the period of 18 years (!). In the same period (p. 904), the total number of employed would increase from 430,000 (in 2003) to 545,000 (in 2021). According to the same forecast (p. 906), the gross capital investment would reach 21 billion euros (!) in total. Similar exaggeration may be detected in the *Economic Development Strategy of Serbia till 2010* (pp. 83-90). The GDP till 2010 is predicted to grow the average annual rate of 8,55%, the total GDP to reach 22.7 billion US $, mostly as a consequence of gross capital investment over the same period of some 24.5 billion US $ (!).

so far demonstrated fallacies stem from the contextual settings, the action should preferably focus on the **improvement of those most influential extra-planning factors**. These are briefly indicated to in the concluding part of this contribution.

CONCLUDING FINDINGS AND SUGGESTIONS

General

Almost 15 years after the fall of the Berlin Wall, Serbia still finds itself in a post-socialist proto-democracy ('post-socialist proto-capitalist *lais-sez-fairre*'), yet without developed institutions of representative democracy, civil society and market economy. On the one hand, the better parts of the former self-management system of the ideological and political monopoly have been in the meantime time abandoned and almost forgotten, most prominently, for example, territorial and work participation. On the other, its bad parts have been kept and transferred via the retrogressive misfortunes of the 1990s, e.g., paternalism, manipulation, clientism, and so forth. 'Wild capitalism' and concomitant privatisation have taken place without a veritable social and political dialogue and consensus on the strategic issues of the transition reforms.

The problems of planning system and practice were concomitant with the overall institutional developings mentioned above. Namely, although comfortable institutional and other certainties for planning from the previous period have simply evaporated in the 1990s, most planners seem to have avoided fundamental debates and concerns of the theoretical and institutional underpinnings of the existing planning system with regard to the key issues of its legitimacy, role, mission, political background, contents, procedures, etc. Instead, they seem to have inclined to discussing 'safer' issues of development policy/planning, narrowed down primarily to technical problems. Now, after a decade or so of such a professional myopia, there is an absolute need to switch to a more rigorous assessment of the existing practice and future options. The now almost lost legitimacy of planning and environmental policy will not be repaired, unless these disciplines clearly demonstrate that they are able to improve on the existing practice. In addition to this, it is of crucial importance for the future of planning to demarcate it role in relation to other mechanisms of overall societal guidance and control. Should planners not succeed in their endeavours, the role of planning is likely to be reduced to a 'junior partner' within the emerging institutional arrangements. Planning should serve democratic pluralism and participative democracy. It should also to be modernising and emancipatory, i.e., supportive to the actions of those actors who attempt to change the material (i.e., social, economic, and spatio-environmental) conditions, as well as the established power relations (i.e., the existing socio-political hybrid).

Particularly, there has been a **lack of theoretical and general methodological research** regarding the alternative planning modes in the transition period.[12] In this respect, the situation in Serbia&Montenegro sharply contrasts with that in the Western planning.[13] There has been neither systematic study of the 'dark side of planning – the domain of power' (after Yiftachel, 1998), nor on the transferred and newly generated distortions in the triangle power – knowledge – action (after Friedmann, 1987), these aspects being most relevant for the reform of planning in the post-socialist transition. The planning academia, students and practitioners would all rather subscribe to preaching new politically and professionally fashionable mantras (e.g., 'more market, less planning', 'the minimum of state, the maximum of private initiative', etc.), than they would undertake research within the more laborious formulas. Although the notion of public interests as the key legitimising base of planning has been widely disputed, the overwhelming majority of planners have grossly demonstrated power-blindness and power-free attitude when discussing various development concept in the pertinent planning documents. The notable search in the Western theory for a rescue from the discourse on the modern – post-modern impasse has had no parallel in Serbia, as the vast majority of planners tend to bluntly avoid contemplating the impact of the key transition factors on the new planning concepts, viz., political pluralisation and democratisation, marketisation and privatisation. Therefore, we may well sum up **our view of the current situation** in the following way: (1) In Serbia&Montenegro planning theory is currently in a confused state, as a consequence of a number of changes over the last ten years ('post-socialist transition'). (2) The planning practice is grossly non-reflexive of the impact of contextual factors, whereby the conundrums of the *Realpolitik* of planning are neglected, and a veritable social and political inquiry and practice is seldom reached (cf. Flyvberg, 2003). (3) Notwithstanding this, the majority of planners have kept demonstrating an evangelical and bureaucratic zeal and arrogance against the criticisms of the 'non-consecrated' (i.e., the proponents of 'frames' and 'narratives' other than planners').

An Urge to Work on a New Planning Heuristics and Planning Arrangements

In searching for a 'third way' between, on the one hand, the impossibility of a 'general theory of planning' (Mandelbaum, 1979), and the necessity to work out a new 'ideology/philosophy of planning for the transition period' (after Harvey, 1982), on the other, we are here opting for a new planning heuristics (in the sense of the 'philosophy brought down to the earth', after Urlich, 1994). It is to serve at least two purposes: first, to provide for a number of general methodological principles and criteria to direct the preparation of planning decisions; and, second, to define a broad strategic framework for the planning practice. Its cornerstones are two-fold, the institutional-organisational, and the methodological proper.

Institutional and organisational changes needed

- First, number of **expert and political fora** ought to be institutionalised, in order to establish a broad societal dialogue on the open issues of the future development. Apart from other aspects, the dialogue should address the key issues of the reconstitution of development

[12] The examples of the kind, however modest, are rare. Cf., for example, Vujošević (2002a) aand Vujošević (2003a).

[13] For example, Allmendinger and Tewdrw-Jones (2002) speak of an 'explosion of new texts in planning theory' over the period of recent decade or so.

planning policy, vis-à-vis the key factors of the post-communist/post-socialist transition (i.e., privatisation, marketisation, political pluralisation and democratisation, strengthening of the institutions of civil society, etc.).

- More **research** is needed on the **new heuristic modes of development planning policy in the period of post-socialist transition**. In this context, alternative theoretical and general methodological patterns ought to be elaborated and evaluated, from the standpoint of their (in)compatibility with the key factors of the transition period.

- **Systematic research** will also have to be undertaken on related practical matters, upon a series of projects and programmes. The research should focus on the alternative scenarios of future development, investigating into their respective pros and cons (1), as well as on the pertinent presentation of the research results to the public at large (2).

- A **national focal point in the field of sustainable development** will have to be established urgently, and its work coordinated with the *ESDP, INTERREG III* and related initiatives, programmes and projects in the pan-European and European regional schemes. This segment ought preferably to be institutionalised as a part of overall institutional arrangements for the integration of Yugoslavia into the European institutions and schemes.

- The **existing procedural arrangements in planning/policy will have to be radically changed**, to care for the harmonisation of the newly emerging interests and concomitant conflicts. In additions to this, new lanes for a more open, transparent and participative planning should also be introduced.

- In administrative institutional and organisational terms, new arrangements would also be needed. Of priority is to establish a **number of supra-ministerial and/or supra-departmental modes of planning/policy coordination**, within each administrative tier.

- The priority also goes to the re-assessment **the recently produced Planning and Construction Act of Serbia** (2003), as well as to those specific tasks that will be formulated in the imminent by-laws.

- There is also a need to work out and adopt a **national document (consensus) on the cooperation with the strategic foreign and other partners in restructuring the economy**, elaborated in necessary details with regard to the spatio-ecological, urban and social demands. This is likely to specify and to delimit the 'manoeuvring space' of the Yugoslav representative in the pertinent deliberations and bargains, on the one hand, and also provide for better legitimacy and democratic control of their mission, on the other.

- Developing **more open, transparent and participative/democratic planning**, based on the principles of balanced division of governance and planning power, decentralization and subsidiarity. New arrangements in development planning/policy would also have to encompass a **fair balance between the centralizing and decentralizing momentums**. Particularly, a completely new institutional segment of strategic socio-economic development policy is needed, to be harmonized with the spatial and urban planning, and with the environmental policy.

- Satisfying the urge to develop a **new ('post-communist') system of governance**, preferably based on societal activism and consensus (e.g., in the tradition of German *Steuerung*), and balanced with other key mechanisms of overall societal management and control (i.e., market, administrative regulations, social rules, norms and habits, etc.).

- Developing a **new institutional and organizational architecture within the realm of spatial, urban and environmental planning**, so that they may assume a supportive role to the processes of societal modernization and transformation (including emancipation from the outdated social practices).

- Establishing '**coalitions for planning**', i.e., locating and motivating those actors whose strategic interest is to provide a democratic planning support for their endeavours and purposes.

- **Democratising planning communication and interaction**, which to a large extent equals: (1) Developing partnership between the 'first', 'second' and 'third' sector. (2) Developing the institutions of civil society. (3) Departing from the now predominant force, manipulation and false authorities, alongside with paternalism and clientism (as general characteristics of the current public life), towards non-manipulative persuasion and the authority of independent and unbiased expertise (as the power relations needed for developing a civil society). (4) Developing new planning communicative arrangements, to provide for an appropriate balance between the expert rationality and non-manipulative persuasion.

Priority changes needed in terms of planning approaches and methodologies

- The now prevailing 'minimalist' approach in development planning/policy should be removed, vis-à-vis dominating 'wild-market-based-decisions' and, consequently, **more pro-active approaches** will have to be developed.

- A **new generation of appropriate approaches and methodologies** would have to be developed, in order to: (1) Provide methodological base for a new generation development planning policy documents in Serbia and Montenegro. (2) Establish a necessary correspondence between them and the current pan-European and European regional development initiatives and schemes.

- Literally all **existing key strategic development planning/policy documents should be scrutinised and, most probably, thoroughly reworked**, to match the more recent changes. Particular effort should be put into the elaboration of new priorities, given the overall pauperisation of the society at large, the state and the overwhelming majority of social groups (1), as well as the overall scarcity of internal and external resources for development (2).

- The existing, grossly **insufficient knowledge base** of development planning/policy ('planning/policy information support'), ought to be considerably improved. Of priority are the following issues: (1) To 'green' the statistical system. (2) To develop, at various planning/policy levels and in particular circumstances, corresponding systems of indicators of veritably sustainable development. (3) To elaborate, at each level of governance, a number of veritable development scenarios. (4) To radically improve the existing education: (a) Of 'educators'. (b) Of political and eco-

nomic elites. (c) Of lay people and the public at large. (d) Of planners and other professionals engaged in development planning/policy, so that they will be able to perform their activities in accord with the concomitant processes of pluralisation, marketisation and privatisation. In sum, new educational programmes are needed, to urgently improve on the lack of the existing skills of planners and other actors engaged in planning. (5) Particular emphasis is to be paid to the 'education for Europe', denoting all those notions needed for a better and faster acquainting of the public at large with the common body of 'European matters'. (6) Improving on the existing land registers (cadastres).

- **More integration is needed regarding various aspects/dimensions of development planning/policy**, e.g., social, economic, spatial, urban, environmental, etc. To that end, many other aspects may well be subsumed under the institutional 'umbrella' of strategic spatial and urban planning, given the fairly well preserved institutional and organisational infrastructure of the latter. However, this is not likely, by itself, to solve the problem of inter-sectoral coordination (1), as well as that of integrating the key development projects and programmes in the overall planning/policy framework (2). Consequently, special arrangements would also be needed in this respect.

- Planning evaluation being a particularly weak segment of planning, a **wholly new generation of planning approaches and methodologies is needed**, to foster all dimensions of planning evaluation, i.e.: (1) *Ex ante*. (2) *Ex post*. (3) *Ex continuo*. Particularly, the conundrum of differing criteria will have to be al least rudimentary resolved, given the emerging clash between the urge to provide for a economic growth 'at any price', on the one hand, and the spatio-environmental protection, on the other.

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REGIONAL SUSTAINABLE DEVELOPMENT FRAMEWORKS: TOOLS FOR SUSTAINABILITY PLANNING IN THE ENGLISH REGIONS

Elizabethh Wilson

Regional Sustainable Development Frameworks (RSDFs) have been prepared in each of the 8 English regions as a means of progressing sustainable development at the regional level. Promoted by central government, which has emphasised the overarching role of the Frameworks as a key reference for all regional plans, strategies and policies, their preparation and use in practice has offered scope for innovation and variety which are revealing of the relationships and tensions between various interests at the regional level.

This paper assesses the effectiveness of the Frameworks, focusing in particular on their use in practice in appraising the sustainability of other regional plans and strategies, and their role in resolving conflicts. The paper also examines their role in integrating a consistent understanding of sustainable development, and reflects on the implications for different meanings of sustainability. It draws on work commissioned by the English Regions Network from CAG Consultants and Oxford Brookes University. A central aim of the research project was to evaluate how effective RSDFs have been in providing a direction and a vision for regional activity to progress sustainable development.

CONTEXT FOR RSDFS

RSDFs reflect two key themes of the new Labour government in the UK in the late 1990s: sustainable development, and regional devolution. An understanding of this broader context is important for evaluating the effectiveness of the role of the Frameworks, and a very brief account is given here.

New regional agencies

Significant changes in regional governance were introduced by the government, with new regional agencies, structures and processes being established in the English regions. This was intended to match in some degree the devolution process under which Scotland, Wales and London had directly elected representative bodies, with varying powers, and also to respond to EU initiatives on the Europe of the regions.

The principal innovations were the establishment of regional chambers or assemblies, regional economic development agencies, and integrated central government offices in each of the regions. Sustainable development is a theme running through all these new structures. There is therefore potential for both synergy and wide divergence in the various regional agencies' interpretations of sustainable development.

The 8 English regions (excluding London, which has its own system of directly elected Assembly and Mayor) are shown in Figure 1. These currently have non-elected regional assemblies (formerly constituted as regional chambers) which have powers to prepare regional land use and transport plans, and to scrutinise other regional agencies. The assemblies are dominated by local government interests, but also include members from social, economic and environmental partners. The government announced further proposals to strengthen the regional dimension in its White Paper of 2002 (Cabinet Office and DTLR, 2002), and is currently undertaking referenda on establishing directly elected regional government in 3 of the English regions (North West, North East and Yorkshire and the Humber).

Existing regional strategies such as the regional land use plans (known as Regional Planning Guidance) were strengthened to take account of new themes such as sustainable development and the European conception of spatial planning (DETR, 2000a). Recently draft guidance has been issued to replace non-statutory RPGs with statutory Regional Spatial Strategies, discussed further below.

Economic powers in the new regional structures lie with the Regional Development Agencies (RDAs), established in 1999 to deliver a wide range of economic development and regeneration, land acquisition and funding functions (DETR, 1997). They were also given the task of preparing Regional Economic Strategies (RES). The RESs were to be inclusive and collaborative documents, but in effect, they were prepared very quickly during

1999 (Benneworth and Roberts, 2001). A major tension for the new RSDFs has been to engage the RDAs and influence their RESs.

A third set of agencies, the Government Offices for the Regions (GORs), were restructured as integrated government offices to correspond with the 8 standard regions and London, representing the regional arm of central government departments. Their role as direct agents of central government or as indirect co-ordinators of regional programmes has remained contentious (Baker, 2002). In addition to these new or revised agencies and strategies, many other regional groupings have formed around issues such as waste and minerals, tourism, culture, health, energy and climate change.

Within this complex of agencies and structures, there is considerable scope for conflict between their interpretation of the nature of sustainable development, and a clear need for both vertical and horizontal integration of objectives and approaches. The RSDFs were intended to provide this integration.

Government strategy for sustainable development

The context for regional sustainability was set by the government's 1999 Sustainable Development Strategy *A Better Quality of Life*, which set out 4 objectives: social progress which meets the needs of everyone, effective protection of the environment, prudent use of natural resources, and maintenance of high and stable levels of economic growth and employment. The strategy also heralded the arrival of RSDFs: "at regional level in England, sustainable development will have a place in all strategic documents prepared by public bodies. In addition, the Government wishes to see high level sustainable development frameworks for each region by the end of 2000" (DETR, 1999 para.7.81).

Government guidance on RSDFs

Government guidance was published a year later, setting out three principal functions for the RSDFs: to set out an agreed high-level vision for promoting sustainable development at the regional level; to integrate across the range of regional activities, and to provide a framework with objectives against which other regional strategies can be appraised. The RSDFs are also to set priorities, identify gaps where a regional approach would add value, point out key challenges and conflicts, and suggest solutions. They should identify indicators and targets, set out appropriate proposals for monitoring and review, identify partnerships and other initiatives and strategies, involve a wide range of interests, and be endorsed by the regional chamber (DETR, 2000b).

A neglected field?

The devolution and new regional agendas have been the subject of considerable academic study (such as Jeffrey and Mawson, 2002), but there has been little written specifically on the RSDFs. Some of the explanation for this may lie in the sequence of events. The first task of the new regional agencies (the RDAs and the regional chambers/assemblies) was to publish key strategy documents, particularly the Regional Economic Strategies and the Regional Planning Guidance. These agencies and their strategies have been well-researched (such as Benneworth and Roberts, 2001 on RDAs, Marshall et al, 2002, Marshall 2003 and Haughton and Counsell, 2004 on regional planning). But in most cases, the RSDFs were completed after these strategies were adopted, with the government guidance on their preparation only published in 2000. However, the way in which the Frameworks have been prepared, and their role in practice, is potentially very revealing of the new power relations in the regions. As the RSDF process is the most novel and least formalised of all the

strategic processes, it is necessary for researchers evaluating the process to identify intermediate, qualitative outcomes rather than specific outcomes (Benneworth et al, 2002). On the other hand, the lack of prescription allows for innovation and variety which makes RSDFs a potentially instructive area for research. The "diversity and richness of the models being adopted to promote sustainable development at the regional level" is commented on by the Sustainable Development Commission (SDC, 2002).

ERN RESEARCH INTO RSDF EFFECTIVENESS

There had been little published commentary on the overall structure of the RSDFs, prior to the ERN research on which this paper is based, other than a generic in-house review by the Royal Society for the Protection of Birds, examining the approaches of the RSDFs to objectives, targets and indicators, monitoring, accessibility and sustainability tools (RSPB, 2002). A partial thematic assessment had also been done for the DETR (as part of a study on the *Planning Response to Climate Change*), focusing particularly on the treatment of climate change within the RSDFs (Wilson, 2003). Little analysis had been done on the use of the RSDFs in practice, apart from some preliminary research undertaken by the Sustainable Development Commission on the way in which RDAs viewed the RSDFs, based on interviews undertaken in late 2001 (by which time all the regions except North East had adopted an RSDF). SDC reports that "generally, these are viewed as working or work in progress documents" (SDC, 2002 para. 21).

The English Regions Network therefore perceived a need for a systematic review of the first round of RSDF preparation, with a significant focus on the views of the stakeholders who might engage in that process and use the documents in practice.

Methodology

The project brief specified that the research should

- Compare and contrast RSDFs
- Develop a framework for monitoring and evaluation of the RSDFs
- Identify examples of good and bad practice, and the criteria for evaluation
- Draw out the findings, evidence and learning points from the various RSDFs
- Identify any gaps in practice requiring attention
- Develop recommendations for further development and improvement in the RSDFs.

The research was undertaken between August 2002 and May 2003, in four substantive stages, with the South West region being fast-tracked at the outset to test out the methodology. Stage 1 involved a review of the literature, including the government guidance on regional sustainability. The published RSDFs were reviewed, in order to identify their key objectives, and any "crunch" issues, to examine the scope and presentation adopted, their links to Sustainability Appraisal and their commitment to a review and monitoring process. Stage 2 involved structured interviews with at least 10 stakeholders from each region, to include key regional players (such as the Regional Assembly, the GOR, or the RDA); local authorities and sub-regional partnerships; issue-based organisations (such as arts groups); and one organisation representing excluded groups (such a youth or ethnic minorities). The purpose was to establish the stakeholders' views on the extent of their involvement in the process of drafting or monitoring the RSDF, their views on its structure and content, its usefulness in resolving "crunch" issues, and whether it had influenced their own plans and strategies.

Stage 3 involved face-to-face interviews with a small group of those involved in formulating the RSDF, to find out how it was scoped and drafted, the consultation process adopted, the rolling out of action plans, and plans for monitoring its effectiveness and review. Stage 4 examined how the RSDF had actually influenced published plans and strategies, such as community plans, regional strategies or sectoral plans (such as housing or biodiversity), and whether there was explicit reference to the RSDF or any conflict between objectives.

Agencies and stakeholders in RSDF preparation

In this complex landscape of new regional activity, there has understandably been much diversity in the combination of regional interests taking responsibility for the RSDFs. Table 1 shows the date of adoption of the RSDFs and the agencies involved in their preparation. In a number of regions, existing sustainability groups or round tables played an active role in initiating the work. Our research showed that the key regional partners had made efforts to engage and consult stakeholders in the development of the RSDFs, and to get wide buy-in with stakeholders adopting the objectives of the Framework. The sense of ownership of the RSDFs varied across the regions: in the North West, for instance, there was a high level of enthusiasm, whereas in the North East a sense of strategy fatigue, with sustainable development not being seen as a political priority in the late 1990s. The balance of regional interests is represented in the flavour of RSDFs, with the "green case" evident but not dominant - criticism has been made of the South West RSDF, for instance, that it "turned out to be a relatively weak document" (Marshall 2002 p. 26), but our interviews showed that stakeholders felt that this RSDF reflected a clear regional identity, with its emphasis on the economic and social value of the region's landscape and environmental quality, and its strong emphasis on social inclusion.

Structure and content of the RSDFs: Objectives

The focus of this paper is on the use of the RSDFs in the Sustainability Appraisal of other regional plans and strategies, and in the identification and resolution of any conflicts, but it is necessary first to understand some of the content and structure of RSDFs. As Government guidance is indicative rather than prescriptive, the RSDFs do not all follow a similar pattern in the way they are structured, nor in the way they formulate their objectives. Some of the RSDFs explicitly adopt the set of objectives from the national sustainable development strategy; some raise regionally-specific issues (such as lack of skills), and from them develop aims and objectives; and others derive their objectives from their overall vision, and then examine the issues in achieving that.

Table 1: Status of Regional Sustainable Development Frameworks

Region	Title	Prepared by	Date	Status
West Midlands	*Quality of Life: the Future Starts Here: A Sustainability Strategy for the West Midlands*	West Midlands Round Table for Sustainable Development Steering Group	February 2000	Endorsed
North West	*Action for Sustainability: Framework for Action; Action Plan*	North West Regional Assembly and Government Office North West	July 2000	Endorsed by Regional Assembly
East Midlands	*England's East Midlands Integrated Regional Strategy: Our Sustainable Development Framework:*	East Midlands Regional Assembly	December 2000	Endorsed
South West	*A Sustainable Future for the South West*	Regional Assembly and Sustainability South West (Round Table)	February 2001	Endorsed by Regional Assembly March 2001
Yorkshire and the Humber	*Advancing Together: Towards a Sustainable Region. The Regional Sustainable Development Framework for Yorkshire and Humberside*	Regional Chamber for Yorks. and Humberside; Regional Assembly; Yorkshire Forward; Government Office for Yorkshire and the Humber	February 2001	Adopted by Regional Chamber February 2001
South East	*A Better Quality of Life in the South East*	SEERA in partnership with GOSE, SEEDA, EA and NHS	June 2001	Adopted
East	*A Sustainable Development Framework for the East of England*	East of England Regional Assembly, and EE Sustainable Development Round Table	October 2001	Adopted
North East	*Quality of Life in the North East:Towards a Regional Framework*	Sustaine (Sustainability North East) on behalf of North East Assembly, GO-NE and One North East	January 2002	Endorsed by Regional Assembly

There are strong arguments for incorporating appropriate objectives from other regional strategies and plans, and national policy documents, into the RSDFs, to avoid duplication or contradiction. This approach was taken by Yorkshire and Humber, and East of England. However, our research concluded that a danger of this approach is that it can lead to unchallenging objectives, and does not take the process of sustainable development forward. Imported objectives from other plans should be evaluated - those from other regional documents to ensure they take full account of all aspects of sustainability, and those from national ones for their degree of regional support and regional applicability.

Some regions had an unwieldy set of objectives (such as East of England, with 9 high level and 207 key objectives), while others (such as West Midlands) did not clearly state their agreed objectives. Not all RSDFs framed objectives in clear language appropriate to the audience or stakeholders, and most RSDFs failed to prioritise them, a particular problem where there were many objectives. This made it difficult to see direction and purpose. While this has to be balanced with the need for an integrated approach, it is seldom possible to make progress on all fronts, so prioritisation is important. As the primary function of the frameworks is to show how the four key components of sustainable development – social, economic, environmental and resource issues – are to be met, it might be expected that all RSDFs will show the linkages between their objectives. This was not routinely done, but Yorkshire and Humber offered a model in providing a separate chapter on each aim, and undertaking a form of consistency appraisal, bringing out the implications for each other aim.

USE OF RSDFS IN PRACTICE

Use as sustainability tools

A key role for the RSDFs was as a tool to inform decision-making at regional to local levels, via either Sustainability Appraisal of plans and strategies, or sustainability screening of projects. This paper concentrates on the use of the frameworks to appraise Regional Planning Guidance, and comments briefly on other strategies and decisions. The brief review by the SDC had found some evidence that RSDFs were being used in the development of other regional strategies, such as the economic, planning, transport, environmental and social exclusion strategies. But they pointed out the timing problems, with the frameworks only "going live" after other key strategies had been finalised. SDC considered that a key test of RSDF effectiveness would be the extent to which the RSDFs are reflected in the review process of the first RESs (SDC, 2002).

Sustainability Appraisal of RPG and draft RSS

Sustainability appraisal was the most widely used mechanism revealed by our research for policy integration linked to the RSDFs. As practised in the UK, sustainability appraisal is an objectives-led process, involving assessment of a plan against a set of sustainability objectives, ensuring that these are considered at all stages of the plan formulation process. This means it is necessary for the RSDFs to have clearly identifiable objectives and to be fairly detailed. As explained above, the RSDFs as documents vary considerably in their capacity to be used directly. The South East RSDF clearly sets out its objectives as a checklist against which individual projects can be assessed for their contribution to SD (Table 2 shows the objectives and associated indicators in the South East). Yorkshire and Humber include a sustainability appraisal

methodology within the RSDF, and the South West RSDF includes a sustainability checklist, whereas East Midlands published SA guidance separately. The North West published separately an Integrated Appraisal Toolkit. Piloted on a range of plans and programmes, the toolkit aims to mainstream sustainability by helping planners, investors and decision-makers throughout the region assess the contribution of their individual work towards the regional priorities for sustainable development. It may also be used for training and regional scrutiny functions (NWRA, 2002).

Table 2: Objectives and indicators of sustainable development in the South East (SEERA et al, 2001)

Objectives	**Indicators**
Social progress	
Ensure everyone has the opportunity of a decent and affordable home	Homelessness and housing need; affordable homes within total housing stock; homes judged unfit/non-decent to live in
Improve the health and well-being of the population and reduce inequalities in health	Death rate from coronary heart disease and stroke, cancer and accidents
Reduce poverty and social exclusion and close the gap between the most disadvantaged communities and the rest	Children living in low income families; working age people in workless households; fuel poverty
Stimulate economic revival in priority regeneration areas	Business start-ups and survival rates
Raise educational achievement levels across the region and develop opportunities for everyone to acquire the skills needed to find and remain in work	Adults with NVQ3 and above; adults with basic literacy and numeracy skills; retention of young people in education beyond minimum leaving age
Reduce crime and the fear of crime	Level of crime; fear of crime
Create and sustain vibrant communities	Population with access to key local services and facilities
Encourage the development of, and participation in, cultural, creative and sporting activity, and a buoyant sustainable tourism sector	Participation in cultural, sporting and arts activities
Effective protection of the environment	
Improve efficiency in land use through the re-use of previously developed land and existing buildings and encourage urban renaissance	Development on previously developed land; derelict land and empty properties
Reduce air pollution and ensure air quality continues to improve	Days when air pollution is moderate or high
Maintain and improve the water quality of the region's rivers and coast	Rivers with good or fair water quality; compliance with EC Bathing Waters Directive
Address the causes of climate change through reducing emissions of greenhouse gases	Emissions of greenhouse gases
Conserve and enhance the region's biodiversity	Populations of wild birds; condition of SSSIs; extent and condition of key habitats
Protect, enhance and encourage enjoyment of the countryside	Land covered by management schemes; access to and use of the countryside
Reduce road traffic and congestion through reducing the need to travel by car and improving travel choice	Growth in road traffic; traffic congestion; proportion of travel by car; investment in public transport, walking and cycling
Maintain, enhance and make accessible the historic environment and assets sof the region	Buildings of Grade I and II at risk of decay
Prudent use of natural resources	
Achieve sustainable water resources management	Per capita consumption of water
Reduce the risk of flooding that would be detrimental to public well-being, the economy and the environment	Properties at risk of flooding
Reduce waste generation and disposal, and achieve sustainable management of waste	Waste generation and method of treatment
Increase energy efficiency	Energy use per capita
Increase the proportion of energy generated and consumed in the region from renewable sources	Installed capacity for energy production from renewable sources
Maintenance of high and stable levels of economic growth and employment	
Ensure high and stable levels of employment so everyone can benefit from the economic growth of the region	Working age people in work
Sustain economic growth and competitiveness, and ensure a better distribution of economic activity across the region	GDP per capita
Invest to secure our future prosperity and quality of life	Social, R&D and total investment
Develop the knowledge economy by focusing on higher value, lower impact activities	Labour productivity (GVA per head for manufacturing and for whole economy); knowledge economy (*in development*)

Government guidance had been issued on the Sustainability Appraisal of RPG in 2000 (DETR, 2000c). Although the sequencing of RPG and the RSDFs made it seem they would be too late to play a formal role in sustainability appraisal of most RPGs (Smith and Sheate, 2001), nevertheless they did exert some influence in the various revisions of RPG. Research commissioned by the ODPM found that, for instance, an increased number of objectives relating to social progress were used in the appraisal of changes to Yorkshire and the Humber RPG (ODPM, 2002). The Yorkshire and Humber RSDF includes a whole section on Sustainability Appraisal, referenced to clearly defined and detailed objectives within the RSDF itself. It has as a result been used extensively for appraising other plans and strategies. There are differences of opinion on the outcomes of this process. The ODPM report had concluded that "based on our documentary analysis and interviews, it is probably fair to say that Sustainability Appraisal has had only a marginal effect on the policy content of RPG in Yorkshire and Humber". It has helped to flag up, but not proved an effective way of resolving, conflicts such as between greenfield employment sites and biodiversity (ODPM, 2002).

The evidence of our interviews however is more positive: the authors of most of the RSDFs considered that use of the RSDF had helped to identify conflicts, and showed the failings of other draft strategies. The contrast in approaches and experience of Yorkshire and the Humber region and the West Midlands exemplifies the point about clear objectives. The West Midlands was the last region to prepare RPG, and therefore might have been most able to make use of the RDF: however, the RSDF objectives were not considered sufficiently specific for appraising RPG (for instance, the report of the panel into the public examination of the West Midlands RPG discusses the shortcomings of the SA, but makes no reference to the RSDF (Swain, 2002). The West Midlands RSDF was never intended to be used for sustainability appraisal, but was written in fairly general terms, in a very approachable style, for a masse audience. All the stakeholders interviewed thought it to be too general to be used for Sustainability Appraisal.

Our research has shown that developments since the publication of the RSDFs and the first round of RPG have enabled their more extensive use. The authors of the South East RSDF, for instance, firmly believed it was a framework rather than an action plan, but acknowledged that take-up of the RSDF needed to be more actively promoted to a number of important audiences; accordingly, the Regional Assembly gathered a collection of 50 case-studies of best practice and innovation at different spatial levels within the region, published in 2003 as *Delivering the RSDF* (SEERA, 2003). This includes as a case study its use in appraising selective reviews of the RPG, including the Regional Transport Strategy, and the draft strategies for tourism, waste, energy, and minerals. The authors believe that applying a common framework and consistent approach will help ensure that all the strategies are better integrated. Key regional agencies in the South East are in the process of agreeing a common approach to conducting SA, which can be adapted to fit the needs of individual organisations.

The system of Regional Planning Guidance is to be replaced with Regional Spatial Strategies, which will have a duty to contribute to sustainable development and to encourage better integration with other strategies (ODPM, 2003a). Doubts have already been expressed about their ability to provide this role in resolving conflicts in the interpretation of the contested concept of sustainable development (Baker, 2004), as the guidance states merely that the RSSs need to be prepared against the "essential background" of the RSDFs. Our research concludes that specific guidance on using the frameworks is generally needed: in particular, users of appraisal need to understand how the appraisal process can be used to identify conflicts, resolve them where possible, and, if not, make the necessary political choices.

Resolving crunch issues

At the outset of our research, it was thought that one of the way in which the effectiveness of RSDFs could be evaluated was by examining how they tackled crunch issues or conflicts between different sustainability objectives. This was seen as a key test of policy integration. The practice on the ground has shown up something different. Most of the RSDFs reviewed have identified some crunch issue but have not defined a process for resolving conflicts. The authors of the RSDFs have gone further by saying that it is inappropriate at this time for the RSDFs to be resolving these. A common theme is that this will happen in specific plans and strategies that will address crunch issues in particular sectors.

A crunch issue repeatedly mentioned in the fieldwork concerns airport development. None of the RSDFs had tackled this head on but it is one where economic interests, inter-regional competition, safeguarding the environment and meeting social needs seem particularly hard to balance. An example is the East Midlands Airport: the RDA was at first strongly influenced by the business case for development around the airport, but came to recognise the doubts of its partner agencies. A united approach was presented into the public inquiry into the draft RPG, and a Working Group of the Assembly set up, but negotiations are still underway. The various regional documents do not reveal the true tensions: although the airport is mentioned in the Integrated Regional Strategy (the RSDF for the East Midlands), the revised RES and the draft Revised RPG, there is more focus on its transport linkages than on the real crunch issue of allocation of land for development.

This finding is consistent with the view that inevitably there will be tensions between different regional institutions with different powers, resources, agendas and degrees of accountability, especially with respect to the provision of major development sites (Counsell and Haughton, 2003). What the RSDFs have done is not to resolve these tensions but to allow a forum for their more systematic debate.

RSDF ROLE IN REGIONAL CONSENSUS BUILDING

The airport issue goes to the heart of the question of the role of RSDFs: does achieving regional sustainable development require direct influence by the RSDF on other regional strategies and decisions, or does it merely require a more indirect generation of shared goals and knowledge? Some argue that this could only be achieved if the high-level vision of the RSDF informed not just the strategies but also the actions of influential and well-

resourced RDAs (for instance, Benneworth et al, 2002). A lesser expectation might be that the process of establishment of new regional forums, and the negotiations undertaken in preparing all the strategies, might have generated regional consensus about sustainability in the region. However, this consensual approach risks failing both to prioritise goals and to generate stakeholder agreement. There are problems with the language of sustainability, which can support too many diverse and conflicting meanings (including an interpretation in which economic growth is the driver for environmental protection and social justice). Sustainable development is seen by some as the province of a specialist technical community. With maximised participation came weak commitments, and a failure to acknowledge conflict. The round tables "seem to have overlooked the potential for conflict between the priorities of economic growth, social inclusion and environmental protection" (Benneworth et al, 2002 p. 210). Where conflict has been experienced, the RSDF negotiations have been too divorced from the decisions and decision-makers they should influence.

Our research for ERN offers a rather different perspective: regional stakeholders were able to attribute many changes of direction or emphasis in plans to the existence of the RSDFs, and it was possible to see a greater recognition of all the dimensions of sustainable development in other strategies. The RSDFs have become more than just documents – they are now a process that includes appraisals, training, action planning and monitoring, and partnership working. In this, they have made their mark. All the RSDFs were being reviewed or were about to be, which suggested that they had not been sidelined or forgotten, and were still deemed important enough to demand resources and time from regional stakeholders. They do have a role, and possibly a key integrating role, as one of the suite of strategies and plans that are shaping the regional agenda.

There are different models for integrating sustainability in other regional plans. The East Midlands embedded its RSDF in an Integrated Regional Strategy: this seemed to be the most effective at putting sustainability at the heart of other strategies, and achieved a level of recognition with other regional organisations, although (as with other regions) a more patchy recognition by sub-regional bodies. The government White Paper on the future of regional governance urged regions to do more to integrate their various strategies: it commended the East Midlands as an exemplar (Cabinet Office and DTLR, 2002) and recommended all regions prepare an integrated strategy. This model is being taken forward by South East, which has decided to update its RSDF as an IRS (SEERA, 2004). As with the original, it proposes that the objectives and indicators should be as the mechanism for joining up and integrating other strategies, and provides detailed advice on how to use the IRS in SA.

However, our study showed that there are other satisfactory models, and maintaining separation between strategies may help to throw up conflicts rather than wrapping them up in overly-broad sentiments. There was some dispute amongst stakeholders we interviewed about the real role of RSDFs, some arguing that they were mainly about process and others that performance management was more important. Their role in addressing the crunch issues which cut across the main regional plans and strategies – such as major infrastructure provision - is important, but requires more attention to the process for resolving conflicts and meeting all sustainable development objectives.

THE FUTURE

Our research has shown that RSDFs have made a difference, but in the field of consensus-building rather than practical outcomes. What is the future of the RSDF experiment, and what are the future challenges for RSDFs?

These challenges include the wider "external" political context at the European and national level. Mixed messages are coming from Europe: preparation is under way on the revised European Spatial Development Strategy (ESDP2), which is likely to influence the new round of English RSSs, but with significant reductions to European funding regimes (such as the Structural Funds) consequent on the accession of 10 new member states in 2004. Domestically, the separation of functions within central government is always a challenge for integration: regional policy and sustainable development functions rest with 3 government departments (ODPM, the Department for Trade and Industry, and the Department for Environment, Food and Rural Affairs), which risks continued dislocation of responsibility for the oversight of RSDF, RPG and RES preparation. Other central government departments such as those for education and culture are only partially engaged at the regional level. Within the regions themselves, there are issues of the length of the transition arrangements to new elected regional assemblies; their formalisation via legislation, allocation of budgets and gain of citizen legitimacy are still a long way off. In other strategy areas such as community strategies, issues of educating and engaging the wider set of stakeholders remain (Kidd, 2002).

Serious disparities remain between the English regions: while the government is ostensibly committed to a form of regional policy to reduce these disparities, and the Treasury aims to reduce the persistent gap in growth rates between the regions, this does not directly reduce absolute disparities (Adams, Robinson and Vigor, 2003). A much wider range of policy initiatives - such as in employment levels, enterprise, innovation, skills and public investment – need implementing, with regional-proofing of all government spending decisions. Major developments and spending programmes have been initiated by the government in providing sites for more housing which cut across regional boundaries (ODPM, 2003b), and both the regions and local authorities have had to respond to rather than lead this process. Proposals for major housing growth at Milton Keynes, Cambridge-Stansted, Ashford in Kent and Thames Gateway (in East of England, South East and London) have not been subject to sustainability appraisal based on the RSDFs. Moreover, major infrastructure schemes such as further airport development have been promised by central government in the airports white paper, which proposes the expansion of passenger and freight capacity at East Midlands Airport subject to stringent controls on noise impacts, with the case for a new runway kept under review (DfT, 2003). The RSDF and sustainability appraisal processes, it seems, can be sidelined by central government when it suits its purpose.

An alternative view is more optimistic. While RSDFs have no resources as such, it is possible that if endorsed by an elected regional

assembly, they will gain legitimacy, and could be used further in the scrutiny role critically to evaluate the outcomes of RDAs and their strategies. SDC also concluded (SDC, 2002) that RSDFs should continue to be promoted at a regional level, through a combination of the leadership (championing sustainable development) and scrutiny (holding other players to account) roles. They urge that their importance as strategic documents is also recognised in other central government guidance and funding (such as the appraisal system used by government for awarding RDA single pot funding).

CONCLUSION

Our research concluded that future RSDFs need to be different from the first round. RDSFs of whatever form will need to be smarter with respect to the greater sophistication and complexity of work being undertaken at the regional level. They will need greater legitimacy through structured and representative stakeholder involvement in their review, and in the formulation of objectives and targets. This requires some development of skills in the regions on stakeholder involvement, which has greater force given the non-statutory status of RSDFs and the non-elected status of regional assemblies. The objectives of the RSDFs need to be better defined and especially prioritised in order to increase their usefulness in the sustainability appraisal of other plans and strategies. Action plans, while not a formal requirement, would set out clear responsibilities and tasks against time-scales, and would assist Regional Assemblies in their scrutiny function particularly of RDAs. Voluntary agreements with other partners and stakeholders would allow for more effective implementation of these action plans, ands more effective monitoring. There may be a case for targeted documents to show the relevance of RSDFs to certain specialist sectors and audiences.

These recommendations are all related to process issues. But the principal aim of RSDFs was to further sustainable development within the regions. Sustainable development is a rightly contested concept, and it is to be welcomed that regions interpret it in different ways. But while substantive integration is occurring (such as the mainstreaming of biodiversity, social inclusion and energy conservation) within the RSDFs and within other regional strategies, if central government infrastructure funding continues not just to promote a business-led view of sustainable development, but also to ignore the existence of RSDFs, the frameworks will be seen by regional players as irrelevant. The future of RSDFs therefore remains uncertain.

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WEB BASED KNOWLEDGE NETWORK FOR PLANNING AND DEVELOPMENT

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The application of web-based technologies in developing the knowledge network for planning and development is the topic of this paper. Despite the fact that the web phenomenon is relatively new in the profession and not yet entirely explored, there is evidence which suggests that e-services are amongst the most rapidly growing sectors in the profession today. Numerous e-technologies for planning purposes have already been developed, and often fully integrated into the planning practice. This paper explores the state of the art in the field, and discusses the way the e-based alternative could be utilized in everyday planning practice. At the outset, the existing know-how is presented, followed by the assessment of the tools against the principles of a good planning practice. The challenges to the alternative are highlighted in the last section, and debated vis-à-vis the observed benefits. Implications for concrete planning practice are at the heart of the overall discussion.

INTRODUCTION

During the last two decades the planning profession has undergone a tremendous transformation. Not only have the planning philosophy and ideas changed, but the overall framework for the planning discipline has transformed as well. While many factors have contributed to these processes and have influenced the development of the discipline, it is the development of the information and communication technology (ICT) that marks the era by opening up new frontiers for the profession.

Today, many countries place ICT high on their development agenda. Often, they rank it amongst the key determinants for the future urban development. Although alone it does not determine the urban future, nor does it guide and shape the cities independently of other forces - political, social, economic, environmental and cultural - its influence on development, and planning and management of cities and towns in particular, is unquestionable and ever increasing. The ICT phenomenon involves and underlines some fundamental changes in our ideas about society and the organization of space, and embraces fundamental transformations of our concepts of the relationship between peoples and territories, and indeed of the very concepts of humanity and space.

The World Wide Web, and more specifically, the Internet, was introduced on a large scale about a decade ago. It grew rapidly, first into a new communication channel, and then into a parallel economic and social domain. Today, e-space is not only a place where people meet. It is also an economic place, a powerful economic resource that fully participates in shaping development of many regions and cities worldwide. At the same time, it is also a place where part of urban/spatial development and management functions takes place.

The global electronic network supports mobility in space and time, and as such is relevant for any planning or development action, be it at a local, national or international level. Transparency, efficiency and economy, the key words of the e-option, support a call for information networking on the Internet to channel organizational and operational resources for planning purposes.

The intersection where the technology and planning meet, creates a point where the web based knowledge networks originate. While these new opportunities are of limited use today, tomorrow they may become an intrinsic part of the professional routine. This is the fastest developing sector in the industry, and it is taking place in response to the ever-increasing demand. Numerous e-technologies for planning purposes have already been developed, and often fully integrated into the planning practice.

This paper addresses and discusses the technologies available today. At the outset, the existing know-how is presented, followed by the assessment of the tools against the principles of a good planning practice. The challenges to the alternative are highlighted in the last section, and debated vis-à-vis the observed benefits. Implications for concrete planning practice are at the heart of the overall discussion.

ICT: CHALLENGE FOR THE PLANNING PROFESSION

E-services are amongst the most rapidly growing industries today. Remarkable results have been achieved in the area of urban planning and management. In more developed countries, there are hundreds of thousands of operating modules in almost every city or region. Some countries, like Italy or Singapore, have begun to gradually replace the traditional model of the face-to-face office work by the e-alternative. The situation is quite different in transition and developing countries, nevertheless there are examples of those who already embarked on strategies to successfully join the

world of the new knowledge economy. Estonia, Cyprus, Slovenia or Hungary in Europe, as well as Korea, Malaysia and Thailand in Asia, or Brazil and Mexico in Latin America, are among the leading countries and provide good examples[1].

Does "wiring" the nation and creating the "intelligent environment" affect the way we plan and manage our settlements? Are we approaching a new planning paradigm? Is planning diminishing? These are some of the frequently asked questions, calling for attention and research as the key issues the profession will be challenged with in the next decade.

In principle, introducing the e-based option into planning procedures, does not necessarily lead to entirely new paradigms or planning models. Rather, the e-alternative is aimed at providing a supplementary means to facilitate and support the existing ones. Web networking is aimed at providing additional means to ease access to different information resources relevant for urban development and management, to sustain and foster further development of urban democracy, and to annex new forms of urban management to the ones we know today. Public services and resources thus become closer to their citizens, and different actors participating in the development process are provided with a new arena for developing dialogue, cooperation, and exchange. The ultimate goal is to construct a more comfortable urban milieu, and a more democratic and fair social environment.

The e-based alternative generates positive effects to all parties involved, from the individual to the societal level. The benefits could be summarized as follows:

Individuals/Citizens

- Offers alternatives
- Enhances public participation in the democratic process
- Enhances social and community life
- Provides instruments for carrying out activities
- Provides access to information and facilities
- Develops new skills and creative thought
- Supports cosmopolitanism and trans-localism
- Extends opportunities to integrate less privileged or otherwise marginalized groups

[1] Millennium Indicators, UN, ESA/STAT, 2003. World Economic Forum, 2003.

Business/Corporate Sector

- Supports business and economy
- Improves service delivery business-client and business-business
- Creates opportunities to improve delivery at lower costs
- Enables greater efficiency in job performance
- Opens the door to new business opportunities
- Provides opportunities to integrate into regional/international business/economic world

Public Sector

- Creates opportunities to government to improve service delivery at lower costs
- Provides potentials to improve quality of local urban management
- Supports efficiency of local governance and the quality of the decision-making process
- Improves quality of communication between local authorities and their citizens, and adds new opportunities for public participation in community affairs
- Provides a platform for communication and cooperation between different local bodies and departments
- Enables citizens to communicate with their governments in an easier and more efficient way
- Provides citizens with easier access to different information, government departments and bodies, etc.
- Supports democratization and public involvement
- Supports cosmopolitanism and trans-localism and is opening up an opportunity to integrate into regional/international wider framework.

HOW DO WE CREATE A KNOWLEDGE NETWORK BY THE MEANS OF ICT?

There is a wide range of web based technologies/tools available today, which could be used in planning, through a step-by-step process, to plan, design and develop the best solution. Some of them have been around since the advent of the Internet. Others have gone mainstream over the last few years. All of them can be implemented as part of a knowledge networking strategy.

While the web GIS, and the web GIS-based PSS are the most outstanding technologies/tools planners could employ today, there are many others which could also be used. The majority of technologies were not exclusively designed for planning purposes. On the contrary, they were invented and built up to improve communication in general, and it was only after they turned into the full use in other fields, that possible application in planning became evident, and their benefits for planning were recognized.

The most popular and most frequently used technologies/tools in/for planning, are the following:

1. Web site
2. Electronic Listserv / Discussion Group (E-mail newsletters)
3. Electronic Conferences
4. Electronic Journals/ Newsletter
5. Online Database/Sharing of Documents/Publications
6. Web GIS
7. Web based Public Participation
8. On-line Communities: Civic Web Network
9. Online Planning Studio
10. Online Planning Portal
11. Content Management System

A Website: A website typically serves as the foundation for delivering services, and the place where most people initially go to explore the types of services that are being offered. There are billions of pages in operation today, out of which many support planning. Numerous have been developed exclusively for planning purposes. Website is the most user-friendly instrument available today. Practically, there are no requirements for the specific technical knowledge or skills to use it efficiently. This makes it the most convenient instrument to be employed in planning, especially in the environment where capacities relevant for planning are underdeveloped.

Directorate for Land development and Construction, Belgrade
http://www.beoland.co.yu/Index-e.html

Electronic Listserv/Discussion Group: E-mail newsletters. Using e-mail to deliver information such as planning commission agendas or alike is perhaps the easiest but

most overlooked part of an e-strategy. Many planning agencies simply post a form on their websites where interested citizens "subscribe" to a newsletter by providing contact information to a database. While the procedure is very simple, the possible effects may often be substantial and important. E-mail discussion groups have been widely utilized in other areas, and their usefulness has already been widely recognized.

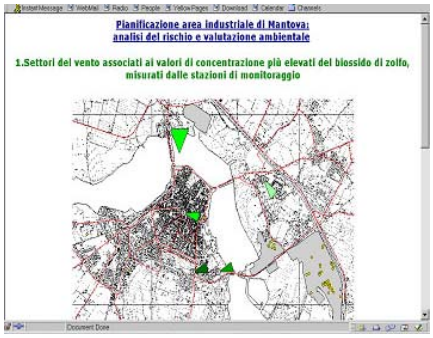
Electronic Conferences. A common technology used for professional communication and collaborative work. However, it could also be applied in the planning procedures, particularly throughout the preparatory phase.

Electronic Journals/ Newsletter. Another common and exceedingly used technology, especially for communication among professionals. Relation to planning is rather specific, electronic journals and newsletters are mostly used for disseminating information, or as a platform for sharing and exchange.

Online Sharing of Documents and Publications, and creation of on-line data basis, is the instrument embraced by every e-government strategy. Remarkable results have been achieved so far, and possibilities to apply them throughout the planning process are tremendous. Governments which have already introduced this technology, report on a growing number of the everyday contacts, as well as the rising interest among the public for planning issues.

Environmental Atlas of Belgrade
http://www.ekoatlas.zdravlje.org.yu/indexeb.htm

Web GIS. Most data have a geographic component, and geographic information systems and web-based mapping (sometimes called Web Geographic Information Systems, or Web GIS) take full advantage of it. GIS has been around for more than a decade, with an ever-increasing trend all over the world. However, it is the www component that created a "big-push", and generated new standards in the profession. GIS can store, retrieve and analyze information for planning purposes and aid in solving planning problems. It can serve as a database and as a toolbox. As a database, spatial and non-spatial data can be linked by a geo-relational model. Subsequently, data can be extracted from the GIS database and used for analysis. As a toolbox, GIS can allow for spatial analysis using its geoprocessing and elaborate cartographic modeling functions to generate answers to questions. The sophisticated web-based mapping software allows affordable online delivery of complex data such as land-use information, zoning, demographics, aerial photos, real estate site location, routing, as well as the analysis.



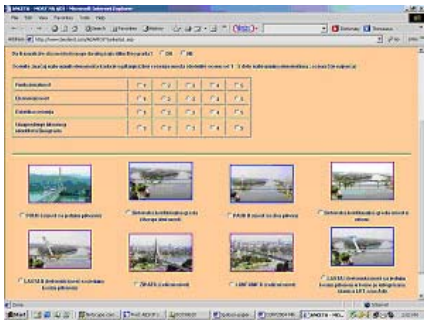
Web GIS: Mantova
http:/www.commune.mantova.it

Web based tools for public participation. These instruments can take many forms, ranging from simple online discussion forums, to more formal visual preference surveys, or wired to conference facilities to allow audience participation. Whatever form they take, the goal is always the same: to facilitate plan-making and decision-making procedures, and to open the planning process to as wide a public as possible.

These technologies provide opportunities to empower citizens to make choices, and help democratize urban governance in their local communities. They are used to develop teledemocracy, and as such represent a specific, but contributing part in building public concern, as well as trust in public institutions. The spatially distributed citizens, once passive observers in many communal actions, now become actors or partners instead. Virtually, all members of any community can be involved in and participate in local affairs. The technologies also facilitate transparency and responsiveness of governments across all levels, and support communication among all parties involved in the decision-making process.

The most frequently used tools include (Christopher Steins, 2002):

1. "Online tools for opinion polling to be used during community meetings or via the Internet. Usually, community residents are asked to rate a series of images showing various densities, streetscapes, architectural styles, and other land-use choices. Their preferences are then used to create a common vision, and guide planning and development efforts further. Simpler methods also include web-based surveys with a series of questionnaires.
2. Collaborative design in community meetings. Participants can draw electronically, or see their suggestions incorporated in real time in computer-generated models. Tools used for collaborative design range from several of the planning support systems, to the three dimensional, real time rendering software.
3. Electronic meeting systems. These are typically used in larger and more formal conference settings, where participants use small handheld devices to send poll choices to a central computer which calculates the results and project them onto a video screen, providing the audience immediate feedback. This tool has been widely used, and many successful examples could be found".



Web-based survey for Ada bridge, Belgrade
http://www.beoland.com/ADAMOST/anketa1.asp

Online communities or Civic Web Network (CWN). The www's greatest strength is its ability to build communities without regard for

geography. SWN is exclusively oriented towards issues and needs that are identified as local. It serves local citizens, and addresses local population as a target group. The Civic Web Networks are developed, operated and maintained in order to:

1. Supply local population with relevant information on local issues and needs;
2. Provide a forum for real-time communication between citizens and their governments;
3. Enable participation and involvement of local population in the local management;
4. Improve service delivery to citizens by introducing different e-services;
5. Improve service delivery to business and support for local development;
6. Support manageable and transparent local government.

Online planning studio. This is a complex and comprehensive Internet based setting, within which all or the majority of the planning tasks and assignments are being carried online. Normally, it includes and combines many different technologies for different phases or stages of the plan making process.

There is a specific group though, known as Planning Support Systems (PSS). Born only recently as a further extension of GIS, PSS provides a new perspective on computer-assisted planning and can be seen as a continuation of analytical trends. "It offers a model for combining a range of computed-based methods into an integrated system that can support the planning function. GIS, three-dimensional models, and decision-making tools, constitute the core components. PSS can analyze a variety of socioeconomic, transportation, environmental, economic, or land-use data, and demonstrates the outcome of various assumptions and policy decisions. By changing certain assumptions, the user can see the resulting changes in real time, or accelerate to see predicted changes, as a series of maps, charts, graphs, and in some cases, three-dimensional simulations of the resulting community or region. PSS could be adaptable to a wide variety of situations, level of information, and size and type of area" (Klosterman, 2002).

http://www.simcenter.org/Projects/CommunityViz/communityviz.html

Among the most recently developed are "What if?" and "CommunityViz".

CommunityViz™ is an ArcView GIS-based decision support system for community planning and design application. The software is unique in that it fully integrates the words, numbers, maps and images that planners traditionally use for planning purposes into one real-time multidimensional environment. The tool provides a fully interactive, 3D-realtime environment in which citizens and professionals alike can clearly understand proposed plans for their community. This is achieved by enabling the GIS (Geographic Information System) to modify data on the fly, linking it to real-time photo-realistic 3D visualizations, and adding the fourth dimension (time) through the use of agent-based forecasting. CommunityViz is a series of three modules built on ArcView GIS, and these are: Scenario Constructor, TownBuilder 3D, and Policy Simulator (Kwartler&Bernadr, 2001).

What if? Is a scenario-based, policy oriented PSS that uses GIS data to support community-based processes of planning and decision-making. "It incorporates procedures for conducting land suitability analysis, projecting future land use demands, and allocating the projected demands to the most suitable locations. The system allows users to create alternative development scenarios and determine the likely impacts of alternate public policy choices on future land-use patterns and associated population and employment trends. It is easy to use, can be customized to the users/s database and policy issues, and provides outputs in easy-to-understand maps and reports. *What If?* Does not carry out a single exact prediction of the future but a range of alternative scenario-based forecasts, which in turn reveal a range of potential futures. In other words, this system can be used to determine *what* would happen *if*" (Klosterman, 2002).

Online planning portals. Planning portals are not built for the professionals only, but for all parties interested in planning issues. They can share information, best practices, conduct research or exchange , interact with each other, locate Internet resources, etc. Online planning portals are meeting places, but they are resource places as well.

Planetizen: The Planning and Development Network
http://www.planetizen.com/

Some governments have developed their planning portal. A good example is the ukonline.gov.uk , a planning portal developed as part of the e-government strategy. Some of the best known professional planning portals are KnowledgePlex, PLANetizen, and Cyburbia.

Content management systems (CMS). CMS is a tool that has recently been introduced, and to date only a limited experience has been gathered. The online database and a web browser constitute the main parts of CMS, however the advantage lies in the capacity to enable users to store information and to quickly update or add information. CMS makes web content dynamic instead of static; the most current information is always available on demand.

The importance of CMS for planning is tremendous, and possible applications almost endless. For example, if a city's zoning code were managed in a CMS, updates to the code also would be reflected in real time on the city's website. The core data gets stored in one central place, but can be published in multiple formats: to a website or intranet site, on a handheld, via e-mail, or even fax on demand (Christopher Steins, 2002).

WEB-BASED KNOWLEDGE NETWORKING AGAINST CRITERIA OF A GOOD PLANNING PRACTICE

How does the e-based option affect the way we plan and manage our settlements? Does planning benefit, do we, the professionals, benefit? Does the public benefit?

The instruments are already there, and the planning profession is well aware of their existence. However, if we are to introduce them systematically, we should explore some specific questions of their performance, in order to maximize the benefits and minimize the possible shortcomings.

An instrument, or a set of instruments, good for one part of the planning procedure (process), may not be suitable for the whole process or for its every phase. Some of them could be extremely useful for a particular situation, or a specific project only. Notwithstanding their usefulness, a careful scrutiny of their applicability reveals that often their use is conditioned, and functional only in the well prepared environment.

In evaluating the likelihood of making a shift from traditional planning technologies to the e-based alternative, a number of criteria may be employed. The analysis presented here focuses on the key issues - applicability and accountability, and therefore the technologies/tools have been analyzed against:

1. Relevance of the communication mode to the planning process;
2. Potential of the alternative to be applied throughout the planning process;
3. Likelihood of the alternative to meet quality standards;
4. Relationship between the impacts they generate, and availability.

Communication mode and the planning process

While planners have been confronted with a question of communication ever since the advent of their profession, and especially since participation and public involvement become a standard, and a required part of the procedure, it is by introducing the e-based alternative that for the first time there is a communication option that can be used efficiently. Different technologies provide the service for different stages throughout the whole planning process. Simple data access or data/information exchange can be made even with the simplest tools, and technical requirements for their use are practically minimal. Access to people can be made in the same way. However, it is the most sophisticated technologies that have the highest potential to substantially increase the efficiency and effectiveness of planning. They provide the interactive real time communication that can be employed throughout every planning stage, be it a pre-planning survey, plan-making itself, or the decision-making process. However, the technical and know-how requirements for their use are substantial as well.

Table 1: Communication mode by instrument

	Exchange	Access Data/ Information	Access People	Interactive Communication	Real Time Communication
Web site		•	(•)	(•)	
Electronic Listserv / Discussion Group	•		•	•	(•)
Web-based Electronic/Video Conferences	•		•	•	•
Electronic Journal/ Newsletter		•			
Online Sharing of Documents/Publications		•		(•)	
Web GIS		•		(•)	(•)
Web based Public Participation			•	•	(•)
On-line Communities-CWN	•	•	•	•	
On-line Planning Studio	•	•	•	•	•
Web Portal/Electronic Gateway	•	•	(•)	(•)	
Content Management System	•	•	•	•	(•)

Applicability

Not all technologies/tools are equally functional. Some of them may be employed throughout the whole planning process, while others may provide good service only for part of the process, or serve at a particular stage. The more sophisticated they are, the broader and more extensive, but their application may be intensive as well. As for the perspective of a single use, it is interesting to observe that complexity and refinement of the instrument do not always play a major role. For example, a simple web site is a very useful instrument for many pre-planning activities, and in terms of its performance ranks as equal to the most sophisticated ones. However, it is not the same as for the other procedures.

In the plan-making process, decision making, and procedures for monitoring and implementation only the most sophisticated rank as very successful, while the more simple often are of no use. Web GIS is a good example of a superior tool, while Online Planning Studio is the ultimate working environment we strive to achieve. Technical requirements for their use however are quite high, and many countries and communities, for the time being, can hardly afford them.

Quality of planning

Quality of planning may be assessed against a number of parameters. However, it is a group of basic principles that every good planning practice relies on, against which the potential of the e-based technologies is being evaluated here:

1. Efficiency (performing in the best possible way and in the least wasteful manner);

2. Effectiveness (capacity for producing a desired result/effect);
3. Collaboration/cooperation (capacity for enabling two or more parties to work together effectively);
4. Transparency
5. Public involvement
6. Equity of access

In general, all technologies contribute to the quality of planning, and enhance the quality of its performance. Some of them contribute more though in respect to a particular criterion, or a set of criteria. The general rule - the more sophisticated the more effective the instrument is, does not apply always and everywhere. For example, a website ranks as good as some of the most sophisticated ones against the criterion of effectiveness, transparency and to some degree is relevant for public involvement and the equity of access. The fact that even the simplest technologies (instruments) may substantially improve the planning practice is an interesting observation, especially with regard to the common argument that financial and technical limitations restrict their use.

The majority of instruments meet the criterion of providing or improving the transparency of the planning process. They may also be used to enhance collaboration and cooperation among the stakeholders in the planning process in general. Some of the instruments are likely to increase the efficiency and effectiveness of planning, while quite a number can be employed to support public involvement and public participation.

Challenges to the on-line option: Impacts vs. Affordability

The ICT in general, and some of the technologies in particular, require a sophisticated environment in order to be implemented and to work successfully. Some of them can be successful only if corresponding know-how is secured, or technical infrastructure developed. The more complex and sophisticated they are the higher the requirements they impose. Only the simplest ones may work in the environment which exists in the majority of cities/countries today.

Discussion and literature on the issues of social deficiencies and problems are limited,

Table 2: Applicability

	Pre-Planning	Planning Process	Decision Making	Implement ation	Monitoring
Website	●●●	●●	●●	●	●
Electronic Listserv / Discussion Group	●●●	●	●		
Web-based Electronic/ Video Conference	●	●			
Electronic Journal/ Newsletter	●			●	
Online Sharing of Documents/Publications	●	●●●	●	●	●
Web GIS	●	●●●	●●●	●●	●●●
Web based Public Participation	●	●	●		
On-line Communities-CWN	●●	●●	●●		
On-line Planning Studio	●●●	●●●	●	●	●
Web Portal/ Electronic Gateway	●	●		●	●●
Content Management System	●●	●●●	●●	●●	●●

Number of dots indicate the level: • fairly applicable •• applicable ••• very applicable

Table 3: Quality of Planning

	Efficiency	Effectiven-ess	Collaboration /cooperation	Transpa-rency	Public Involvement	Equity of Access
Website	(●)	(●)	(●)	●	●	●
Electronic Listserv / Discussion Group		●	●		●	
Web-based Electronic/ Video Conference			●		●	
Electronic Journal/ Newsletter				●		
Online Sharing of Documents/Public ations	●		●	●		●
Web GIS	●	●	(●)	(●)	(●)	(●)
Web based Public Participation		(●)	(●)	(●)		●
On-line Communities-CWN			●	(●)	●	(●)
On-line Planning Studio	●	●	●	(●)	(●)	
Web Portal/ Electronic Gateway				(●)		●
Content Management System	●	●	●	●	●	●

(•) conditioned

however, a digital divide has been recognized and discussed broadly. Recently it was placed on the world agenda: "At first sight, it might appear that new computing and communication technologies offer tantalizing possibilities for transcending traditional social and geographical barriers....the reality however, is very different and quite alarming; there is growing evidence that the main trends surrounding the application of CIT support processes and practices that intensify urban polarization" (GRHS:Habitat+5:2001). The dominant logic of the CIT- based development supports urban polarization, and tends to extend the reach of the economically and culturally powerful, thus contributing to the restructuring of human settlements (Graham, 2001). The uneven effects of such a process advance the idea of the heterogeneity between privileged and non-privileged territories or social groups (Bakis 1984, Bressand, Distler 1995, Allemand 1996). Therefore, there is a need to include into the course of analysis a number of other issues like- accessibility, or to address the question of social justice as well. The e-based option may become effective only under the condition that the majority of the population has a secured access to it, and sufficient know-how to use it. Only where there is a critical mass of users who already exist or are likely to emerge, the alternative may become a real option and serve the purpose (Bajic Brkovic, 2001, 2002).

These raise the issue of affordability vs. impacts. Affordable technologies have been identified those that require the least resources, both in terms of the technical equipment, and human capacity. It appears that, the more affordable technologies are, the fewer or less relevant impacts they create. On the other hand, the less affordable create more significant impacts.

This observation raises an important and interesting question on the perspectives of the e-planning option in different countries, in relation to the level of their development. It is worthwhile to mention the results of two recently conveyed surveys on the future of e-support planning, one conducted in the Caribbean region (Frojmovich M., 2002), and another in Serbia and Montenegro (Bajic Brkovic M. & B. Mitrovic, 2003). Although the two entities hardly have anything in common except that both belong to the developing world, the results obtained are quite similar. In both cases, the e-option exists, although on a rather rudimentary level. Both in Serbia and in some countries in the Caribbean, the strategy of e-government has been already adopted or is on its way. The implementation however, has hardly, if at all, started. Not only is there almost no interest among the professionals to introduce and experiment with a new practice, but also the overall attitude is rather skeptical. Affordability is the key issue of concern among the respondents, while the lack of adequate infrastructure, a weak know-how and a lack of support from the governments, are among the obstacles most often mentioned.

Table 4: Affordability vs. Impacts

	Affordability	Impact
Website	●●●	●
Electronic Listserv / Discussion Group	●●	●
Web-based Electronic/ Video Conference	●	●
Electronic Journal/ Newsletter	●●	●
Online Sharing of Documents/Publications	●	●●
Web GIS	●	●●●
Web based Public Participation	●	●●
On-line Communities	●	●●
On-line Planning Studio	●	●●●
Web Portal/ Electronic Gateway	●●	●●
Content Management System	●	●●●

Number of dots indicate the level: • fair •• high • • • very high

CONCLUDING REMARKS

Technology-based paradigms, such as that of the information society, provide a multitude of means to a multitude of ends. In this paper, a distinction has been made between the ends and the means associated with this paradigm. We explored the state-of- the-art of the means relevant for planning, but clearly it was the planning ends that guided our discussion.

On the global level, a momentum has been gained in developing the ICT based alternative for knowledge networking for planning purposes. There is a "digital opportunity" and apparently many efforts and actions are on the way not only to transform this opportunity into the advantage for the profession, but for development in general. Different instruments have been developed and brought into the practice. Their capacity to facilitate the plan-making and decision-making processes, to make planning more efficient, and to support the democratization of societies and extend public involvement, have been underlined and pointed out most often. It is on these premises that they gained their success in many countries by now.

There are still those who question. Would high-tech and high-touch technologies truly replace the traditional way we communicate in the profession, build our knowledge network, and participate in the planning/decision making process?

In addressing the concerns of those who are skeptical, it should be noted that the e-based alternative does not necessarily need to replace the existing and traditional mechanisms. It does however offer a more efficient alternative and as such provides an option. In fact, the new technologies offer the possibility, for the first time, to provide improved delivery at a reduced cost.

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INTRODUCING STRATEGIC ENVIRONMENTAL ASSESSMENT IN SERBIA WITH SPECIAL REFERENCE TO THE EUROPEAN UNION DIRECTIVE AND INFRASTRUCTURE CORRIDORS

Tijana Crnčević

In July 2001, the European Union (EU) adopted the Directive 2001/42/EC of the European Parliament and the Council of 27 June 2001 on the Assessment of the Effects of Certain Plans and Programmes on the Environment, known as the Strategic Environmental Assessment (SEA) Directive. The EU countries will have three years, until July 2004, for the integration of the SEA Directive into national laws. The SEA Directive introduces procedural and technical requirements, according to which environmental assessment is compulsory for certain plans and programs but not for policies, except if they are a part of a plan, as well for plans and programs of national defence, civil emergencies, finance and budgets. According to the scope of the SEA Directive, environmental assessment is compulsory for plans and programs for infrastructure corridors – transport, telecommunication and energy systems.

In addition to the overview of the general framework for Strategic Environmental Assessment and the main requirements of the SEA Directive, the current situation in Serbia regarding the present condition of SEA is presented with special reference to the infrastructure corridors. One of the conclusions of this paper is that the main limitation for the implementation of SEA for plans and programs covering infrastructure corridors is the current legal situation. The main law which is supposed to introduce SEA has not been adopted yet, while the scope of the SEA within the new Planning and Construction Act includes SEA only for urban plans and does not cover, among others, plans for infrastructure corridors.

Key words*: strategic environmental assessment, environmental assessment, the SEA Directive, infrastructure corridors*

INTRODUCTION

Recent trends show that growth both in Strategic Environmental Assessment (SEA) literature and research projects can be seen as a consequence of the rapid development of SEA. As a planning instrument, SEA is the result of years of practice as well as the changes in understanding, evaluating and directing development. SEA is defined as " *the formalised, systematic and comprehensive process of evaluating the environmental effects of a policy, plan or programme and its alternatives, including the preparation of a written report on the findings of that evaluation, and using the findings in publicly accountable decision-making*" (Therivel et al, 1992). Providing the opportunity for a systematic overview of alternatives and for taking into account all components of the environment (including biophysical, economical and social), SEA offers an integrated and skilful approach in the process of decision making within the planning process. Taking into account the nature of the decisions - the complexity, diversity and multitude of interests – that also contributes to the increase in uncertainty, it is important to underscore exceptional flexibility as a very important characteristic of SEA, one that makes it possible for SEA to very easily adapt to different planning systems.

The main role of SEA is to reach decisions that adhere the recognised principles of sustainable development strategy, which means that these principles are incorporated into the process of planning and decision-making by using certain methods. Throughout the years, support for SEA development, improvement and consolidation was given within numerous legal frameworks, binding and non-binding guidelines, national strategies and other documents (see Table 1). All these documents show the importance of SEA, introducing a comprehensive evaluation of impacts on the environment into all types of decisions concerning future development and especially into those that are made at the level of policy, plan or program.

Table 1. Documents and other important events that contributed to the development of SEA

1969	The National Environmental Policy Act (NEPA) passed by the U.S. Congress, mandating all federal agencies and departments to consider and assess the environmental affects of proposals for legislation and other major projects.
1978	US Council for Environmental Quality (USCEQ) issues regulations for NEPA which apply to USAID and specific requirements for programmatic assessments
1989	The World Bank adopted an internal directive (O.D. 4.00) on EIA which allows for the preparation of sectoral and regional assessments
1990	The European Economic Community issues the first proposal for a Directive on the Environmental Assessment of Policies, Plans and Programmes
1991	The UNECE Convention on EIA in a Transboundary Context promotes the application of EA for policies, plans and programmes (adopted in Espoo, Finland)
1991	The OECD Development Assistance Committee adopted principles calling for specific arrangements for analysing and monitoring environmental impacts of programme assistance
1992	The UNPD introduces the environmental overview as a planning tool
1997	The European Commission issues a proposal for a Council Directive on the assessment of the effects of certain plans and programmes on the environment - the SEA Directive
1999	Australia Environmental Protection and Biodiversity Conservation Act introduces provisions enabling SEA of policies, plans and programmes Finland Act on Environmental Impacts Assessment Procedure applies to policy, plans and programmes
2000	Common position adopted by the Council with a view to adoption of an SEA Directive
2001	The European Union adopted the SEA Directive Decision to negotiate an SEA Protocol by the parties to the Espoo Convention for possible adoption at Fifth Ministerial Environment for Europe Conference (2003)
2003	The Economic Commission of UN adopt SEA Protocol

(sources: Partidario, 2000; Sadler, 2001)

FRAMEWORK FOR THE IMPLEMENTATION OF SEA

The development of SEA reached its progress not only due to the introduction of legal and other administrative acts, but also because the non–binding guidelines. The European Union (EU) has also invested a lot in SEA development, by initiating research projects on SEA application in the member states, by publishing special publications, organising seminars and, above all, by initiating and subsequently implementing the SEA Directive. The main characteristics of this instrument are "learning" and "designing" using experiences from practice because every plan, program and policy[1] have certain specifics.

The main aims of the SEA – to include the sustainable development principles in the PPP process and to attain sustainable development – have over the years been pursued in two ways. The first approach is called "Top-down", and it has been marked, according to the Brutland report, as one of the main institutional challenges in the 1990s. It entails the introduction of sustainable development by identification of the potential consequences to the environment of the PPP in accordance with the established standards, taking into consideration social and economic implications. The other approach, called "Bottom-up", "conquered" its place by taking into consideration the constraints and shortages of Environmental Impact Assessment (EIA). Not considering alternatives, the later phase of decision-making (that compromises the limited effects), and the inability of looking at cumulative impacts are only few of the shortages of the EIA on which the development of SEA has been established.

The simplest definition of SEA characterises this instrument as a process of environmental assessment that relates to PPP in such a way that main differences between these two instruments are in their scope and form. According to the EIA, which refers to the project level, the application of SEA has a wider scope of strategic decisions.

The fundamental concept of SEA (Figure 1) means that apart from developing the main aims for the PPP, another process of developing other perspectives (environmental and social) of a holistic character is carried out. Both processes at the same time take into consideration the initially defined aims of the PPP. Therefore, this fundamental concept should be applied to all methodological and procedural SEA arrangements related to particular circumstances, such as the state of the environment and PPP.

In addition to this fundamental concept, key principles of the instrument that stress sustainable assessment and integration of not just environmental but also socio-economic issues form a very important framework for the implementation of the SEA as a planning instrument. Applying these principles, as presented in Table 2, could help determine the actual value of SEA, since they have been designed in step-stages and formulated in terms of objectives that have to be fulfilled. Designed to develop and promote environmental issues in decision-making, they reflect the environmental and sustainable inputs of SEA in the process of decision-making.

In order to define the SEA model, supportive methodological approaches and methods, it is necessary to take into consideration knowledge obtained from practice as well as the main principles and the concept of SEA. Continual development, which has also been made by the implementation of SEA, is one of the main characteristics of this instrument. This steady progress in practice has broadened the scope of methodology and methods applied. However, numerous research projects and case study analyses show that existing methods cannot be used for all types of SEA (Kleinschmidt & Wagner, 1998). In practice, because of the very limited application of SEA, it is still unclear whether different models

[1] Hereafter referred to as "PPP".

implies the use of different SEA methodologies and methods, so that clear framework and recommendations have not yet appeared (Therivel, 1996). The methodological framework for conducting one SEA consists of (EC, 1994):

- The definition of the objectives of strategic action (identification of sectoral and environmental objectives for strategic action, identification of sectoral and environmental constraints for strategic action, identification of potential impacts witch might enhance or disrupt these objectives, selection of environmental issues that really matter in this stage of planning)
- The formulation of options for strategic action (analysis of certain actions in terms of their limitations and providing sector and environmental aims)
- Environmental impact analysis (assessment of the level and scope of fulfilling environmental aims for each of the subjects or fields defined)
- Information analysis (choosing the optimal option using the collected data)

In addition to these separated main frameworks of the SEA, the results of the implementation of SEA in practice should be noted. Table 3 shows what can be assumed under effective SEA, and what can be seen as one of the frames of reference in the process of formulating and defining the framework for methodological, legal and institutional implementation of SEA.

The SEA Directive

The legal and procedural framework for the SEA implementation is based upon the Directive 2001/42/EC of the European Parliament and the Council of 27 June 2001 on the assessment of the effects of certain plans and programmes on the environment (SEA Directive) that has been adopted on July 21st 2001. Based on the existing procedural elements of the European Commision Directive 85/337 on the "Assessment of the effects of certain public and private projects on the environment" and Council Directive 97/11/EC - the EIA Directive, the SEA Directive has been designed taking into consideration the limitation of the EIA Directive, as well as the results of recent SEA practice: inadequate environmental information, very limited public

Figure 1. Fundamental concept (Therivel & Brown, 1999)

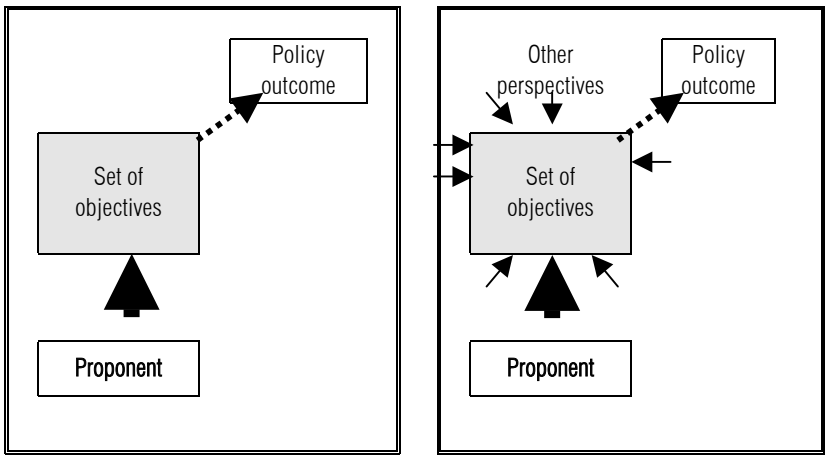

Table 2. Main principles of SEA (Verheen & Tonk, 2000)

1. An appropriate environmental assessment is carried out for all strategic decisions with potentially significant (positive or negative) environmental consequences by the agencies initiating these decisions.
2. The results of the assessment are available sufficiently early to be used effectively in the preparation of the strategic decision.
3. All relevant environmental information is provided - and all irrelevant information is excluded - to judge whether an initiative should go ahead or whether the objectives of the initiative could be achieved in a more environmentally friendly way.
4. Sufficient information on other factors, including socio-economic considerations, is available, either parallel to or integrated in the assessment.
5. The quality of process and information is safeguarded by an effective review mechanism.
6. Sufficient information is available on the views of the public affected by the strategic decision early enough to be used effectively in the preparation of the strategic decision.
7. The results of the assessment are identifiable, understandable and available to all parties affected by the decision.
8. It is clear to all parties affected by the decision how the assessment results were taken into account when coming to a decision.
9. Sufficient information on the actual impacts of implementing the decision is gained to judge whether the decision should be amended.

Table 3. The effective SEA (Sadler & Verheem, 1996; Therivel & Partidario, 1996; SEA, workshop report, Semmering, Austria, 1998; Sadler, 2001)

- SEA can be effective if those who are making the decisions have the knowledge of the importance of this instrument (in the other case SEA can be seen as an extra "paper work");
- to be effective it is important that SEA starts as soon as possible in the PPP process, actually before any decision is made;
- SEA could be effective if one consistent and systematic approach is preformed, where for the main elements should be considered: clear requirements, requirements for public participation and public reports, process which include guidelines for good practice, help and assistance (both public and private consultation), independent view and review of the implementation and carrying out the PPP.

consultation, and not using the results of SEA in the process of decision making (Feldman, 1998). Therefore, the aim of the SEA Directive is to define the legal framework in order to assure quality preparation of SEA. The EU member countries have had three years, until July 2004, for providing conditions for the implementation of SEA in national laws. Now, after three years of preparation, the EU is entering the period of implementation.

The SEA Directive promotes the "integrated model" (Therivel, 1996). The main aim of this model is to integrate SEA into each decision making phase during the planning process, inducing in this way changes in conceptual approaches of those who are making the decisions. The SEA Directive poses the requirements of including the public and sustainable topics in the planning and decision making process and producing the document on the environmental assessment called The Environmental Report with prescribed content (see Table 4), then publishing the results and taking them into consideration during decision making and monitoring. However, it should be noted that the contents of The Environmental Report do not include SEA aims, indicators and targets, which are the basis of the SEA process, and which are indispensable for assessment, choice of the most sustainable option, and monitoring.

The scope of the SEA Directive implies the requirement of producing SEA for certain plans and programs[2]. This includes plans and programs for transport, telecommunications and energy as part of infrastructure corridors.

The SEA Directive has 13 articles and 2 Annexes[3]. The introduction of the SEA Directive presents the reasons for supporting this document related to the EU policy regarding to the strategy of sustainable development and environmental protection[4]. Also, it states the necessity that "different environmental assessment systems operating within Member States should contain a set of common procedural requirements necessary to contribute to a high level of protection of the environment", as well as maintain trans-boundary consultation with the aim "to lay down a minimum environmental assessment framework, which would set out the broad principles of the environmental assessment system and leave the details to the Member States, having regard to the principle of subsidiary". The Member States' obligations are, among others, to regularly inform the commission about the measures undertaken regarding environmental quality. Regarding the results of the implementation of the SEA Directive, the commission has to submit the report 5 years after adoption, and then every 7 years.

The overview of the main procedural framework is presented in Table 5. It should be noted that this framework implicates that the environmental report should be integrated and included into legal procedures, defining main procedural steps: elaboration of an environmental statement by the authority preparing the plan, consultation, consideration of the results of the assessments before passing or submitting the plan or program, and providing the information on adopting the program.

Table 4. The content of the environmental report according to the SEA Directive (Annex I)

a) An outline of the contents, main objectives of the plan or program and relationship with other relevant plans and programs
b) The relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or program
c) The environmental characteristics of areas likely to be significantly affected
d) Any existing environmental problems which are relevant to the plan or program including, in particular, those relating to any areas of a particular environmental importance, such as areas designated pursuant to Directives 79/409/EEC and 92/43/EEC
e) The environmental protection objectives, established at international, Community or Member State level, which are relevant to the plan or program and the way those objectives and any environmental considerations have been taken into account during its preparation
f) The likely significant effects on the environment, including on issues such as biodiversity, population, human health, fauna, flora, soil, water, air, climate factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship between the above factors
g) The measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the plan or program;
h) An outline of the reasons for selecting for selecting the alternatives dealt with, and a description of how the assessment was undertaken including any difficulties (such as technical deficiencies or lack of know-how) encountered in compiling the required information
i) A description of the measures envisaged concerning monitoring in accordance with Article 10
j) A non-technical summary of the information provided under the above headings

[2] Under the SEA Directive environmental assessment is mandatory for plans and programs prepared for agriculture, forestry, fisheries, energy, industry, transport, waste management, water management, telecommunications, tourism, town and country planning, or land use, plans and programs requiring assessment under the Directive of Habitats (92/43/EEC), plans and programs which after screening are likely to have significant environmental effects, as well as for plans and programs for the small areas at the local level. It should be stated that SEA Directive allows discretion whether the assessment will be carried out.

[3] Annex I of the SEA Directive presents the compulsory content of the Environmental Report and Annex II contains the "Criteria for determining the likely significance of effects referred to in Article 3 (5)".

[4] The documents cited are The Fifth Environmental Action Programme: Towards Sustainability, The Convention on Biological Diversity and others.

Table 5. Main procedural framework according to the SEA Directive

a) Elaboration of an environmental statement by the authority preparing the plan or program; in this phase, according to the content of the environmental report (as set up in Annex I), the likely significant effects have to be identified, described, evaluated, and integrated into decision making; regarding the scoping procedures, the authorities have to be consulted in determining the level and scope of the information to be included in the report; important characteristic is that the SEA Directive is based on the existing procedural elements of the EIA Directive, which makes the integration not so complicated.
b) Consultation; the environmental report should be made available to the authorities and public which will have time to make their opinion whether the results should be of the significance for the competent authority in decision making process; if the plan or program will have trans-boundary impacts, the Member State should forward one copy to the affected country before the adoption stating the openness to enter into the process of consultation.
c) Consideration of the results of the assessment before the adoption or submission of the plan or program; in the process of decision making, appropriate consideration before the adoption will be given, besides the environmental report, to the consultation results as well as to the results of any trans-boundary consultation (Article 8 of the Directive).
d) Monitoring; SEA Directive establishes an extra-procedural requirement for monitoring "the significant environmental effects of the implementation of plans and programs…. to identify at an early stage unforeseen adverse effects… to be able to undertake appropriate remedial action."(Article 10).
d) Information on adoption; the SEA Directive requires to be created a statement of how the information have been taken into account during the process as well the measures regarding the monitoring.

THE CURRENT CONDITION OF SEA IN SERBIA WITH REFERENCE TO THE INFRASTRUCTURE CORRIDORS

The main law that is supposed to introduce SEA in Serbia is the Law on the System of Environmental Protection, which has been in the procedure for the adoption since 2002. This law will introduce SEA (Art. 16 and 17) and will make SEA compulsory for spatial and urban plans as well for plans and programs for infrastructure systems, transport, waterpower, engineering and energy (Art. 16).

The New Planning and Construction Act / Zakon o planiranju i izgradnji (2003)[5] takes SEA into consideration as a part of planning documentation according to the Regulations on Land Use, Plans Content and Preparation / Pravilnik o sadržini, načinu izrade, načinu vršenja stručne kontrole urbanističkog plana, kao i uslovima i načinu stavljanja plana na javni uvid (2004)[6]. According to Article 2 of the Regulations for Urban Plans, SEA is compulsory for general plans, according to the content of regulation arrangements where "strategic environmental assessment of planning solutions to the environment for the legally defined purposes and objects" has to be performed. SEA is also compulsory for the plan of general regulation, where, according to Article 8, "assessment of strategic impacts on the environment for planning solutions defined by Law is performed if the plan of general regulation is made for settlements not included in the general plan". However, regarding spatial plans, the Act does not mandate SEA. Spatial plans for areas of special purposes and Article 19 of the Regulations on Spatial Plans' Content and Preparation / Pravilnik o sadrzini i izradi planskih dokumenata (2003)[7], do entail carrying out plans for infrastructure corridors or networks of international corridors, highways and regional infrastructures (transport, energy, telecommunications and waterpower engineering), that include only the "assessment of economic justification and social acceptance of the planning activities, objects and function of the special purposes".

Therefore, it should be noted that in the current planning practice in Serbia, the legal frames for implementing SEA are uncoordinated, and thus there also aren't any guidelines or similar documents, as well as recommendations for carrying out SEA issued by competent authorities. Also, it is very important to state, respecting the main methodological framework of this instrument, that there are no published case studies and that an analysis of the published papers shows that SEA is found in literature usually as a presentation of the current state of SEA in the EU and worldwide (Crnčević, 2003).

Existing experience within the EU regarding the implementation of this instrument for the infrastructure corridors, usually for the transport sector, is very limited. The countries with some experience are Austria, Denmark, Finland, France, Germany, Netherlands, Portugal, Sweden, and United Kingdom (Fisher, 2002). The results of the implementation of SEA in the area of infrastructure corridors (EC, 2000) show the benefits of applying this instrument, such as: better understanding of strategic environmental impacts, ensuring coherence between plans for infrastructure corridors and environmental / sustainability objectives, increasing public awareness of strategic planning and its understanding of the issues, exclusion of some adverse projects at the SEA stage, and providing an initial knowledge base on the potential environmental impacts to be addressed in subsequent Environmental Impact Assessment (EIA). On the other hand, taking into consideration the defined limitations (sources: EC, 2000 & Partidario, 1996) in the process of introducing SEA into systems of environmental management and planning – missing the expertise, communications, not developed methodologies and methods, limited public participation – it is possible to use these limitations as guidelines for further defining and providing conditions for SEA implementation.

It should be stated that Serbia and Montenegro are not obliged to implement the SEA

[5] Zakon o planiranju i izgradnji (Sluzbeni glasnik Republike Srbije broj 47/2003); Hereafter referred to as Act

[6] Pravilnik o sadrzini, nacinu izrade, nacinu vrsenja strucne kontrole urbanistickog plana, kao i uslovima inacinu stavljanja plana na javni uvid (Sluzbeni glasnik republike Srbije broj 12/2004); Hereafter referred as Regulations for Urban Plans

[7] Pravilnik o sadrzini i izradi planskih dokumenata (Sluzbeni glasnik Republike Srbije broj 60/2003); Hereafter referred to as Regulations for Spatial Plans

Directive, since they are not Member states, but however, defining SEA framework within the requirements of the SEA Directive is advisable, taking into consideration the perspective of joining the EU. In order to introduce the procedural and other requirements of the SEA Directive, the following steps should be taken:

- The analysis of the current status of legal procedures for SEA within the planning system and environmental management that should result in an insight into the status of SEA in the planning system;
- Defining the needs, constraints and potentials of the current system according to the requirement of the SEA Directive that should show in which areas adjustments are necessary;
- Defining the procedural and methodological framework for introducing SEA into the system of environmental management that would show the place and the role for SEA of infrastructure corridors;
- Defining the SEA scope for the infrastructure corridors;
- Introducing and passing all legal documents necessary for SEA implementation in the system of environmental management and planning in Serbia;
- Starting with the implementation of SEA as soon as possible using the methodological and procedural framework as set up in the SEA Directive;
- Working on guidelines and other documents as a necessary tools in the process of SEA
- Educating professionals and others involved in the process of environmental management, planning and SEA;
- Performing institutional adjustments in order to facilitate SEA implementation, control and monitoring.

CONCLUSIONS

The current state of SEA in the planning system for infrastructure corridors in Serbia implies that the main limitation for the implementation is the current legal situation as it is found that is not in accordance: the main law which is supposed to introduce SEA is not adopted yet, while the scope of SEA within the new Act mandates SEA only for urban plans and not covering, among others, plans for infrastructure corridors. Also, another limitation is found within the defining the scope of the infrastructure systems within the planning system as the Law on the System of Environmental Protection, which is in the procedure of adoption does consider SEA for "infrastructure systems, transport, waterpower engineering and energy (Art. 16)" while the Act covers infrastructure corridors in plans for transport, energy, telecommunications and waterpower engineering (Article 19 of the Regulations for Spatial Plans). Therefore, taking into consideration current situation, it is necessary to pass the main law which is supposed to introduce SEA and which has to be in accordance with the scope of SEA Directive and its methodological and procedural framework, and then to start making the adjustments within other laws, such as the Planning and Construction Act. Also, it is necessary to define the scope of SEA within the infrastructure systems as well as the terminology. In this way, necessary conditions for starting the implementation of SEA, as well as other requirements of the SEA Directive would be fulfilled in the system of environmental management and planning in Serbia.

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EXPERIENCE OF CUMULATIVE EFFECTS ASSESSMENT IN THE UK

Jake Piper

Cumulative effects assessment (CEA) is a development of environmental impact assessment which attempts to take into account the wider picture of what impacts may affect the environment as a result of either multiple or linear projects, or development plans. CEA is seen as a further valuable tool in promoting sustainable development. The broader canvas upon which the assessment is made leads to a suite of issues such as complexity in methods and assessment of significance, the desirability of co-operation between developers and other parties, new ways of addressing mitigation and monitoring. After outlining the legislative position and the process of CEA, this paper looks at three cases studies in the UK where cumulative assessment has been carried out - the cases concern windfarms, major infrastructure and off-shore developments.

INTRODUCTION

Man's impacts upon the environment, and the impacts of human developments, may be direct or indirect, they may interact, and they may accumulate in time and space. This paper looks at the assessment of cumulative effects of developments where those developments either cluster to affect a "local" environment, or where a plan or programme of developments has the potential to give rise to accumulating effects.

The recognition that cumulative effects may be incurred as a result of human activities has been recognised in law since the USA National Environmental Policy Act of 1969 (NEPA, 1970) which first established a requirement for Environmental Impact Assessment (EIA) in the USA. In Europe, legislation to similar effect was first enacted in 1987. Directive 85/337/EEC sets out the terms for the assessment of the effects of certain public and private projects on the environment; this Directive was subsequently amended by Directive 97/11/EC to ensure, amongst other matters, that any cumulative effects are adequately addressed (see CEC 1985 and CEC 1997). Other Directives also include requirements for similar assessments of cumulative effects (see CEC 1992: the Council Directive on the conservation of natural habitats and of wild fauna and flora 92/43/EEC.). Ways of interpreting and assessing cumulative effects have been developed and handbooks for the assessment of cumulative effects have been published (CEQ 1997, Hegmann *et al*., 1999, Hyder Consulting, 1999). This paper presents some UK experience of cumulative effects assessment (CEA) and highlights issues that arise where such an assessment is attempted.

CEA is seen as offering opportunities for moving towards more sustainable forms of development. Cocklin *et al.* (1992) for example, suggest that the link between CEA and sustainable development "exists in the sense that cumulative effects analysis presents a *framework for analysis* consistent with the *concept* of sustainable management". In other words, sustainable development is the objective or constraint, whilst the management of cumulative effects constitutes a way in which it may be achieved. Clark (1994) also recommends CEA as a tool for sustainable development. See Piper (2002) for an analysis which applies principles of sustainability analysis to cases of CEA.

DEFINITIONS AND LEGISLATION

Several definitions of cumulative effects exist, perhaps the most useful is that of Ross, 1998 (see below) but others have been proposed:

> *"effects of the project under review in combination with the effects of other past, present or future human activities"* (Ross, 1998).

Canter (1999), on the other hand, has stressed three themes in CEA, rather than defining the nature of cumulative effects. These themes are:

> *"the need to address multiple actions representing potential sources of impact-causing activities; the consideration of multiple linkages (pathways) between such sources and receptors of impacts; and the recognition that such impacts may be additive, antagonistic or synergistic."*

These definitions and commentaries point to a number of issues that may arise, amongst these:

- which activities to consider, (local development activities or also, perhaps, impacts which have led to climate change?)
- the time-frame within which the assessment is to be carried out (e.g. to include past impacts as well as those expected in the immediate future – and what about induced future effects?)
- whether any gains (i.e. diminishing of environmental effects as a result of, for example, new technology introduced) may be used to offset any "losses" of environmental quality expected as a result of other developments.

Other important issues concern the methods to be used, how sensitive information may be collected where firms are in competition (see Ross, 1998) and how the significance of effects is to be adduced.

The concept of cumulative effects has been present in European Union legislation concerning EIA since the first Council Directive requiring EIA (85/337/EEC), on the assessment of the effects of certain public and private projects on the environment; Commission of the European Communities (CEC) 1985). The description of the likely significant effects of the proposed project on the environment should cover "the direct effects and any indirect, secondary, cumulative, short, medium and long term, permanent and temporary, positive and negative effects of the project" (DoE, 1991, p. 62). Directive 97/11/EC, amending Directive 85/337/EEC, became effective at the end of the 1990s and provides that when determining whether a project requires assessment of its environmental effects, relevant selection criteria should include "the cumulation with other projects" and "the existing land use" (which may, of course, include existing developments). Other EC legislation already effective in promoting the study of combined effects of developments is contained in the 1994 Habitats Directive (European Commission Directive 92/43/EEC; CEC, 1992), which refers to major sites of nature conservation importance and in particular the Natura 2000 network of sites. The UK regulations which implement this Directive calls for "appropriate assessment" to be carried out by a competent authority before a "plan or project which is likely to have a significant effect on a European site [i.e. a Natura 2000 site] either alone or in combination with other plans or projects". In other words, where the effects of two or more developments may act in conjunction upon such a site, an assessment of those combined /cumulative effects must be carried out.

More recently, the Directive on the assessment of certain plans and programmes on the environment (2001/42/EC - known as the SEA Directive) has extended this need to assess cumulative effects to plans and programmes, i.e. to a "higher" level in the hierarchy of planning and development. At such an earlier planning stage there may be more flexibility to change development decisions, though there may well be rather less information available on the precise nature of development type or technology and consequently the amount of, say, traffic, pollution and noise which may be generated.

PRIMARY SCREENING AND SCOPING ISSUES IN CEA

To recapitulate here the types of circumstances where CEA work may be required: two broad types of cases may lead to CEA: project-based cases and planning-based cases. The principal distinction between these two types is the certainty of the proposed development/s: i.e. whether they have been designed and funded and permission for construction is now being sought, or whether a final commitment remains to be made.

"Project-based cases" will include circumstances where a new development is to be constructed in the vicinity of another development and will impact upon the same environment, cases where two or more developments are brought forward contemporaneously such that they will affect the local environment in similar ways at the same time/s. Another form of project-based case concerns linear projects (such as a road, railway, pipeline or transmission line) which in crossing the land may repeatedly impact upon a valued component of the environment. Thus, for example, in crossing through the county of Kent from London to the English Channel at Folkestone, the Channel Tunnel Rail Link cuts through, runs alongside or otherwise affects a series of wetlands, several chalk streams and a number of ancient woodlands. Within each of those environments the railway has the potential to affect a variety of endangered or protected species such as badgers and dormice.

Where CEA work is undertaken into project-based cases like these, good information will exist upon the nature of the developments being proposed: their size, inputs and outputs, labour force and capacity to affect the environment in various ways (waste production, traffic generation, etc.) In planning-related cases less information is known. We are assuming here that a plan is under consideration by an authority (e.g. local territorial authority, transport authority, resource authority) which would propose development of one or more kinds across what may well be a broad sweep of land. Such strategic plans might include

- a plan to increase housing within a region, taking into account needs for other infrastructure services
- a plan to improve transport within a locality, perhaps by changing modes, developing hubs, etc.
- a plan for water resource development within a catchment (which might combine infrastructure development with leakage reduction and conservation)
- a plan to move from carbon-based to renewable energy systems

In each of these cases not everything is determinate: technologies, sites, level of funding, routes, etc. remain to be decided, so a broad range of options must be included in the assessment.

Whether it is project-based or planning-based cases that are under consideration, the chief screening criterion for CEA is whether there is a likelihood that significant effects upon the environment will be generated, so that appropriate mitigation may be planned and also assessed. Scoping for that assessment must be carried out in such a way as to concentrate on the issue of significance – it is not difficult to envisage an array of effects that may arise in both types of case. The assessment needs to focus on the question of significance in order to avoid the mistake of undertaking an unnecessarily broad assessment. In order to achieve this, thought needs to be given to which components of the environment are particularly important and may be affected by the development. These components are referred to as VECs: valued ecosystem components. In addition, the boundaries of the assessment must be determined in time and space.

By selecting certain VECs as the focus of the assessment, the assessor making a judgement as to where effects may fall in the most significant way. The VEC chosen may be, for example, air quality or a protected wildlife species or group of species (more than one VEC may be chosen). It is implicit in this approach that impacts upon the selected VEC may in some way serve as a surrogate for wider environmental effects – if the effect upon this VEC is significant then effects on other components

of the ecosystem may also be significant. Moreover, it is suggested that impacts upon this VEC represent the likely pattern of incidence upon other components of the ecosystem.

With regards to boundaries in time and space, it is here that careful judgement is needed to accurately represent the range of issues that need to be taken into account. The spatial boundary, for example, must include all sites and territory likely to be affected by the combined effects. This may mean a series of disconnected sites (as in the case of the Channel Tunnel Rail Link as described above) and it may also include sites at some distance – e.g. sites from which resources for the developments assessed are quarried or where their waste is deposited. It is likely that sites across a wider area will be subject to CEA than is the case with normal project EIA but again, it is appropriate to leave out of the analysis any areas not affected by the combined projects.

When specifying the temporal boundary for the study, the Directives call for "past, present and future" developments to be taken into account. The current plans for development are known. The impacts of past developments may be more or less difficult to trace: certain species could have been lost from an area, the water table may have been affected over time, and soils may have become contaminated. It is not explicit in the legislation and accompanying regulations to what extent these changes need to be included in the assessment: whether or not a "benchmark" in the past needs to be set. In a heavily populated country such as a UK, almost all land has been affected by past development and no return to a pre-Industrial Revolution environmental status is being sought; consequently it would not be feasible or reasonable to track all past change. As for "future projects", as referred to in the Directives, these will include both those that are already known, well-planned and budgeted and for which planning permission is already being sought, and those which are much less well defined, such as any developments responding to future transport or labour needs resulting from current developments (e.g. where a strategic transport plan includes a new airport: how far must trends in likely passenger growth be predicted to cover the future needs for car parking space). Ross (1998) discusses problems with future project identification in Canada, whilst Rumrill and Canter (1997) have proposed, for the USA, a systematic decision process to determine when any possible future action should be included in an assessment. In such cases what is important is to provide a transparent account, appropriately calculated and sourced, showing what is included and has been assessed and what has not been included, together with the level of uncertainty about future projects and their impacts.

PROCESS AND METHODS

Process and methods for CEA draw upon those developed for EIA. Good accounts of process and methods can be found in the published documents of the USA Council on Environmental Quality (1997), the Canadian Environmental Assessment Agency (Hegmann *et al*. 1999) as well as a European Commission publication (Hyder, 1999). Table 1 summarizes an eleven-step process to be followed within three broad stages: scoping, description of the affected environment, and determining the environmental consequences of the proposed projects or strategic plan. The process leads to mitigation measures and the monitoring of effects.

The methods used in CEA are essentially similar to those of EIA more generally, and include those shown in Table 2. Some special evaluation methods are included in italics.

Table 1. - Eleven steps in CEA

EIA component	CEA steps
Scoping	1. Identify the significant cumulative effects issues associated with the proposed action and define the assessment goals
	2. Establish the geographic scope of the analysis (e.g. ecosystem)
	3. Establish the time frame for the analysis (include projects in non-immediate time-frame – past and reasonably foreseeable future)
	4. Identify other actions affecting the resources, ecosystems and human communities of concern.
Describing the affected environment	5. Characterize the resources, ecosystems and human communities identified in scoping in terms of their response to change and capacity to withstand stresses.
	6. Characterize the stresses affecting these resources, ecosystems and human communities and their relation to regulatory thresholds.
	7. Define a baseline condition for the resources, ecosystems and human communities.
Determining the environmental consequences	8. Identify the important cause and effect relationships between human activities and resources, ecosystems, and human communities.
	9. Determine the magnitude and significance of cumulative effects.
	10. Modify or add alternatives to avoid, minimize or mitigate significant cumulative effects.
	11. Monitor the cumulative effects of the selected alternative and adapt management.

Source: CEQ, 1997, p. 10

Table 2.

Scoping and impact identification methods:	Questionnaires, checklists (simple, detailed), professional judgement, panels, interviews matrices, pathways/networks, spatial analysis
Prediction and evaluation methods	Modelling (e.g. noise, air dispersion, oxygen sag models), professional judgement, case study analogue, GIS, overlay mapping, photo-montage, wireframe, trends analysis, indices, public participation; *Special methods: carrying capacity analysis, ecosystem analysis, economic and social impact analysis*

Cooper and Canter (1997) have reviewed the use of various EIA methodologies in CEA, based on the experience of 25 practitioner respondents in the USA – though there are problems with their analysis (see Piper 2001) the analysis showed that professional judgement was the most commonly used approach, followed by forms of computer-based modelling (including GIS). Piper (2001) compares methods used in four CEA cases in the UK. It seems likely that there is scope for the development of further methods, particularly computer-based methods. As the aim and purpose of the methods used is to assist in the decision-making process by providing reliable, transparent and appropriate information, methods will not be the same in all cases. These methods and their values are discussed at length in CEQ 1997.

CASE STUDIES

Three case studies are briefly described here, to provide a flavour of work undertaken by EIA practitioners in the UK in recent years, and as a means of illustrating the methods and procedures used. Certain issues that arise are discussed in section 6 below. The first case concerns a series of windfarm projects, and this is described with reference to the eleven steps outlined in Table 1. The second is concerns a cluster of developments adjacent to the Humber estuary and important wild bird habitats, whilst the third relates to a strategic plan for development of Liverpool Bay.

Holderness Windfarms

Two proposals for windfarm in a coastal region of very flat topography (Holderness, Yorkshire) came forward within months of each other, followed another from a third developer; further similar developments were known to be likely in the same area. The windfarms consisted of between 3 and 13 turbines, each with an overall height of between 62 and 80 m to blade tip. A CEA study was commissioned by the local planning authority, in part because it was aware of local concern about landscape impacts and so wished to be able to provide information to any Public Inquiry that might be called. Wind turbine planning applications have frequently changed in design after an application has been submitted (number of turbines, capacity, size), in part because the technology is developing rapidly. The competent authority determining permission for windfarms in the UK is the local planning authority in the case of small developments, but where a windfarm exceeds 50 MW production, a central government department (Department of Trade and Industry) is the competent authority. This was the case with one of the proposals. The information that follows is derived from published studies and discussions with staff of the local planning authority and the consultants, see Piper (2001) for further details. For a description of the Holderness landscape, see: www.countryside.gov.uk/LivingLandscapes/countryside_character/yorkshire_and_the_humber/ holderness.asp

Scoping

Scoping for this study (CEA step 1), was carried out by the local planning authority assisted by statutory consultees, with cumulative landscape and visual impacts of the windfarms to be assessed. Potential impacts upon birds (raised as an issue by English Nature and the Royal Society for the Protection of Birds (RSPB) at the environmental impact assessment stage) were not assessed.

The spatial boundary of the study (CEA step 2) was set as the maximum distance (about 20 km) at which the windfarms might be seen. Past impacts upon the region (CEA step 3) and past trends were not discussed. Other windfarm projects which might be considered "reasonably foreseeable future developments", known to be under consideration at the time of the study, were not included in the assessment, nor were other current development activities affecting the landscape (CEA step 4). Where a gas terminal had already changed the landscape, the study stated that new wind turbines "will not cause substantial further effects".

Environmental baseline

Following the scoping directions, CEA step 5 (characterization of the baseline environment) is restricted to describing the landscape in terms of landscape character and in terms of "capacity to absorb the development". Countryside Commission guidelines on landscape character assessment were used here (Countryside Commission, 1993), together with other guidelines. The landscape character units were redefined to a detailed level: e.g. Coast and Undulating Farmland character area, Drained Farmland character area and Heritage Coast.

Factors in determining the significance of impacts were deemed to be

- the degree of change to designated land (here: Spurn Head Heritage Coast)
- the intrinsic change character of the landscape, and
- the potential visibility of the site and projects.

No clear criteria were established for assessment of each landscape's capacity to absorb development, though judgements are implicit in the description of the impact of development on the landscape character units. For example: *"The impacts upon the Coast and Undulating Farmland are likely to be particularly marked even at distances of over 5 km from the site. The continuity in character and the defining quality of a simple, yet generally not unattractive coastal landscape, would be undermined to a degree by the introduction of turbines in this character area*." (ERYC, 1999b)

No regulatory thresholds applied in this case (CEA step 6) – such thresholds are more commonly set with respect to air and water emissions. Whilst the baseline conditions for relevant resources (landscape) and human communities in the district were described (CEA step 7), they were not mapped in the study report.

Determining the environmental consequences

In predicting impacts (CEA step 8), the study considered both the local and wider scales. It did not, however, describe at any length the size or make-up of human communities affected by the windfarm developments. There is a reference to car drivers passing on a local road. There was no mapping of villages or outlying settlements lying within specified radii of any windfarms. Again, this would have been useful.

Moving on to CEA step 9, magnitude and significance were expressed in terms of dominance and the sensitivity of the landscape. For example it was stated that a local landscape near one windfarm site "would become a landscape dominated by vertical structures whose defining characteristic is the movement of 54 m diameter rotor blades." It was noted that there were no land cover features that might counter that dominance (e.g. tall buildings, forest) (ERYC, 1999a, p. 5).

A set of five thresholds relating the visual dominance of a wind turbine to distance from the turbine was also devised by the consultants, e.g.

0-2 km:	Wind turbines a prominent element in the local landscape - **High visual impact**
2-5 km:	Wind turbines would appear as clearly visible element in landscape - **High-medium or medium visual impact.**

No recommendations on mitigation are made in this report, nor is any monitoring suggested (CEA steps 10 and 11). These activities were not included in brief to the consultants, but best practice would indicate these are essential items in any CEA.

Middle Humber

During the mid-late 1990s, plans for a series of industrial developments were put forward for a site on the north bank of the Humber estuary (Yorkshire). The developments included a power station, a wastewater treatment pipeline from a nearby new wastewater treatment plant, and two docks developments (one a ferry terminal). In addition, flood defences were to be raised along much of the adjacent north bank, in order to safeguard the city of Kingston upon Hull. Thus, in this case four developers were involved and a total of five competent authorities were required to determine - under five different statutes - whether permission to build would be given. Immediately to the east of these developments lies a site of international significance for the value of its wild bird populations which use the Humber Flats and Marshes Special Protection Area (SPA) for feeding and breeding at different seasons of the year.

In this case EIAs had been prepared, or were being prepared, for the different developments. At the instigation of the local planning authorities a CEA was commissioned to assess in a single exercise the cumulative effects of all the developments at the construction and operational stages. The CEA focussed upon migratory birds using the coastal marshes, but also considered effects upon local traffic conditions, estuary water quality and any changes to the estuary bed resulting from deposition or scour following changes to the bank.

This case is of interest in that, as the developers were not in competition with each other and were prepared to co-operate to share information, the CEA could be conducted without great difficulty and a number of benefits could be proposed. These included:

- the modification of construction schedules to avoid excessive impacts upon the birds at sensitive times of the year,
- the scheduling of daily working hours for construction workers to reduce traffic load on local roads, and
- the re-use of spoil from pipeline tunnelling for building the flood defences.

Moreover, mitigation and monitoring work was shared between developers.

Liverpool Bay study

A somewhat different study, carried out for the Countryside Commission for Wales into a strategic plan for the development of Liverpool Bay (UK west coast), made extensive use of GIS. This bay to the north west of Merseyside is the site of numerous activities currently and in the past: dredging, positioning of marine cables, oil and gas pipelines, fishing, shipping lanes and waste dumping (now terminated). The bay is fringed by a number of sites designated for their wildlife habitats. At the time of the study a number of large offshore windfarms were being proposed - some have now come on-line. Given the complexity of the area a GIS was used to map activities and habitats; an area approximately 60 km x 60 km was covered in the GIS.

The VECs identified as a focus for this study were the common scoter – a species of duck – and feeding grounds for plaice and sole that lie within the shallow bay. By overlaying certain GIS coverages, areas used by scoter, sole and plaice for different purposes (breeding, feeding, etc.) could be shown, and areas impacted by a suite of human activities could be identified at the stages of construction and operation of the windfarms. In this case significance was estimated in terms of the vulnerability of the Valued Ecosystem Components, using the following expressions,

$V_1 = E \times S$ where V_1 = vulnerability ranking
E = exposure ranking,
S = sensitivity ranking.

Then, to account for the potential ability of a habitat or species to recover from an impact:

$V_2 = V_1 \times R$ where V_2 = vulnerability score accounting for recoverability, and
R = recoverability

The outputs of this study (CCW, 2002, available from website) include the GIS coverages showing use of the bay, and the estimates of vulnerability of habitats and species as a guide to where mitigation is required and for what purpose.

DISCUSSION

The three case studies demonstrate something of the methods and process of both project-based and planning-based CEA. A number of issues arise in these cases and merit comment.

Complexity

It is apparent that CEA work can be of great complexity in terms of resources affected and the routes to those impacts, as well as in terms of authorities and statutory controls involved. This will mean that considerable expertise, consultation and planning will be required in the CEA process. Nevertheless, a CEA study may be a way of reducing duplication of effort (by several developers in a cluster) and also expose cumulative effects issues at an early stage (in the case of plan-related CEA) thus focussing effort upon feasible developments.

Co-operation and confidentiality of information

In some cases where projects coincide to affect natural resources, developers may be prepared to co-operate in order to speed the process of gaining permission to construct, sharing costs and intellectual inputs. This is more likely where the projects involved are different in nature to each other. Where such co-operation can be achieved there may well be benefits to all concerned, particularly in terms of mitigation and monitoring (see Piper, 2000).

In the case of concurrent and similar developments (e.g. windfarms), each developer may be unwilling to divulge information about his plans to a consultant undertaking an EIA for another developer, especially where there is a "chain" of developers awaiting planning permission and there is a belief that not all projects will be successful in gaining permission. This means that the developers are unlikely to work together and it will be appropriate for the competent authority to commission any necessary CEA work. In the strategic planning case described above (Liverpool Bay) the nature conservation authority (Countryside Commission for Wales) undertook to commission and fund the study, which was

intended partly to devise methods for use elsewhere and to be a step towards safeguarding biodiversity in Liverpool Bay.

Process issues

Any study of cumulative effects will need to make explicit how the significance of impacts is to be determined - and this will require consideration of the spatial boundary, the boundary in time (in terms of past, present and future projects) and which VECs are selected to represent the impacts of the developments. A larger spatial boundary may make impact levels appear smaller, and the way in which past and likely future environmental impacts are dealt with will also affect assessments. Consultation with stakeholders and experts will help resolve these issues, but transparency and careful record-keeping are necessary to ensure that the basis of assessments is valid and is well-understood.

Significance and mitigation measures

There will be issues such as when work is to begin and whether construction work may be phased (as a mitigation alternative). There may be scope for aligning the technologies of the various developments (e.g. waste recycling and control).

Project vs. planning-related CEA

Two types of cases where CEA may be required have been outlined: cases where projects have been finalized and full information is available, and cases where the assessment is being made of a strategic plan, in which case much greater flexibility may remain possible in terms of location and nature of projects. Thus there may be a trade-off between more information (at a stage when projects have been fully designed) and more available options (at a stage of strategic planning). In both circumstances, the commencement of CEA work as early as possible will mean more opportunities for modification of the projects or plans in order to mitigate deleterious effects.

Consultation and participation

Within the European system of EIA there are requirements that opportunities be provided for consultation with both statutory consultees (e.g. government bodies with particular responsibilities for environmental resources) and for public participation. It is worth noting, however that whereas public participation upon the impacts of individual projects is generally well provided for in the regulations, in the case of cumulative effects there is likely to be less opportunity for local people to have an opportunity to be made aware of them. That is, each developer may make clear the impacts of each development, but the process does not insist that cumulative effects are brought together and presented for evaluation by the public.

CONCLUSION

This paper has attempted to provide an outline of the status of CEA work in the UK, noting some of the difficulties and benefits of the process, the methods that may be used and the issues that arise. It is an area which is still under development - rather more experience of CEA exists in the USA and Canada, and there are opportunities to learn from this experience despite the differences in the type and scale of projects generally between North America and the UK.

For the future, the areas within which development of practice in CEA would be desirable concern issues such as the determination of significance in cases where several developments are likely to impact upon a resource, or where current development proposals add to the effects of past projects upon the environment. Another research topic is how mitigation and monitoring may be handled where several developers are involved. Canadian experience is particularly interesting in the area of setting up fora for continuing the monitoring of both impacts and mitigation.

CEA can be a tool for sustainable development in both plan and project related cases. In particular, it provides an opportunity for the consideration of wider effects - such as impacts resulting from climate change - at a more realistic level.

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THE TECHNOLOGY PARK – A NEW SPATIAL FORM OF INDUSTRY AT MAJOR INFRASTRUCTURE CORRIDORS IN SERBIA

Slavka Zeković

In this paper, technology parks as new spatial forms of industry and instruments of multilateral development are considered along with possibilities for establishing them at major transportation corridors in Serbia. The experiences of some developed countries and domestic practices in using these instruments of spatial and economic policy are portrayed. It is stressed that establishing and using these spatial planning instruments is of great importance for our country given the imminent macroeconomic reforms, privatisation, open economy, economic restructuring, internationalisation and trade exchange, in which direct foreign investments play an increasing role.

INTRODUCTORY REMARKS

The development of technology, internationalisation of production, global trade exchange, direct foreign investments, and the introduction of sustainability criteria changed previous knowledge about planning economic activities, and location, developmental and environmental factors in the allocation of economic activities. Entering into the new millennium and the era of the technologically highly developed society, establishing "new" location and developmental factors, and the trend of spatial de-aggregation and/or the reintegration of production and services incited the emergence of new forms/models of spatial investment (research parks, industrial parks, technology parks, corridors, free trade zones, high-tech production zones and complexes, etc.). These location forms are materialized conglomerates of the developmental and spatial dimension in the process of internationalisation of production and trade exchange, but also models of the urban, regional, and technological development of particular highly developed countries. In this context, new spatial forms of industrial location do not only play a pivotal role in economic and territorial development on the national, regional, or urban level, but also lead the way in societal and urban change. New spatial forms of industrial location as strategic development models and instruments for reducing regional disparities require open mechanisms in attracting direct foreign investments. The national government (creating pertinent conditions and incentives), scientific and research and development institutions, multinational companies (by means of direct foreign investments), and the local/domestic economy play an essential role in their genesis. A special role is given to the Agency for Economic Development, Corporation for Development and Construction, Foundation for Applied Research and Technology and the transfer of technologies created by 'spin-off' companies, which are crucial for the national economy as "generators of regional employment" with expansion effects in international economic flows.

THE TECHNOLOGY PARK – AN INSTRUMENT OF INDUSTRIAL SPATIAL PLANNING POLICY

Spatial planning should enable territorial direction of market pressures upon space in accordance with socially acceptable goals. It should also suggest an expert platform for defining strategic decisions in the political-governance arena and the managerial pool. The spatial organization of economic activities (small and medium enterprises) is actually a mode of the state's intervention of redistribution as part of a strategy of production and spatial management. In order to incite the processes of spatial development, apart from the new spatial forms of industrial locations (mainly high-tech industrial agglomerations, especially technology parks) as instruments of spatial planning policy, entrepreneurial zones and zones of simplified/facilitated planning are used. From the point of view of spatial development, the industrial policy encompasses instruments and measures for industrial dislocation, favouring attractive locations and restricting development on certain other locations. Establishing technology parks is one of major multilateral instruments.

Location factors play a pivotal role in the establishment of technology parks. Top location factors of the high-tech industry are: well-trained professional staff, institutions of scientific research and development, universities, the market, major regional infrastructure and urban innovative infrastructure (urban and

location economy, production flows, urban services, infrastructure, quality of life, aesthetic urban qualities, etc.). The research of location factors and high-tech industry is very extensive and points to certain theoretical divergences (Markusen A., Hall P., 1986.) Some theorists (Scott, Storper, 1986) refute the Markusen theory on the unique high-tech industry location factors, emphasizing the well-trained professional staff and agglomeration economies. Saxenian (1993) supports the view that the agglomeration of high technology (in developed centres and less developed areas) incites the synergy factors and shows many spatial and infrastructure attributes. The location factors of the high-tech industry depend on the branch, enterprise size, and the area in question, but generally the rank of priority location factors would be as follows:

- Labour cost and quality (professional and educational structure)
- The role of university centres, R&D institutions and scientific personnel
- Presence of basic infrastructure for industrial development, including (attractive and good quality) housing and urban services
- Presence of local businesses and services as entrepreneurial nuclei appropriate for including in the technology park project and essential for industrial development based on high and medium technologies
- Favourable local entrepreneurial climate and legislative framework
- Favourable transportation access to international airways (vicinity of an airport) and to major roads and rail corridors
- Role of the state and the local government in financing private high-tech industrial enterprises (a stimulating investment and loan policy, fiscal deductions, the construction of basic infrastructure, etc.)
- Identification of main objectives of local high-tech industrial development, etc.

The development of high-tech industrial enterprises shows a tendency towards spatial concentration.[1] The process of agglomeration of high-tech and semiconductor producers in technology parks implies a balance between location demands of particular enterprises and location conditions. (Haug P., 1986). In the process of branch and spatial diversification of industrial structure in the technology park key factors are knowledge, experience and skills of the professional staff, transfer and relocation flexibility of highly educated staff, favourable conditions – economies of enterprise agglomeration tailored to reduce communication and transaction costs, the costs of developing new products and technological processes, costs of inter-company cooperation, technology transfer, transfer of licenses, combining production technologies, software development, etc.

In creating the urban spatial concept of the technology park, i.e. its content, spatial organization, land use for particular activities, functional and organizational scheme, communications, environmental protection, etc., it is necessary to: a) identify main objectives of global and high-tech industrial development and allocation; b) define institutional, macroeconomic and other conditions and the role of the state, the local government and the enterprises in the realization of the prospective project; c) define the preliminary development concept for small enterprises – the potential structure of production and programme (based on high-tech or medium level of technology), location demands of particular enterprises, contents, buildings, and infrastructure; d) consider multi-variant urban or spatial solutions for the technology park (in practice, several approaches are used, predominantly the modular allotment system with continuous/successive activation dynamics, the "initial nuclei" model with contents and enterprises dispersed or grouped according to a particular criterion, or the "hybrid approach); e) plan the conditions and measures for environmental protection (upon sustainability principles and criteria, precautionary principles, the application of quality standards ISO 9000 for products, environmental standards ISO 14.000, and principles of industrial ecology).

The starting point in urban spatial planning of new industrial location forms is to determine the goals and standards of the planned construction and functional zone, to determine whether the size, quality and equipment of the buildings, infrastructure, and location are adequate for particular land uses (production, R&D, services, business, recreation, distribution, communication, storage, free spaces, protection zones, etc.), to determine environmental quality, etc.

The potential structure of industrial activities in the new spatial form of industrial location (technology park) should, based on the evaluation of comparative location advantages, enable a greater role of particular spatial wholes as bearers of development in the regional surrounding, serving as nodal points in the spatial organization of production, services, and residential uses. A preliminary insight into the role of new industrial forms points to their extraterritorial and export importance, their substantial effect upon the national economy, and also their role as a node of production, assortment, service, development, distribution, and transit. Tatsuno S. (1986) points to the relatively low impact of the vertical integration process and economic agglomeration activities (production, services, exchange) on the local environment, to be found within industrial technology parks and other forms of high-tech industrial locations. This is due to the export and extraterritorial character of these activities (a relatively low scope of employment, potential jeopardizing of the environmental and urban quality, eventual loss of stimulating developmental effects upon the local economy, etc.) The expected developmental effects of technology parks rest in the socio-economic sphere (the impacts upon the process of generating global development through small and medium enterprises, changes in the areas economic structure, employment, market, development of services, etc. and urban spatial structures (developmental and location factors – better use of natural and built resources, criteria for choosing and evaluating the location, high urban standards of construction, etc.)

From the spatial planning point of view, it is relevant to research the location and developmental factors that determine the macro and micro location of the new industrial form (technology park) – urban and regional

[1] According to SIC (Standard Industrial Classification), "high-tech" holds a high percentage of the overall R&D investment (more than 10%), develops new products and technological innovations, and predominantly employs R&D and scientific professional staff (more than 10%). According to the SIC, 23 out of 34 branches of industry are high-tech.

infrastructure, R&D institutions, scientific and highly qualified professional staff, the market, agglomeration and location economies of urban centres, urban equipment, quality of life, social and large regional infrastructure, attractive physical space and urban aesthetics, favourable legal and business climate, etc. The new spatial form of industrial location (technology park) is a fundamental element in the spatial structure of industry in the state, region, or city, as well as in multi-modal industrial corridors, which influence the transformation of urban and spatial structures in the environment. Therefore, the incorporation of this form of industrial location into the existing and planned spatial structure of a city or a region demands optimal solutions for spatial relations of key environmental elements together with the intra-zoning organization and the park's equipment. This implies a choice of location for the new spatial form of technologically highly developed industry, that is, according to the experiences of developed countries, placed in attractive physical spaces between a big city, university, scientific, R&D nuclei, and the airport (fast communications – motorways, rails). Identifying potential locations for the position of the new spatial formof industry in multi-modal infrastructure corridor centres in Serbia requires ex ante research on location factors for technologically highly developed industries and defining the criteria for evaluating and choosing the industry's location, the criteria for directing the industry's allocation, and criteria for assessing developmental priorities.

THE POSSIBILITIES FOR DEVELOPMENT AND SPATIAL ORGANIZATION OF TECHNOLOGY PARKS ALONG MAIN INFRASTRUCTURE CORRIDORS IN SERBIA

The basic rationale for establishing new spatial forms of technologically highly developed industry (technology parks, industrial parks, high-tech agglomerations), as the model of regional, economic, technological, and urban development, is intensifying the dynamics of industrial development and levelling up regional development disparities, to be followed by an increase in employment and the standard of living. The development of technology parks along Serbia's main infrastructure corridors involves promotion and support for small and medium size enterprises, application and development of high and medium technologies (high-tech companies), increase of employment and the standard of living, introduction of new products based on new technologies, new materials, environmentally safe products, restructuring of production in tune with market conditions, resources and constraints, entrepreneurial development, increase of business rationality and efficiency, increase of innovative capability together with a more complete use of resources, attractive locations and environmental protection measures. The general objective of developing industrial enterprises in the technology park is economically profitable high-tech production with environmentally safe products, as well as a decrease in the amount of pollutants in the air, water and soil, decrease of waste disposal, a more efficient use of (non) renewable resources, and an overall efficient spatial organization. Industrial development in the technology park entails the acceptance of environmental policy, sustainable forms of behaviour in production and consumption, and prevention and control of the effects of industrial projects.

The basis for researching the spatial organization of industry along main infrastructure corridors in Serbia, as belts of urban concentration and intensive development, is to be found in strategic development documents of the Republic of Serbia, such as: The Spatial Plan of the Republic of Serbia, Economic Development Strategy of Serbia until 2010, spatial plans of main infrastructure corridors in Serbia (sections Belgrade-Niš, Niš-Bujanovac/Preševo/Macedonian border, Belgrade-Šid/Croatian border, etc.), spatial plans of areas within the gravitation zone of these corridors, etc.

The propositions of the Spatial Plan of the Republic of Serbia (1996) provide for the possibility of establishing new spatial forms of technologically highly developed industry (technology/science parks, industrial parks, high-tech agglomerations), free zones along infrastructure corridors ("belts of intensive development"), with the aim to incite industrial development and decrease regional disparities in Serbia. The primary goals of establishing such spatial industrial forms are spreading innovation and encouraging the economic development of insufficiently developed regions, promoting new production based on the use of high technology and available developmental and location potentials of the area. The development of industrial technologies of high and/or medium complexity in "new" location forms of industry along the main infrastructure corridors ("belts of intensive development") is envisioned for the following cities: Belgrade, Niš, Novi Sad, Kragujevac, Subotica, Pančevo, and Kruševac. Further development of existing free zones, as "new" location forms of industry and other activities is planned (in Belgrade, Pančevo, Smederevo, Kovin, Novi Sad, Šabac, Lapovo, Niš, Prahovo), along with the creation of new zones (in Subotica, Zrenjanin, Vranje, Ćuprija-Paraćin, etc.)

The area along main infrastructure corridors is very attractive for establishing free trade zones. The roots of such attractiveness lay in the possibilities for the enterprises within the zone to internalise external effects due to the position along motorways, the market, urban economies, as well as favourable/privileged business conditions. For example, four free zones (Belgrade, Smederevo, Lapovo, and Niš) have been established along the main corridor from Belgrade to Niš, and more zones – in Jagodina, Paraćin/Ćuprija and Aleksinac are about to get the permission to start off. A surplus is noticeable in the location arrangement of the free zones (in terms of their number, contents, predictions for economic activity and employment), and also a duality of location (Niš-Aleksinac, Jagodina-Paraćin/Ćuprija). The presence of free zones along the corridor is part of the effect of economic agglomeration in this area. At the same time, economic activity in the zones is free of taxes or under subsidy in respect to import and income taxes, enabling free circulation and transfer of money. Furthermore, a certain level of infrastructure is provided for (transportation links, power, water and telecommunications). Low quality labour is employed within the zones and most of the inputs are imported (except for power and water). Their role is vastly overestimated, as in the case of the Lapovo free trade zone, where the document on economic feasibility predicts the employment of 10,000 workers, which is more than the number of inhabitants in this community (9,480 in the 1991 census).

The "Industrial Development Strategy of Serbia

until 2020"[2] is in the making in the Republic of Serbia. According to the key concept of the sector involved in this strategy, it remains unclear how the territorial development of industrial investments is going to be directed. The Activity Program (until 2004) of the Ministry of Science and Technology lists as one of the priorities the establishing of technology (science) parks in Belgrade (in the Zvezdara area, next to the Institute "Mihajlo Pupin") and Niš (conversion of military premises), i.e. in the pan-European Corridor X. Planning the future science-technology parks in Belgrade and Niš, as instruments of the spatial planning policy, is an example of the endeavour to coordinate cooperation in planning investments into high-tech on the national, regional, and local level.

Two corridors pass through Serbia and Serbia and Montenegro, as the central country of South-eastern Europe. One is Corridor VII – the Danube corridor; the other is a third of the Corridor X (Austria, Slovenia, Croatia, S&M, Macedonia, Greece, and Bulgaria), which represents the country's main traffic route. The priority in renewing physical capital along the corridor is regional infrastructure and its linking to trans-European corridors, and also economic/industrial development (especially along the Belgrade-Niš section). The area of the main infrastructure corridor from Belgrade to Niš encompasses the territory of the Danube, Šumadija, Morava, Rasina, and Nišava districts, and the City of Belgrade. Approximately 2.4 million people live in this area. The economic structure of the area is characterized by diversity and specialization of activities. Despite the agrarian structure of the area, industrial activity has been dominating economic development in a considerable part of the region (Spatial Plan of the Motorway Area, Section Belgrade-Niš, 2001). Because of the rapid decrease in economic activity (especially industry) during the last decade, the dominant part of the GDP is contributed by tertiary activities (42.3%). Industry and construction make for 33.8%, and agriculture for 23.9% of the GDP.

[2] Coordinated by the Ministry of Science and Technology, with the participation of numerous university departments, institutes, and other organizations.

The construction and reconstruction of the large transport infrastructure in the Trans-European "Corridor X" in the section between Belgrade and Niš plays an integrating role in Serbia's socio-economic and regional development. It enables regional economic linking of Central Serbia to the entire territory of the Republic and the European surrounding. Within this main corridor, the cities of Belgrade and Niš are nodal points, emanating, generating, and transmitting economic flows, flows of goods, transportation and transit. Concentration of population, labour, funding, and infrastructure in their gravitation areas, as well as an array of service functions, initiate those flows. In these areas around 20-30% of Serbia's economic and industrial potentials are located (and around 60% of highly qualified professionals, scientific, and R&D institutions). In addition to the immense polarization of labour and industrial capacities in Serbia, there is a global inefficiency of production, coupled with a slowing down of the basic indicators of macroeconomic development due to the absence of technical progress.

The trajectory of "Corridor X" corresponds to the Velika Morava belt of intensive development, which extends over central parts of Serbia, from Belgrade, through Niš, to the border with Macedonia. The metropolitan area of Belgrade (with 1.6 million inhabitants) and the macro-regional centre Niš dominate this belt. The location and development potentials of this belt are substantial, especially in the lower parts of the Južna Morava and Velika Morava basins. There are some constraints to positioning different forms of industrial structure in this zone. Certain constraints for the location of industrial plants come from problems with water supply, wastewater processing, pollution of water flows, and urban environmental pollution. However, this area also has noteworthy advantages in comparison with the Danube-Sava belt: the presence of urban-industrial centres of a complex structure, such as Niš, Smederevo, Jagodina, Ćuprija, Paraćin (Kragujevac and Kruševac in the larger surrounding), etc, with technologically well developed industry, scientific and R&D institutions, labour force and industrial tradition, built production plants and infrastructure.

The strategy of the territorial development of industry in Serbia (including main infrastructure corridors) is determined by overall socio-economic conditions and assumptions that:

a) The process of restructuring the economic system and economic environment will continue, there will be a transition towards market economy, changes in property, market, macroeconomic, production, and other policies and programs;

b) The country and economy will be opened to all forms and models of direct foreign investment;

c) An appropriate market-planning mechanism will be established to secure building lots for locating economic contents/investments

d) Transparent approaches and regional concepts for spatial development, use, improvement and protection will be introduced based on "sustainable" development principles, the use of eco-management and quality standards

e) "New" demands and changes in former regional policy of spatial development will be accepted ("New" factors and conditions of development are: economic reconstruction, transition towards market economy, privatisation, plurality of interests in the context of pluralism and democracy, deregulation of some elements of policy and decision making, globalisation of production, economy and trade, introduction of direct foreign investments, an increased role of technical progress in regional industrial development, etc.)

f) There will be a need to adjust regional plans/projects with European strategic and structural initiatives, planning documents, propositions, standards – for example, establishing technology parks, enterprises, economic restructuring, construction of infrastructure, protection of the environment, human development, etc.

The development and spatial organization of industry in the technology parks in cities along the main infrastructure corridors in Serbia should be based on: (i) general and specific objectives of development and basic strategic guidelines of industrial development (the development of hi-tech and "classical" sectors); (ii) perceived problems of existing spatial structure in this sector; (iii) new location factors of industry (especially hi-tech industry); (iv) new spatial/location forms of

industry (hi-tech agglomerations, technology, industrial and science parks, free trade zones, etc.); (v) location and developmental potentials and constraints of particular areas for the location of industry; (vi) determined criteria for the territorial allocation of investments into this sector and principles of sustainable development, with proposed planning responses, propositions, and modes of activating particular locations.

Future spatial organization of the technology park (the allocation of industrial and other small and medium size enterprises and other contents) should be based on the acceptance of spatial constraints (keeping the quality agricultural land, existing industrial complexes, infrastructure and other contents, appropriate land quality for construction, etc.), the existing spatial structure of production capacities and criteria for directing industrial allocation.

CRITERIA FOR DIRECTING INDUSTRIAL ALLOCATION

Directing the allocation of future small and/or medium size companies in the technology park should be based on the following criteria:

- The acceptance of positive trends in the existing allocation of industry and other economic activities and the need to complete particular industrial resources and zones in order to save space and assure positive external economies
- High level of infrastructure, completing information networks, existing and planned level of construction and spatial organization
- Territorial optimisation of production factors (especially technical progress)
- Regional and internal efficiency and the degree of meeting different needs and interests;
- Coordinating the spatial and structural characteristics of location factors, i.e. coordinating actual local demands of industry with characteristics of the terrain in the planned park
- The criterion of environmental protection and sustainable development (at the level of the park and particular companies);
- Territorial coordination of company activities with the aim of using built resources and decreasing the costs of exploiting the location
- Compatibility of planned programs/companies on the location
- Applying the criteria of eco-efficiency (economic, production, energy, ecological efficiency) in using the site and natural resources when planning new production plants;
- Developing and applying technologies that are more efficient in using resources:
- Coordinating contents of the technology park zone with ecological/spatial conditions of the local environment, and also applying the principle of sustainable industrial development, facultative instruments, standards of product quality and ecological compliance (standards ISO 9.000, ISO 14.000, etc.)
- Preventing the allocation of environmentally risky and detrimental plants or processes;
- Criteria of environmental and ecological safety in case of accidents, natural catastrophes, etc.

Gradual structural production changes, the application of technological innovations, as well as the activation of local resources and the possibilities for prospective international and domestic shareholders should create conditions for upgrading economic activities. This implies quality road and rail transport on the national, regional and local level, fast access to the airport, power networks, providing potable and industrial-grade water, channelling and processing industrial wastewaters, adequate storage of industrial waste, completing infrastructure equipment, etc.

Strategic solutions for the territorial organization of future production and other activities are among complementary methods of planning regulation and rational use of available spatial resources. The basic approaches to urban planning solutions for the technology park ("modular", initial nuclei", or combined) can achieve positive effects in spatial organization, more efficient use of resources, construction of public infrastructure, functioning of service agencies and environmental protection. This requires spatial segregation according to the level of public/infrastructure equipment, availability, and defining location, ecological and other conditions at the level of the building lot and the level of the block/zone.

Techno-economic characteristics of particular sectors are of great importance for locating industry in the park, since they are related to different forms of "environmental" pressure upon space: 1) exploitation of land (the territory of the site), 2) energy use, 3) water use, 4) wastewater emission, 5) traffic flows, 6) emission of pollutants, 7) consumption of (non) renewable raw materials.

The spatial organization of the technology park includes:

- Rational and efficient allocation of new plants /enterprises according to the location demands of particular groups of production/services or groups of enterprises and according to the location conditions and spatial constraints in the zone, segments/components, or "initial nuclei";
- Selectiveness in locating particular production enterprises, especially on account of ecological reasons
- Optimal and functional organization, design, use, and protection of the area
- Eco-efficiency (in the use of material inputs – raw materials, energy sources, supplies, water, land/location, freight transportation, waste disposal, etc.)
- Compatibility of planned programmes as located in the park

POTENTIAL INDUSTRIAL STRUCTURE IN TECHNOLOGY PARKS (INTERNATIONAL AND DOMESTIC EXPERIENCES)

According to foreign experience, the potential programmes of the technology park are chosen based on strategic decisions and available location factors. The European Union aids the development of participant countries through the Directorate for Regional Policy, structural funds, the Directorate for the Environment, INTERREG programmes (2000-2006), the PHARE programme, integral projects of urban and economic/environmental development. In Spain, projects in the field of economic development have been initiated – technology park in Barcelona, programmes of development restructuring and urban economy in Madrid, and industrial zone development in Parla. In France, the project of renewing the central zone of Lyon, as a science-technology and R&D centre has been activated. In Italy, programmes for developing technology-science and industrial parks are used as the model of regional, economic, technological, and urban development directed so as to decrease regional disparities between the less deve-

loped South and the more developed North. High-tech spatial forms have been constituted – technopolis in Bari, the science park in Trieste, etc.

The Italian government established the Public Agency for the Economic Development of Southern Italy, which, together with the Research Centre (SCATA), helped create the first science and technology park in Bari in 1984. The University of Southern Italy, University of Bari, banks, and partner consultants founded the Research Centre. The aim of creating the technopolis is spreading innovation and stimulating economic development in the economically underdeveloped South, but also a harmonious coordination of foreign and domestic investments into industrial development based on the use of high technologies. The strategic site of the technopolis, covering an area of 20 ha, is in the small town of Valenzano, some 10 km from Bari. Three sectors are present within the park: a research centre with scientific laboratories (robotics, micro-electronics, CAD-CAM, etc.), a centre for professional training and international schools, and the service sector (sport and recreation, home economics, finance, etc.). Some 40 companies are located in the park, and 100 more are in the process of beginning production. Strategic planning of the EU and Italy, using the instrument of technology parks, stimulates the growth of the regional and the local economy through the growth of the service and production sectors based on high technologies.

The science park in Trieste is a multi-sector and technology centre, covering an area of 55 ha, with 60,000 square metres of built space. There are more than 60 research institutes/centres (public, private, and international) in the park, and also a centre for companies and enterprises, high-tech enterprises, high-tech enterprises (spin-offs), a service centre (no industry) with 1,500 employed researchers and technicians. The rationale for creating the park is the development of new technologies, scientific and technological research, promoting the diffusion of innovation. The functions of the park are: transfer of knowledge and technology, knowledge and information management, promotion of R&D innovation through the development of high-tech enterprises and the growth of the centre, project management and technical support in the network of regional and national programmes, consulting, management, training, courses for "innovation managers" and "managers for the transfer of innovation". The activities in the park are comprised of different branches of technology linked to their industrial application: biotechnology, biomedical equipment, new materials, electronics and automation, electro-optics, information technology and multimedia, robotics and communications, environmental protection, etc.

Defining the structure and types of production in the technology park is not the subject of spatial and urban plans. However, in order to determine the future contents and possible location demands of new enterprises, it is necessary to presume/predict the character of site use and the demands of future users. Based on the experience with technology parks that cover the area of 25-200 ha in the EU (Trieste, Bari, Barcelona), and some transition countries of South-eastern and Eastern Europe (Gyor in Hungary, "Skoda" in the Czech Republic, "Litostroj" in Ljubljana), it is possible to give a framework for defining strategic decisions and the productive-technological character of high-tech enterprises.

In our country, the production of planning documentation has been initiated for the technology park in Vršac (Spatial and Programmatic Concept for the Regulatory Plan of the Technology Park in Vršac, 2002.[3]) The key player in this project is the company "Hemofarm" from Vršac. The technology park is located in the southwest of Vršac, in an area between the railway Belgrade-Vršac-Temisoara (Romania), the main road Belgrade-Vršac-Vatin (Romania), and the railway station Vršac, covering an area of 25 ha. This zone is well equipped with infrastructure -- a customs office and shipping companies are in the immediate vicinity, as well as the local air runway. A development strategy for the industrial zone/technology park has been prepared in "Hemofarm", as the main initiator and stakeholder in the creation of the technology zone/park. The emphasis is on support for establishing small and medium size enterprises, through different modes of production/technical cooperation, joint investments, foreign investments, etc., as well as on cooperation with foreign partners, using their experiences and capacities in order to better utilize the potentials of Vrsac and the region. (Examples are the establishing of "Hemomed" and "Zannini" Hemofarm). "Hemofarm" plays an active role in creating a favourable business climate in the community, attractive for foreign and domestic investors, in inciting entrepreneurship and new investments, supporting the start up of small and medium size companies through joint ventures, direct foreign investments and production-technical cooperation. Moreover, it promotes environmentally safe products and provides complete logistic support and sites (lots) for the construction of small enterprises (in the future it may also be possible to rent business or storage space). It also provides assistance to future enterprises in management, marketing, technology transfer, administration, financial and management consulting, R&D, laboratory services and other areas where the knowledge and experience of "Hemofarm" are valuable.

The potential production structure in the Vršac technology park includes products based on new materials – surgical material, bio-medicine, electronics, and medical electronics, medical devices, equipment, optical instruments, measuring instruments and equipment, dental products, biotechnology products, ecologically sustainable products, pharmaceuticals for most therapy groups, veterinarian products, cosmetics, and other products of the pharmaceutical industry, some chemicals and food. The development of the programmatic strategy of the "Hemofarm" pharmaceutical company is coordinated with mid-term and long-term business strategy. The potential programmatic strategy of future small and medium size enterprises within the entrepreneurial zone is heterogeneous, and involves developing "standard" technologies and products from all industrial branches.

The transition of the economic system towards market economy, decentralisation and the rule of law/responsibility deeply influence spatial planning policy and investment planning in Serbia. The complexity of planning economic investments in our country implies that most

[3] The regulation plan for the "Hemofarm" technology park has been adopted in 2003.

investment projects will be realised in accordance with the framework provided by the privatisation laws (within the existing capacities/localities). Some planned investments will be realised through the private sector (entrepreneurship), some through partnership between the public and private sector and/or direct foreign investments into new enterprises.

CRITERIA FOR THE CHOICE OF DEVELOPMENTAL PRIORITIES

Strategic determinants for the development of industrial and other enterprises in the technology park should satisfy general criteria of internal and social profitability (socio-economic feasibility), technical/technological progress and innovation utilizing the knowledge of highly educated staff, efficiency in the use of built and natural resources, spatial and environmental acceptability.

From the standpoint of local and regional interest, fundamental criteria for the choice of priority activities and programmes are:

- Coordination with spatial and environmental resources and capacities:
- Increasing employment, GDP growth, economic efficiency of the regional and local environments, and business efficiency of the investors (profitability);
- A more balanced distribution of activities and labour (population); attracting other economic activities;
- Use of renewable and non-renewable resources;
- Energy economy and developing high-tech and environmentally more efficient technologies, etc.
- Increasing technologically efficient and innovative branches in the economic structure of the region and its surroundings

For implementing the strategy of development for the technology park, planning documentation is needed, i.e. it is necessary to provide an adequate legal base for the policy of development, for the use of construction land, and for the spatial organisation of the technology park area. The main task of the urban plan of the technology park is defining the spatial organisation, the urban-spatial criteria and location conditions, conditions for construction of industrial plants, environmental conditions, etc.

CONCLUDING REMARKS

It is necessary to include strategic guidelines, framework, and conditions of the broader socio-economic context into the process of planning technology parks along main infrastructure corridors in Serbia. The starting point for planning the technology park should be based on the national strategy of socio-economic and spatial development, but also on international practice. In our country, the planning of economic investments in the period of transition and privatisation is rather complex: (a) most investment projects will be realised in the process of privatisation, (b) some investments will be new private sector entrepreneurship investments and private-public partnerships, (c) some investments will be carried out as direct foreign investments into new enterprises (including technology parks)

The activation and use of new instruments of spatial planning policy in Serbia is of particular significance given macro-economic reforms, privatisation, opening and transition of the socio-economic system towards the market system, economic restructuring, internationalisation of production and trade, in which direct foreign investments play a decisive role. Attracting direct foreign investments through the instrument of technology parks is one of the ways to increase the value of Serbia's main infrastructure corridors and to better utilize developmental and location potentials.

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INFORMATION

THE RURAL SETTLEMENT UNDER NEW DEVELOPMENT CONDITIONS

Bač, *October 13-15th, 2003*

Organisers: Urban Planners Association of Serbia

The conference had three main topics: I Rural Development under New Socio-Economic Conditions, II Rural Settlement in Spatial and Urban Plans, and III Rural Settlement and Other Conditions of Development. In discussing the first theme, special emphasis was placed upon the unequal position of agricultural rural settlements and areas. Solutions to this problem were seen in economic measures aimed at stimulating aagriculture and other activities, as well as in improving the standard of public infrastructure and living in general. Most contributions to the second topic were devoted to the organisation of the rural settlement as a living environment that could be more competitive in relation to the city. Rural settlements have been neglected as a planning category even though there have been legal grounds for that. In the third discussion group, the participants maintained that the present urban and morphological structure of the rural settlement does not offer possibilities for renewal and reconstruction. Special attention was paid to endangered wateers, forests, and agricultural land.

The conclusions of the Conference were forwarded to the highest state institutions, as an appeal to improve the conditions for developing rural settlements and rural areas.

PLANNED AND NORMATIVE PROTECTION OF SPACE AND THE ENVIRONMENT

Palić, *October 16-18th, 2003*

Organisers: Association of Spatial Planners of Serbia, Faculty of Geography at the University of Belgrade, and the Franco-Serbian Forum for Spatial Planning and Regional Policy

The Conference entailed the discussion of three topics: I The Legal and Institutional Framework of Natural and Environmental Protection II Natural and Environmental Planning, and III GIS as Support in the Elaboration of Planning Responses. The most dynamic debate was about normative protection of space and the environment, i.e. on legal propositions and problems of their implementation. Another theme was the procedure of harmonisation with European legislation in this domain. A few discussion groups examined the priorities of spatial development in Serbia. The guests from France presented introductory remarks, in which they introduced the plans and priorities of development in the European Union (for example, the work on infrastructure systems), as well as their experiences related to the changes in the planning systems of Eastern European countries which are applying for membership in the EU.

ALTERNATIVE ENERGY SOURCES AND THE FUTURE OF THEIR APPLICATION IN THE COUNTRY

Budva, October 2003

Organizer: Academy of Science and Arts of Montenegro, Podgorica and ENEKO Center, Podgorica

Subjects of the Meeting:
– Low energy (passive) architecture
– Photovoltaic cell technology
– Chemical power sources
– Wind energy
– Biomass
– Geothermal energy
– Other alternative energy sources
– Energy and protection of envirenment

Goals of the Meeting
- to analyze the extent to which alternative energy sources can achieve an appropriate position in the developement of the energy sector of our country;
- to promote educatin and information (awareness) in the domain of alternative energy sources:
- to point out to the potential of the alternative sources of energy in the implementation of sustainable development and protection of the environement;
- to ascertain the state of activities in the domain of alternative energy sources.

THE ROLE OF LOCAL SELF-GOVERNANCE IN SPATIAL AND URBAN PLANNING

Zlatibor, May 14-15th, 2004

Organisers: Association of Spatial Planners of Serbia

The issues addressed and discussed under the key theme are:

• Theoretical and general methodological framework of recent European planning, vis-à-vis institutional and organisational adjustments in the period of post-socialist transition. The necessity of better networking in the regional and pan-European context was stressed;

• Various aspects of development planning policy and governance at local levels, as well as pertinent specific issues;

• The problem of vertical coordination of planning decisions, particularly between the local level on one hand, and the metropolitan and regional levels, on the other;

• New approaches to the integration of socio-economic development planning and environmental policy in the spatial strategic framework at the local level, and the implied coordination of various concepts of the sector;

• The necessity of introducing new approaches into local governance, to cope with the most burning/pressing development needs and emerging development concepts. The importance of combining formal and informal methods was particularly stressed.

• The importance of paying more attention to the social aspects and social justice in development planning was also emphasized. Concomitant ethical, value and interest aspects of the planning profession were discussed, as well as the issues of professional education and competence.

Some problems were addressed in a fairly polemic manner; in the first place those pertaining to the current *Planning and Construction Act* (2003). At least three of its legal provisions were fiercely disputed:

• Both the legal basis of the Act and many of its provisions were criticized. A suggestion was put fort to undertake the preparation of a new Act in a systematic and coordinated way, based on reliable insights into various recent European practices and the parallel preparation of national legal frameworks of Serbia in other fields.

• The problem of legalizing illegal construction

• Regarding the stipulations on planning licenses, the current practice of the Chamber of Engineers of Serbia in administering licences was severely criticized.

BOOK REVIEW

Miodrag Vujošević

"PLANNING IN POST-SOCIALIST POLITICAL AND ECONOMIC TRANSITION" ***("Planiranje u postsocijalističkoj političkoj i ekonomskoj tranziciji"),*** **IAUS, 2003**

"Planning in Post-socialist Political and Economic Transition", a monograph written by Miodrag Vujošević, Ph.D., is the first systematic presentation in this country of the problems of planning in the period of transition. The text is a scientific portrayal of the controversial state of transition, which entails constant exterior and interior turmoil and no recognizable future content. In a comprehensive analysis, the author elaborates and gives shape to the complex themes of planning transitional development processes, the causes, and practical consequences of transition. The aim of the analysis is to provide appropriate, scientifically acceptable interpretation.

In the introduction, the author states that the general goals of transition in ex-socialist countries are: a) the development of a civil society; b) continuous and ecologically acceptable economic growth and c) increased prosperity of the individual and the entire society. To point out to the complexity of planning as an indispensable administrative mechanism in overcoming the difficulties in the process of transition towards market economy in ex-socialist countries, the author first provides the necessary theoretical and methodological suppositions. On the basis of these suppositions, as well as the historical and geopolitical characteristics of ex-socialist countries, the author makes a summary of achieved transition results in the light of initially set goals and points to the difficulties caused by the problems of privatisation and deregulation. This is followed by brief remarks on the role of the state in planning, and the need for a new interpretation of the relation between planning and the market. To complete the analysis, the author also sketches hypothetical planning models that would neutralize the imperfections both of the market mechanism and of direct state intervention. The conclusion is that the key issue in development planning is managing conflicts immanent to the processes of transition, especially when the pursuit of economic prosperity also necessitates providing the preconditions for sustainable development that the processes of transition have to satisfy.

INSTITUTE OF ARCHITECTURE AND URBAN PLANNING OF SERBIA

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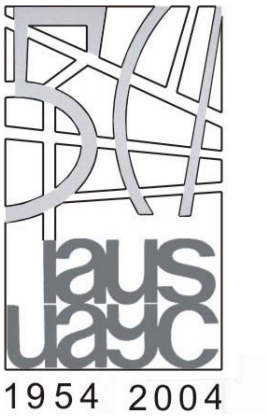
CONFERENCE "SUSTAINABLE SPATIAL, URBAN AND RURAL DEVELOPMENT OF SERBIA"



On its 50th anniversary

Institute of Architecture and Urban&Spatial Planning of Serbia

Announces a scientific conference on the following topic:

"SUSTAINABLE SPATIAL, URBAN AND RURAL DEVELOPMENT OF SERBIA"

Belgrade, The National Library of Serbia, December 6-7, 2004

Proposed Topics and Issues:

I Sustainable Development Planning and European Experiences in this Field

1) European and regional development projects
2) Trans-European corridors and their impact upon the development of Serbia
3) The process of regionalisation and regional cooperation in South-Eastern Europe
4) Institutional reforms and regulations in the EU
5) The role of planning in Serbia's candidacy for integration into the EU

II Strategies/Policies of Sustainable Spatial, Urban, and Rural Development of Serbia

1) Regional development and spatial organisation
2) Urban development and urban reconstruction
3) Rural development and the organisation of rural settlements
4) Sustainable development of mountain regions
5) Sustainable development of corridors/belts of intensive development
6) Energy efficiency in sustainable planning
7) The implementation of development strategy/policies
8) The implications of political and economic transition for development planning

III Managing the Spatial Development of Serbia

1) Institutional prerequisites
2) Methodological/organisational solutions
3) Science and technological development in planning and construction
4) Information systems and information support
5) The role of local self-governance in managing sustainable development
6) Developing data bases and indicators for managing the spatial development of Serbia

Conference Objectives:

- Discussing the role, the importance, and the essence of the sustainability concept in spatial, urban, and rural development
- Analysing the experiences of surrounding (European) countries in planning sustainable development and suggestions for countries in transition
- Discussing the starting points for the strategy/policies of sustainable spatial development in Serbia
- Elaborating the concept of sustainability in planning Serbia's urban and rural development, urban reconstruction, and rural organisation
- Discussing pertinent implications of political and economic transition upon the approach to development planning and implementation
- Discussing institutional, organisational, normative and other prereequisites for efficiently managing spatial development in Serbia

Character of the Conference

The Conference is national with international participation. It is included in the programme of the national members of IsoCaRP, the international association of urban and regional (spatial) planners

The Preparation and Organisation of the Conference

The organiser of the conference is the Institute of Architecture and Urbanism of Serbia.
The preparation and organisation of the Conference will be coordinated by a special scientific board consisting of acknowledged experts from the Institute and other national and international scientific institutions.

Potential Sponsors

- The Ministry of Science and Environmental Protection
- Other ministries and agencies
- Public enterprises and special organisations

Participants

Local and international science institutes, faculties, urban agencies, national government agencies, experts, professionals

Working Mode

Discussion will be organised in the form of a "round table"

Publications

Accepted papers will be printed in the publications of the Institute and distributed before the Conference. Papers submitted in English will be printed in a special edition of the journal "Spatium".

Accompanying Activities

- Exhibition of the most important work of the Institute
- Promotion of the Institute's publshing activity
- Awarding prises and honours

Information

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