International Association for Impact Assessment Celebrate the Spirit 1980 - 2005

International Experience and Perspectives in SEA

26-30 September 2005
Prague, Czech Republic

Final Programme

A Global Conference on Strategic Environmental Assessment
organized by the
International Association for Impact Assessment

Are we going in the right direction?

Hosted by
The Regional Environmental Center for Central and Eastern Europe
and
The Czech University of Agriculture

Venue
Ceska zemedelska univerzita
Studijni a informacni centrum
Kamycka 129
160 00 Praha 6 - Suchdol

Conference Venue (Campus)

1. University Administration
   (**ATM machine**)
3. **Faculty of Agronomy, Food and NR**
   (**Conference rooms A1- A4**)
4. Faculty of Forestry and Environment
5. Faculty of Economics and Management
6. **Technical Faculty**
   (**Conference rooms M1- M3**)
10. **Dormitory JIH**
    (**Buffet**)
11. **EUREST canteen,**
    restaurant, coffee shop

26. **SIC - Conference Center**

30. JAS Hotel

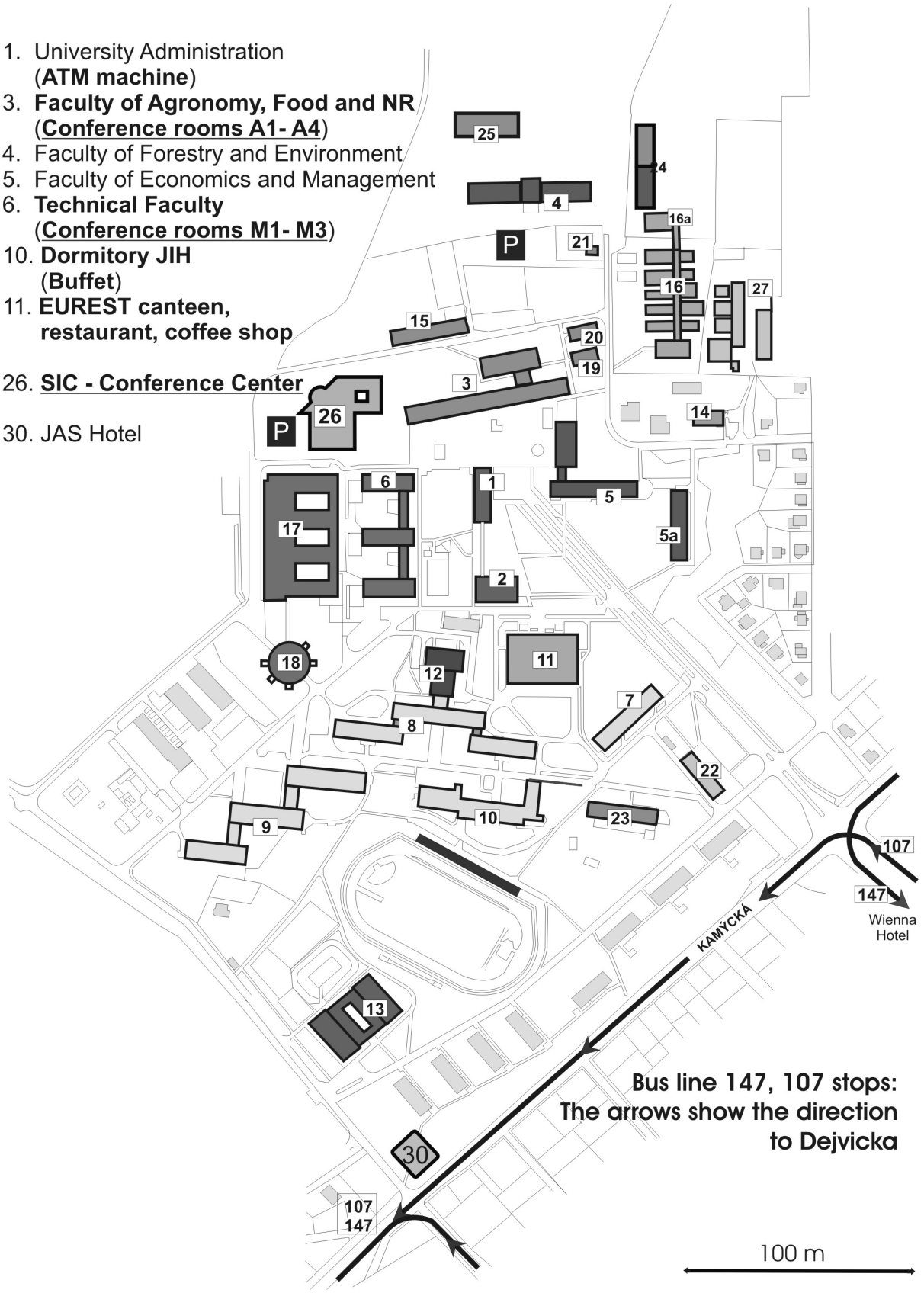


Table of Contents

Conference Committees

Programme committee
Jiri Dusik, Co-Chair
Barry Sadler, Co-Chair
Ralf Aschemann
Thomas Fischer
Maria do Rosario Partidario
Urszula A. Rzeszot
Rob Verheem

Executive secretariat of the programme committee
Ausra Jurkeviciute
Simona Kosikova Sulcova

Organizing committee
Vladimir Zdrazil, Co-Chair
Ivana Kasparova, Co-Chair
Vera Novakova
Martin Smutny
Vaclav Votruba

With appreciation to the International Advisory Committee for their input during the early planning of the conference: Hussein Abaza, Virginia Alzina, John Ashe, Michelle Audoin, David Aspinwall, Elvis Au, Ingrid Belcakova, Olivia Bina, Aleg Cherp, Ray Clark, Barry Dalal-Clayton, Jenny Dixon, Carlos Dora, Linda Ghanime, Kiichiro Hayash, Miroslav Martis (Chair), Nenad Mikulic, Sibout Noteboom, Wiecher Schrage, Riki Therivel, Martin Ward, Christopher Wood

IAIA extends special appreciation to our local hosts:

Czech University of Agriculture in Prague: Prof. Ing. Jan Hron, DrSc. Dr.h.c., Rector and Prof. Ing. Vilem Podrazsky, CSc, Dean, Faculty of Forestry and Environment for opening the doors of the campus to this international conference

Sponsors

IAIA gratefully acknowledges these conference sponsors for their financial and in-kind contributions. Their support makes more things possible.

Earth Sponsors

Sida
Swedish International Development Cooperation Agency

Buitenlandse Zaken
Netherlands Ministry of Foreign Affairs
Environmental and Development Cooperation, Biodiversity and Forests Division

Continent Sponsor

lebensministerium.at
Federal Ministry of Agriculture, Forestry, Environment and Water Management (Austria)

Reef Sponsor

AATA International, Inc.

Island Sponsors

epa
The Environmental Protection Agency (In the Republic of Ireland)

NetherlandsMinistry of Housing, Physical Planning and the Environment

Welcome

On behalf of the Program Committee, we extend a warm welcome to all delegates to this first IAIA global conference on SEA. The focus on SEA is timely and relevant in light of the rapid development of this field. For more than a decade, IAIA annual meetings have provided a forum for discussing SEA theory and practice, and IAIA members collectively have contributed in no small measure to international progress on the SEA agenda. Now, the Prague conference represents a major opportunity to take stock of the field in its entirety, to evaluate trends and developments and to address pressing issues that still remain.

The final program provides a rich menu of opportunities for working exchange on the status and effectiveness of SEA. In putting these together, the program committee has attempted to cover all aspects of the field, including the institutional arrangements in place in different countries, new and more established areas of practice, linkages to other instruments and capacity development and professional standards. Guidelines for topic leaders have emphasized the importance of engaging delegates in interactive and focused debate of conference themes. We take the opportunity here to reinforce this message; facilitated discussion is central to what IAIA is trying to achieve at Prague.

Using the conference to *make a difference* and advance the field of SEA is a tall order. It will be met only through a collaborative effort and informed contributions from all delegates. As far as possible, we intend to benchmark the theory and practice of SEA, including guidance and case materials on the main themes and specific topics. The position papers developed for each topic represent a first line of approach to that end but it also will be important to maintain the focus and integrity of contributed papers and report on the overall response and discussion. More is said on how we intend to do that in the section on reporting.

Finally, it is important to keep the larger picture in view. Broadly interpreted, the Prague conference could advance the SEA agenda in three main directions:

- Drawing lessons and insights on SEA good practice, particularly in implementing the legal regimes established by the SEA Directive and SEA Protocol and the policy frameworks being introduced by multilateral and bilateral aid agencies;
- Clarifying the role and relationship of SEA to sustainability appraisal and other integrative approaches that are now being rolled out internationally, focusing particularly on how to ensure appropriate consideration of the environment; and
- Identifying options and opportunities for better and more collaborative capacity development, including training, networking and professional development.

Thank you for joining us in Prague and please plan to add your voice to the debate on whether we are going in the right direction in SEA.

On behalf of the conference program committee,

Barry Sadler and Jiri Dusik

Tribute to Norman Lee

Norman Lee
Photograph by Wolfgang Föste, UVP report
Text by Thomas Fischer

Norman Lee (PhD) died in Stockport (UK) on 8 August 2005 following a short period of illness. Norman, an economist by training, was throughout the 1980s and 1990s a global champion of environmental assessment, and in recognition of this, the International Association for Impact Assessment presented him the Rose-Hulman Award in 2000. He was a co-author of the draft European EIA Directive and was actively involved on the development of environmental assessment within Southern, Central and Eastern Europe.

As an academic, Norman was the archetypal English scholar. He was eloquent, fiercely intellectual and loved by his students.

As a man, he was cultured and deeply human. Those who knew Norman will remember with fondness his love of good food, wine and conversation. Norman was a true inspiration to students, academics and professionals alike. He will be deeply missed by all.

Conference Schedule

		Rooms for concurrent sessions									
		SIC1	SIC2	A1	A2	A3	A4	M1	M2	M3	SIC3
26 September	9:00-17:00	OECD/DAC, UNDP, UNEP, WB meeting on SEA in International Development Cooperation									
27 September	13:00-14:30	Opening plenary									
	15:00-16:30	A3	A4	B5	A9	C3	C2	D1		E4	
	17:00-18:30	A3	A4	B5	B7	C7	C2		E1	E4	
28 September	9:00-10:30	A3	A5	B8	B7	C7	C5	D2	E1	E6	
	11:00-12:30	A2	A5	B8	D4	C1	C5	D2	E1	E2	
	14:00-15:30	A2	A5	B8	B2	C1	C5	D2		E2	
	16:00-17:30	A2		B3	B2	C1	C6	D2	D5	E2	
	19:30	Conference reception at Strahov Monastery									
29 September	9:00-10:30	B1	A7A	B3	A1	C4	C6	D3	E5	E7	
	11:00-12:30	A6	A7A	B4	A1	C4	C6	D3	E5	E7	
	14:00-15:30	A6	A7A	B4		C4	C6	D3	E3	E7	
	16:00-17:30	A6	A7B	B4	D6	C4	C6	D3	E3	E7	
	18:00-19:30										
30 September	9:00-10:30 11:00-12:30	Meeting of Stream A	Reserved	Meeting of Stream B	Meeting of Stream C	Meeting of Stream D	Meeting of Stream E				
	13:30-15:30	Closing plenary									
	15:30	End of the conference. However, all rooms will be available on a fisrt-come, first-served basis until late evening for any follow-up meetings. Those who wish to use a room should register their interest at the IAIA registration desk.									

Stream A
Stream B
Stream C
Stream D
Stream E
OECD-DAC, UNDP, UNEP, WB Day
Rooms for impromptu meetings. Space is available on a first-come, first-served basis. Those who wish to use a room should register their interest at the IAIA registration desk.

SEA in International Development Cooperation

OECD/DAC, UNDP, UNEP, WORLD BANK DAY

The interest in and application of SEA to international development has gained momentum over the past few years. This is driven by a change in emphasis in the way aid is delivered. It is being increasingly recognised that, to be more effective, assistance needs to focus more on strategic interventions than projects. Interest in SEA as a tool to help develop and appraise policies, plans and programmes of both donor agencies and their developing country partners has escalated as a consequence.

SEA is primarily applied in development work in support of efforts to achieve the Millennium Development Goals.-in particular, the goal on Environmental Sustainability (MDG 7). This calls for the integration of the principles of sustainable development into countries policies, plans and programmes.

Most development agencies, and many of their partner developing countries, are applying SEA type approaches to various facets of their activities. However, development effectiveness is best served by ensuring this does not result in diverse approaches to SEA. Common frameworks, approaches and principles are needed. This is consistent with the recent Paris Declaration on Aid Effectiveness, in which donors and partner countries jointly committed to developing and implementing common approaches to SEA.

The Organisation for Economic Cooperation and Development's Development Assistance Committee (OECD/DAC) has been developing Guidance on the Application of SEA in Development Cooperation. This has been undertaken by a multi-agency Task Team that has also co-opted many international experts on SEA.

Several of the Task Team members will be taking a lead in the OECD/DAC, UNDP, UNEP, World Bank Day. The programme focuses on the application of SEA in development cooperation and will serve to further develop greater coherence in approaches by encouraging participants to consider common frameworks, principles and approaches in various facets of SEA implementation.

Participants will learn of the current status of the Guidance on the Application of SEA in Development Cooperation and encouraged to provide critical comment. The Task Team will be especially interested to learn of practical experiences and case studies that illustrate the problems and opportunities inherent in the implementation of SEA approaches in practice.

The intention is to launch the final Guidance at the IAIA Annual meeting in Stavanger, Norway, in May 2006.

SEA in International Development Cooperation

09:30-10:30 **SESSION ONE Introduction and Objectives** (Room: SIC 1)

Chairpersons: Remy Paris/ Linda Ghanime

Welcome and Objectives of the Day. *(10 minutes)*

- History and Progress of the OECD/DAC Task Team on SEA in Development Cooperation. Barry Dalal-Clayton *(20 minutes)*
- Current status of implementing SEA in the World Bank. Kulsum Ahmed *(20 minutes)*
- Discussion *(10 minutes)*

10:30-11:00 **Coffee/Tea**

11:00-13:30 **SESSION TWO** (Room: SIC 1)

Facilitator: Linda Ghanime (UNDP)

11:00-11:10 Explanation of parallel groups and introduction of leads for each group *(10 minutes)*

11:10-12:10 Parallel groups *(60 minutes)*

Group A (Room: SIC 1)	Group B (Room: SIC 2)	Group C (Room: A1)
Modelling SEA From up-streaming/mainstreaming environment to addressing integration and sustainability.	**Criteria for a successful SEA** Providing Quality Assurance for SEA.	**SEA as a complement to other tools** Similarities and differences with other instruments. Fulfilling potential synergies and reducing the confusion.

12:10-13:00 Plenary Session/Report Back *(10 minutes each)*

Discussion *(15 minutes)*

13:00- 14:00 Lunch

14:00-16:30 **SESSION THREE** (Room: SIC 1)

14:00-15:00 Parallel groups *(60 minutes)*

Group D (Room: SIC 1)	Group E (Room: SIC 2)	Group F (Room: A1)
Making the case and communicating the importance of SEA How to overcome the barriers to introducing SEA into development agencies and in their developing country partner's strategic decision-making.	**The relevance of SEA to regional and land use plans and major infrstructure investments** Does SEA have a role? Or are cumulative impact assessment and getting EIA right adequate?	**Supporting SEA and building capacity for SEA implementation** What are the capacity building needs in both partner countries and development agencies?

15:00-15:30 Coffee/Tea

15:30-16:30 Report Back *(10 minutes each)*

Discussion *(30 minutes)*

16:30-17:00 **SESSION FOUR Closing Session** (Room: SIC 1)

Closing comments from OECD: DAC (Remy Paris), UNDP (Linda Ghanime), UNEP (Hussein Abaza), World Bank (Kulsum Ahmed)

Opening and Closing Plenary Sessions

Opening Plenary

27 September
13:00-14:00
Room, SIC 1

Chaired by Jiri Dusik, Co-chair, IAIA SEA 05 Programme Committee

Welcome
Prof. Ing. Jan Hron, DrSc., Dr.h.c., Rector, Czech University of Agriculture, Prague

Regional Environmental Perspective
Ms. Marta Szigeti Bonifert, Executive Director, The Regional Environmental Center for Central and Eastern Europe

Strategic Environmental Assessment in the Czech Republic
Dr. Libor Ambrozek, Minister for Environment of the Czech Republic

Strategic Environmental Assessment: Looking at the Bigger Picture
Dr. J. Morgan Williams, Parliamentary Commissioner for the Environment, New Zealand

Strategic Environmental Auditing
Dr. Ian McPhail, Commissioner for Environmental Sustainability, Victoria, Australia

Closing Remarks
Barry Sadler, Co-chair, IAIA SEA 05 Programme Committee

Closing Plenary

September 30
13:30-15:30
Room SIC 1

Chaired by Jiri Dusik, Co-chair, IAIA SEA 05 Programme Committee

13:30 – 13:45
Conclusions from Stream A
Urszula A. Rzeszot, IAIA SEA 05 stream coordinator

13:45 – 14:00
Conclusions from Stream B
Rob Verheem, IAIA SEA 05 stream coordinator

14:00 –14:15
Conclusions from Stream C
Thomas Fischer, IAIA SEA 05 stream coordinator

14:15 – 14:30
Conclusions from Stream D
Ralf Aschemann, IAIA SEA 05 stream coordinator

14:30 – 14:45
Conclusions from Stream E
Maria do Rosario Partidario, IAIA SEA 05 stream coordinator

14:45 – 15:00
Conclusions on SEA in International Development Cooperation
Representative of the OECD-DAC Task Team on SEA

15:00 – 15:20
Wrap-up
Barry Sadler, Co-chair, IAIA SEA 05 Programme Committee

15:20 – 15:30
Closing of the conference
Vladimir Zdrazil, Co-chair, IAIA SEA 05 Organising Committee

Stream A SEA Legislation and Policy

Coordinated by Urszula A. Rzeszot, WS Atkins Polska, Urszula.Rzeszot@wsatkins.com.pl

Session A1 Strategic Environmental Assessment (SEA) in Africa

Topic chairs: Michelle Audoin, CSIR, MAudouin@csir.co.za; Keith Wiseman, City of Cape Town, Keith.Wiseman@capetown.gov.za

The purpose of this session will be to investigate how SEA can be developed in Africa to more effectively contribute to addressing current problems and to meeting the vision set by Africa's leaders for the future of the continent. The session will focus on the following key issues:

- What role can SEA perform in addressing the key concerns in Africa such as widespread poverty?
- What broad approach to SEA is most appropriate to decision-making processes in Africa?
- What type of policy and legal frameworks would most effectively facilitate the implementation of SEA in the various countries of Africa?

The workshop will be divided into two 90-minute sessions. The first session will comprise the presentation of papers followed by questions and discussion on each paper. Key issues and questions for discussion will be identified. The second session will be a round-table discussion aimed at elaborating the issues and questions raised during papers session and the questions listed above. We hope to clarify challenges and opportunities from Africa that are relevant to the broader conference theme.

Workshop A1.1

Up-scaling Environmental Assessment Tools and Approaches in the Context of the New Partnership for Africa´s Development (NEPAD)- Challenges and Opportunities. Ebenizário Chonguiça

SEA in Yemen and Djibouti. Michel André Bouchard, Rachid Nafti

Developing Country Readiness for Acceding to UNECE SEA Protocol: Kenya as a case study. Vincent Onyango

SEA in South Africa. Keith Wiseman, Michelle Audouin

Workshop A1.2

Facilitators: Michelle Audouin, CSIR, and Keith Wiseman, City of Cape Town

This workshop will comprise a roundtable discussion aimed at addressing the key issues raised during the presentation of the papers and the questions listed above.

Session A1 abstracts (in order of presentation):

Up-scaling the Environmental Assessment Tools and Approaches in the Context of the New Partnership for Africa Development (NEPAD) – challenges and opportunities
Ebenizário Chonguiça, The World Conservation Union, Regional Office for Southern Africa

The African continent is currently experiencing a vibrant socio-economic transformation fueled by the New Partnership for Africa's Development (NEPAD). The NEPAD adopted by the African Heads of States and Governments is an initiative aiming at addressing the pressing demands for rapid economic growth to respond to the fundamental need for eradicating poverty and elevate its people's living standards to acceptable levels of livelihoods. It entails "…. placing the African countries, both indi-

vidually and collectively, on a path of sustainable growth and development, and at the same time to participate actively in the world economy and body politic."

Prevailing trends in Africa economic development, however, illustrate the high dependence on its natural capital. Development initiatives implemented so far have often resulted in decreased social returns of growth and high levels of unrealized and misused production potential of the natural resource base. The deteriorating terms of trade and high debt burdens are compounded by severe and escalating costs of natural resources degradation (cf. Warford, 1989). It is also found that the stock of renewable resources is rarely considered in a systematic and comprehensive way at the macro-economic levels where major strategic planning decisions are made.

Therefore, comprehensive development planning mechanisms intended to increase the level of understanding between the complex and interwoven biophysical, economic and socio-cultural elements of the landscape in the context of natural resources use and development planning are greatly needed (cf. Naveh and Lieberman, 1984). These development planning mechanisms are generally placed in a framework of an environmental assessment (EA) approaches. EA basically corresponds to an analytical procedure designed to ensure that the best development alternative is selected (cf. Chonguiça, 1995).

Overall, African countries are making remarkable developments towards recognizing and acting upon the organic links between environment and development. The development and consolidation of the required policy and legislation frameworks has been recognized as one of the critical factors for such an approach to development planning. However, in spite of the myriad of specific developments related to EA and management, a number of constraints are still preventing the improved effectiveness of EA practices. The NEPAD process, for example, will foster the need for regional economic integration with a multitude of investment initiatives that might be trans-boundary in nature or within the realms of new continental development policy frameworks. Prevailing EA practices in Africa are generally hampered by the recognized general limitation to effectively consider the combined environmental effects of multiple specific development initiatives, as well as trans-boundary impacts of regional development initiatives. This reinforces the need to re-evaluate the effectiveness of current EA systems and operational procedures. EA practitioners in Africa are, therefore, called upon to lead the way forward in improving the effectiveness of existing EA tools under the new emerging challenges.

SEA in Yemen and Djibouti

Michel André Bouchard, Rachid Nafti, CITET, michel.a.bouchard@cogeos.com, michel.a.bouchard@citet.nat.tn

While most developing countries have set national objectives for sustainable development, processes for integrating those objectives into their policies, plans and programmes, and the capacity to develop and adopt strategic environmental planning, are still lacking. Furthermore, these criteria are not always systematically taken into consideration or equally shared and supported by various environmental authorities, sectoral ministries, NGOs and the public. Strategic Environmental Assessment (SEA) has been examined as a way to achieve these goals of sustainable development and poverty alleviation in Yemen and Djibouti. The initiative consisted of assessing the needs for undertaking SEAs in development decisions, providing SEA awareness/training workshops using country-specific examples and engaging decision makers on SEA concepts for in country long-term capacity building initiatives. Assessment of SEA capacity was done for a number of priority sectors in the two countries, including Roads, Urban Water and Sanitation, and Municipal Development. The national training sessions, conducted in Arab, English and French served as outreach campaigns to involve various stakeholders in the SEA process. Discussions on how to adapt the principles of SEA in developing countries with various degrees of development of EIA processes, including leapfrogging into SEA will be discussed, based on lessons learned in this initiative.

Developing Country Readiness for Acceding to UNECE SEA Protocol: Kenya as a Case Study

Vincent Onyango, Brandenburg University of Technology, vin_onyango@yahoo.com

Kenya enacted an EIA framework in 2000 when it legislated the Environmental Management and Coordination Act of 1999. However, the urgent needs for suitable strategic decisions to manage the pressures for environmental protection and sustainable development have meant that a tool like SEA is ever more needed. Even though some SEA-type elements, legal and institutional frameworks that could support SEA are already in place, this article examines what preparations Kenya needs to

make in order to be able to effectively accede to the UNECE protocol on SEA. The current legislative and institutional framework for potential acceding to SEA is examined, with special attention to what has to be put in place before the country can be ready to accede. Kenya's para-SEA conceptual, methodological, procedural and legislative elements are analyzed and compared with UNECE's SEA protocol, with particular attention to compatibility and potential ease of accession. Challenges that could delay the process are also examined with Kenyan-context solutions suggested.

Acceding to the UNECE SEA protocol is a significant opportunity for having a "global-wise" harmonized SEA framework that is buttressed in international recognition politically, legislatively and methodologically.

Development and Practice of SEA in South Africa

Keith Wiseman, City of Cape Town, Kwiseman@cmc.gov.za, keith.wiseman@capetown.gov.za; Michelle Audouin, CSIR, maudouin@csir.co.za

In this paper, the development and practice of SEA in South Africa will be described and evaluated. The paper will include an identification of the key challenges to the future development of SEA in the country.

Session A2 Legal and Policy Frameworks for SEA in Asia

Topic chairs: Kiichiro Hayash, Mitsubishi Research Institute, Inc., maruhaya@mri.co.jp; Young--il Song, Korea Environment Institute, yisong@kei.re.kr; Elvis Au, Hong Kong Special Administrative Region Government, elvis_au@hk.super.net

Several Asian countries have already introduced national levels of SEA systems, for example, in Hong Kong, Korea and Japan. More and more Asian countries have been introducing and revising their SEA systems. However, there is weak collaboration in the Asian region on implementation and establishment of SEA systems.

To establish a better SEA system in each country, information exchange, human exchange, sharing of experiences and discussion of lessons learned on good SEA within Asian countries must be contributed to the development of good national SEA systems. Through the discussion of the IAIA SEA conference, information exchange and discussion of good SEAs will be made.

The following key issues are raised for IAIA SEA conference in Prague as discussion topics:

- What are the key characteristics and major challenges of national and local SEA systems in Asia?
- What are the similarities and differences of Asian national and local SEA systems and what are key success factors for an effective SEA system in Asia?
- What are the lessons learned from an Asian Country's experiences?
- What are the key priorities in improving the effectiveness of SEA in Asia?
- Is there a need or possibility for future cooperation on SEA in the Asian region?

Workshop A2.1 National Experiences of SEA in Asia

Topic chair: Kiichiro Hayash, Mitsubishi Research Institute, Inc

Main topic: What are the key characteristics and major challenges of national and local SEA systems in Asia?

A New EIA Era in China: Implementation of Strategic Environmental Assessment in China. Xu He, Yu Cong-Rong, Zhang Hui

"Environmental Assessment Storm" in China. Kaiyi Zhou

Promoting Good Strategic Environmental Assessment (SEA) Practices through Hong Kong's SEA Manual. Hon meng Wong, Elvis Au

SEA Movement in Japan. Sachihiko Harashina, Yuko Furugori, Takashi Shimizutani

Workshop A2.2 Comparative Analysis of SEA Systems and Experiences in Asia

Topic chair: Elvis Au, Hong Kong Special Administrative Region

Main topic: What are the similarities and differences of Asian national and local SEA systems and what are key success factors for an effective SEA system in Asia?

Perspectives on the Implementation of Strategic Environmental Assessment in Korea. Young-Il Song, Seong-Cheol Seo, Hyun-Woo Lee, Young-Joon Lee, Sang Wook Han

EIA Experience and Prospects for SEA in Turkey. Sule Günes

Cross-Country Comparison of EIA Legislation, SEA Requirement and Practice in East and South-east Asian Countries. Jian Xie

Strategic Environmental Assessment in Developing Countries: A Tool to Achieve Sustainable Development. Habib M. Alshuwaikhat

Workshop A2.3 Better Cooperation in Asia (Free Discussion)

Topic chair: Young-Il Song

Sustainability Appraisal of the Yunnan Sustainable Development Action Plan. Steven Smith

Free Discussion. Main topic: Better Corporation in Asia

- What are the lessons learned from an Asian Country's experiences?
- What are the key priorities in improving the effectiveness of SEA in Asia?
- Is there a need or possibility for future cooperation on SEA in the Asian region?

Facilitated discussion

Wrap-up of Session A2

Session A2 abstracts (in order of presentation):

A New EIA Era in China: Implementation of Strategic Environmental Assessment in China

Xu He, Yu Cong-Rong, Zhang Hui. Nankai University, seacenter@nankai.edu.cn

The implementation of environmental impact assessment (EIA) in China started in the 1980s. In the past two decades, the practice focused mainly on construction projects. Relative provisions for EIA requirements can be found in the Law on Environmental Protection in general and some specialized laws or ordinances on water and air pollution prevention and control. Regulation on Management of EIA on Construction Projects has been used for this purpose. The Law of People' s Republic of China on Environmental Impact Assessment (EIA Law) was approved by the top legislature on October 28, 2002. In the new law, the content about strategic environmental assessment (SEA) is introduced for the first time. To date, only a relatively small number of countries and international organizations have made formal provision for SEA. These frameworks vary, sometimes substantially, and indicate the flexible adaptation of SEA to different levels and types of decision-making. Through this new EIA Law, EIA for plans or programmes is a type of strategic environmental assessment (SEA) where the concept of SEA is for the first time being advocated by the State at this level. The paper puts emphasis on the analysis of SEA in the new EIA Law. The paper firstly introduces the development of SEA system in China, and then systemically analyzes SEA implementation in China since new law, based on any cased analysis, the paper points out some new problems for carrying out effective SEA in the future in China.

"Environmental Assessment Storm" in China

Kaiyi Zhou, Imperial College, kaiyi.zhou@imperial.ac.uk

The Environmental Assessment "Storm" (EA Storm, a major crackdown on enforcement by SEPA) which happened in early 2005, highlighted many practical problems of environmental assessment that have existed for a long time in China. They are:

1. Administrative and institutional structure in EA practice
2. The ultimate objective of EA

3. The form and the contents of EA practices
4. Legal foundation and enforcement approaches of EA practices
5. The role of the public in EA practices
6. What is SEA and what are its characteristics?

Although the new EIA Law of China came into force on 1 September 2003, the problems identified above are still there. The EA Storm makes very clear that under the current so-called "dual-leadership" system, without administrative and legal support, high quality EA guidance, and a silent public, EA practices in China are only for doing environmental assessment not for helping to achieve sustainable development.

Good EA practice must be oriented by sustainable development. It should be supported by legislation and high quality guidance; carried out by an independent agency in a healthy legal environment; the public should be the "third" party and allowed to make comments. SEA is not simply "big scale" EIA, but should be treated as a major instrument for helping to achieve sustainable development.

Promoting Good Strategic Environmental Assessment (SEA) Practices through Hong Kong's SEA Manual

Hon meng Wong, Elvis Au, Environmental Protection Department, Hong Kong Special Administrative Region Government, hmwong@epd.gov.hk, elvis_au@epd.gov.hk

Hong Kong has been actively promoting the application of SEA since the 1980s. With more SEAs being carried out for a wider range of policy and planning proposals, the Environmental Protection Department of the HKSAR published a SEA Manual in November 2004. This Manual aims to be a practical reference and a user-friendly guidance on the SEA process, with solid real examples to demonstrate how various SEA techniques and principles could be applied to different types of policy formulation, as well as programme and planning decision making. The Hong Kong SEA Manual is now uploaded onto the department's website for use by SEA practitioners and researchers in universities in Hong Kong as well as other international users who are able to connect to the Internet.

This presentation aims to lay out the rationale behind the publication of the Hong Kong SEA Manual and to show how it could be applied to various types of initiatives. More importantly, the main factors behind a successful SEA will also be brought out for further discussion and debate.

Through illustration with real examples of SEAs in Hong Kong, the presentation will also bring out the essence of the SEA evolution, system and practice in use in Hong Kong.

SEA Movement in Japan

Sachihiko Harashina, Yuko Furugori, Takashi Shimizutani, Tokyo Institute of Technology, sahara@depe.titech.ac.jp

We consider that Strategic Environmental Assessment (SEA) is the key policy measure for creating a sustainable society. But it is not easy to introduce an SEA system into a country, especially where transparency of decision-making is insufficient. It requires advanced information disclosure and citizen participation. Alternative plans or policies for mitigating environmental impacts should be considered in the early stage of the decision-making process. Japanese government implemented new EIA system in 1999 by the EIA Act and the government has been examining to introduce a SEA system into Japan. But it is very hard to have a SEA system soon because of the very competitive situation of Ministries in Japan. There is almost no SEA system on the national level except international cooperation by Japan International Cooperation Agency (JICA). Although, the situation is better in local governments as they could take more comprehensive approach than the national government.

A survey was conducted on the state-of-the-art of SEA in major local governments, as those have a bigger possibility of introducing SEA systems than the national government. There are 47 prefectures and 12 big cities in Japan. All of them have their own local EIA ordinances. Some of these are conducting studies for making SEA systems. The survey was conducted 2001-2002. We will conduct another survey in mid-2005 to see how the situation of SEA in Japan has been changing during this period. Most active autonomies such as Kawasaki, Tokyo, Saitama and Mie made legislative quasi SEA systems before the first survey. Since then, Saitama Prefecture has created the first SEA guideline in local governments, then

Tokyo Metropolis introduced program EIA in its EIA system. JICA revised its EIA guideline and introduced SEA concept in 2004. We would like to provide information about the current situation of SEA in Japan based on these two original surveys and other related materials.

Perspectives on the Implementation of Strategic Environmental Assessment in Korea

Young-Il Song, Seong-Cheol Seo, Hyun-Woo Lee, Young-Joon Lee. Korea Environment Institute (KEI). www.kei.re.kr; Sang-Wook Han, Kwangwoon University

In Korea, similar to the Strategic Environmental Assessment (SEA), the Prior Environmental Review System (PERS) was introduced to overcome the limitations of the Environmental Impact Assessment(EIA), through review of the environmental impacts on major policy and administrative actions in the early stage of decision making process.

Since its introduction in 1993, the PERS has consolidated its legal basis by an amendment of the "Framework Act on Environmental Policy" (FAEP) in 1999 and 2003, and has been applied to some of the major administrative plans and programs ever since. However, problems still remain with the PERS, such as 1) a limited range of the target area, 2) the lack of capacity in collecting stakeholders' opinions and 3) inappropriate timing for execution. Due to these limitations, the results of the execution of PERS were insufficient to comply with its objective of establishing an organized system for optimal planning and development procedures. Meanwhile, the importance of the precautionary environmental management policies has been emphasized continuously in Korea after 1990s, due to increasingly complex and diverse environmental problems. Particularly, social demand on implementation of the SEA has grown rapidly. In order to meet the demand, the government has established its policy direction for implementation of the SEA by enhancing the objectivity and expertise of the PERS and a number of researches on improvement of the PERS have been conducted. In the research, the problems associated with current PERS had been analyzed in order to check out if it fully sustains certain SEA principles and performance criteria. The methods to enhance the PERS had been proposed through the research.

Based on the results of research, redesigning of the current PERS is under processing by the government. On behalf of redesigning, "Framework Act on Environment Policy"(FAEP) had been amended in 2004 and it was approved by the National Assembly in May 2005.

This paper reviews the policy direction for implementation of the SEA such as following and perspectives for implementing systematic and efficient environmental assessment through integration of the PERS and the EIA.

- Regulatory bases for consolidation of PERS toward SEA
- Subjects to be assessed
- Public involvement
- Timing of PERS execution
- Role assignment of PERS and EIA

EIA Experience and Prospects for SEA in Turkey

Sule Günes, Middle East Technical University, gunes@metu.edu.tr

Turkey integrated EIA in national environmental policies since 1990s. The legislative basis of EIA is article 10 of the 1983 Environmental Act and the subsequent by-law which was enacted in 1993. The 1993 by-law was amended multiple times and following the merge of Ministry of Environment with the Ministry of Forestry, the last version of EIA by-law was issued in 2003. Administrative structure was also harmonised in line with this development and one of the directorates of the Ministry of Environment (and Forestry) was mandated with the EIA applications in Turkey. Aware of the fact that EIA falls short in considering environmental dimension to more comprehensive policies, plans and programmes, Turkey is now in the process of preparing SEA legislation. A draft bylaw is prepared to catch up with the 27.06.2001 (2001/42/EC) SEA Directive at European Union level. Meanwhile, two SEA pilot projects were made for Canakkale and Oymapinar/Antalya regions. The purpose of this presentation is to provide a general and a critical view on the scope, extent, methodology used, division of responsibility among public and private sectors and the lessons learned from EIA and SEA practices in Turkey.

Cross-Country Comparison of EIA Legislation, SEA Requirement and Practice in East and Southeast Asian Countries

Jian Xie, The World Bank, jxie@worldbank.org, www.worldbank.org/eapenvironment

Many countries in East and Southeast Asia are undertaking policy reforms, which have significant impacts on their natural environment. Strategic environment assessment (SEA) has been viewed as an important tool for analyzing and preventing the negative environmental impacts. Following the examples of the developed world, some Asian developing countries (e.g., China) have begun to revise their EIA regulations to include the requirements for SEA for development plans and programs. Some other Asian countries are considering doing the same thing to amend their EIA laws for requiring upstream environmental analysis. In the paper, cross-country analysis and comparison were conducted in 11 Asian countries and Hong Kong SAR (China). It first takes stock of the EIA regulations in these countries or regions. It then examines their requirements and potential for SEA and reviews SEA practice as well as the lessons learnt in the region. The paper helps improve the understanding of SEA and provide a basis for promoting SEA in the region.

Strategic Environmental Assessment in Developing Countries: A Tool to Achieve Sustainable Development

Habib M. Alshuwaikhat, King Fahd University of Petroleum & Minerals, habibms@kfupm.edu.sa

The current trend of industrialization and urbanization in developing nations has a huge impact on anthropogenic and natural ecosystems. Pollution sources increase with the expansion of cities and cause contamination of water, air and soil. The absence of urban environmental planning and management strategies has resulted in greater concern for future urban development. This paper advocates the adoption of strategic environmental assessment (SEA) as a means to achieve sustainable development in developing countries. It investigates project-level environmental impact assessment (EIA) and its limitations. The exploration of SEA and its features are addressed. The effective implementation of SEA can create a roadmap for sustainable development. In many developing countries, the lack of transparency and accountability, and ineffective public participation in the development of the policy, plan and program (PPP) would be mitigated by the SEA process. Moreover, the proactive and broadly based characteristics of SEA would benefit the institutional development of the PPP process, which is rarely experienced in many developing countries. The paper also explores the prospects for SEA and its guiding principles in developing countries. Finally, the paper calls for a coordinated effort between all government, non-government and international organizations involved with PPPs to enable developing countries to pursue a path of sustainable development through the development and application of strategic environmental assessment.

Sustainability Appraisal of the Yunnan Sustainable Development Action Plan

Steven Smith, Scott Wilson, Steve.Smith@scottwilson.com

In early 2004, the Yunnan Provincial Government (YPG) began work on preparing the Yunnan Sustainable Development Action Plan (YSDAP). The Yunnan Environmental Development Programme (YEDP) supported the development of YSDAP. YEDP is an ongoing partnership between YPG and the UK Department for International Development (DFID) and aims to promote environmentally sustainable, propoor development throughout Yunnan Province. As part of its support, YEDP assisted YPG in undertaking a Sustainability Appraisal (SA) of YSDAP. The aim of the SA was to identify and evaluate the economic, social and environmental implications of YSDAP and to recommend measures to strengthen its sustainability performance.

This paper will describe the SA process undertaken, the outcomes of the process and the issues and problems encountered. The paper will also discuss YEDP's actions to further promote SA in Yunnan Province. In particular, these include the preparation of guidelines on undertaking SA of Provincial plans. Importantly, this guidance takes into account the requirements of China's new law on Environmental Impact Assessment (EIA) which provides for the Strategic Environmental Assessment (SEA) of various plans.

Session A3 Legal and Policy Framework for SEA in Australia and New Zealand

Topic chair: John Ashe, John Ashe & Associates, john.ashe@netspeed.com.au

This session aims to develop an up-to-date understanding of the current state of SEA in Australia, and New Zealand, including:

- Current developments and strengths and weaknesses of the SEA legislative and policy regimes in these two countries
- Lesson to be learnt from experience in applying SEA in different jurisdictions
- Issues relating to the application of SEA in a federal system (Australia)
- The use of strategic assessments by Environmental Commissioners

Workshop A3.1 Introduction to session A3

Topic chair: John Ashe, John Ashe & Associates, Administrative Appeals Tribunal Australian Capital Territory

Australian Experience with Strategic Assessment—What You're Likely to Get Out of it Determines What You Put into It. Gerard Early

Strategic Environmental Assessment and Protected Areas Management in the Sub-Antarctic: Are Some Areas Better Protected than Others? Simon Marsden

Workshop A3.2

Is there a role for SEA in Queensland? Rachel Brazier

Strategic Audits—Walking the Talk. Ian McPhail

Sustaining Sustainability: NZ experience under the Resource Management Act in a Post-Earth Summit World. Morgan Williams

Workshop A3.3

Overview of SEA in New Zealand Current Issues and Prospects. Jenny Dixon

SEA in New Zealand-Developing on Two Tracks. Martin Ward

SEA Analysis of New Zealand Land Transport Strategies. Martin Ward, Tony Bernard.

Wrap-up of Session A3

Session A3 abstracts (in order of presentation):

SEA at the Federal Level in Australia

Gerard Early, Department of the Environment and Heritage, gerard.early@deh.gov.au

Australian Government environmental law provides a statutory regime of strategic environmental assessment. The regime provides for discretionary strategic assessment of the impacts of actions under a policy, plan or program as well as compulsory strategic assessment of fisheries managed by the Australian Government or requiring Australian
Government export approval.

The commentary will consider the strengths and weaknesses of the Australian legislation and the lessons to be learned from, and distinctions drawn between, the discretionary and compulsory approaches. It will draw on experience with the series of strategic assessments of Australian fisheries as well as two other major strategic assessments - one of Australian offshore oil and gas exploration and the other of major military exercises.

SEA of Fisheries and Marine Environments in Australia and the Australian External Territories—Issues and Anomalies

Simon Marsden, University of South Australia, Simon.Marsden@unisa.edu.au

This paper focuses upon the anomalies that occur when SEA is required for some strategic proposals but not for others. S 147 of the Environment Protection and Biodiversity Conservation Act 1999 requires SEA to be applied to all Commonwealth of Australia managed fisheries by mid-2005, in particular to the management plans that are prepared for each. S 146 of the same Act can be applied to a range of strategic proposals; to date however, application of s 146 has been extremely limited. The Heard Island and McDonald Islands (HIMI) Fishery Management Plan is of particular interest because while it has been subject to a strategic assessment, a new draft HIMI Marine Reserve Management Plan (which applies to the terrestrial and surrounding marine environment) has not. While the two Management Plans are regulated by different legislative provisions (s 147 is mandatory for the fisheries plan, s 146 is discretionary for the marine reserve plan), the logic is open to question. If SEA is designed to improve environmental protection, the only reasonable conclusion is that some areas are better protected than others.

Is There a Role for SEA in Queensland?

Rachel Brazier, Arup, rachel.brazier@arup.com.au

The introduction of a performance based planning framework for Queensland (the Integrated Planning Act, 1997) heralded a new era for planners, government, developers and the community. With sustainability clearly on its agenda, it had potential to become a major driver for sustainable development. However, it has evolved as a framework for streamlining approval rather than a framework for integrated decision making, and has been criticised for a range of shortcomings.

The Integrated Planning Act is one of a number of legislative tools governing environmental impact assessment (EIA) processes in Queensland. Numerous problems with EIA in Queensland have been identified, including timing, referral agency coordination, skill base of assessment managers, intent of proponents and purpose (project specific impact minimisation).

SEA-type assessments are being used in Queensland, under Federal legislation and other non-statutory processes. This broadly applies to projects of national interest, or those that cross state or international boundaries. At the State level, SEA could provide opportunity to embed sustainability deeper in state policies and local authority plans, as evidenced by examples in other Australian States. Other benefits may include consideration of alternatives and environmental effects of decisions before a policy, planning scheme or development configuration is fixed. SEA could also bring greater transparency and community involvement to the development process, in time for the input to have real meaning. This shift to include strategic considerations in environmental assessment, planning and development decisions may need to come from a change in perception and practice across the industry, not a change in State legislation or policy.

Strategic Audits—Walking the Talk

Ian McPhail, Victorian Commissioner for Environmental Sustainability, ian.pcphail@ces.vic.gov.au

In Victoria, Australia, the state government requires the principal government departments to produce accredited EMS along the lines of ISO 14001. Introduced in 2003, these EMS cover CBD offices only. They are subject to compliance audit by independent auditors appointed by the departments, but the total effort is then considered by the Commissioner of Environmental Sustainability in a strategic audit. The first of these strategic audits was completed by the statutory date of January 31, 2005, and tabled some months later in the state Parliament. The report revealed the obvious: that it is easier to talk than walk, and that at all levels government agencies are as conflicted as other organisations in their approach to environmentally sustainable behaviour.

Sustaining Sustainability; NZ Experiences under the Resource Management Act in a Post-Earth Summit World

Morgan Williams, New Zealand

While the NZ RMA incorporates the concept of sustainable management, 14 years of implementation has revealed limitations in delivery of the concept.

This contribution will draw on several PCE studies that have examined the management of resources (e.g., water and landscapes) from the perspective of institutional and policy effectiveness at advancing sustainable development in all its complexities. The studies include, Creating our future; Sustainable development for NZ (2002); Managing change in paradise; SD in peri-urban areas (2001); Ageing pipes and murky water; Urban water system issues for the 21st century (2000) and, Growing for good; Intensive farming, sustainability and NZ's environment (2004).

The discussion will include a focus on the management of cumulative effects and the importance of SEA in this context.

An Overview of SEA in New Zealand: Current Issues and Prospects

Jenny Dixon, University of Auckland, j.dixon@auckland.ac.nz

This presentation will give a brief overview of the legal and policy framework in SEA that operates in New Zealand both formally and informally. New legislative and policy changes will be outlined in respect of the opportunities offered for the enhanced practice of SEA. The presentation will reflect on the SEA framework and future prospects.

SEA in New Zealand – Developing on Two Tracks

Martin Ward, Independent Environmental Advisor. martinward@xtra.co.nz; A. Dalziel, A. Wilkie

Recent research and analysis of SEA applications in New Zealand is revealing a sharpening focus on two different areas of practice, one in community and environmental planning and the other in public policy development in both central and local government. In both cases new legislation has played an important role in shaping and sharpening the need for SEA. In neither instance has an explicit mandate for SEA arrived.

The Resource Management Act, the principle planning statute, includes some elements of SEA although does not specifically provide for SEA as such (Dixon, 2005). However it is not always easy to discern what might be identified as SEA in practice, as opposed from environmental planning, For example, the Act provides for an integrated approach to environmental management which achieves some of the aspirations and outcomes of SEA. Similarly it provides for what can be characterized as a more narrow form of policy environmental assessment through the requirement for what is known as section 32 reporting, an evaluation of the costs and benefits of proposed policies (Dixon, 2003, Memon 2004).

New responsibilities under the Local Government Act 2003 which require councils to seek and respond to outcomes identified by the community can be described as an extension of the integrated planning / SEA approach. The Act has an explicit sustainable development framework setting out in its purpose a requirement to "promote" the social, economic, environmental and cultural well being of communities, in the present and for the future.

A long history of para-SEA at central government level (Ward et al, 2002) continues with publications from the Office of the Parliamentary Commission for the Environment. Also at central government level the Land Transport Management Act 2003 requires national and regional land transport strategies, programmes and plans to identify and respond to social and environmental objectives as well as safety and economic areas. This establishes a general requirement for a SEA approach.

In the public health area, Health Impact Assessment at the policy level is written in to the government's New Zealand Health Strategy 2000 as a specific objective. This is supported by a practice guide manual on HIA for policy makers prepared by the Public Health Advisory Committee in 2002 which has been revised and reprinted this year.

This paper describes the two contrasting areas of SEA practice and examines the influence of the new legislation.

SEA Analysis of New Zealand Regional Land Transport Strategies

Martin Ward, Independent environmental advisor and researcher, martinward@xtra.co.nz
Tony Brennand, Greater Wellington Regional Council, tony.brennand@gw.govt.nz

Over the last decade, strategic environment assessment (SEA) has gained increasing international recognition as a means of ensuring environmental impacts are considered in transport policy and plan making.

To date, experience of SEA in New Zealand has been limited. However, recent changes to New Zealand's transport planning framework provide the opportunity to develop a more systematic approach for SEA.

With the introduction of the New Zealand Transport Strategy (NZTS) and the Land Transport Management Act 2003 (LTMA), the obligations on transport planning agencies to address the environmental impacts associated with transport have been strengthened. The strategies and plans transport agencies are required to prepare must now take into account environmental sustainability and contribute to a sustainable land transport system. SEA has the potential to provide a valuable means of delivering on these obligations.

The regional land transport strategy (RLTS) preparation process has been identified by researchers as a potential entry point for SEA in New Zealand. RLTSs are mandatory and provide a key means of setting transport policy at a regional level. Using the Canterbury, Waikato and Wellington regions as case studies, researchers examined RLTS development with a view to identifying opportunities for SEA use in RLTS preparation.

Results demonstrate a RLTS prepared in compliance with the requirements of the New Zealand Transport Strategy and the new legislation meets SEA criteria falling within the para-SEA model of Sadler and Dalal-Clayton. It also found that the SEA methodology is a useful model for transport policy development for objectives other than environmental.

This paper is based on research reported in Ward, Sadler and Wilson, 2005, which describes the new legislation and the RLTS preparation process with reference to the Greater Wellington Regional Land Transport Strategy 1999-2004.

Session A4 Legal and Policy Framework for SEA in the Newly Independent States

Topic chairs: Aleg Cherp, Central European University, cherpa@ceu.hu; Henrieta Martonakova, UNDP Regional Center for Europe and CIS, henrieta.martonakova@undp.org

Most of the Newly Independent States (NIS) of the former Soviet Union have formal systems providing for environmental evaluation of strategic activities which include State Environmental Review (SER) procedures. However, the SER systems rarely conform to internationally accepted SEA principles. Many NIS will now need to reform these systems in line with the UNECE Kiev SEA Protocol (2003). This is a great challenge given traditionally technocratic, sectoralized and non-participatory approaches to EA in the NIS.

The proposed section will consider various approaches and practical experiences of overcoming these challenges. In particular, the section will discuss SEA legal models appropriate for the NIS, approaches to fostering understanding and acceptance of SEA among environmental, health and sectoral authorities as well as NGOs and the general public, training experts in SEA and strategic planning, creating networks of SEA stakeholders, initiating SEA research and last, but not the least, ensuring continuous learning from both domestic and international SEA experience.

We will seek to answer the following questions:

- What are the current trends and challenges in reforming the SER system to meet international SEA requirements?
- What are the critical activities and audiences for SEA capacity development in the NIS?
- What are the lessons learned from practical applications of SEA?
- What is the role of public participation in SEA and can it be effectively applied in the current settings in the NIS?

Workshop A4.1 Practical Experience of SEA in the NIS

- Presentations of participants
- Presentation of position paper by A. Cherp and H. Martonakova

- Short comments and statements
- Presentation of papers

SEA of National Tourism Development Programme in Belarus. I. Chulba

Pilot Project on Implementation of Strategic Environmental Assessment on a Regional Level in Ukraine. D. Palekhov, M. Schmidt, A. Shapar

Public Participation Experience in SEA in Russia. N. Kovalev

Public Participation in the SEA of Master Plan of Yerevan City in Armenia. S. Ayvazyan

Workshop A4.2 Towards Integration of SEA in Environmental Assessment and Planning Systems in the NIS

Capacity Building Needs Assessment for Implementing the UNECE SEA Protocol in the Selected EECCA Countries. A. Jurkeviciute, J. Dusik, H. Martonakova

Ukrainian SEA System Development: Key Issues, Needs and Drawbacks. O. Borysova, Y. Varyvoda

Adopting New Regional SEA Legislation in Russia. P.Agakhanyants

Panel discussion: "How to reform SER systems in the NIS in line with international SEA principles?"

Developing session's conclusions and recommendations

Session A4 abstracts (in order of presentation):

SEA Experience in Belarus

Igor Tchoulba, UNDP Regional Project on SEA, Belarus, tchoulbai@yahoo.co.uk
Mikhail Kalinin, Institute on Water Resources, Belarus
Irina Zastenskaya, Institute of Hygiene, Belarus
Sergey Kuchmel, Radiation and Ecological Reserve, Belarus
Valentin Yatsukhlo, Belarusian State University, Belarus
Elena Logynova, Belarusian State University, Belarus
Victoria Misiuchenka, Ecological University, Belarus
Ludmila Ivashechkina, Ministry of Environmental, Belarus
Alexandre Gnedov, NGO "Ecoproject," Belarus
Irina Sukhy, NGO "Ecohome," Belarus

Belarus inherited from its Soviet past strong planning system. The majority of new projects in the country, including those with potential significant adverse consequences for the environment and human health, are the result of implementation of a national or sectoral programme or plan. Application of SEA that is a tool that allows identification of potential environmental threats and effective way of dealing with them at the early stages of planning process will promote good governance and sustainable development in Belarus.

To promote SEA among the main stakeholders and to test and demonstrate opportunities for practical application of the UNECE SEA Protocol in Belarus, taking into account its public participation and consultation requirements, the UNDP Bratislava in close co-operation with the Regional Environmental Centre for Central and Eastern Europe (REC) has launched a pilot SEA in Belarus. The National Programme for Tourism Development in Belarus has been chosen as a subject of the ex-ante SEA pilot.

Though the pilot is to be finished in August 2005 and main conclusions are to be made, some first lessons have been learned. The current planning process in Belarus should be modified to allow sufficient SEA, including public participation and consultations with the environmental and health authorities. Effective SEA application requires close co-operation between SEA and planning teams and timely access of SEA experts to materials to be evaluated. National experts acting in the field of environmental assessment need to be educated and trained in the SEA approaches and techniques.

Pilot Project on Implementation of Strategic Environmental Assessment on a Regional Level in Ukraine

Dmytro Palekhov, Michael Schmidt, Brandenburg University of Technology, palekdmy@tu-cottbus.de; Arkadi Shapar, National Academy of Sciences of Ukraine, Institute of Nature Management & Ecology Problems

This paper presents an international project which concerns the benefits and constraints of SEA implementation on a regional planning and administration level, for example the Dnepropetrovsk region, Ukraine, according to the aims of the Kiev SEA Protocol. The project is represented by Germany - Saxon Ministry of the Environment and Agriculture, Brandenburg University of Technology, and Ukraine - Dnepropetrovsk regional authorities, Institute of Nature Management & Ecology Problems. The project is now in a development stage.

Administrative reforms, which are being conducted in Ukraine, are greatly focused on issues of regional development. Elaboration of regional development strategies, which would consider environmental interests above all, must become the main task of regional planning process. "Proactive" environmental protection is becoming of great importance.

During the project realization, the potential of SEA as a new instrument for regional planning is to be evaluated. As no comprehensive regional development plans exist in Ukraine so far, one of the main objectives is to develop a model regional plan for the Dnepropetrovsk region, which could be used as a future example for other regions. SEA will be used as a decision-making tool during the elaboration of this plan. Problems of public involvement are also to be addressed.

Case Studies of Strategic Environmental Assessment in Russia

Nicole Kovalev, Technical University Berlin, kovalev@ile.tu-berlin.de

Since 1988, the Russian Federation has required that laws, plans, programs and technologies undergo an environmental assessment. However, there are major uncertainties nationally regarding the contents of such assessments. Approaches for the methodological distinction and delimitation from the usual Environmental Impact Assessments for projects have not been fully developed to date. As a result, only a few Strategic Environmental Assessments have been conducted. How the results of such assessments are to be used has also not been completely settled. Nevertheless, there are several examples of SEAs studied in an investigation project, which are presented herein: The environmental reviews of the management program for the lowering of the water level in the Krasnodarskoye Reservoir in 1991, of the Municipal Forest Law in the oblast of Irkutsk, adopted in 2002-2003, and of the zoning proposal for the Lake Baikal world natural Heritage Area, submitted in 2004. These examples show the current possibilities and limits of the SEA in Russia. However, they also show interesting methodological approaches for meeting the complex requirements of the SEA.

Public Participation in the SEA of Master Plan of Yerevan City in Armenia

Sona Ayvazyan, Center for Regional Development/Transparency International Armenia, sona@transparency.am

Public participation in the SEA process plays a critical role not only in the monitoring of the environmental effects of plans/programs/policies, but also in stipulating more cautious enforcement of those by the relevant authorities.

During transition to a market economy, many cities and towns in Armenia experienced extensive violations of the existing urban development plans and policies, which contributed to the environmental degradation of those areas as well as to social frustration. As a matter of fact, the concerned public was not able to monitor and constructively react to breaches due to the lack of access to information on the content of respective plans and policies.

Public participation efforts, proposed within the UNDP/REC SEA Pilot Project in Armenia which focuses on the Master Plan of Yerevan City, anticipate awareness-raising of the concerned public on the content of this plan, in order to build up benchmarks for monitoring of implementation of this as well as other related documents. It is assumed that more informed public can better observe the enforcement and environmental impact and more adequately respond to problems.

It's important to highlight the necessity for capacity building of the non-governmental organizations in monitoring and participation in policy implementation processes.

Capacity Building Needs Assessment for Implementing the UNECE SEA Protocol in the Selected EECCA Countries

Ausra Jurkeviciute, The Regional Environmental Center for Central and Eastern Europe, AJurkeviciute@rec.org; Jiri Dusik, The Regional Environmental Centre for Central and Eastern Europe, JDusik@rec.org; Henrieta Martonakova, Europe and the CIS Bratislava Regional Centre, henrieta.martonakova@undp.org

Implementation of the UNECE SEA Protocol requirements by the countries that are just starting to formulate their national EA legal frameworks and to collect experience in assessment of certain plans and programmes will be a long process. To date, four countries in the EECCA region have signed the Protocol. By this they have demonstrated an intent not only to improve their decision making process in terms of taking into account environment including health effects, but also to promote transparent and participatory decision making.

Capacity development (CD) for SEA is abilities and qualification of SEA stakeholders enabling them to initiate, organize, undertake, take part in, influence, and follow the results of decisions presented in plans, programmes, strategies and legislation in various fields and environmental assessment of those strategic initiatives. Many countries do not have sufficient resources to implement comprehensive CD programs. SEA CD needs assessment involving various stakeholders is one of the most cost-effective tools leading to design and implementation of efficient and effective CD for SEA.

The paper will present the framework for SEA CD needs' assessment, which has been developed for the UNDP-REC project on "Capacity Development Needs Assessment for the UNECE SEA Protocol." It will investigate CD needs' assessment importance, advantages as well as key issues in CD programme design.

Following the proposed framework, CD needs' assessment was undertaken as the first stage of the above mentioned project in 5 EECCA countries in 2004. The paper will present the results of the needs' assessment and initial experience in the region drawn from the implementation of the project.

Ukrainian SEA System Development: Key Issues, Needs and Drawbacks

Olena Borysova, National Academy of Municipal Economy, borysova@velton.kharkov.ua; Evgenia Varyvoda, Kharkiv National Karazin University, yarostchuk@yahoo.com

Since its independence, Ukraine has been doing a lot in attempt to harmonize national environmental legislation, environmental management and environmental assessment systems with the European ones. In particular, the UNECE SEA Protocol to the Espoo Convention has been signed at the Ministerial Conference "Environment for Europe" in Kiev (May, 2003). However, practice shows that subscription and ratification of new environmentally sound documents does not necessarily ensure their successful implementation.

Therefore, it is essential to study possibilities for capacity development for the SEA Protocol implementation on the national level. The research has been accomplished in the frame of UNDP/REC Pilot SEA project. The aim of the paper is to analyze Ukrainian system of environmental assessment, to study capacity of this system for introduction of the SEA Protocol, to describe the obstacles concerned with adaptation of the national legislative system, in particular, lack of consistency in methodology, weaknesses of terminological apparatus, underdeveloped practice of public participation and consultations. Recommendations for the further activity on successful introduction of the SEA Protocol and procedure into the national system of environmental assessment in the framework of acting legislation have been proposed.

Adopting New Regional SEA Legislation in Russia

Polina Agakhanyants, Technical University Berlin, Institute of Landscape Architecture and Environmental Planning, aga-polina@yandex.ru

Russian legislation contains formal requirements for SEA in two administrative procedures and assessment of environmental impacts and environmental review. In practice both procedures usually neglected, especially for legal acts. Major reason is that there is no order of laws passing through assessment. To fill this gap, a draft law of "Order of preparation of laws, programs and legal acts which can have negative environmental consequences" has been prepared in Murmansk by a group of NGOs.

The draft law includes the following mechanisms:

- Screening procedure for proposed legal acts
- Assessment of environmental impacts to be conducted for selected legal acts
- Informing public and NGOs to in the course of impact assessment
- Public discussion in the course of impact assessment
- Obligation of state authorities to pay for state environmental review

Screening is based upon combined "black list," "expert decision" and "public request" approaches. In the black list approach, nine key areas of legal regulation have been outlined which are of potential significant impact on environment and public health. The Murmansk draft law is now in the process of adoption by a regional Parliament.

Session A5 Legal and Policy Framework for SEA in Europe

Topic chairs: Ursula Platzer, Federal Ministry of Agriculture, Forestry, Environment and Water Management, Ursula.Platzer@lebensministerium.at; David Aspinwall, European Commission, DG Environment, David.Aspinwall@cec.eu.int

The workshops will concentrate on the legal and policy framework in Europe for SEA. The main driving force for SEA in Europe is Directive 2001/42/EC of the European Parliament and of the Council on the Assessment of the Effects of certain plans and programmes on the environment (SEA Directive). The SEA Directive is an important tool at EU level for integrating environmental considerations into programmes and plans. The SEA Directive was to be implemented by the Member States by 21 July 2004.

The aim of the session will be to give an overview of the implementation of the Directive, its linked legal and policy frameworks and related problems concerning its effectiveness, practical examples of ways of applying its requirements, methodological and procedural issues based on practical examples, and lessons learned. Closely related to the legislation and policy framework is the issue of administrative systems and practices. Therefore, we would also like to discuss how administrative structures can positively and/or negatively influence the effectiveness of the implementation of the Directive and what influence authorities have on the practical effectiveness of SEA.

Each of the three workshops is dedicated to one of the following topics:

- Overview of the implementation of the SEA Directive
- Testing SEA in practice, two practical examples
- Future of SEA in Europe

In each workshop one keynote speaker will give a presentation (20 min). The presentations should end with clear recommendations on aspects which seem to be relevant for the issues presented. After the presentations an intensive discussion is planned. The discussion in the workshop will follow partly the World Café method and therefore, small table discussions are offered (three to four participants at each table). The method enables active participation of all participants. In the discussion rounds, specific questions will be discussed for about 30 minutes. The results of the table discussions will be reported back to the working group.

Workshop A5.1 Overview of the Implementation of the SEA Directive

Keynote Speaker: Ulla-Riitta Soveri, Ministry of the Environment, Finland. ulla-riitta.soveri@ymparisto.fi

The presentation covers the following issues:

- Overview of the transposition of the Directive
- Principal legal solutions as well as the relationship to other legislation (e.g., amended EIA act)
- The influence of administrative systems on transposing the Directive

- Scope of application
- Necessity of additional help (e. g., guidance or training)
- Summary of main problems and challenges

Table discussion: What were the main problems in implementing and how did you overcome them?

Workshop A5.2 Testing SEA in Practice: Two Practical Examples

Keynote speaker: Dr. Kerstin Arbter, Strategic Environmental Assessment, Consulting & Research, Austria, office@arbter.at

Between 1997 and 2004, seven SEA pilot projects were carried out in Austria to test the SEA Directive in planning practice. Our first SEA approaches stuck closer to the Directive's requirements. We gained valuable methodological experience. But we also learned that procedural issues are at least as important for effective SEAs as methodological ones. Therefore, after four pilot SEAs, we developed a new approach – the SEA Round Table. This is a participative approach trying to (1) fully integrate the planning and the SEA process and (2) to actively involve the interest groups concerned throughout the whole process, from defining aims to choosing the planning solution. This new approach increased the effectiveness of SEA distinctly. Especially the SEA for the Viennese waste management plan showed how SEA (1) increases the quality of the plan, (2) can be used as an instrument to reconcile various interests concerned, (3) fosters the plan's implementation and (4) contributes to a better environment by solving problems at their roots. The SEA Round Table approach goes beyond the Directive's requirements in some aspects, and our experience is promising.

Table discussion: Does SEA make a difference? What needs to be done to enhance the integration of the environment into plans and programs?

Workshop A5.3 Future of SEA in Europe

Keynote speaker: Jan Jaap de Boer, Ministry of Housing, Spatial Planning and the Environment, TheNetherlands, Janjaap.deBoer@minvrom.nl

The presentation focuses on the question how will SEA develop and how should SEA develop. The following questions and theses will be discussed:

- What is the effect of the Directive on the SEA development in Europe?
- Will EIA and SEA grow together in one instrument with a wide application field: from project to policy?
- Different ways of using SEA: prediction of environmental effects or achieving environmental objectives
- What are the implications for SEA of changing priorities in environmental policy?
- Will SEA turn into SA?
- How is the environmental (policy) field developing in reaction to developments outside?
- How will and should the instrument SEA develop?
- Should we focus more on the decision-making?
- How will SEA affect planning procedures and administrative structures?

Table discussion: What should SEA look like in 10 years?

Session wrap-up

Session A5 abstracts (in order of presentation)

The Role of the Consultee in Shaping the SEA Process

Lucia Susani, Environment Policy - Risk and Forecasting, Environment Agency, lucia.susani@environment-agency.gov.uk

The Environment Agency of England and Wales is identified in UK SEA legislation as one of the statutory bodies, to be consulted by plan and programme makers at various stages of the SEA process.

This consultative role will result in our exposure to every SEA prepared in England and Wales — an excellent opportunity to guide, monitor and influence the SEA process.

SEA legislation requires us to be consulted at screening, during scoping, and on the Environmental Report. Our most strategic input will be during scoping, when we can provide a clear steer on the proposed SEA approach for a given plan or programme.

Our scoping consultation responses consider whether the proposed SEA approach satisfies the EU Directive (and UK legislation) requirements, whether additional or alternative SEA objectives are needed to address the issues covered by the Directive (and in particular any specific Environment Agency concern), and whether plan/programme alternatives are realistic and meaningful.

The consultation responses are logged on a dedicated internal database. Review of this database will provide an indication of the consistency of our responses, and of their usefulness in better shaping the SEA process. The quality of the SEAs reviewed, hence the effectiveness of Directive implementation to date, will also be indirectly evident.

How is Environmental Assessment Dealt with Since New Rules of SEA Were Introduced in Comprehensive Planning in Sweden?

Ann Åkerskog, Swedish University of Agricultural Sciences (SLU), ann.akerskog@lpul.slu.se

The SEA Directive (Directive 2001/42/EC) is now implemented into Swedish law. Since last summer, planners in some Swedish communities have started new comprehensive planning processes. These planners are obliged to follow the new law and regulations about assessing environmental impacts in comprehensive planning. How are they getting on with the new rules? Is there a great difference from what has been done before in Swedish comprehensive planning when it comes to environmental assessment? Four local communities, which have ongoing comprehensive planning processes, were chosen to give answers about their current practice. The persons in charge of the SEA were interviewed about the pros and cons of the new rules. Half structured and explorative interviews were used in this case study to get a rich material. The answers given are discussed in this paper.

Session A6 Legal and Policy Framework for SEA in Latin America

Topic chairs: Virginia Alzina, Interamerican Development Bank, virginiaa@iadb.org; Izabella Teixera, LIMA/COPPE/UFRJ, imtbella@lima.coppe.ufrg.br

This session presents a general view of the use of the SEA in Latin American countries by analyzing the evolution of Environmental Assessment instruments in the region. Emphasis will be given to recent SEA initiatives promoted by multilateral organizations, trying to identify relevant aspects for its application and to discuss key steps to promote the environmental assessment of policies, plans and programs in these countries.

The session has three workshops addressing the recent developments on strategic environmental assessment in Latin American countries, focusing on the evolution of environmental assessment policy instruments in the region. Emphasis will be given to the recent experiences of SEA, as it has been practiced in several Latin American countries, and the agenda for future advances on the assessment of policies, plans and programs. Participants are encouraged to present their institutional and personal experiences in SEA.

Workshop A6.1 SEA in LAC: A General View and Examples of SEA Application at National Level

Guest speaker presentation: "SEA, a New Tool to Deal with the Urban Sprawl in Catalonia" by Jordi Cañas, Director of Environmental and Sustainability Policy, Generalitat de Catalunya

Recent Experiences on SEA in Chile. J. Solari

Introduction of SEA in Bolivia. I. Steinhauer

Wrap-up of Workshop A6.1: conclusions and recommendations

Workshop A6.2 SEA in LAC: Examples of the Tourism Sector

Innovative Approaches to SEA in DC: SEA of the Honduran Tourism Sector. J. Quintero, B. Brakarz

The Brazilian Government Initiatives with SEA in Tourism Development Planning Programs. Suzana Dieckmann

Wrap-up of Workshop A6.2: conclusions and recommendations

Workshop A6.3 SEA in LAC: Examples of the Infrastructure Sector

Guest speaker presentation: Spanish Experience of SEA Applied to the Infrastructure and Transportation National Strategic Plan. Carlos Real, Spanish Environmental Ministry

Applying SEA to Regional Infrastructure Initiatives in LAC. V. Alzina

SD: connections between Baseline sustainable zoning and SEA. M.P. Souza, M. Abdon, I. Oliveira

Wrap-up of Workshop A6.3: conclusions and recommendations

Session A6 abstracts (in order of presentation)

Recent Experiences on SEA in Chile

Jaime Solari, SGA, jsolari@sga-ltda.cl

This paper provides a summary of recent experiences on SEA in Chile that are being carried out by the author. First, a brief description of the current legal and institutional environmental background regarding SEA in Chile is made.

The Plan for Public Transport Modernization of Santiago (Transantiago) is being evaluated under a SEA. The methodology has been an adaptation of the UK Department of Transport Guidance for SEA of Transport Plans and Programs and is being done with the assistance of an UK SEA specialist company.

Also under an SEA is the Programme for the Urban Development and Recovery of Valparaiso. This is an old port in the coast of Chile whose downtown area has been declared a UNESCO world heritage site. The Programme is financed by the InterAmerican Development Bank and the SEA is being done as one of the requisites of the loan.

Finally, a SEA of a Mining Business Plan done for a mining company is presented. This SEA aimed at analyzing the environmental sustainability of alternative business plans over a 20 year scenario. The plans were analyzed following a modified European Union Directive methodology. Several environmental constraints were identified with different levels of sensitivity and management plans were devised and costed to cope with them. SEA proved to be a most useful tool to anticipate critical environmental variables and to design more sustainable development plans for a mining company.

Introduction of SEA in Bolivia

Ineke Steinhauer, Netherlands Commission for Environmental Impact Assessment, Isteinhauer@eia.nl

The Bolivian Ministry of Sustainable Development has identified the introduction and development of Strategic Environmental Assessment (SEA) in Bolivia as a priority issue. On request of the Ministry, the Netherlands Commission for Environmental Impact Assessment contributes to this introduction through, amongst others, the undertaking of pilot SEAs. These are designed as a joint activity of the Commission and the Bolivian EIA authorities, mobilising their expertise in the practice of impact assessment and providing a possibility for 'training-on-the-job' in SEA.

MDS has selected Puerto Busch as the first SEA pilot: a harbour and railway line planned primarily for the export of soya and iron ore. This harbour is of great strategic importance because it offers Bolivia a sovereign access to the sea. The whole region has been designated as a priority area for economic growth, but as a vulnerable wetland (the Pantanal) it has a protected area status. The Ministry carries out an SEA to provide a comprehensive picture of all the plans and the relations between them, which should lead to a long-term development plan.

A second pilot SEA is Salar de Uyuni, a salt lake with valuable mineral resources and high potentials for tourism. The purpose of this pilot is to assess strategies for the exploitation of mineral resources in mutual relationship with strategic plans for tourism development in Uyuni and its surroundings, taking into account that the Salar de Uyuni is an area with unique natural values. This can result in a long-term vision for regional development.

Innovative Approaches to SEA in Developing Countries: Strategic Environmental Assessment of the Honduran Tourism Sector

Juan D. Quintero, The World Bank, Latin America & Caribbean Region, Environmentally and Socially Sustainable Development, jquintero@worldbank.org

This pilot SEA developed a unique methodology to provide the Honduran Institute of Tourism (Instituto Hondureño de Turismo —IHT) with the necessary framework to ensure the long-term environmental and social sustainability of its tourism strategy. Currently, tourism is the third biggest sector in the Honduran economy as a share of GDP. The Government of Honduras aims to make the country the number one destination in Central America by the year 2021, implying an annual growth of eighteen percent in the influx of international visitors. The SEA aimed to integrate the environmental, social, and economic analyses and implications of the government's tourism strategy, and recommend alternatives for ensuring sustainable tourism development that safeguards the natural environment, achieves economic growth, promotes income and employment generation and ensures community sharing of benefits. The methodology adopted is aligned with the realities and needs of the country, and sought to maximize the value-added use of SEAs as a highly useful tool to inform policy formulation.

The methodology emphasized the process to be as important as the products generated, adopting a highly participatory and iterative process, involving rapid consultations with stakeholders. A strategy analysis paper provided the basis for raising issue-specific papers, analyzed issues, linkages, impacts, and externalities, and developed growth scenarios which projected alternative tourism growth scenarios - accelerated, moderate, and slower trends - for the short, medium, and long terms in strategic areas of the country. Environmental, socio-economic, and policy/institutional papers strategically addressed the issues considered most critical to each respective area, examine in detail specific sector challenges, and outline policy options Finally, environmental guidelines for tourism development will ensure the environmental and social sustainability of the strategy and provide a basis for future draft legislation. Key recommendations stemming from the SEA are already under implementation.

The Brazilian Government Initiatives with SEA in Tourism Development Planning Programs

Suzana Dieckmann, Ministério do Turismo do Brasil, suzanadieckmann@turismo.gov.br

Since the end of the 1990s, The Ministry of the Tourism of Brazil has been working on the conception and implementation of tourism regional programs focusing on sustainable development and life quality improvement of the resident populations within the tourism impact areas.

The challenges faced in implementation of the Northeast program, stemming from the diverse nature of tourism impact to institutional, environmental, cultural, social, and economic sectors: coupled with the difficultly in identifying focal solutions, emphasizes the need for due diligence during the planning phase of these programs as well as a system of checks and balances once underway. The SEA is an extremely important tool for planning tourism programs, as one of its objectives is the integration of natural and social aspects, focusing on the cumulative and synergic impacts of policies, plans and programs.

These initiatives of the Ministry of the Tourism, in the actual stage of development, aims the SEA as planning instrument in pilot areas in the regions of their programs or at the conceptual phase of new programs. Furthermore, the institutional relationship between the Ministry of Tourism and the Ministry of Environment are defining methodological lines for the application SEA of the tourist activity and their social economic impacts, mainly bringing poverty alleviations and social inclusion. The presentation intends to demonstrate these government initiatives applying SEA to tourism sector planning.

Applying Strategic Environmental Assessment to Regional Infrastructure Initiatives in Latin America

Virginia Alzina, Inter-American Development Bank, virginiaa@iadb.org

Integrated infrastructure development is a priority for Latin American Region. This implies not only the improvement of physical infrastructure but also the integration of logistic platforms to harmonize and integrate markets, improvement of information systems and cross-border regulation, the development of information and communication technology, the promotion of multimode transportation, the improvement and harmonization of regulation in air, multimode and maritime transportation and other actions in logistics services. These activities call for a thorough incorporation of social and environmental considerations, as well as a coordinated and targeted strategy to include civil society and interest groups.

There are important examples of Regional Infrastructure Initiatives taking place at the moment in Latin America. The presentation will analyze how these Regional Infrastructure Initiatives seeks to improve coordination of the participating countries' infrastructure development plans, modernize their regulatory frameworks and harmonize their policies for key sectors: i.e., transportation, energy, telecommunications... The presentation will analyze key features of SEA arrangements that have been established in countries participating in these Regional Infrastructure Initiatives, and the methodologies being used.

Sustainable Development: Connections Between Baseline Sustainable Zoning and SEA

Marcelo Pereira de Souza; Myrian Abdon, Isabel Silva Dutra de Oliveira, Universidade de São Paulo, mps@sc.usp.br

International development agencies such as World Bank and Inter-American Development Bank have been promoting SEA in Latin America. Universities and some environmental government agencies aim to implement SEA in these countries considering the social and economic conjuncture and the legal institutional procedure towards other needs of SEA to make it obtain the status of Decision Making Process.

Brazil, where the law is the unique way to obligate something, does not have any law or regulation referring to an obligation to present SEA for any kind of PPP. However, the international trend does not get success, because the SEA presented does not have public participation or a systematic approval framework.

Baseline sustainable zoning (BSZ) and SEA, new instruments added to the Environmental National Policy as tools and regular procedures to improve sustainability in Brazil, can offer to decision makers, at the earliest time, the environmental information for better strategic actions. A case study—the Pantanal Region, Brazil—illustrates the use of the baseline sustainable zoning, its possible connection with SEA, what could be different and the future perspectives with its use.

Session A7A Legal and Policy Frameworks for SEA in Canada

Topic chair: Gérald Aubry, CEAA. gerald.aubry@ceaa-acee.gc.ca

The presentation by the Government of Canada for the Canada-USA session will be a verbal presentation with visual aids involving the Government of Canada organizations listed below. The presentation will consist of two, one and one half hour sessions (A7.A and A7.B), back to back, ending with a question and answer period after each section. The presentation will be coordinated by CEAA. CEAA will perform the role of moderator throughout the presentation.

Presenters will include:

Canadian Federal Government
Canadian Environmental Assessment Agency (CEAA)
Office of the Commissioner of Environment and Sustainable Development (CESD)
Agriculture and Agri-Food Canada (AAFC)
Transport Canada (TC)
Foreign Affairs Canada (FAC)

Independent Presenter
Merrell-Ann Phare, B.A., LL.B., LL.M

The workshops will open with an introduction by Irene Gendron (CEAA) outlining the goals of the workshops, and introducing the members of the Canadian Delegation.

SEA in Canada, Institutional Framework, Technical Guidelines and Future Direction

Gerald Aubry (CEAA)

The first section of the presentation will cover an overview of the Canadian government system and SEA in Canada, including the difference between project assessment and strategic environmental assessment. This section will go on to detail the purpose of SEA, including the framework provided for EAs under the federal Cabinet Directive on strategic environmental assessment (the Directive). The process of SEA has been in Canada for close to 20 years, the first Directive on SEA was put in place in 1990. Throughout the past 20 years many changes have been made to the application of SEA in Canada. This section will outline the Cabinet Directive on SEA along with its mandate and general findings from reviews on the application of SEA, by the federal government. In Canada there are no legal requirements for an SEA to be completed. However, the Directive provides clear guidance on when an SEA should be completed. This section will outline when it is appropriate to compete an SEA and will also outline the objects and guiding principles of SEA. The technical guidelines for undertaking EAs are outlined in the Directive. This section will cover what type of answers an SEA should provide to decision makers along with the two step process for an SEA. The process is determined by the expected environmental impact. This section will outline the challenges faced by SEA and possible future directions to be examined.

SEA Audit for Implementation

Gerorge Stuetz (CESD)

The presentation will address how the directive is being applied within key departments within the federal government of Canada and the main factors that adversely affect its implementation. In addition, the presentation will address some of the best practices observed.

Departmental Experience

Kathy Wilson (AAFC)

Agriculture and Agri-Food Canada (AAFC) will present an overview of the department's process for SEA which includes AAFC's Framework for SEA. The presentation will include a general overview of the framework, and specifically how the department is working with its key departmental stakeholders to deliver on its SEA requirements. AAFC will also highlight its guidance material and sign-off process with specific reference to its preliminary scan template, its methodology for detailed SEAs, and SEA public statements.

Overview of Internal SEA Process

Cara McCue (TC)

Transport Canada will provide an overview of its internal SEA process and present a summary of an SEA undertaken for a Canadian transportation project.

SEA in a Trade Context

Rachel McCormick (FAC)

This section will cover SEA in a trade context and the implication of it. Discussions related to impact assessment of trade began over a decade ago. Since then, national governments, non-governmental and multilateral organizations have completed assessments using a range of methods and processes. While it is widely accepted that impact assessment of trade can contribute to timely, strategic and coherent policy making, several important challenges remain. The Government of Canada's Framework for Environmental Assessment of Trade Negotiations in 1999 and initial assessment reports have been issued for four negotiations. Experience has shown that the Canadian process will continue to evolve as practitioners deal with limited data and modeling capacity during analysis, determine how consultations can be more effective, and strengthen the connection between impact assessment findings and policy making processes. Key elements to the continual evolution of the Canadian process include review of existing sources to determine how these could address current problems, purposeful information sharing and capacity building based on identified needs, and ongoing relationship building.

Indigenous People (independent presentation)
Merrell-Ann Phare

This presentation will review the challenges faced by indigenous peoples in their attempts to rely upon SEA to ensure that policy, program, and plan decisions do not infringe their rights, and the constraints faced by governments as they attempt to consider impacts on indigenous environment-based rights prior to policy, program and plan decisions. An analysis of the effectiveness of SEA in addressing certain legal and quasi-legal aspects of environmental impact decision-making will be presented.

Session wrap up
Irene Gendron

This section will conclude the presentation through a discussion of main themes with an opportunity for questions and answers involving all members of the Canadian Delegation.

Session A7A abstract:

Indigenous People (independent presentation)
Merrell-Ann Phare, Centre for Indigenous Environmental Resources, maphare@cier.ca

SEA assesses the potential environmental impacts of policies, plans, and programs. In many cases in Canada, indigenous peoples are the direct recipient of these policies, plans, and programmes, many of which can result in profound changes to their lands, environment, and consequently their communities. Recent decisions of the Supreme Court of Canada indicate that the government is also required to assess the impact of decisions they may make on indigenous rights (which are predominantly land- and water-related), as these rights are constitutionally-protected. These cases also indicate that the potentially affected indigenous peoples must be consulted by the government in that process; yet Canada's SEA Directive does not require the participation of indigenous peoples, nor any member of the public in the SEA process. This paper will review the challenges faced by indigenous peoples in their attempts to rely upon SEA to ensure that policy, program, and plan decisions do not infringe their rights, and the constraints faced by governments as they attempt to consider impacts on indigenous environment-based rights prior to policy, program and plan decisions. An analysis of the effectiveness of SEA in addressing certain legal and quasi-legal aspects of environmental impact decision-making will be presented.

Session A7B Legal and Policy Frameworks for SEA in the United States

Topic Leader: Ray Clark, The Clark Group, rayclark@clarkgroupllc.com

The United States Congress passed The National Environmental Policy Act (NEPA) in 1969 amid growing evidence that the federal government was having a significant effect, both directly and indirectly, on the human environment. The statute created a national environmental policy, a tool to implement that policy, and an oversight agency, the Council on Environmental Quality (CEQ) to ensure its implementation. The statute is a relatively simple law that intends as its basic premise to ensure that federal agencies take environmental considerations into account before decisions are made and before actions are taken. CEQ developed implementing regulations in 1978 that establish the basic procedures for agencies to follow. Agencies are then relatively free to develop their own approach to compliance as long as that approach is consistent with the CEQ regulations.

The law requires a detailed statement on all federal proposals that may have a significant effect on the quality of the human environment. It leaves CEQ to fill in the definitions and procedures and approve each agency's procedures which are crafted for that particular agency. The regulations state that all "policies, plans and programs" should be assessed for their environmental effect if these policies, plans or programs may have a significant effect on the quality of the human environment. While there are about 500 draft, final or supplemental Environmental Impact Statements (EIS) each year (and about 50,000 Environmental Assessments (EA)), it is rare that an agency prepares a Programmatic EIS and even rarer to find a Policy EIS. There has been a recent trend in the U.S. by some agencies to refute the position that NEPA requires an EA or EIS on programs, policies, or plans. However, there are good examples of the programmatic approach being used to the advantage of the agency in its decision-making.

The Bonneville Power Administration prepared an EIS on its Business Plan. It is, in the purest sense of the word, a Strategic EIS. However, it is not called such nor is it called programmatic. It assesses the very heart of the agency; its business practices. It addresses the environmental issues related to sale of electricity and the myriad issues associated with the sale. It has served as a decision-making analysis for nearly ten years. The senior leadership embraces the idea because it allows them to deal with issues that cover the horizon, the cost of NEPA compliance is reduced, and they are not faced with multiple EA/EIS each year.

The U.S-VISIT program was formed in 2003. The major requirement of the program is to enhance security for American citizens and visitors while facilitating legitimate travel and trade across U.S. borders. The mission is to help secure borders, facilitate the entry and exit process, and enhance the integrity of the immigration system while respecting the privacy of visitors. The program has been developing new technology to deploy at all 330 ports of entry across the U.S, but there was little shape to the technology for an extended period as the program managers and industry worked to develop a system. The Environmental Program Manager developed the idea of a "Strategic Environmental Appraisal" to identify the environmental resources and authorities for those resources long before a project or program was identified. The geographical boundary of these appraisals was the ecosystem. This approach was intended to identify a legitimate scientific boundary that would still provide flexibility to the Program in the deployment of its mission.

As the program has evolved over the past few years, a strategic plan was developed to assess how business process, technology and facilities can support the goals of the program. The program is now developing a blueprint for all the processes throughout the organization based on the framework established in the strategic plan. The environmental program manager is now evaluating a programmatic approach to capture the effects of all the processes associated with carrying out the program and to facilitate future evaluation and deployment of the program.

This session will address the overall trends in the legislative and executive branches of government and the way two agencies have used the Programmatic or strategic approach to improve decision-making and efficiency in the implementation of NEPA. The session will be coordinated by The Clark Group, a consortium of senior level officials who have operated at the highest levels of the U.S. Government.

The presentation by Ray Clark for the Canada-USA session will be a verbal presentation with visual aids involving two federal agency representatives with both policy and practical experience in assessing impacts of broad program initiatives. The presentation will consist of two 30 minute presentations and a 30 minute discussion period. The session will begin with an introduction by Ray Clark outlining the goals of the session, an introduction of the members of the panel and a brief overview of the U.S. environmental impact analysis system. Ray Clark will moderate the session.

Presenters will include:

SEA in the U.S., institutional framework, technical guidelines and future direction. Ray Clark

A Strategic Approach to NEPA in the Post 9/11 U.S. Lisa Mahoney, Environmental Program Manager, Department of Homeland Security

The Lasting Benefits of a Programmatic Approach. Kathy Pierce, Environmental Program Manager, Bonneville Power Administration

Session wrap up (discussion of main themes with and discussion of ways to ensure that EIA does not become a paperwork exercise, diminishing its intrinsic value). Ray Clark

Session A7B abstracts (in order of presentaton)

SEA in the U.S., Institutional Framework, Technical Guidelines and Future D zairection

Ray Clark, The Clark Group, rayclark@clarkgroupllc.com

The first section of the presentation will cover an overview of NEPA and the CEQ regulations, including the requirement to prepare assessments at the policy, program and project level. It will then discuss the practical application of this provision over the last 25 years, citing examples of broad assessments. Ray Clark will discuss the trend away from broad assessments in some federal

agencies and the move in other agencies to use a more strategic approach to assessments to reduce costs and time associated with the NEPA process. As in Canada, there are no legal requirements for an SEA to be completed. This section will outline the challenges faced by practitioners to ensure that EIA counts for more in decisionmaking , and the pressures to make EIA cost less within both the legislative and executive branches of government.

A Strategic Approach to NEPA in the Post 9/11 U.S.

Lisa Mahoney, Department of Homeland Security, lisa.mahoney@dhs.gov

The presentation will address how a new program within a new department that is addressing the facilitation of visitors and immigrants traveling to the U.S. is applying NEPA. She will discuss how the program has developed a "strategic environmental appraisal" on all the ports of entry and is developing a programmatic approach to new technology and the blueprint for the business practices of the entire program.

The Lasting Benefits of a Programmatic Approach

Kathy Pierce, Bonneville Power Administration

The Bonneville Power Administration is a federal agency under the U.S. Department of Energy and serves the Pacific Northwest through operating an extensive electricity transmission system and marketing wholesale electrical power at cost from federal dams, one non-federal nuclear plant and other nonfederal hydroelectric and wind energy generation facilities with goals of providing high reliability, low rates consistent with sound business principles, responsible environmental stewardship and accountability to the region. Kathy will discuss the decision made over 10 years ago to prepare an EIS on the "Business Plan" for BPA. The EIS was never called an SEA nor was it even called a "programmatic" EIS, but it had had the effect of being a strategic analysis that has had lasting benefits including lowering the cost of NEPA compliance, while increasing the commitment to environmental mitigation.

Session A9 Transboundary SEA

Topic chairs: Nicolas Bonvoisin, UN ECE, nicholas.bonvoisin@unece.org; John Horberry, john.horberry@ntlworld.com

This session will examine how SEA can address the transboundary impact of plans, programmes and, to a lesser extent, policies. Speakers will present their experiences in transboundary SEA and describe some of the key challenges. Session participants will be invited to discuss the practical problems of carrying out transboundary SEAs and to propose possible approaches.

Workshop A9.1

SEA in Binding Land Use Plan Procedures in Brandenburg (Germany), with Special Focus on Transboundary Consultation, Eike Albrecht

Transboundary EIA: Iberian Experiences. Rita Albergaria and Teresa Fidelis

Transboundary Water Monitoring and Data Exchange as a Basis for SEA. Rafig Verdiyev

SEA as a Transboundary Watershed Management Tool. Merrell-Ann Phare

Transboundary SEA (Or Lack of It) in Decision-making on "BUK-BIJELA" Power Plant (case study). Maja Kostic-Mandic

Discussion

The four presentations will be followed by a brief brainstorming on transboundary SEA problems and approaches, with very brief interventions from participants. Participants will be invited to identify challenges and possible ways of overcoming difficulties. The speakers and topic chairs will serve as a panel, perhaps with one or two invited guests, and will then try to respond to these ideas.

The topic chairs will provide a summary of these discussions to all participants.

SEA in Binding Land Use Plan Procedures in Brandenburg/ Germany With Special Focus on Transboundary Consultation

Eike Albrecht, Brandenburg University of Technology of Cottbus, albrecht@tu-cottbus.de

Introduction. In respect to the planning procedure of German binding land use plans, the provisions of the European SEA-Directive were transposed into the German Federal Building Law in July 2004. The legislative decided to require an SEA for all binding land use plans, regardless of the respective effects on the environment. Therefore the step of screening whether an SEA is necessary or not has been dropped. In general, the requirements of the SEA Directive led only to a few changes in the binding land use plan procedure. In comparison to the former law, a separate environmental report is required, monitoring measures have to be planned and a transboundary information and consultation of the public and authorities have to be carried through, as far as effects on the transboundary environment are likely. The first two points obviously do not create any practical difficulties for the communal bodies which are competent by law for binding land use plan procedures. But there are hints that the transboundary information and consultation – where necessary – seems to be the weak point of the new SEA procedure in the German binding land use plan procedure, especially in regard to language problems and organisational difficulties.

Research Project. To find out what problems the communal bodies in Brandenburg, especially those which are situated close to the Polish border, are facing, a research project is actually in the process of being carried out. It is expected that the formal procedure of transboundary information and consultation is organised quite well, but that in practice, the participation of the public in particular takes place only in theory due to language and organisational problems. In this regard it probably makes a difference, if the respective planning communal body is part of and party in a so called Euroregion, like the Euroregion Spree-Neiße-Bober around Cottbus (Germany) and Zielona Gora (Poland) or not. In the case of being a member of such a Euroregion, there exist formal procedures of bilateral and inter-organisational cooperation which make it easier to organise the participation of the public in the respective neighbour state. If there is no such transboundary frame for cooperation, difficulties might be more serious. To clear the situation, in the coming week all communal bodies of Brandenburg get a questionnaire with questions about experiences in the transboundary information and consultation process. Unless the new German provisions are in force almost one year, it is likely that as first results, some problems, focal points, difficulties and experiences can be reported. Additionally hints from practitioners in communal bodies are expected how to improve or change the procedure of transboundary information and consultation. The research project will be evaluated until July and results can be reported in September.

Transboundary EIA: Iberian Experiences

Rita Albergaria, Teresa Fidelis; Universidade de Aveiro, ritaalbergaria@yahoo.com

Portugal and Spain share approximately 1.314 km of border, a potential conflict generator, because of access to shared resources, like water, but also a motive for transboundary cooperation, the ideal way of planning and developing common interest projects. The transboundary cooperation associated with Environment Impact Assessment (EIA) has been encouraged after the enactment of the Espoo Convention (1997). Legislation of European Union has made mandatory the consideration of transboundary impacts (97/11/CE Directive) and consequently Portugal (DL 69/2000) and Spain (Ley 6/2001) have approved related provisions. Other regulations were also adopted in order to adjust cooperation and information exchange between Portuguese and Spanish, namely the "European Convention of Transboundary Cooperation Portugal - Spain (1980)" and the "Convention on Cooperation for the Protection and Sustainable Use of the Waters of the Luso-Spanish Basins (1998)". Entitled "Transboundary EIA: Iberian Experiences," this paper aims to critically analyse legal and procedura weaknesses of bilateral cooperation, through the comparison of two case studies related to water management projects (Sela and Alqueva dams). The study aims to propose a "Good Practice" model for cooperation under transboundary environmental impact assessment processes. The model will focus on the ways of bilateral cooperation concerning EIA should occur, specifying phases of collaboration procedures for the identification and evaluation of transboundary impacts, models of public participation and related documentation.

SEA as a Transboundary Watershed Management Tool

Merrell-Ann Phare, Centre for Indigenous Environmental Resources, maphare@cier.ca

The Canada-U.S. border has numerous transboundary watersheds, including the Red River Basin of Manitoba, Minnesota, North Dakota, and South Dakota within the Hudson Bay watershed. The aquatic fauna of the Red River Basin is a result of "leakage" from the Missouri and Mississippi River watersheds over millennia, but the last hydraulic connection was over 8,000 years ago. Thus, the aquatic fauna of the three watersheds have some common species but others that are distinctly different. Any policy, program, or plan that creates a hydraulic connection now, such as those related to Devils Lake or the Garrison Diversion in North Dakota, could have potentially irrevocable environmental effects.

This watershed has a number of policy instruments regarding its management, including the Boundary Waters Treaty of 1909, and at least two U.S. Presidential Executive Orders. SEA, as a transboundary watershed management tool, was not utilised to assess previous or current plans for water supply, irrigation and drainage, and consequently, flood control initiatives, regarding Devils Lake and the Garrison Diversion. This paper will analyse the challenges and opportunities of SEA as a watershed management tool in this context, discuss its relationship to and implications for the effective use of existing policy instruments, and its ability to minimise political and legal transboundary water conflicts.

Transboundary SEA (Or Lack of It) in Decision-Making on "BUK-BIJELA" Power Plant (case study)

Maja Kostic-Mandic, University of Montenegro, majak@cg.yu

This case will be addressed from the prospective of the Republic of Montenegro in order to shed more light on decision-making on disposal of natural resources under special legal regime (both on the international and national level), in a transboundary context. Further more, several legal systems (those of Bosnia and Herzegovina and its entity Republika Srpska, State union Serbia and Montenegro and the Republic of Montenegro), all of them having respective SEA legislation either in force or being drafted at the time of decision-making, but none of them being a party to the Espoo convention, will also be dealt with. In addition, some other legal constraints in decision-making originating from ratification of the World Heritage Convention, as well as Montenegrin Constitution and its national legislation will be analyzed.

The focus will also be put on the decisive role of the growing public awareness regarding environmental issues and the effective public participation that in this particular case showed to be a mighty tool in influencing environmental decision-making, stressing that national government cannot afford to disregard the rule of law, or parallel with drafting laws in accordance with the EU standards take actions directly opposing it.

Stream B SEA Practice in Key Sectors

Coordinated by Rob Verheem, EIA Commission, The Netherlands, rverheem@eia.nl

Session B1 SEA in Poverty Reduction Strategies

Topic chair: Linda Ghanime, UNDP, linda.ghanime@undp.org

Poverty Reduction Strategies are a key instrument of development cooperation. The background paper "How Can SEA Improve Poverty Reduction Strategies?" outlines key challenges for SEA to reinforce the quality of poverty reduction efforts for sustainable development. The paper invites contributions on the lessons from practice in refining strategy and programme outcomes, facilitating the comparative analysis of options, assessing cross-sectoral effects, as well as in improving transparency and public participation in Poverty Reduction processes.

The session on SEA in Poverty Reduction Strategy is a complement to the Development Cooperation Event and related Sessions. The session format is a panel brief followed by a facilitated discussion on SEA in improving the quality of the Poverty Reduction Strategy process outcomes. Panel members will each outline the conclusions emerging from their experiences. The focus of the session will be on the following questions:

- How has SEA helped in refining outcomes of PRS and in contributing to improved pro-poor policies and actions?
- How have SEA approaches been adapted to country and context-specific capacity development needs?
- Have SEA processes been successful in bringing together various analytical processes and tools?

Workshop B1.1

Facilitated by Linda Ghanime and Peter Nelson

How can Strategic Environmental Assessment improve Poverty Reduction Strategies? Summary of discussion paper by Linda Ghanime.

Panel response:

- Experiences from the PRSP process: Laura Tlaiye, Sector Manager Environmental and Socially Sustainable Development Division, World Bank
- Experiences in MDG Based Poverty Reduction Strategies: Dorothy Rosenberg, Poverty Group United Nations Development Program
- Experience of Ghana: Mr. Evans Darko-Mensah Consultant
- Strategic Environmental Assessment and Poverty Reduction in Tanzania: Hussein Sosovele, Consultant (University of Dar es Salaam)
- Success factors in integrating environment in Poverty Reduction Strategies: John Horberry, Consultant
- Open Discussion: Strengths and weaknesses of SEA practice in PRS, main contributing factors, role and contribution of SEA to planning and poverty reduction and environmental outcomes
- Conclusions

Summary of panel briefs:

Experiences from the PRSP Process

Laura Tlaiye, Sector Manager, Environment Division, The World Bank, ltlaiye@worldbank.org

The presentation will highlight the extent to which Strategic Environmental Assessments (SEAs) can be made effective in strengthening the inclusion of environment in the governments' policymaking pro-

cesses. To better understand the poverty-environment nexus in the context of country specific situations, SEAs as an analytical tool can play an important role in aligning environmental concerns with Poverty Reduction Strategies. Through SEAs, environment and poverty issues can be identified across the different sectors and at different government levels to further align with budget needs and donor funding. When such information is available in a timely manner to all stakeholders of the PRSP process, better clarity and inclusiveness of environmental issues can be achieved. One such good practice example is the Ghana SEA, where a strong integration between national policy goals and practical delivery of these goals on the ground, is being realized.

Experiences in MDG Based Poverty Reduction Strategies

Dorothy Rosenberg, Poverty Group United Nations Development Program

Over the past few years, UNDP has worked to advocate and monitor the Millennium Development Goals (MDGs) in national development, which includes a series of mutually reinforcing development goals, targets, and related indicators. An MDG-based development strategy is defined as a long-term vision consistent with the Millennium Declaration, based on nationally-determined priorities, that is supported by medium-term cross-sectoral strategies, which are measured against progress towards concrete MDG outcomes. Countries increasingly seek practical guidance on how to integrate the MDGs into existing poverty reduction and development strategies. Inclusive and integrated approaches are needed if the MDGs are to be achieved by 2015, a major milestone on the path to fulfilling the commitments undertaken in the Millennium Declaration. The brief will outline how outcome-based poverty reduction strategies supported by instruments, such as SEA, offer a means to improve poverty reduction and environmental sustainability and overall development effectiveness.

Experience of Ghana

Evans Darko-Mensah, Consultant, edmrefast@yahoo.com

The Ghana Poverty Reduction Strategy was launched by the National Development Planning Commission (NDPC). Consisting of strategies—policies, programmes and priority projects aimed at promoting economic growth and achieving sustainable poverty reduction in the medium term. Benefits of SEA included refinements to development policy, alterations of district level plans as well as revision to planning guidelines to include focus on environmental considerations in planning at Sector and District levels. SEA also resulted in changing of attitudes of officials responsible for planning and budgeting to see the "win-win" opportunities in integrating environment in PPPs. Emphasis of SEA in Ghana is on the processes. Accordingly, capacity building has mainly been through the "learn-by-doing" method of key stakeholders. Sustainability criteria include issues of Governance or Institutions. The main advantage has been in its utility in the process of mainstreaming Environment and sustainability in PPPs at all levels. This requires that a wide range of stakeholders and not just 'experts' be engaged in the processes. The analytical tools used in the SEA process in Ghana are based on simple matrices that can be understood and applied by a wide range of stakeholders. Some of the methods such as impact identification have been borrowed from the EIA approach. All the tools are similar to those used in other analytical processes - including the use broad qualitative methods when dealing with policies (e.g., at sector level) whilst assessments of plans (e.g., at District level) use more quantitative methods.

SEA and Poverty Reduction in Tanzania

Hussein Sosovele, Consultant (University of Dar es Salaam), Sosovele@udsm.ac.tz

The paper reviews the development of SEA in Tanzania and its potential as a tool for sustainable development in the context of the country's new National Strategy for Growth and Reduction of Poverty (NSGRP). This is known by its Kiswahili acronym MKUKUTA. It is outcome focused and has mainstreamed environment. It has identified the need to mainstream environment into sector and local level planning, and SEA is seen as one of the tools to achieve this. There have been several recent studies on SEA to determine its potential for poverty reduction, and most recently an SEA was undertaken on the World Bank's poverty reduction strategy credit. The 2004 Environmental Management Act includes a section that makes it mandatory for all new government bills, plans, policies and programmes to be subject to SEA. However, the limited experience to date on the use of SEA presents challenges to the development of SEA regulations and guidelines. Awareness amongst many stakeholders is still limited, with many only now starting to learn about the use of environmental impact assessment let alone SEA. Thus in the development of SEA, Tanzania faces challenges on awareness and capacity building, and on the development of appropriate guidelines.

Success Factors in Integrating Environment in Poverty Reduction Strategies

John Horberry, Consultant, john.horberry@ntlworld.com

The paper is based on a review of recent and current programmes supported by DFID and the UNDP Poverty Environment Initiative to integrate environment into poverty reduction strategies processes in a sample of countries in Africa and Asia. The review has collected comparative data on the individual initiatives – including the entry point, the type of activities (process or technical), the partner government institutions, the stakeholders involved, the stages in the process included, the degree of donor harmonisation and the outcomes that have resulted. On the basis of this data, the review has analysed the key elements of the support, the challenges of implementation and the success factors that appear to have influenced the outcomes achieved. The analysis provides pointers for future programmes aimed at both the early stages in integrating environment in new PRS processes and also the need to implement the poverty environment priorities in the subsequent stages in budget allocation and programme implementation that follow PRS drafting and revision.

Session B2 SEA and Transport Planning

Chaired by Paul Tomlinson, Centre for Sustainability, TRL, UK, ptomlinson@quista.net

This session is orientated towards identifying common issues, threats and opportunities focusing upon SEA and transport planning. Consequently, papers and discussions draw upon individual experiences to highlight principles of general application. The following methodological, procedural, technical and cultural issues will be debated:

- Devising and assessing alternative strategies in transport plans: How are strategies devised, what detail, who is involved, how the boundaries with other plans and jurisdictions are handled?
- Integrating SEA into other assessment activities: How to bring economic, social, health and environmental assessments together at the same plan level and provide integration between SEA and project EIA?
- Stakeholder involvement in defining the problem and objectives: How to engage the public when they tend only to become involved in transport planning when projects directly affect their interests?
- Assessment tools for SEA: Are we properly equipped with tools and techniques for SEA? How to avoid reliance upon GIS? What rules are needed for significance criteria and how to aggregate impacts for strategies with multiple transport measures? Can environmental capacity be defined?
- Communicating the assessment: How to keep the assessments meaningful for the different audiences yet technically robust.
- Quality control in SEA: Is it an issue when the plan maker is also judging the SEA and its mitigation/monitoring requirements?
- Changes to transport planning: How will SEA change the culture of transport planning, will the American model be followed?

The main debate on the issues facing the transport sector will be the final session within workshop B2.2.

Workshop B2.1

Transport Planning: Towards A Common Agenda. Paul Tomlinson

Linkage between SEA and Urban Planning Through an Example of Road Construction. Mu-choon Lee

System Models for SEA of Transport Plan. Rodrigo Jiliberto Herrera

Strategic Evironmental Indicators for Transport and Their Evaluation - Applying ELECTRE III on TERM. Jens Borken

Transport Sectoral Plan – Switzerland. Niklaus Hilty

Socio-Economic Indicators For a Performance Assessment of an SEA for A Diesel Policy Banning. Mutasem El-Fadel

SEA for the Integrated Systems of Transport Project for the Development of the Abruzzo's Mountain Districts. Magro Giuseppe

Discussion and conclusions

- How are strategies devised, what detail, who is involved, how the boundaries with other plans and jurisdictions are handled?
- How to bring economic, social, health and environmental assessments together at the same plan level and provide integration between SEA and project EIA?
- How to engage the public when they tend only to become involved in transport planning when projects directly affect their interests?
- Are we properly equipped with tools and techniques for SEA?
- How to keep the assessments meaningful for the different audiences yet technically robust.
- How will SEA change the culture of transport planning?

Session B2 abstracts (in order of presentation)

Transport Planning: Towards A Common Agenda

Paul Tomlinson, Centre for Sustainability, TRL Ltd., ptomlinson@trl.co.uk

The approach to transport planning has been changing towards a more integrated approach as a result of a number of forces across most countries. Such an integrated approach treats transport more as a means to promoting the explicit political objectives of government (growth, equity, employment, protecting health and the environment), than as a self-contained sector. In operational terms, projects are assessed in terms of their contribution towards sustainable development (jobs, communities, etc.) instead of growth in mobility. This has been reinforced by an emphasis on identifying how transport projects are to deliver these wider benefits and exactly how regional development benefits are to be achieved. The importance of good cost benefit analysis, effective strategic environmental assessment and guidance is important to improve decision making. Improved decision making is seen as being key to integrating transport and environment policies.

It is within this array of new paradigms facing transport that Strategic Environmental Assessment (SEA) must function. While SEA may be seen as a burden, its integration into planning and effective tiering is needed to avoid its rejection. Similarly, its tools must be fit for the particular plan. They may become superficial assessments that are "add-ons" to the transport planning process. Apart from failing to add value such assessments also bring the process into disrepute and create opportunities for legal challenge.

Linkage between SEA and Urban Planning Through an Example of Road Construction

Mu-choon Lee, Yonsei University, muchoon@dragon.yonsei.ac.kr

Since 1993, an environmental assessment system called the "Pre-EIA," which is comparable to the program EIA, exists in South Korea. The "Pre-EIA" is going to be expanded in terms of the SEA because of changes in the environment foundation act. The necessity that the Pre-EIA had to change in the form of the SEA was due to yesteryears events: significant infrastructure projects which underwent the EIA, such as road construction and high speed rail trains, had to be interrupted. The reasons of the intermission were insufficient and ecological aspects were realized too late, even though nature conservation act foundations already existed.

Through an example of road construction, the Korean environmental assessment system is going to be represented from the point of SEA and landscape planning view. With this article, the following aspects should be discussed:

- Existing and prospectively legal bases of the SEA
- Current practice of ecological assessment by road construction planning
- Problematic of the SEA and landscape planning
- Perspectives of the SEA

System Models for SEA of Transport Plan

Rodrigo Jiliberto Herrera, Taugroup, rjiliberto@taugroup.com

The SEA of the Strategic Infrastructure and Transport Plan (PEIT), is the first SEA at national level in Spain. Despite the fact that it wasn't a legally requested SEA, it has been used as a test probe for the transposition of the SEA Directive into the national legislation.

The PEIT is an ambitious multimode Plan with a horizon of 2020, involving investment for approximately 241 thousand million euros. It is therefore an extremely strategic decision. In this frame and in order to face the challenge of assessing the environmental profile of the plan's alternatives, a qualitative systemic environmental model was developed (Transport Environment Territory-system, TET). The model was used for the diagnosis of the current situation and for the assessment of the strategic alternatives, and for the assessment of the more operative developments of the PEIT.

The TET model is designed to cover the whole strategic environmentally relevant policy issues that such a plan faces. It enables to link policy tools, like taxes, or investments, with elements of the transport systems, like intermodal split, with environmental effects, like air emissions, or fragmentation. This model design allows environmental assessment of policy options at the very early strategic levels of the decision process, ensuring a full strategic integration of environmental dimension at the very early stages.

Strategic Environmental Indicators for Transport and Their Evaluation - Applying ELECTRE III on TERM

Jens Borken, DLR - Institut für Verkehrsforschung, Jens.Borken@dlr.de

This paper explores to what extent the ordinal multi-criteria decision aid method ELECTRE III can help in strategic assessments of transport's environmental performance. We use the indicator set TERM of the European Environment Agency as a test case. The set is systematically reviewed, redundancies are eliminated, key indicators are identified and their reliability is assessed. It is possible to focus on seven indicators only and thus reduce data demand and increase communication substantially, as is needed for strategic assessments.

The overall environmental performance of Europe's road transport, as measured by these indicators, is assessed for the first time. We apply ELECTRE III for both an ex-post as well as an ex-ante evaluation. The method is particularly well suited when data are poor, when heterogeneous input has to be treated, and where strongly different value judgements occur. The qualitative assessment logic appropriately reveals and facilitates compromise on the important issue, but also clearly identifies its limits. Thus the relevant issues for a subsequent quantitative analysis can well be selected. We propose to consider this approach for a first ranking of environmental issues or planning alternatives to identify issues and options that merit detailed investigations.

Transport Sectoral Plan - Switzerland

Niklaus Hilty, Swiss Agency for the Environment, Forests and Landscape (SAEFL), Nikolaus.Hilty@buwal.admin.ch

In Switzerland we are currently drafting a transport sectoral plan. In a first step, we elaborate a program that addresses the aims, principles and priorities of our transport infrastructure policy. For this program a sustainability appraisal including an environmental report will be elaborated. We do this on a voluntary basis since we do not have any legal requirement to do so. This is a pilot project we do in our country.

A sustainability appraisal was done for a very first draft of the program (February 2005). The results shall influence the strategy of Swiss transport infrastructure planning. The appraisal concluded that there are important conflicts among the different principles of the sectoral plan and that solutions to mitigate the conflicts must be found.

A key problem we face is due to the fact that we currently have to judge the contents of the sectoral plan at a very high level of abstraction (principles and no defined projects). In addition, the government

bodies in charge (spatial planning, traffic) are working together with the regions (cantons) and other bodies of the government (energy, environment, finance).

Socio-Economic Indicators for a Performance Assessment of an SEA for A Diesel Policy Banning

Mutasem El-Fadel, American University of Beirut, Mutasem El-Fadel mfadel@aub.edu.lb

Diesel exhaust contains various gaseous and particulate pollutants, which, at high concentrations, pose adverse health effects. This paper presents a socio-economic assessment of a diesel policy ban in Lebanon examined in the context of the main element of a strategic environmental assessment of a transport related policy setting with a post evaluation of the policy one year later. For this purpose, particulate levels in the air were measured after the ban and compared with concentrations reported prior to the ban. Similarly, the effect of this ban on asthma-related morbidity in children in the same representative urban area were examined.

Health-based socio-economic benefits associated with improvement in air quality were then estimated using the long-term decrease of particulate matter as an indicator. The comparison between pre and post-ban Particulate Matter levels revealed a reduction ranging from 12.0 to 84.2 %, depending on location, with an average of 44.9%. Similarly, the number of asthma-related visits in children was reduced by an equivalent of 28.7%. The improvement in PM levels is expected to result in significant socio-economic benefits reaching 1 percent of GDP depending on the economic approach adopted.

SEA for the Integrated Systems of Transport Project for the Development of the Abruzzo's Mountain Districts

Magro Giuseppe, Magroengineering Ltd, Italy, Magiuseppe@Tin.It

The paper is about the new methodologies adopted for the realization of a Strategic Environmental Assessment on the Integrated Systems of Transport Project for the development of the Abruzzo's Mountain Districts (Art.37 second L. 109/94 Project Financing 2002/S-142111941).

The domain of the project involves different protected areas near by the border of the Abruzzo's National Park (one of the largest in Europe) and so they are characterized by a certain vulnerability under the naturalistic profile because of several biological cumulative effects.

The regional environmental policies foresee that, for the projects involving protected zones, it is necessary to proceed with an Incidence Evaluation Assessment.

The vast areas interested by the project need a preliminary analytical screening in order to find the different impact levels generated by each action of the project, so the Risk Assessors have decided to adopt a specific protocol deriving from the participated project experiences and the risk assessment tools.

The technique is based on the definition of a software java tool generating an interaction matrix with different biological impact levels and biodiversity function levels.

In defining the protocols, Risk Assessors have involved local Environmental Associations and Municipalities in order to explain each detail of the project in a non conflictual way.

Session B3 SEA & Energy Management

Session chairs: Peter Leonard, Hydro Quebec, leonard.peter@hydro.qc.ca; Ross Marshall, UK Environment Agency, ross.marshall@environment-agency.gov.uk

Sustainable energy development is increasingly recognized as a key component of the sustainable development agenda. Greater access to energy, increased energy efficiency and a much wider use of energy sources and practices that least contribute to environmental degradation are among the core issues to be addressed to move forward the WSSD Plan of Implementation and achieve the goals of the Millennium Development Goals (MDG). Furthermore, at a time when climate change is becoming one of the most important environmental challenges we face, the management and rational use of energy is becoming one of the priority issues for governments, industry, decision-makers and civil society.

A series of questions related to issues for sustainable energy development will be addressed during the session, such as:

- Can SEA assist in applying better policy, control, and measurement of energy management?
- Is there a role for SEA in the public reporting on energy management?
- What role is SEA playing in public and industrial strategic planning for energy management?
- At what level and through what national offices in different country contexts has SEA been applied as a tool top assist in aiding responsibility for energy management?

The session on SEA and energy management is structured around two workshops. The first workshop will provide participants with a series of case study presentations followed by discussion periods. The second workshop will be entirely devoted to discussion on the key issues and recommendations on the contribution of SEA to achievement of sustainable energy development.

Workshop B3.1 SEA Case Studies in the Energy Sector

Power, Planning and Politics: The Effectiveness of SEA in Sustainable Energy Planning for Thai Power Sector. Decharut Sukkumnoed

SEA in Regulating Oil and Gas Exploration in Atlantic Canada. Norval Collins

SEA as a Mechanism for Incorporating Political Economy Variables into Policy Design: The Case of Colombia's Energy Policy. Angela Armstrong, Ernesto Sanchez-Triana, Paula Posas

Strategic Environmental Assessment (SEA) in the Brazilian Energy Sector. Heliana Vilela de Oliveir Silva, Izabella Monica Teixeira, Emilio Lèbre La Rovere

Establishing the Adequacy of SEA Directive 2001/42/EC Implementation in the UK and the Extent to Which it is Benefiting the Practice of Preparing Renewable Energy Plans and Programmes. John Phylip-Jones

Workshop B3.2 SEA Contribution to Sustainable Energy Development

Discussion workshop on issues, processes, mechanisms and tools to increase the contribution and effectiveness of SEA in energy management. Assessment of challenges and opportunities as well as recommendations on how to increase the contribution of SEA to sustainable energy development.

Session B3 abstracts (in order of presentation):

Power, Planning and Politics: The Effectiveness of SEA in Sustainable Energy Planning for Thai Power Sector

Decharut Sukkumnoed, Suphakij Nuntaworakarn; Health Systems Research Institute Thailand, tonklagroup@yahoo.com

The higher risks from imported fuel prices, environmental degradation and social conflicts have urged the Thai power sector to move to more sustainable energy direction. Although the potential of sustainable energy is considerably huge, only the minority of renewable energy resources has presently been explored and utilized.

SEA has played an active role in promoting sustainable energy development in the Thai power sector. Several SEA and other impact assessment studies have been conducted, from the local to the national levels, and showed the possibilities and benefits of integrating sustainable energy technology in Thai power development. Investing in sustainable energy technology can help Thailand to reduce its balance of payment burden, future fuel risks, GHG emissions, and social conflicts and, at the same time, can lead to job creation and higher value added of its agricultural productions.

However, the policy impacts of SEA do not seem promising. Although SEA can facilitate public discussions on this issue, the effectiveness of SEA in influencing Thai power policy depends very much on the centralized institutional and power structure, political situations, and communication strategy. Therefore, in the future, SEA should provide stronger linkages between SEA and institutional and governance reforms, deliberative policy analysis and more comprehensive policy-oriented communication.

SEA in Regulating Oil and Gas Exploration in Atlantic Canada

Norval Collins, President CEF Consultants Ltd., ncollins@cefconsultants.ns.ca

In 1986, mirror legislation established a unified federal/provincial administrative and fiscal regime to regulate Nova Scotia offshore petroleum exploration and development. Leases are put out for bid within large regional areas; industry may nominate offshore parcels to be included in future calls for bids. The first SEA for an exploration lease area was completed in 1999 following public complaint about lack of prior consultation on a lease award in a sensitive coastal area. Economic benefits are considered separate from the SEA process.

In 2005, a SEA for a 16,123 km2 Misaine Bank off northeastern Nova Scotia incorporated public comment on a draft scope for the first time. The SEA considered if the area should be opened to exploration, and if so, under what conditions. Other exploration areas were compared to identify unique conditions, and mitigation reflecting the limited environmental data identified. Primary concerns were proximity to the coast and fishing activity. Recent environmental reports had been growing; the size of this SEA was reduced by focusing on mitigation of regional issues. Clearer separation between the roles of EIA and SEA also helped to reduce unnecessary information. Climate change was incorporated in project design requirements and the assessment of cumulative impacts.

SEA as a Mechanism for Incorporating Political Economy Variables into Policy Design: The Case of Colombia's Energy Policy

Angela Armstrong, Ernesto Sanchez-Triana, and Paula Posas. Angela Armstrong: World Bank, Environmentally and Socially Sustainable Development Latin America and the Caribbean Region, AArmstrong@Worldbank.org

In 1999, the Colombian government began developing an environmental strategy for its National Energy Policy for the oil and gas, electricity, coal, and other fuel sectors. To ensure a thorough examination of environmental considerations, an inter-sectoral working group was formed, comprising the National Planning Department, the Ministry of Mines and Energy, and the Ministry of Environment. The working group chose SEA as the mechanism to structure this process, in order to evaluate not only the likely environmental effects of the policy, but also to ensure consistent policy objectives among different decision making tiers and across sectors. As part of the SEA process, the inter-sectoral working group issued a series of recommendations that included restructuring the country's EIA system and economic instruments (e.g., pollution fees), as well the need to develop hazardous waste management regulations and an indoor air pollution control program. In addition, a thorough stakeholder analysis was conducted that demonstrated how policy decision making and implementation could be streamlined and thus, the feasibility of carrying out the recommended reforms.

As a result of the SEA, Colombia's National Council of Economic and Social Policy incorporated many of the working group's recommendations in a policy for improving environmental management in the electricity sector (CONPES 3120, dated June 2001).

Strategic Environmental Assessment (SEA) in the Brazilian Energetic Energy Sector

Heliana Vilela de Oliveir Silva, Izabella Monica Teixeira, Emilio Lèbre La Rovere, Pesquisadora Laboratório Interdisciplinar de Meio Ambiente-LIMA/COPPE/UFRJ, heliana@lima.coppe.ufrj.br

The environmental variable is part of the set of variables which should be strategically and previously approached in the planning of the energy sector regarding the minimization of uncertainty of the environmental viability of the process of public concession for electric energy generation. This aim of this paper is to discuss the two existing approaches of SEA application considering the indicative planning of electric energy expansion in the scope of Federal Government Energy Sector Planning and an integrated programme of electric energy generation promoted by the State Government of Minas Gerais.

The goal is to assess these two methodologies identifying their specificities, critical points in terms of the applicability and the analysis of optimization opportunities regarding the current model of Brazilian energy sector, and the role of the Energy Research Department (EPE), whose purpose is to assist studies and researches that support the energy sector planning.

Establishing the Adequacy of SEA Directive 2001/42/EC Implementation in the UK and the Extent to Which it is Benefiting the Practice of Preparing Renewable Energy Plans and Programmes

John Phylip-Jones, University of Liverpool, john.phylip-jones@liverpool.ac.uk

The UK government is currently committed to producing 10% of electricity demand from renewable energy sources in order to achieve the ideal of a low carbon economy for the UK. A main contributor to the generation of renewable energy is that of the wind turbine in the form of both off and onshore windfarms.

As a result, research will be conducted over the next three months leading up to September 2005 which looks into whether the SEA Directive is being implemented as effectively as it could be in the UK by examining the practices of electricity developers and companies when applying the terms of the Directive to proposed wind farm developments. The empirical data shall be collected in the form of interviews with SEA practitioners in the energy industry and also through the selection of specific wind farm case studies located in North West England.

A review of relevant SEA documentation relating to the case studies selected will also be performed through the use of a specially adapted SEA review package with the aim of assessing the overall adequacy of the SEAs produced within the energy sector.

It is hoped that the overall aim of establishing the adequacy of Directive 2001/42/EC implementation will thus be satisfied along with conclusions being drawn on whether or not SEA can deliver any tangible environmental benefits and improvements which can inform the preparation of renewable energy plans and programmes in the future.

Session B4 SEA and Water Management

Session chairs: Ross Marshall, UK Environment Agency, ross.marshall@environment-agency.gov.uk; Sibout Nooteboom, DHV, Sibout.Nooteboom@dhv.nl

This topic session will compare national approaches to the application of SEA in water management, in particular water supply management and flood risk control (see position paper). Papers have been invited on the application of elements of SEA, for example assessment studies and public participation in specific water catchments, tidal and coastal areas. The following preferred paper outline has been specified, hoping that comparable lessons can be drawn:

- Context (problem description)
- Management policies that may have been influenced by SEA
- Actual implementation of management policies (does it work?)

Workshop B4.1 SEA for Quality Management and Integrated Management

SEA in Basin Planning in India. L Panneer Selvam, N. Harshadeep

SEA and Hydrological Planning: Two Synergetic European Directives. Natalia Gullón

Integrated Strategic Assessment for the Water Sector. Roel Slootweg, Safwat Abdel-Dayem

Workshop B4.2 SEA for Quantity (Flood) Management and Reservoir Management

Management of a Reservoir by Means of SEA (Russia). Nicole Kovalev

Implementing SEA for Flood Risk Management Plans - The Experience of the UK's Environment Agency. Martin Slater, Jo Murphy

Has SEA Influenced the Development of the Humber Estuary Flood Risk Management Strategy (UK). Richard Ashby-Crane

Issues Identified and Lessons Learnt During the Fluvial Trent Strategy (UK). Emma Collyer, Ross Marshall

Workshop B4.3 SEA for Water Management from a Perspective of Social Learning and Complex Decision-making

Using Strategic Environmental Assessments for Environmental Mainstreaming in the Water and Sanitation Sector: The Cases of Argentina and Colombia. Ernesto Sanchez-Triana, Santiago Enriquez

Controversies in Water Management: Frames and Mental Models (Netherlands). M.J. Kolkman

Session B4 abstracts (in order of presentation)

SEA in Basin Planning in India

L. Panneer Selvam, Quality Assurance and Compliance Unit, and N. Harshadeep, South Asia Region Environment and Social Development Unit, The World Bank, Lpanneerselvam@worldbank.org, harsh@worldbank.org

Strategic Environmental Assessment (SEA) can become an effective tool for internalizing environmental considerations in water resources planning in a Basin framework. In this paper, this will be illustrated through an interesting process initiated in the Palar Basin (18,000 km2) in Tamil Nadu, India, where serious water resource (scarcity, competition across sectors and regions, sustainability) issues are inextricably intertwined with environmental (industrial and domestic pollution and natural resources management) issues.

SEA is being used as a tool to analyze these issues and identify interventions at policy and project levels to contribute to overall economic, environmental and social improvement. The combination of analytical and participatory approaches has helped in developing a common vision for the Basin, which is shared by different stakeholders (including government, farmers, industry association, academia, research institutions, and NGOs). Through a structured consultative process, Basin stakeholders have identified supporting objectives, strategies and tactics and finally a set of tasks or actions that are essential to realize the common vision. These interventions include both software (knowledge management, training, research) and investment elements. This paper will outline the analytical and participatory process followed in Palar basin and outline the benefits of SEA in internalizing environmental aspects in a Basin planning framework.

SEA and Hydrological Planning: Two Synergetic European Directives

Natalia Gullón, Ministerio de Medio Ambiente, nataliagullon@hotmail.com

Within the water sector, strategic environmental assessment of decision-making is crucial, not only due to the specific nature of the resource, but also because of the peculiar characteristics of hydraulic projects. We are facing a key moment in which the efforts to implement both the Directive on SEA and the Water Framework Directive (WFD) coincide.

The purpose of the WFD is "to establish a framework for the protection of inland surface waters, transitional waters, coastal waters and groundwater," and it requires—among other things—the preparation of river basin management plans and programmes of measures. What are the links between this Directive and the SEA Directive? Do they overlap? Have we lost the opportunity to incorporate environmental criteria into hydrological planning?

This paper explores the contribution that SEA could make towards a sustainable planning and management of water resources, with particular reference to the Water Framework Directive.

Integrated Strategic Assessment for the Water Sector

Roel Slootweg, SevS natural and human environment consultants, sevs@sevs.nl (contact) and Safwat Abdel-Dayem, World Bank

A two-year study was conducted by the World Bank's Agriculture and Rural Development Department on the impacts of drainage interventions in 6 countries. The main outcome of the study was a Drainage Integrated Analytical Framework (dubbed Drainframe) to look at and act upon agricultural drainage from an integrated natural resources management perspective.

The framework provides for discussion and negotiation of trade-offs related to the different functions and values of natural resources influenced by water resources management interventions. It is therefore applicable to natural resources management in general rather than to drainage only. It is a tool for inte-

grated analysis and assessment, embedded in a participatory planning process. The instrument has already been field-tested in integrated strategic assessments of three WB funded projects: irrigation improvement in Egypt, the Pakistan national drainage master plan, and a planned public-private partnership project for surface water supply to the West Delta region of Egypt.

Management of a Reservoir by Means of the SEA

Nicole Kovalev, Technical University Berlin, kovalev@ile.tu-berlin.de

The Krasnodarskoye Reservoir in southern Russia covers an area of approximately 420 sq. km. It was established in 1972 and served primarily for flood protection and irrigation, in addition to power generation. Since the demands upon the reservoir changed greatly over the course of the last three decades, three water management environmental reviews were conducted during that period – in 1979, in 1991 and in 2005. Two of these reviews were embedded in the Russian EIA system, and qualified as SEAs. The 1991 Strategic Environmental Assessment was to determine which of six proposed management concepts would serve as a basis for the further development of the reservoir. The choice of the SEA for the most environmentally friendly option, from its view, was binding. Since 2005, a public SEA has addressed the question of whether and under which conditions a reduction of the size of the reservoir might be possible. This exemplary case permits the following conclusions:

1. SEAs can be decision-making aids for the assessment of water-management concepts; this case provides a methodological approach for this.

2. SEAs initiated by the public are a means for politically addressing the conception of water-management facilities under changed basic conditions.

Implementing SEA for Flood Risk Management Plans - The Experience of the UK's Environment Agency

Martin Slater, Jo Murphy; National Environmental Assessment Service, Environment Agency, martin.slater@environment-agency.gov.uk, jo.murphy@environment-agency.gov.uk

Brian Empson, Environment Agency Kingfisher House, brian.empson@environment-agency.gov.uk

The Environment Agency of England & Wales is the UK's leading regulator of the water sector and acts as both a responsible authority, a consultation body and a proponent in the preparation of SEA for water management plans under the UK's SEA regulations.

In the preparation of its flood risk management plans and programmes, the Agency has developed and devised its own particular approach to SEA. This approach places the emphasis on an objective led approach to SEA and the relationship with EIA of subsequent projects.

This paper explores how the application of SEA of flood risk management (FRM) plans from the North East region of England has been implemented. A region dominated by important industrial areas, high population demands, a high concentration of designated sites and an extensive network of ageing FRM infrastructure. Challenges that the Agency has faced, and that which the paper will discuss are 1) SEA Tiering - experience of using SEA and EIA to go down the Plan, Programme and Project hierarchy; and 2) Objective Setting in SEA - managing stakeholder expectations in SEA through effective consultation

The paper will outline how these issues have been addressed through cases studies, and discuss what the Environment Agency has learnt from its experience of SEA.

Has SEA Influenced the Development of the Humber Estuary Flood Risk Management Strategy (UK)?

Richard Ashby-Crane, Halcrow Group Ltd., ashbycranerw@halcrow.com

The Humber Estuary drains one-fifth of the land surface of England and approximately 300,000 people live within the floodplain which also supports nationally important port and industrial complexes. In the mid 1990s the Environment Agency was responding to deteriorating flood defences in the Humber Estuary through the piecemeal development of "urgent" refurbishment and improvement projects which were justified locally and did not provide a coherent approach to standards of protection and economic justification. At the same time, the Habitats Directive was changing our understanding of the management needs of the Estuary and the designation as a Special Protection Area (SPA), possible Special Area of Conservation (pSAC) and Ramsar site placed new legislative requirements on projects be-

ing promoted. The failure of individual flood defence schemes to address this and the needs of other stakeholders led to a loss of confidence amongst the consultees and severe delays in the approval and promotion of urgent flood defence work.

As a consequence, the Environment Agency commenced the development of the Humber Estuary Flood Defence Strategy to provide a long-term plan (100 years) for sustainable flood protection in the Estuary. The Strategy is based upon sound technical, environmental and economic studies and comprises a range of approaches to flood defence that meet the needs of the population living in the floodplain, nationally important industry and infrastructure and the nature conservation interests of the estuary.

This paper shows how SEA has informed the development of the Strategy at all stages and discusses the lessons learned in relation to objective setting, appraisal of 'strategic' impacts, stakeholder involvement and management of environmental risks/opportunities through the hierarchical decision-making process

SEA of Water Management: Issues Identified and Lessons Learnt During the Fluvial Trent Strategy

Emma Collyer, Ross Marshall; National Environmental Assessment Service, Environment Agency, ross.marshall@environment-agency.gov.uk

Flooding events in 1998 - 2000 prompted the UK's Department for Environment, Food and Rural Affairs (DEFRA), the body responsible for funding flood and coastal defences, to issue the 2001 Flood and Coastal Defence Project Appraisal Guidance Series (FCDPAG). The guidance set out best practice to be followed in the appraisal of flood and coastal defence projects, including a broad approach to Strategic Planning and Appraisal, which included SEA. The Fluvial Trent Flood Risk Management Strategy was one of the Environment Agency's first projects to apply FCDPAG & SEA.

The fluvial Trent River drains approximately 8228km2, from the Staffordshire moors to its tidal limits with the North Sea. The catchment study area considered flood risk along a 200 km stretch of the Trent between the head of the main river at Baddeley Green, Stoke on Trent and Cromwell Weir, downstream of Newark on Trent. There were 27 identified flood risk locations, the majority of which are situated in Nottingham, affecting over 15,000 households.

The SEA therefore covered an extensive area with wide ranging environmental issues and often conflicting public interests. This paper sets out a summary of the issues encountered and how they were addressed in the SEA. In addition to an objective appraisal of the lessons learnt, both positive and negative, and their importance to practitioners seeking to drive continuous improvement in water management SEA.

Using Strategic Environmental Assessments for Environmental Mainstreaming in the Water and Sanitation Sector: The Cases of Argentina and Colombia

Ernesto Sanchez-Triana, Santiago Enriquez; The World Bank, Esancheztriana@worldbank.org, Senriquez@worldbank.org

This paper reviews the Strategic Environmental Assessments (SEA) that were prepared to incorporate environmental considerations in Water and Sanitation Sector (WSS) reforms supported by the World Bank in Argentina and Colombia. In both cases, various stakeholders engaged in a social learning process that led to the development of an innovative approach that shifted policy-maker's attention from the environmental impacts of civil works to more significant environmental impacts that could only be addressed through institutional reforms.

Based on the reviewed experiences, the paper proposes a SEA methodology with the potential to enhance the sustainability of water and sanitation sector reforms in Latin America, consisting of: i) Identification of sector priorities; ii) Incorporation of the perspectives of multiple stakeholders, including the most vulnerable groups; iii) Identification and assessment of institutional weaknesses and failures that hinder effective environmental management; iv) Development of public policies that incorporate environmental considerations; and v) Mechanisms that promote social learning for continuous policy improvement.

Controversies in Water Management: Frames and Mental Models

M.J. Kolkman, University of Twente, m.j.kolkman@utwente.nl

In a specific EIA case in the Netherlands, the frames and mental models of stakeholders were elicited to explain controversies. The case concerns the construction of a storm surge barrier to comply with national regulations on short term. Long term plans are initiated to improve the water management in the region. A complicating factor is the interaction between national dike safety norms and local water management problems.

Revealed controversies mainly concerned disputes between an administrative and a technical perspectives. But also disputes on distribution of responsibilities between different institutes, legal and political liability, and funding issues, involving persons of both perspectives, existed.

Political feasibility appeared to be the decisive factor. Technical factors were discussed extensively, but had limited effect on the final decision. The EIA report was completed several years after the intended deadline, an integrated problem solution was not reached. The solution was limited to the well structured part of the problem by deliberately separating it from its broader context.

The case reveals a lack of possibilities to search for an integrated solution involving all levels of authority, and possibilities for discussing the additional problems that were raised by the integrated approach in the initial phase of the EIA project.

Session B5 SEA Practice in Coastal Zone Management

Topic chairs: Kogi Govender, CSIR South Africa, kgovender@csir.co.za; Ivica Trumbic, UNEP PAP-RAC Croatia, viica.trumbic@ppa.htnet.hr

The background paper for session B5 extended an invitation to SEA practitioners to present their experiences and share knowledge towards a more effective and informed application of SEA in the coastal zone.

The aim of this session is to enable SEA practitioners to:

- Share experiences related to SEA in the coastal zone
- Discuss various SEA approaches that can be used for effective and efficient coastal area management
- Present tools and techniques that are being used in SEAs
- Present SEAs prepared in different coastal geographic (regional, urban, protected areas etc.) and thematic (tourism, recreation, industry, industry, fish farming etc.) contexts
- Present SEAs where specific coastal issues have been integrated (coastal erosion, sea level rise, protection of coastal land etc.)
- Present where follow up to SEA has been carried out (monitoring, indicators, evaluation etc.)

The first workshop focuses on application of SEA to ports and will address various aspects relating to port planning, operations and management and key lessons can be drawn out for SEA application to ports.

The second workshop focuses more broadly on issues of coastal management. The papers that have been included in workshop 2 have varying themes but contribute nonetheless to the broader issue of coastal management and how to deal effectively with issues within this sensitive environment. The workshops will contribute to understanding some of the key challenges faced generally within SEAs, e.g., how to assess economic impacts, dealing with issues of climate change and understanding the impact of policy and investment decisions within the coastal zone.

The final thirty minutes of each workshop will be spent in a facilitated discussion on the key issues arising from the presentations. Key points from each session will be captured and presented by the topic chairs at the end of each session as an overall summary and conclusion of the topic.

Workshop B5.1 An SEA Approach for Ports

Land Cover Changes in SEA of Port Developments in the Vung Tau Area (South Vietnam). Cindy Rutten, D.K.N.T. Binh and L. Hens

Strategic Environmental Assessment of Port Planning in China. Xu He.

Strategic Environmental Assessment: The Key to Incorporating the Ethos of Sustainable Development into Port Planning, Operations and Management? Kogi Govender, Stuart Heather-Clark, Fezile Ndema and Bhekimpilo Nkomo.

Workshop B5.2 SEA in the Coastal Zone

Strategic Environmental Assessment and coastal shrimp farming in Thailand. Brian W. Szuzter

Strategic Environmental Assessment in the Atlantic Canadian Coastal Zone. Norval Collins and Ann Wilkie

Integrated policy impact assessment for water use benefit in the GBR region. Alexander Smajdl

Session B5 abstracts (in order of presentation)

Land Cover Changes in SEA of Port Developments in the Vung Tau Area (South Vietnam)

Cindy Rutten, D.K.N.T. Binh, L. Hens; Vrije Universiteit Brussel, cindy.rutten@vub.ac.be

The Vung Tau area, especially the area near the Thi Vai River downstream of Ho Chi Minh City and Vung Tau City, in the South of Vietnam, is one of the fastest growing and developing areas of the country. Many ports and infrastructures (steel industry, food industry, etc.) are developed and are planned in the near future according to the master plan. This has major consequences for the land use in the area.

On the basis of SPOT images of 1995, 2000 and 2005 an analysis is performed with ENVI 3.6 and ArcGIS 8.1. Different classifications are used to determine the land use changes, such as aquaculture, settlement, plantation and nature forest, annual crops etc.

The most important results are the following: A big increase of the urbanisation is apparent, especially near the national road, which lead to the developments, but also in Vung Tau City. There exists a shift from agricultural land to specialized land (industry, ports etc.). A loss of mangrove forest is also visible, but this decrease is not that much as expected. These results are the main preliminary results, which will be checked by fieldwork.

Strategic Environmental Assessment of Port Planning in China

Xu He, Nankai University, hexu@publicl.tpt.tj.cn

Strategic environmental assessment (SEA) is gaining widespread recognition as an effective tool for integrating environmental considerations in policy, plan and program (PPP). In recent years, this tool has developed rapidly and been applied to many decision-making processes, such as land-use planning and transport planning. However, there have been very few SEA practices used in sea port planning. In fact, port layout, construction and operation make great negative impacts on the coastal zone, which include habitat disturbance, contamination of water, sediment and fauna, and oil spill risks. In order to avoid more serious environmental issues on the coastal zone, environmental concerns should be considered in the port planning process. Based on a case study of the Yingkou port general plan SEA in China, this paper provides a framework for SEA practice in port planning. It seeks to present a full analysis in a clear and concise way and assess cumulative impacts. We also discuss the difficulties in the port planning SEA such as limited data and uncertainties, and explore appropriate solutions.

Strategic Environmental Assessment: The Key to Incorporating the Ethos of Sustainable Development into Port Planning, Operations and Management?

Kogi Govender, Stuart Heather-Clark; CSIR Environmentek, kgovender@csir.co.za, shclark@csir.co.za. Nkomo Bhekimpilo, Ndema Fezile

Commercial ports are strategic national assets of any country. While ports worldwide share a common mission as facilitators of sea borne trade, in order to remain a functional port region, the broader global

environmental issues as well as the local ecological, social, economic and political influences on the port must be considered during the planning, operation and management of the port. In the past, planning of South African ports was undertaken with little public participation and with limited consideration of the surrounding natural and social environment. With an increase in environmental awareness both locally and internationally, consideration of natural and social environmental issues and the participation of interested and affected parties are now important elements of planning and decision-making. The key issues related to sustainable port development are the need to integrate environmental and social issues during port planning processes, the need to understand the linkages between port planning and land use planning and the need to use environmental and social data in the same way as economic data is used to plan future port developments and to track sustainable port development.

Strategic Environmental Assessment (SEA) has proven to be an assessment and decision-making tool that can facilitate the integration of sustainability issues into planning and higher-evel decision making. SEA aims to consider the entire system through looking at the spheres of sustainability and proactively considers the opportunities and constraints that the environment places on development. The merits of SEA for port planning, operation and management have been recognised nationally and the White Paper on the National Ports Policy (2002) states that"SEA should be used for the proactive integration of the biophysical issues with the social and economic issues at the policy and planning level." Whilst national guidelines are available for the application of SEA, these guidelines are conceptual in nature and not prescriptive. From international SEA experience it has been found that the principle of flexibility in the SEA process is best at this stage until a better understanding of the process and outcomes is obtained. It has been stated that this flexible nature of SEA can leave the process open to abuse, with little guidance for quality control and uniformity which could possibly be one if the biggest barriers to the success of the SEA. Given these reservations regarding SEA, this paper will focus on the application of the South African view of SEA within the complexities of the port environment, as the tool for providing a framework to facilitate long-term sustainable port development. Examples will be drawn from the SEAs conducted for the Port of Cape Town and Port of Richards Bay.

Strategic Environmental Assessment and Coastal Shrimp Farming in Thailand

Brian W. Szuster, University of Hawaii, szuster@hawaii.edu

Strategic environmental assessment (SEA) can provide an effective framework for assessing the environmental implications of economic development activities in the coastal zone. This case study describes the use of SEA to assess the impacts of shrimp farm expansion in a coastal deltaic region of eastern Thailand. Direct and cumulative environmental effects related to water consumption, water quality degradation, and agricultural land conversion were investigated using a spatial analysis approach. Shrimp farming was found to be a major consumer of freshwater, but impacts are likely negligible as a result of ample rainfall and similar water consumption rates for both rice and shrimp crops. The assessment of water quality effects focused on organic nutrient loading. This is a critical environmental issue in coastal Thailand, and shrimp farming was identified as a significant new source of organic pollution. Agricultural land use effects were evaluated using land conversion and soil suitability ratings. Approximately 16,000 hectares of irrigated rice paddy were converted to shrimp ponds during the study period. Soil productivity was degraded as a result of the direct salinization of shrimp pond bottom soils, and indirect salinization may affect a substantially larger area.

SEA in the Atlantic Canadian Coastal Zone

Norval Collins, Anne Wilkie; CEF Consultants Ltd., ncollins@cefconsultants.ns.ca

This paper reviews SEA's role in ocean planning and coastal community development. Climate change concerns are integrated into the analysis. Two SEA case studies are contrasted: the suitability of opening a coastal ocean area to offshore oil and gas; and building infrastructure in an area of dynamic coastal change.

An SEA reviewed the 16,123 km2 Misaine Bank off northeastern Nova Scotia to determine if oil and gas exploration should be allowed, and under what conditions. The Bank falls within Canada's Eastern Scotian Shelf, itself undergoing an innovative federal planning process for integrated ocean management. How the two processes relate is an important issue in the SEA.

The second SEA clarified issues from residents' demands for infrastructure to save their port community, adjacent to the popular Prince Edward Island National Park. Safe navigation in and out of the

harbour was the fundamental issue; the heavy storms from the Gulf of Saint Laurence cause extensive erosion and silting. Climate change—sea level rise, more frequent and clustered storms, and storm surges—affects the long-term cost and maintenance of a new breakwater. Climate Change also affects how the actions or inactions of federal departments were assessed in the SEA.

Integrated Policy Impact Assessment for Water Use Benefit in the GBR Region

Alexander Smajgl, CSIRO Davies Laboratory, Alex.Smajgl@csiro.au

The GBR catchments are a zone of economic and population growth. Some economic activities within these catchments have been recognised as posing a potential threat to the ecological integrity of the GBR. As a consequence, the Queensland and Commonwealth governments have initiated a partnership with each other and with industry and community within the region to seek to mitigate impacts on the reef without undermining regional economies and communities. Maximising the impact of policy and investment decisions across the GBR region and the triple bottom line will be facilitated by effective understanding of the current and potential future behaviour of the region as a system. So, for example, the Reef Water Quality Protection Plan acknowledges that "While the focus of this plan is on decline in water quality entering the reef, there is a range of other risks faced by the reef, including climate change, shipping, accidents, tourism impacts, urban development and fishing.... The degree to which multiple risks may interact to create an even greater challenge should not be underestimated." Within the CSIRO flagship Water for a Healthy Country a policy impact assessment model was developed to analyse water use benefit. Scenarios show inter-regional and inter-sectoral effects along the GBR region and report on hydrological, ecological and socio-economic indicators.

Session B7 Regional-Sectoral Assessments (RSA) and Extractive Industries

Topic chairs: Jill Baker, Environment Canada, jill.baker@ec.gc.ca; William Veerkamp, Shell, William.Veerkamp@shell.com

Increasingly, early and regional consideration is being given to the impacts of extractive industries prior to the development of new areas. Broad-scale assessments can be employed to achieve a number of objectives. For example, they can be used to determine if a given area is appropriate for the development of a particular industry taking into account sustainability criteria. In addition, they may facilitate the canvassing of public perspectives and their consideration in decision-making. This session will consider the experience of extractive industries with regional-sectoral assessments (RSAs). Objectives include (1) accounting for some experience with RSA to date; (2) highlighting benefits and challenges of this experience; and (3) reflecting on innovative practice and lessons learned. Key themes for consideration include the role of RSA in enhancing sustainable development.

Speakers will provide overviews of respective RSA processes, focusing on key themes. Following the presentation of case studies, general discussion of key issues will be encouraged between speakers and the audience (in Workshop 2).

Workshop B7.1 Role of Regional-Sectoral Assessments in Enhancing Sustainable Development: Lessons Learned, Questions for Further Consideration and Way Forward

Presentation of Case Studies

SEA of the Mining Sector in Mali. Michel André, Keita Seydou

Regional-Sectoral Assessments in the Norwegian Offshore Petroleum Industry. Sigurd Juel Kinn

Integrated Management Plan for the Barents Sea: A Norwegian Initiative for Ecosystem Management and Conflict Resolution. Gunnar Sandar

Workshop B7.2 Role of Regional-Sectoral Assessments in Enhancing Sustainable Development: Lessons Learned, Questions for Further Consideration and Way Forward (Continuation of Workshop B7.1)

Presentation of Case Studies and Panel Discussion

WWF Perspective on RSAs for Extractive Industries. James Leaton

The Social Dimension of the Mining Sector in Peru. Alonso Zarzar

Panel Discussion

Sesson B7 abstracts (in order of presentation):

SEA of the Mining Sector in Mali

Michel André Bouchard, École Polytechnique de Montréal and Centre des Technologies de 'Environnement de Tunis (CITET), michel.a.bouchard@cogeos.com

Seydou Keita, Promotion de l'Artisanat Minier et de la Protection de l'Environnement, Bamako, Mali. pampe@cefib.ml

A Strategic Environmental Assessment of the mining sector in Mali was performed (2004) with the purpose of integrating the development of this sector into long-term national plans for achieving sustainable development and poverty reduction. The mining sector in Mali is characterized by (1) the fast growing development of industrial gold mines, with the result that Mali is now the third largest African gold producer, and (2) a persistent sector of small and ancestral artisanal mining, of some cultural value but with relatively dense environmental impacts. The Integrated Assessment was based on the examination of the institutional and legal framework pertaining to the extractive industry, the assessment of the major economic outcomes and environmental downfalls of mining, including impacts related to cyanide and acid mine drainage, and has led to specific recommendations on capacity building, institutional assistance, and integration of the mining development into the energy, water and land-use national policies. Building upon increasing self-regulation of the extractive industry worldwide, a significant part of the development and monitoring strategy calls upon transparency, consultancy, effective use of Environmental Impact Assessment rules and tools, efficient controls on mining practices and careful and long term planning of mine closures.

WWF Perspective on RSAs for Extractive Industries

James Leaton, WWF – UK, Panda House, jleaton@wwf.org.uk

Considering sustainability. It has also been noted that RSAs often fall down on some elements that would be expected of an SEA, such as being "sustainability led." For example, the inclusion of climate ,change concerns into a hydrocarbon SEA would shift the approach to more of an energy options assessment. Were the UK North Sea SEAs driven by which areas the DTI want to open up for hydrocarbon exploration, or which might be most suitable for renewable energy? These decisions whether to incorporate wider environmental policies into SEAs affect stakeholder participation, if the scope of the SEA and therefore the issues open for consultation being restricted.

Tiering. Whilst most individual projects are small enough that they do not require an individual SEA, they should be framed within the context of such a process. It is also the case that larger projects set can have strategic implications for the development of further regional resources. For example pipelines may open up access to a previously isolated area of hydrocarbon resources. These mega-projects have highlighted the issue of sequencing for international financial institutions, who struggle to co-ordinate RSAs with project finance.

Environmental protection. The benefits of addressing planning issues before opening up areas for development are significant for protecting natural resources and livelihoods. The approach taken in Norway contrasts markedly with the situation on the Russian side of the Barents Sea and highlights how different outcomes can be for biodiversity protection and other industry sectors such as fisheries. WWF is concerned to see frontier areas being opened up to hydrocarbon development without adequate planning or capacity to deal with a very powerful industry. We are currently promoting assessments in a number of regions, including Nepal, West and East Africa Marine regions, and the Arctic.

The Social Dimension of the Mining Sector in Peru

Alonso Zarzar, Environmentally and Socially Sustainable Development, Latin America and the Caribbean Region (LCSES). azarzar@worldbank.org

Peru is the world's second largest producer of silver, third largest producer of zinc, fourth largest producer of lead, fifth largest copper producer, and the sixth largest producer of gold. Richly endowed with other natural resources as well, Peru is, nevertheless, a poor country. The mining industry, in that context, both raises and dashes hopes. Macro economically, it is extremely important, accounting for 57 percent of all Peru's exports and 6.6 percent of the Gross Domestic Product in 2003. Despite being a capital-intensive industry, employs over 70,000 people directly and 350,000 people indirectly, many of them in Peru's poorest rural areas. It is a fast-growing sector.

The expectations fired by these developments are dashed by environmental damage and by limitations in the use of the proceeds of mining. Both are exacerbating social conflicts, to a point that could deter investors or delay new projects. The mining sector is thus characterized by mistrust among its key stakeholders, and is prone to social conflicts.

It is against that backdrop that this report analyzes the current major social issues associated with the mining sector. It examines the social impacts and the existing policy and institutional frameworks as they contribute to current constraints, and provides recommendations at strategic options for better management of key social challenges based on international experience and best practices.

Regional-Sectoral Assessments in the Norwegian Offshore Petroleum Industry

Sigurd Juel Kinn, Statoil ASA, sjk@statoil.com

Criticism from several Norwegian authorities recent years due to lack of holistic assessments has led to introduction of Regional Environmental Impact Assessments (REIA) which has significantly improved the quality and efficiency of the EIA-work. As a part of the development of REIA, new methods for impact predictions on a regional scale have been developed.

The Norwegian Continental Shelf is divided into three main regions. REIAs have been prepared for the North Sea and the Norwegian Sea. Because of the high sensitivity in the third region, the Barents Sea, the authorities are now preparing an Integrated Management Plan for this area. Similar plans are planned for the North Sea and Norwegian Sea. The REIA is taken into consideration all existing, planned and expected activity within the region. The work is being conducted by the operators and the assessment is approved by the authorities.

The presentation will describe the overall EIA system in Norway for offshore projects. The structure and content of REIA will be described more detailed including the new methods for impact prediction. The presentation will include preliminary experiences with the revised EIA system and some considerations about the links between the REIA and the Integrated Management Plans.

Integrated Management Plan for the Barents Sea: A Norwegian Initiative for Ecosystem Management and Conflict Resolution

Gunnar Sander, Norwegian Polar Institute, gunnar.sander@npolar.no

In its white paper "Clean and Rich Seas" from 2002, the Norwegian government launched a new initiative for the management of our marine areas. The basic idea is to follow an ecosystem approach, moving away from sectoral assessments and decisions and into a more holistic management system. The initiative is complying with the EUs marine strategy.

The Barents Sea was chosen as the pilot area due to its and rich and vulnerable marine resources and the plans for increased oil and gas activities, including shipping, and the resulting political sensitivity. Similar initiatives are planned for the Norwegian Sea and the North Sea based on an evaluation of the pilot in the Barents Sea.

The technical reports from three years of work are now finished. Based on these, a new white paper containing the management plan will be published in spring 2006. When the plan is adopted by the Parliament, it will establish a framework for the sector's activities, including further oil- and gas development.

The presentation will give an overview of the political background, the planning process, the structure and the different elements of the management plan including the scenario based methods applied and the main results so far.

Session B8: Application of SEA to Policy or Institutional Reforms

Topic chair: Jean-Roger Mercier, World Bank, jmercier@worldbank.org

The aim of this workshop is to enable SEA experts to discuss the following:

Substance

- Methodological advances in SEAs of policy/institutional reforms
- Case studies illustrating successes and difficulties of developing SEAs of policy/institutional reforms
- Comparison of requirements and/or guidance for the preparation (and implementation/monitoring) of SEAs of policy/institutional reforms

Process:

- How to measure success and progress in the development of SEAs of policy/institutional reforms?
- How to share information and knowledge in real time about good (and less good) practices in SEAs of policy/institutional reforms

The first two workshops are case study-based. The first will focus on low-and middle-income countries. It will deal with the application of SEA to policy and institutional reforms in Sub-Saharan Africa and in Latin America and the Caribbean. After the formal presentations, time permitting, there will be a discussion on application of SEA to policy or institutional reforms in low- and middle-income countries with specific emphasis on local capacity constraints.

The second workshop will focus on middle- to high-income countries. It will deal with the application of SEA to policy and institutional reforms in Europe. After the formal presentations, time permitting, there will be a discussion on application of SEA to policy or institutional reforms in European countries with specific emphasis on the role played by the 2001 European Directive.

The third and last workshop will focus on generic approaches as well as on distilling the lessons from the B8 workshop as a whole. These papers highlight the experience with specific approaches and make recommendations on the application of SEA to policy and institutional reforms which aim at being as universal as possible. After the formal presentations, there will be a discussion and synthesis on success stories and pitfalls to avoid in the application of SEA to policy/institutional reforms.

Following the presentations, the remaining time will be spent in a facilitated discussion on the key issues arising from the presentations. Key points from each session will be captured and presented by the topic chair at the end of each session as an overall summary and conclusion of the topic. This will also be submitted to the conference organisers.

Workshop B8.1 Application of SEA to Institutional Reforms, Case Studies Based, Low- and Middle-Income Countries

SEA as a Tool for Mainstreaming Environmental Considerations in Design and Implementation of Sectoral Strategies. Yewande Awe, Ernesto Sanchez-Triana, Carolina Urrutia Vasquez, Juan David Quintero

Workshop B8.2 Application of SEA to institutional reforms, case studies based, Europe

Using SEA to Examine Environmental Implications of Development Policy Lending by the World Bank to Bosnia and Herzegovina. Ronald Hoffer

Procedural and Methodological Aspects of SEA for Lublin Region (Poland) Development Strategy. Witold Wołoszyn

European Structural Funds as a Vehicle, SEA as an Engine, in Integrating Environmental Issues into Sector Policies. Panu Kontio

Workshop B8.3 Application of SEA to Institutional Reforms, Proposed Generic Approaches

Using SEA to Establish Policy Under Cooperative or Adverse Settings. Charles Alton

Integrating Environmental Considerations in Policy Formulation: Suggested Elements for a New Framework for Conducting Policy-Based SEA. Kulsum Ahmed and Ernesto Sanchez-Triana

SEA as a Tool for Mainstreaming Environmental Considerations in Design and Implementation of Sectoral Strategies

Yewande Awe, Ernesto Sanchez-Triana, Carolina Urrutia Vasquez, Juan David Quintero; Juan David Quintero: The World Bank, jquintero@worldbank.org

This paper illustrates, based on case studies, the effectiveness of Strategic Environmental Assessments (SEAs) in incorporating environmental considerations in the design and implementation of national tourism policies in Mexico and Honduras.

SEA was used in the design and implementation of an environment strategy for the Mexican tourism sector. In Mexico, an Inter-sectoral Technical Working Group (ITWG) comprised of representatives of various sectoral ministries has the function of defining the scope of work required for the design and implementation of the tourism sector's environment strategy. Furthermore, the group provides a mechanism for cross-sectoral consensus-building regarding environmental policy design and implementation in the sector. The SEA undertaken during the first semester of 2005 provides the ITWG with an analytical basis for identifying the environmental priorities of Mexico's tourism sector. A program of consensus-building is underway, the output of which will be a proposal for an environment strategy for the sector.

In Honduras, a pilot-scale SEA was used to develop a methodology for identifying the sector's environmental priorities and policy recommendations to address them. An ad-hoc inter-sectoral working group was established and played a key role in a highly participatory and iterative process, involving rapid consultations with stakeholders, to identify environmental priorities of the sector. In addition to the consultative process established, outputs of the SEA include individual Issues Papers that examine in detail specific sector challenges, and outline policy options. These papers focus on frameworks for sustainable tourism development in selected regions of Honduras, solid waste management, wastewater management, socio-economic aspects, legal and institutional frameworks for environmental management, and guidelines for environmental and social best practice.

Using SEA to Examine Environmental Implications of Development Policy Lending by the World Bank to Bosnia and Herzegovina

Ronald Hoffer, The World Bank, rhoffer@worldbank.org

The first of three annual Programmatic Development Policy Credits (PDPCs) is under preparation by the World Bank for Bosnia and Herzegovina (BiH). These are being designed under the new Operational Policy 8.60 on Development Policy Lending (DPL) which mandates that the Bank formally consider environmental and natural resource implications. To meet this obligation, an SEA was carried out which: (i) screened policies and sectors that will be supported by the DPLs regarding environmental implications; (ii) assessed progress in due diligence, (iii) analyzed the consequences of expected reforms on the environment and (iv) examined capabilities in BiH for reducing risks.

The SEA identified Enterprise Sector Restructuring and Privatization as the most environmentally significant component. Extensive field interviews, site visits, and file reviews were conducted to ascertain progress in this area. The SEA also examined other major DPL components, including business environment, health, and pension reforms. These were found to pose smaller environmental risks.

As a result of the SEA, the World Bank will partner with BiH and others to remedy gaps in sectors supported by the DPLs. Monitorable benchmarks to guide decisions on future policy lending and capacity-building support will also be set.

Procedural and Methodological Aspects of SEA for Lublin Region (Poland) Development Strategy

Witold Wołoszyn, University of Maria Curie-Sklodowska, witwol@biotop.umcs.lublin.pl

The aim of this paper is to present and discuss the SEA for Lublin Region Development Strategy. Lublin Region is situated in the eastern part of Poland and it is one of the 16 main Polish administrative units (voivodships). The region covers some 25,114 km^2 and has population about 2.2 m. The strategy will guide a number of important development decisions (some of them are to be supported by the EU funds) extending to the year 2020.

This paper first provides an overview of the formal Polish SEA requirements and then confronts the 'spirit' of the existing legislation with practice experience. The appraisal process for the Lublin Regional Development Strategy was carried out between December 2004 and June 2005. The paper discusses some procedural aspects and methodological problems associated with the practical SEA implementation concerning broad and general in scope policy documents such as strategies. The influence of SEA on a final formulation of development policies is presented as well as suggestions as to possible methodological solutions are outlined.

European Structural Funds as a Vehicle, SEA as an Engine, in Integrating Environmental Issues into Sector Policies

Panu Kontio, Finnish Environment Institute, panu.kontio@vyh.fi

The study focuses on a comparative analysis of preparation of three EU Objective 1 Structural Funds programs, namely in Lithuania, Latvia and Finland. In Lithuania and Latvia the Structural Funds programs were prepared for the first time and in Eastern-Finland the program was prepared for the second round. Simultaneously with the program preparation, the institutional structures for implementing and managing the programs were developed.

The Structural Funds (SF) programs were not covered by the EU SEA directive, however the SF regulations set requirements for an environmental assessment. This study is looking at how the assessments in the three cases were organized, how the assessments managed to express the environmental concern and how the results of the assessments were taken into consideration in the final programming document.

Using SEA to Establish Policy Under Cooperative or Adverse Settings

Charles Alton, Bonneville Power Administration, charles.alton@comcast.net

The need for policies in any area of government or private business is most often due to lack of agreement on the direction to follow. If perfect agreement were evident in a subject area then no policy would be needed. Very few times regarding the human environment (physical or social) is there complete agreement about data and impacts. Additionally, governments and private businesses find themselves with conflicting directives and mandates inside and outside their organizations. Thus, policies become the guiding principles for implementing actions paramount to successful governance and business practice.

So how does good policy account for conflicting directives and mandates? Using a fish and wildlife case study will illustrate one way of making policy whether under cooperative or adverse conditions. It involves nine federal agencies, four state governments, one regional planning organization, over 50 Indigenous Peoples (Native American Tribes), and a host of interested parties. This project was difficult because: different groups had different values and priorities; no clear and agreed-upon scientific answer to the problem; and, conflicting directives and jurisdictions. This case study will show how using Strategic Environmental Assessment (SEA) coupled with participation can make a transparent structured decision making process out of the normal chaos.

Integrating Environmental Considerations in Policy Formulation: Suggested Elements for a New Framework for Conducting Policy-Based SEA

Kulsum Ahmed and Ernesto Sanchez-Triana; The World Bank, kahmed4@worldbank.org

Economic growth is crucial for development and poverty reduction, but recent experience reveals that how we grow matters. Millennium Development Goal (MDG) Number 7, which aims to ensure environmental sustainability, includes Target 9, which requires countries to "integrate the principles of sustainable development into country policies and programs and reverse loss of environmental resources." Put simply, economic growth that is not environmentally sustainable can degrade the health of current and future generations, as well as deprive them of their homes and livelihoods. Today, SEA is the main tool that exists to integrate environmental considerations into policies. We therefore review past experience of application of SEA to policies and draw lessons from it. In order to get a better understanding of how to improve the effectiveness of SEA to influence policy design and implementation, we then turn to an analysis of different policy formulation models, that are representative of the way that policy-making happens in practice. This analysis provides some insights to a new framework for conducting policy-based SEA that could be a more successful approach to designing and implementing sustainable public policies.

Notes

Stream C Linkages between SEA and Other Assessment or Planning Tools

Coordinated by Thomas Fischer, The University of Liverpool, UK, Fischer@liv.ac.uk

Session C1 SEA and Sustainability Appraisal

Topic chairs: Barry Dalal-Clayton, International Institute for Environment & Development, bdalalclay@aol.com; Jenny Pope, Murdoch University; jennypope@bigpond.com; David Annandale, National Environment Commission-Bhutan, annandale@nec.gov.bt

Presentations and discussions in this session will contribute to the development of a framework for sustainability appraisal, which could ultimately include common process steps for SA, objectives and criteria for SA, an analytical and methodological "toolkit," and guidance for integration and trade-offs between competing aspects and objectives. While there will be an emphasis on issues of process (and particularly the crucial issue of the integration of sustainability considerations), we will also consider the conceptual basis for SA, and the implications of different applications of SA within different contexts.

Workshop C1.1 Integration and Trade-Offs

Integration in SEA and Sustainability Assessment: Whether, When, How. Angus Morrison-Saunders, Riki Therivel

Integration Through Sustainability Assessment. Robert B. Gibson

A Principle-Based Approach for the Evaluation of Trade-Offs in Sustainability Appraisals. Frans Hermans, Luuk Knippenberg

Assessing Sustainable Development: What to Do with the Social Pillar? Luuk Knippenberg

Workshop C1.2 Towards an SA Framework

Sustainability Assessment: Dressing Up SEA? Rob Hounsome, Kogi Govender

Sustainability Assessment of Future Scenarios: Methodology and Application to Mountain Areas of Europe. William Sheate, Maria do Rosário Partidário, Helen Byron, Olivia Bina

Sustainable Development Objectives: Why Are They Needed and Where Do They Come From? Theo Hacking

Sustainability Assessment: Issues of Process, Policy and Governance. William Grace, Jenny Pope

Workshop C1.3 Developing a Framework for Sustainability Appraisal

This final workshop session will be a facilitated discussion with the aim of drawing together the findings from the previous two workshops and contributing to the development of a framework for sustainability appraisal.

Session C1 abstracts (in order of presentation):

Integration in SEA and Sustainability Assessment: Whether, When, How

Angus Morrison-Saunders, Murdoch University, A.Morrison-Saunders@murdoch.edu.au; Riki Therivel, Oxford Brookes University, riki@ukoxford.freeserve.co.uk

Whether an SEA considers only environmental or also social and economic issues, at some point in the plan-making process, the three 'pillars of sustainability' need to be brought together. However, in practice this process is murky and indistinct, and little information exists on how to do it. For instance, the objective of the European SEA Directive (2001/42/EC) is "to provide for a high level of protection of the environment with a view to promoting sustainable development," but although the preparation of an environmental report clearly supports the former, the latter process is relegated to "taking the environmental report into account" during plan preparation.

Our paper explores whether integration should be done during the SEA or sustainability assessment process - as an 'integrated assessment' – or afterwards as a formal and separate stage. It considers whether strong integration and 'dark green' decisions are compatible. It presents a range of approaches that have been used in practice at various stages of SEA and sustainability assessment in practice to (more or less effectively) integrate social, economic and environmental issues.

Integration through Sustainability Assessment

Robert B. Gibson, Environment and Resource Studies, rbgibson@uwaterloo.ca

Integration is a key problem for decision making that aims to foster progress towards sustainability. The realm of sustainability has often been depicted as the intersection of social, economic and ecological interests and initiatives. Accordingly, many approaches to sustainability oriented assessments—the project as well as strategic level—have begun by addressing the social, economic and ecological considerations separately and have then struggled with how to integrate the separate findings. The problem is exacerbated by the generally separate training of experts in the three fields, the habitual collection of data separately under these categories and the common division of government mandates into separate social, economic and ecological bodies. The combined effect is not merely an absence of integrative expertise, data and authority but an entrenched tendency to neglect the interdependence of these factors

One possible solution is to redefine the driving concept to avoid the three conventional categories and to focus assessment decision making on trade-offs. The first step is to define sustainability (more precisely and more usefully) as resting on a set of fundamental requirements that cross the boundaries between the three usual categories. In this paper these requirements are presented as eight basic sustainability assessment decision criteria (socio-ecological system integrity, livelihood sufficiency and opportunity, intragenerational equity, intergenerational equity, efficiency, socio-ecological civility and democratic governance, precaution and adaptation, and immediate and long term integration). The second step is to recognize that while all eight of these requirements are needed for progress towards sustainability and should be sought in every undertaking under assessment, there will be conflicts. A major integration issue will therefore be how to ensure the inevitable trade-offs do the least damage to overall prospects. For this, some generic trade-off rules can be proposed (six will be presented in the paper) But attention to the processes for applying these rules in particular contexts will also be crucial.

Sustainability Assessment: Dressing up SEA?

Rob Hounsome, Kogi Govender; CSIR Environmentek, rhounsom@csir.co.za, kgovender@csir.co.za

Sustainable development requires a global change in thinking towards a 'new way of living.' A common framework is required to assess progress towards sustainable development. This framework should be applicable across levels of planning and within various sectors of development. The current suite of environmental assessment tools have been leveraged to assess and manage for sustainability with varying levels of success.

Taking a variety of sustainability criteria, strategic Environmental Assessment (SEA) is shown to be the environmental assessment tool that comes closest to meeting the criteria as the most suitable tool for assessing sustainability. While the SEA approach sets out to be holistic, it does not always work well in practice. The assessment framework is flexible in the way that it links the goals to the assessment measures and the application of the process. The flexibility of SEA can leave the process open to abuse as there is little guidance for quality control and uniformity, possible one of the biggest barriers to SEA.

Sustainability Assessment is a recent addition to the environmental assessment toolbox and has been defined as follows: "Sustainability Assessment is a formal process undertaken in response to identified need(s) in order to assess, monitor and manage initiatives(s) to ensure society's progress towards sustainability."

Sustainability Assessment has the potential to enhance the sustainable decision-making processes of local, regional, national or international authorities and private organisations. Despite this relative importance, sustainability assessment as a formalised process, is not currently practiced.

This paper identifies key criteria that should underpin sustainability assessment which are then used to evaluate some of the shortcomings of SEA. Through this evaluation, the paper highlights the need for a new sustainability assessment tool. The concept of sustainability assessment is introduced and a recommended approach is discussed along with the requirements of "sustainability science."

Sustainability Assessment of Future Scenarios: Methodology and Application to Mountain Areas of Europe

William Sheate, Envir. Policy & Management Group, w.sheate@imperial.ac.uk; Maria do Rosário Partidário, DCEA/FCT-UNL, mp@fct.unl.pt; Helen Byron, European Programmes & Training Department RSPB, helen.byron@rspb.org.uk; Olivia Bina, Universidade Nova de Lisboa, olibina@gmail.com

BioScene (Scenarios for Reconciling Biodiversity Conservation with Declining Agriculture Use in Mountain Areas in Europe) is a three-year project (2002-2005) being funded by the EU 5th Framework Programme, and aims to investigate the implications of agricultural restructuring and decline for biodiversity conservation in Europe's mountain areas.

The project takes a case study approach to the analysis of the biodiversity processes and outcomes of different scenarios of agri-environmental change in six countries (France, Greece, Norway, Slovakia, Switzerland and the United Kingdom) covering the major biogeographical regions of Europe. The project is coordinated by Imperial College London, and each study area has a multidisciplinary team including ecologists, and social and economic experts, which seeks a comprehensive understanding of the drivers for change and their implications for sustainability (i.e., environment, society and economy).

A key component is the sustainability assessment (SA) of alternative scenarios both for agriculture and rural policy and for biodiversity management. This paper discusses the development and application of the SA methodology developed for this project. It departs from the UK and international experience, but has been designed to respond more specifically to the needs of the overall research objectives. For example, while it is objectives-led, it is also strongly grounded in baseline ecological and socio-economic data. A particular aspect of the approach is the engagement of stakeholder panels in each study area throughout the research, which emphasizes the participatory nature of the research methodology.

Sustainable Development Objectives: Why Are They Needed and Where Do They Come From?

Theo Hacking, University of Cambridge, th252@cam.ac.uk

The author is engaged in research aimed at establishing how the assessment of mining projects should be undertaken to ensure that the planning and decision-making process is directed towards sustainable development (SD). As part of this research, a review of a wide spectrum of SD-directed assessment techniques has been undertaken. The review covered enhanced forms of EIA, 'integrated' social and environmental impact assessment (S&EIA) and new approaches and frameworks, such as the Seven Questions to Sustainability.

The features that are commonly promoted for enhancing the SD-directedness of assessments include: expanding the thematic coverage, greater 'integration' of the themes and more effective stakeholder participation. An especially challenging feature implicit in many of the approaches is a shift in the goal of the assessment from avoiding or mitigating negative impacts to also proactively seeking to enhance positive impacts and, ultimately, to do this in a manner that contributes to (or achieves) SD. Setting SD as the goal has far reaching implications for the choice of the assessment 'benchmark.'

The established approach to impact assessment is baseline-led, whereby the conditions that are likely to prevail in the absence of a proposed initiative are used as the 'benchmark' for determining the significance of impacts. Proponents of greater SD focus criticise this for being directionless since it is based on extrapolating the past with no clear vision of what should be achieved in the future. As the Cheshire Cat pointed out to Alice: it does not matter which way you go if you do

not know where you are going. 'Determining where you want to go' is, in a nutshell, the argument in favour of objectives-led assessment approaches.

Establishing objectives by which SD can be defined is one of the greatest challenges in the development of objectives-led assessment, especially since there is still so little consensus regarding exactly what SD entails. There has been reasonable progress towards developing 'sustainability assessment principles, but these high-level principles only provide very general guidance at the project-level. In spite of this, it is increasingly common for claims to be made about the 'sustainability' of initiatives or their contribution to SD. In the absence of context-specific objectives, the validity of these claims can easily be challenged.

The paper will present an overview of a number of approaches to developing SD objectives. They include: using stakeholder opinion, derivation from principles (e.g., Rio Declaration), establishing thresholds and backcasting.

The strengths and weaknesses of these approaches and areas requiring further investigation will be highlighted.

Sustainability Assessment: Issues of Process, Policy & Governance

William Grace, GHD Pty Ltd, bill.grace@ghc.com.au; Jenny Pope, Murdoch University, jennypope@bigpond.com

In many jurisdictions we are now seeing the increasing use of sustainability assessment to assist decision-making with respect to major projects such as infrastructure or resource development. Usually the decision relates to either the acceptability of a proposal (a threshold question), or choosing the best of multiple options (a ranking question).

Western Australia is in the early stages of developing and implementing sustainability assessment processes, and application so far has been mainly to major infrastructure projects as opposed to plans and programmes (as has been the case for example in the UK). This probably reflects both the resource-dependent nature of the Western Australian economy and the state's vast size and relatively sparse population, which means that planning processes are far less complex and less developed than in some other jurisdictions.

The sustainability assessment of project proposals calls for similar processes to these other applications. However, it also presents some particular challenges and opportunities, particularly with respect to the interactions between the particular assessment and the broader policy and institutional settings. These include the policies that guide the framing of the question (whether a threshold question or a ranking question) that the assessment is designed to help to answer, and the governance and institutional arrangements that give rise to the policies.

This paper explores both issues of process and issues of policy and governance via an analysis of three project case studies from Western Australia.

Session C2 Integrated Assessment and Planning for Sustainable Development

Topic chair: Hussein Abaza, UNEP Economics & Trade Unit, hussein.abaza@unep.ch

Workshop C2.1

Integrating Impact Assessment into Decision-Making Processes for Global and Regional Trade Agreements. Clive George, Colin Kirkpatrick

Integrated Assessment and Planning for Sustainable Development. Antonio Minetti

From Strategic Integrated Assessment Towards Strategic Integral Area Development. Inge de Kort

WFD and SEA: Mutual Benefits and Possible Synergies. Olena Borysova

Workshop C2.2

This second workshop session will be a facilitated discussion with the aim of drawing together the findings from the previous workshop and contributing to the development of a framework for integrated assessment

Session C2 abstracts (in order of presentation)

Integrating Impact Assessment into Decision-Making Processes for Global and Regional Trade Agreements

Clive George, Colin Kirkpatrick; The University of Manchester, clive.george@man.ac.uk

The paper draws on experience since 1999 of conducting sustainability impact assessments under the European Commission's SIA programme for WTO trade negotiations, and for regional free trade areas in which the EU is the major partner. The technical aspects of impact assessment and the issues of stakeholder participation are examined in relation to the aim of contributing to negotiating decisions, and to the development of parallel policy measures for mitigating or enhancing potential impacts. Some of the lessons learned apply equally to multilateral trade agreements and regional agreements, while others differ. In both cases, key methodological issues are identified which need to be addressed in order to achieve successful integration of impact assessment into policy-making.

Integrated Assessment and Planning for Sustainable Development

Antoni Minetti, Lorenzo Federiconi; Regione Marche Dipartimento Territorio e Ambiente, P.F. Autorità Ambientale Regionale; antonio.minetti@regione.marche.it, lorenzo.federiconi@regione.marche.it

Recovery Plan for the Area at High Risk of Environmental Crisis (Ancona, Falconara and Lower Esino Valley): An Integrated Governance and Planning Model

A portion of the territory of Marche Region, was declared a nationally relevant Area at High Risk of Environmental Crisis, due to a troublesome coexistence of high density settlements, highly hazardous plants, and internationally relevant infrastructures. Many environmental factors are in a critical condition.

After the declaration, a series of scientific studies was carried out by a joint work group including experts from universities, consultants and public officers belonging to different disciplines and sectors. These studies allowed identification of the main critical points and especially the high level of complexity of the environmental situation in which each problem has a feedback on the others.

So this has been the occasion to undertake a process of concerted governance in which all relevant stakeholders (public administrations at different levels, private-public consortia managing infrastructures such as transport, energy provision etc., private companies) are involved.

Such process led to the elaboration of the recovery plan for this area. The plan is an innovative, integrated instrument that steers the territorial transformations towards environmental sustainability. The Plan is the first in its kind to test a governance model at the local planning level with a view of the wider territorial context.

From Strategic Integrated Assessment Towards Strategic Integral Area Development

Inge de Kort, University of Twente, i.a.t.dekort@utwente.nl

Since space is scarce and most spatial functions are competitive, these functions have to be coordinated efficiently in order to make optimal use of the space. An integrated approach is needed to be able to develop areas. Integral area development is the alignment of different spatial functions leading to an overall solution for a specific area. It tries to make efficient use of coherence between the functions; e.g., the value of houses increase if located near a water stream with a wide view.

Traditionally, a strong hierarchical approach was assumed in spatial planning; the central government was responsible for long-term and strategic decisions. The current shift from government to governance implies a development of governing styles that entails a broad network of actors. An additional complicating factor is that actors operate on different government levels.

In finding coherence between the spatial functions and to use the existing interdependencies efficiently, the multiple functions (product) and multiple actors (process) have to be coordinated. Practice shows that this coordination is inadequate, for example because of problems with legal procedures and problems with public, private and public-private partnerships. Current literature focuses on either process management or integral/ comprehensive planning. Hardly any literature can be found on how to manage integral processes between spatial functions. This paper therefore describes the bottlenecks and defines solution directions.

WFD and SEA: Mutual Benefits and Possible Synergies (Case Study of Ukraine)

Olena Borysova, Academy of Municipal Economy, borysova@velton.kharkov.ua

SEA interrelations with other strategic processes such as, for example, implementation of integrated water resources management as required by the Water Framework Directive 2000/60/EU (WFD), could become one of the important drivers of SEA development.

WFD is a major piece of strategic European environmental legislation. It requires intensive involvement of non-EU countries in shared resources management, in particular of international river basins; introduces integrated approaches towards the management of water resources, and foresees strategic planning of water resources usage.

Both WFD implementation and the SEA process are relatively new environmental policy instruments designed to meet the needs of a democratic society with a market-based economy. If these two strategic approaches are linked together, their effectiveness and efficiency may be significantly reinforced. The research addresses existing practice and perspectives of WFD implementation and SEA process development.

Research is focused on Ukraine, which has recently ratified UNECE SEA Protocol (2003), declared European focus as a strategic development priority and is putting significant efforts into harmonizing its legislative and regulative framework with current European trends. Case studies based on the international river basins districts are used to illustrate research findings.

Session C3 SEA and Environmental Planning and Management

Topic chair: William Sheate, Envir. Policy & Management Group, w.sheate@imperial.ac.uk

The purpose of this session is to explore the evolving linkages and relationships between SEA and environmental planning and management tools, and to exchange experience of real examples where these tools have been or could be used together effectively. Key questions will focus on theoretical and practical issues, including:

- What are the benefits of making linkages between tools?
- Do we need new tools or can we make existing tools work better together?
- How do SEA and other tools working together fit with decision-making processes?

Workshop C3.1

Potential Benefits of Combining Different Environmental Management Tools. Sara Emilsson, Sara Tyskeng

Incorporating Strategic Environmental Analysis (SEAn) in Local Development Planning and Enhancing Decentralized Environmental Management: current efforts in Nicaragua. Amparo van der Zee Arias, Pablo Castillo, Martha Klein

The Challenge of Nuclear Decommissioning: The Role of SEA in the Planning Process. Lutz Blank

Contributions of Baseline Sustainable Zoning for SEA. I S D Oliveira, de Souza and Montano

Workshop discussion: This will revolve around a number of key topic questions, including those emerging from the papers.

Potential Benefits of Combining Different Environmental Management Tools

Sara Emilsson and Sara Tyskeng, Linkoping University, sarem@ikp.liu.se, sarty@ikp.liu.se

In response to the issues raised for the theme, we believe that there is no need for a new environmental management tool, since there already are so many tools available. In addition, environmental management concerns complex and multi-faceted issues, which means that there is no tool that can manage all environmental problems. It is hence rather a question of understanding how different tools can complement each other. This means that it is important to identify the needs in every situation and to match these with the strengths of the relevant tools.

In a published paper, we analysed the tools of SFA, EMS and SEA to study the possible advantages for local authorities to combine different environmental management tools. We suggest that EMS can facilitate continuity, structure and routines for environmental management while SEA add a structure for incorporating planning issues in to the organization's environmental management. SFA contributes with information about the environmental situation and identifies potential future environmental problems. The study concluded that using these tools together would promote a more comprehensive view of environmental problems and solutions. It also facilitates decision-making that does not duplicate efforts or ignore critical information and knowledge.

Incorporating Strategic Environmental Analysis (SEAn) in Local Development Planning and Enhancing Decentralized Environmental Management: current efforts in Nicaragua

Amparo van der Zee Arias, SNV-Nicaragua (Netherlands Development Organization), avanderzeearias@snvworld.net; Pablo Castillo (MARENA) ,MARENA (Ministry of Natural Resources and Environment); Martha Klein, SNV, mar2sami@yahoo.com

Hurricane Mitch, droughts, flooding, plaques and landslides have taught Nicaragua in the hardest way that a growing ecological vulnerability is undermining its development efforts. This was most clearly presented by Nicaragua's second environmental status report (GEO 2003).

In order to enhance Nicaragua's environmental governance, MARENA, the Ministry of Environment and Natural Resources, is pursuing a policy of decentralizing of its functions and mandatory towards its territorial delegations and the municipalities. Development of more local capacity and participatory environmental planning are important steps in this process.

The Netherlands Development Organization (SNV) has been assisting various municipalities and associations of municipalities in Nicaragua to integrate environmental issues in strategic planning processes using the so-called Strategic Environmental Analysis (SEAn) methodology.

Based upon these experiences, and in consultation with many actors at various levels, SEAn was used to develop new national guidelines for local environmental planning with clear indications on how environmental issues can be addressed in the municipal context and incorporated in its strategic planning process. The use of SEAn also facilitates a closer linkage between local environmental management and the national environmental information system (SINIA) which hopefully lead to a more effective monitoring and evaluation of changes in Nicaragua's environmental context.

The Challenge of Nuclear Decommissioning in Northwest Russia: The Role of SEA in the Planning Process

Lutz Blank, The European Bank for Reconstruction & Development, blankl@ebrd.com

The former Soviet Union built 250 submarines, warships and icebreakers, containing over 450 naval nuclear reactors. Subsequently, the Russian Federation reduced the size of the nuclear fleet, withdrawing approximately 140 vessels from service. This has resulted in significant amounts of spent nuclear fuel and radioactive waste accumulating in facilities in the regions of Murmansk and Arkhangelsk. Storage conditions are not in accordance with international standards, and the situation has degraded over time. This is a considerable risk to workers, local populations and environment, and is of concern to the international community.

Facing the complexity and the cost of the decommissioning programme, Russia requested international assistance, through the Northern Dimension Environmental Partnership (NDEP) to help develop an overall decommissioning strategy for the region, providing analysis on the existing situation

defining long-term objectives and setting priorities. To complement and enhance the Strategic Master Plan (SMP), the European Bank for Reconstruction and Development (EBRD) initiated a Strategic Environmental Assessment (SEA) of the SMP.

Part of the challenges that this SEA in Russia has raised are working with previously restricted information, providing sensitive information to the public, building relationships and trust, as well as dealing with highly complex and challenging technical and environmental issues.

Contributions of Baseline Sustainable Zoning for SEA

Marcelo Pereira de Souza, Marcelo Montaño; University of São Paulo, mps@sc.usp.br; Isabel Silva Dutra de Oliveira, Oxford Brookes University, beldutra@sc.usp.br

The present work introduces the Baseline Sustainable Zoning (BSZ) as an impact assessment tool for Strategic Environment Assessment (SEA) and also a link to project Environment Impact Assessment, emphasizing sustainability. BSZ of an action should, at an earliest time, show the carrying capacity and the influence area taken out from thresholds given by expertise and the society and, also previously, show technological alternatives and locations for different scenarios. The commitment with regulations, legal requirements, thresholds and other plans critical problems won't go further if the BSZ can point them out as a previous thinking for the discussion of the alternatives and targets with a widely open public participation. BSZ, as a sustainable baseline, identifying problems, linking to other plans and programs, showing previously alternatives and different scenarios surely helps other steps of SEA process and, with a special contribution, on mitigation and monitoring. Brazilian case study - Piracicaba landfill site - is shown to emphasize where BSZ fits into SEA, what are the out comes and the public participation experience. In conclusion, this case study with a BSZ indicates that the concepts and practices of the instrument can subsidize the decision makers with information to a better strategic action towards sustainability.

Session C4 SEA in Spatial Planning

Topic chairs: Ingrid Belcakova, Slovak Technical University; Peter Nelson, Land Use Consultants, belcakova@fa.stuba.sk

Workshop C4.1 SEA Experiences in Spatial Planning

Introduction to the topic. Ingrid Belcakova, Peter Nelson

SEA and Land Use Planning in China. Tao Tang, Tan Zhu, He Xu

SEA in South Africa Spatial Development Frameworks. E. Olivier

Application of EIA/SEA System in Land Use Planning – Experience from Serbia. B. Stojanovic

Workshop C4.2 SEA Experiences in Spatial Planning

SEA in the Urban Planning of the Municipality of Sao Paulo. I.C. Maglio, A. Philippi, T.F. Malheiros

Experience in SEA? The Case of the Autonomous Region of the Azores. H. Calado, J. Cadete, J. Porteiro

Workshop C4.3 Methodological Issues

Reasonable Alternatives. Orlando Venn

Transnationally Approved Indicator Set – SEA in Regional Planning. H. Helbron, M. Schmidt, H. Storch, H. Meyer-Steinbrenner

Environmental Vulnerability Analysis as a Tool for SEA of Spatial Plans. Vesna Koszak Miocic-Stosic, Butula Sonja

Integrating Strategic Assessment and Spatial Planning. Jan Nuesink

The facilitated debate will revolve around the following key issues:

1. What separates spatial planning and SEA practice?
2. What specific skills are required to undertake the SEA of spatial plans?
3. Should SEA be allowed to evolve as a largely unstructured and creative process for testing planning concepts or should it be more procedural and tied to specific targets and outputs?
4. What consitutes effective public participation in SEAs of spatial plans, as opposed to public involvement in plan-making?
5. What sort of objectives and indicators should be employed in SEAs of spatial plans?
6. Can the experience of particular countries provide role models for wider application?
7. What are the essential components of a successful SEA linked with spatial planning?
8. How far should SEA focus on the environmental dimensions of plans and programmes, given its role in integrating broader social and economic objectives?
9. How can the standards and performance of spatial planning SEAs be measured?

Session C4 abstracts (in order of presentation)

Strategic Environmental Assessment and Land-Use Planning in China

Tao Tang, Tan Zhu, He Xu; Nankai University, tangtaochina@hotmail.com

Strategic Environmental Assessment (SEA) is the environmental assessment process for strategic actions: policies, plans or programs (PPPs). At present, Plan Environmental Impact Assessment (PEIA), the plan level of SEA, is legally required in China and a recommended technical guideline (TG) for it has been published. According to Environmental Impact Assessment Law of the People's Republic of China (EIA LAW) which has been brought into effect since September 1st, 2003, PEIA is needed for the land-use master plans (LUMP) developed by municipal and higher level governments. Although the legal arrangement for conducting PEIA has been in place, some barriers still exist. Since EIA LAW and TG establish a basic framework for PEIA, the responsibility of developing a detailed procedure is left to the assessors. Specially, for the LUMP, as all the plans are being or going to be under revision, it is urgent for certain research on PEIA of the LUMP. Within this context, this paper aims to assist the assessors with decisions concerning the implementation of a PEIA process conforming to EIA LAW and TG by defining briefly some operational issues related to PEIA of the LUMP. The paper introduces the current legal and political basis of PEIA on the LUMP in China, focusing on assessor, assess targets, assess requirements, assess contents, assess methods and working procedure of PEIA on the LUMP. Finally, some recommendations for improving PEIA on the LUMP in China are presented.

SEA in South Africa Spatial Development Frameworks

Elsabeth Olivier, Ekurhuleni Metropolitan Municipality, oliviere@ekurhuleni.com

In terms of the legislation regulating the Municipalities in South Africa, each Local Authority must have an Integrated Development Plan (IDP) as well as a Spatial Development Framework (SDF), these are 5 year role out plans reviewed on a yearly basis. Both of these documents/plans are also approved on Provincial Authority level and become legally binding documents. One of the requirements for the SDF is that it must have a "strategic environmental assessment."

In terms of the proposed new regulations for the EIA procedure (drafted in terms of the National Environmental Management Act - NEMA) Chapter 5 deals with Environmental Management Frameworks (EMF). The purpose of these EMF's is, *inter alia:*

- to assess and document the environmental attributes of a defined geographical area in sufficient detail
- to make an informed decision regarding the need for environmental authorisation in respect of specific activities.
- to identify environmental considerations that should be taken into account in the formulation of strategic development frameworks (SDF) and integrated development plans (IDP)

Ekurhuleni Metropolitan Municipality is one of the first Local Authorities in South Africa, which in a joint partnership with the Provincial Authority, compiled such an EMF. The information derived from this EMF was used to inform the yearly revision of the SDF.

This process has its advantages, but obviously it is not without its problems.

Application of EIA/SEA System in Land Use Planning? Experience from Serbia

Bozidar Stojanovic, Institute of Architecture and Urbanism of Serbia, bozas@iaus.org.yu

Provisions for EIA were introduced in Serbian legislation by the Environmental protection law (1991) and regulations on EIA (1992). During past decade EIA was closely connected to the processes of planning and building. The Spatial planning law (1995) required preparation of EISs for plans of main infrastructure corridors, water reservoirs, etc. EIA have been carried out in two steps: preliminary EIA (as part of spatial planning) and detailed EIA (as part of detailed plans and projects documentation). Main problems in EIA implementation were found in: inconsistency with planning regulations, shortcomings in institutional cooperation, unsatisfactory quality of EISs, and lack of public participation.

New EIA and SEA laws were introduced in 2004, which are in compliance with EU Directives 97/11/EC and 2001/42/EC. Of the many shortcomings identified in early stage of implementation of SEA, the paper concentrates on those elements considered crucial to effective integration of SEA in planning. These are: inclusion of SEA in hierarchy of planning process; relationship SEA/EIA, standardization of approaches and methods in SEA, and type of public participation. Current problems are analysed in the case of spatial plan of Valjevo municipality, which also involves town plan and spatial plan of water reservoir.

SEA in the Urban Planning of the Municipality of Sao Paulo

Ivan Carlos Maglio, Arlindo Philippi Jr., Tadeu Fabrício Malheiros; Universidade de São Paulo-Brazil, tmalheiros@usp.br

Environmental sustainability as a concept adopted after Rio 92 Summit sets forth that development master plan must be re-conceptualized to become a suitable tool to endorse sustainability, promote urban reform and the social functions of the city. The objective of this paper is to analyse the urban planning process concerning the insertion of sustainability in urban plans and in urban management actions carried out in the Municipality of São Paulo from 1971 to 2004. Elements of Strategic Environmental Analyses - SEA were used as method for analysis of master plans and urban strategic actions. The results highlighted inconsistencies of the urban master plans strategies and environmental protection policies. During 1991-2000 period, political problems and conflicts emerged concerning urban sustainability, however environmental protection issues and assessment of impacts were considered in the Strategic Master Plan 2002 for São Paulo City. This analysis showed that urban planning process has not considered sustainability in urban master plans in a consistent manner. Finally, efforts must be made to include Strategic Environmental Analyses- SEA in the Master Plan Review process in 2006. This paper also highlights that indicators of sustainable development must be used during SEA as well as for monitoring environmental impacts of urban process.

Experience in SEA? The Case of the Autonomous Region of the Azores

H. Calado, J. Cadete, J. Porteiro; University of the Azores, cadete@notes.uac.pt

In the Azores archipelago, the majority of the population and economic activities are concentrated on the coast mainly due to Territory constraints. It is also where the most valuable environmental areas are to be found. However, Spatial Planning faces major difficulties compared to the situation in the mainland, as the majority of the planning instruments are not in force. The non-existence of Municipal Master Plans in most municipalities and the lack of environmental concerns in the approved ones make the Coastal Zone Management Plans (CZMP) a possible bridge for gaps in spatial planning. As a great part of the CZMP are still to be elaborated, this can constitute a challenge to include Strategic Environmental Assessment (SEA) in their elaboration processes. Even though the Portuguese Government did not transpose yet the EU SEA Directive, the Azores Autonomous Region is innovative as it already presents a case of good practice. In fact, the Environment Secretary of the Regional Government asked for a SEA of the CZMP for the South Coast of São Miguel Island, facing all the dispositions of the Directive.

What is on analysis is the comparison of those requirements and the operative measures for SEA proposed by the planning team.

Reasonable Alternatives

Orlando Venn, Scott Wilson, orlando.venn@scottwilson.com

While it is now mandatory to generate 'alternatives,' recent experience has shown that UK planning authorities are struggling to produce genuine options for assessment.

This paper considers the development of 'alternatives' for local spatial plan production in three areas with different economic, social and environmental characteristics. Each authority has adopted a different approach to producing 'alternatives,' from a broad vision (growth scenarios) approach to a detailed investigation of different topic areas and broad localities for development. This paper will argue that alternatives were not necessarily 'reasonable' as they didn't address the range of key issues facing the area. In each case different tools and approaches were required to help the planning authority to develop and refine their alternatives.

Furthermore, this paper will

- detail the tools used to assist the alternatives development
- suggest a series of rules to gain the most from developing alternatives
- highlight that capacity building is needed to build these skills within planning authorities
- support the need to include an independent, detached party in the SEA process
- explain why the identification, description and evaluation of alternatives is such an important element in spatial planning.

Transnationally Approved Indicator Set: The Core Module in SEA for Regional Planning

Hendrike Helbron, Michael Schmidt, Harry Storch; Department of Environmental Planning; Brandenburg Technical University (BTU), helbron@tu-cottbus.de; Harry Meyer-Steinbrenner, Saxon State Ministry of the Environment and Agriculture

The paper presents first significant experience of a pilot project on SEA at regional planning level co-financed by the Interreg IIIa programme of the EU. The objective is to develop a transnational assessment and procedure concept for Germany (Region of Upper Lusatia-Lower Silesia in the East German State of Saxony), Poland (Wojewodztwos Dolnoslaskie and Lubuskie) and the Czech Republic (Krajs Liberecky and Ustecky). Responsible institutions in Germany are the Leibniz Institute of Ecological and Regional Development in Dresden, the Regional Planning Authority Upper Lusatia-Lower Silesia in Bautzen and the Brandenburg Technical University in Cottbus. The project runs from June 2004 till June 2006 under the supervision of the Saxon State Ministry of the Environment and Agriculture (SMUL) and in cooperation with the Saxon State Ministry of Interior (SMI).

This contribution outlines the methodology of an indicator-based impact assessment. SEA's core module is an indicator set approved by the above-mentioned three EU-states, which adapts to a formalised plan preparation procedure.

Benefits of the indicator-based approach contribute to a systematic procedure in a partly unstructured regional planning culture. Methodological problems or difficulties in complying with a set time schedule emphasize the demanding nature of such a transnational indicator set, that has to be provided with adequate spatial data.

Environmental Vulnerability Analysis as a Tool for SEA of Spatial Plans

Vesna Koscak Miocic-Stosic, Butula Sonja; University of Zagreb, vkoscak@public.srce.hr;

The term and the concept of environmental vulnerability analysis is known from early 70s when it was defined by C. Steinitz as 'vulnerability to impact' and has been used since then for assessing the potential impacts of planned interventions or activities on the environment.

Unfortunately, the contribution to the reduction of the environmental impacts was limited due to already defined activity location. It could only recommend measures how to mitigate impacts that could not be avoided.

The use of the same concept at an earlier phase of a planning process in assessing the alternative proposals for spatial development could reduce the environmental impacts by choosing the alternative plan which has less impact on the environment. The paper will acknowledge a platform of three

value systems incorporated within the vulnerability concept, as one of the appropriate modes to cope with the impacts and uncertainty within planning process.

The procedure for assessment of alternative proposals of development plan of Mura region in Croatia developed for educational purpose, as a Studio work within Landscape Architecture Programme at the University of Zagreb, will be presented.

Integrating Strategic Assessment and Spatial Planning: Best Practices According to the Dutch Polder Model

Jan Nuesink, DHV Environment & Infrastructure, jan.nuesink@planet.nl

The Dutch planning system has a tradition of achieving sustainable development by incorporating environmental goals and prerequisites in spatial planning and decision making. Long before the EU Directive 2001/42 was adopted, environmental impact assessment was prescribed for concrete spatial decisions contained in municipal physical plans and certain regional development plans.

EIA being already in place for some areas of spatial planning posed implementation and transposition problems regarding the EU Directive 2001/42. Nevertheless planning authorities on the (macro-)regional level started preparing SEAs for those higher level and often abstract spatial plans which where not already subject to assessment before. Since guidance and national coordination was limited an array of creative approaches and methods evolved in order make the spatial plan benefit from the assessment process.

To disseminate experiences, the association of Dutch Provinces (IPO) initiated a survey of SEAs in preparation , including workshops with stakeholders. Best practices regarding tiering with EIA, optimising the role and level of integration of SEA in the spatial planning process and the impact on final decision making will be identified and shared. Emphasis in this contribution is on practicality and successfulness of SEA approaches and net result in terms of better planning and sustainable development.

Session C5 Linkages Between SEA and Landscape Planning

Topic chair: Marie Hanusch, UFZ - Centre for Environmental Research Leipzig-Halle, marie.hanusch@ufz.de

Session C5 focuses on tools related to landscape planning and their existing or potential benefits for SEA. These benefits reach from technical aspects, like making available environmental baseline data and addressing cause-effect relations, to political aspects, like overcoming communication gaps. Moreover related legal provisions and critical issues, like public participation and health aspects, will be addressed. Thereby different ways of how to consider the issue of 'landscape' within SEA will be discussed.

Each workshop will start with a short introduction on the topic (5-10 min) and end with a concluding discussion.

Workshop C5.1 Innovative Tools for an Effective Consideration of the Dynamic Landscape in SEA

Landscape Heritage Sustainable Development Indicator Assessment Using GIS in Conjunction with Clare County Council. Lianda d'Auria

Future Solutions: Integrated Models for SEA and other land-use decision-making. Ruth Waldick

Workshop C5.2 Linkages of SEA and Landscape Planning in Germany

SEA and the Tools of Landscape Planning Pursuant to the German Federal Nature Conservation Act. Stefan Lütkes

Landscape Planning and SEA – A Complex for an Environmentally Compatible Urban Land Use Planning of Municipalities? Maren Regener

The Impact of 'Landscape' Within SEA Law and Practice in Sweden. Ebbe Adolfsson

Considering Health Aspects in SEA and Landscape Planning. Erik Skärbäck

Session C5 abstracts (in order of presentation):

Landscape Heritage Sustainable Development Indicator Assessment using GIS in conjunction with Clare County Council

Lianda d'Auria, University College Dublin, Lianda.dauria@ucd.ie

This project proposes to improve understanding of the way in which natural, cultural and aesthetic heritage is integrated in the dynamic landscape by documenting changes and trends in it, and explaining these changes and their causes.

Indicators have long been identified as 'measuring rods' to assess and monitor progress towards sustainable development. However, there are many difficulties in using indicators on an individual basis, thus an overall view is required on a spatial scale that is compatible for effective environmental planning and management. This project will follow the Driving Forces, Pressures, State, Impacts, Responses (DPSIR) framework. A GIS framework will be developed to integrate and amalgamate indicators geographically allowing spatial analysis.

The theoretical tools developed will be tested and validated in a real-word environment allowing real planning at a county level. Furthermore, the project will highlight gaps in information and would be the basis for the identification and development of appropriate landscape indicators for tracking/monitoring changes in the state of the natural, cultural and aesthetic environment in the future.

Future Solutions: Integrated Models for SEA and other Land-Use Decision-Making

Ruth Waldick, Canadian Wildlife Service, National Wildlife Research Centre, Ruth.Waldick@ec.gc.ca

Co-authors Denis White, Environment Canada; Kathryn Lindsay, Environmental Protection Agency (USA); Ian Campbell, Policy Research Initiative; David Biggs, Envision Sustainability Tools; Brad Stelfox, Forem Technologies

SEAs require an integrated understanding of place-based issues; they are thus highly linked to integrated land-use or integrated water resource decision-making. In practice, however, a lack of suitable tools and an often fragmented community of expertise have made place-based integrated decision making more difficult and less common than is desirable.

Analytical tools and community capacity are needed for SEAs and other land-use decision processes to: (1) rapidly and reliably evaluate the long-term and often multi-jurisdictional economic, environmental, and social costs of the policy and management options that SEAs are intended to evaluate; (2) identify interactions and cumulative effects that cross sectoral and jurisdictional lines; (3) provide opportunities to explore ways to mitigate negative effects on the environment, society, and the economy, and (4) involve non-expert community members in the SEA process as early and as thoroughly as possible in order to reduce or avoid conflict. Integrated landscape management models (ILMM) bring communities and experts together in the course of developing integrated place-based models suitable for SEAs, and may thus be the solution.

In this paper, we present the key conclusions reached at a workshop of over 60 modeling and policy experts from across Canada and the United States regarding the potential use of integrated landscape management models for SEAs and sustainable land-use planning. Technical and logistical constraints that currently limit their use include the lack of a coordinated community of experts and a degree of "early adopter anxiety" on the part of potential users. Through examples of ILMM from across Canada, we show how these barriers are gradually eroding as ILMM become more powerful and more accepted. Finally, we describe a potential institutional framework for promoting the development and use of ILMMs to address the gaps in communication and knowledge transfer between policy, management, researchers, and public stakeholders.

SEA and the Tools of Landscape Planning Pursuant to the German Federal Nature Conservation Act

Stefan Lütkes, Federal Ministry for the Environment, Nature Conservation and Nuclear Safety, Stefan.Luetkes@bmu.bund.de

The act implementing the EU SEA Directive on the federal level (SEA Act) came into force on 29 June 2005. According to the new act, SEA is required for plans and programs listed in Annex 3, which includes the instruments of landscape planning pursuant to the Federal Nature Conservation Act (FNCA). Therefore SEA is mandatory for plans and programmes prepared and adopted for landscape planning. Landscape planning serves to describe and substantiate the requirements and measures of nature protection and landscape conservation and to implement its objectives and principles in plannings and administrative procedures. The general provisions for the instruments of landscape planning are laid down in the FNCA. However the FNCA does not cover any directly applicable provisions. The binding requirements of landscape planning are provided by the relevant laws of the 16 Federal Laender. This Laender legislation must be in line with the basic requirements provided in the FNCA.

The new SEA Act is supplementing these provisions. It stipulates that protected assets named in the SEA Act are to be taken into account when establishing or modifying landscape plans or programmes. This means that future landscape planning must also be expressly orientated towards humans and human health.

The report will focus on aspects relating to both content and procedures of implementing SEA in landscape planning instruments and decisions. The issue of the binding nature of landscape plannings and decisions will also be addressed in this context.

Landscape Planning and SEA – A Complex for an Environmentally Compatible Urban Land Use Planning of Municipalities?

Maren Regener, Leibniz Institute of Ecological and Regional Development (IOER), M.Regener@ioer.de

Since July 2004 the SEA for municipal urban land use planning is adopted in German law. In order to ensure that environmental consequences of certain plans and programmes are taken into account every urban land use plan has to be assessed as prescribed in article 1 of the EU SEA Directive.

According to the German nature protection laws landscape planning has a function similar to SEA. Both instruments shall contribute to environmentally compatible planning. Consequently, the question arises whether former experiences with landscape planning could be used for SEA. To elucidate this subject a research project was started in late 2003 which analyses the feasibility of a current landscape plan (of the administrative collectivity Rothenburg) for the SEA of the preliminary land use plan. The first results show that the taking of inventory and the appraisal of nature und landscape for the landscape plan is a good source of data for the SEA. For the assessment of the environmental effects of the preliminary land use plan on the issues fauna/flora/biodiversity, soil, water, air/climatic factors and landscape the digital data of the landscape plan are entirely adequate. Therefore, the expenses for the SEA could be reduced and methodical uncertainties could be avoided by using established methods and standards of landscape planning.

The practical experiences show that landscape planning as an early instrument is suited as a basis for SEA. Nevertheless, it doesn't cover the issues humankind, material assets and cultural heritage, which are required for SEA and therefore have to be added. Thus, the function of SEA can be concentrated towards being an instrument to accompany the planning process with public participation and consultation of the municipality for environmentally compatible planning and is thereby able to take over the demands of the SEA Directive concerning participation.

The Impact of 'Landscape' within SEA Law and Practice in Sweden

Ebbe Adolfsson, Swedish Environmental Protection Agency, ebbe.adolfsson@naturvardsverket.se

In Sweden Directive 2001/42/EC concerning the assessment of the environmental impact of certain plans and programmes (SEA Directive) is legally transposed. However there are no experiences of the 'real use' of the laws referring to the Directive yet. But there have been regulations stipulating assessments in the spirit of the Directive before. There have even been assessments carried out due to these earlier regulations in the light of the coming Directive.

In the chain of these assessments and decisions it is important to involve the public and NGOs, not least in environmental issues. The public sees nature often from a holistic point of

view: the 'result' is seen and it is not worried about the complicated system behind it. It is the landscape that is seen. Therefore it is proposed that the landscape could be a good connection between experts and the public – in that way it is a challenge to develop landscape as a theme in SEA.

In Sweden some interesting experiences with the public involved in EIA/SEA-processes and landscape planning took place that will be presented:

- Conservation planning of the landscape at the countryside and ways to involve people at the local level.
- Procedures for how people can be stimulated to participate in the planning and assessment of wind power stations in the mountains.
- Public involvement in the processes of landscape–agriculture management and road planning.

Considering Health Aspects in SEA and Landscape Planning

Erik Skärbäck, SLU, Erik.Skarback@lpal.slu.se

There has been a rapid increase in knowledge regarding the importance of the external environment to our health. People reduce their stress significantly when exposed to health-promoting nature and landscape values. A high level of traffic noise increases stress. Eight characteristics of outdoor environments that correspond to people's needs/demands have been developed at the Department of Landscape Planning, Alnarp (Grahn, P. et al.). Development plans for city planning and infrastructure planning in four different municipalities in southern Sweden have been evaluated concerning impact assessment. Two cases deal with planning in preparation for permit applications including EIR, and an additional two cases deal with more strategic pre phase studies corresponding to an SEA phase. The eight characteristics have been applied to assess the landscape under study, both before and after the planned development. Mitigation and compensation measures in landscape planning have been created to achieve environmental quality goals with a focus on the health function of the landscape.

My paper focuses on how we can balance the health functions of nature and landscape values to achieve sustainable development through planning. The concept 'balance' implies discussing measures to mitigate, minimize and compensate for negative impacts. In this context, a negative impact is understood as a disturbance by development projects of resources and values of importance to the health function. Such resources may include both existing nature and landscape values and potential, i.e., as yet undeveloped, landscape qualities.

Evaluations of health functions of the landscape are an important part of strategic decisions in all kinds of spatial planning. They are also important in the process of analyzing impacts, in designing mitigation measures and in reaching agreement on conditions for granting permits.

Session C6 SEA Practice and Biodiversity

Topic chairs: Jo Treweek, SES, Jo@treweek.fsnet.co.uk; Helen Byron, European Programmes & Training Department RSPB, helen.byron@rspb.org.uk; Dave le Maitre, Environmentek CSIR, dlmaitre@csir.co.za; Martin Slater, Environment Agency UK, martin.slater@environment-agency.gov.uk

Session C6 looks at SEA and biodiversity. The Convention on Biological Diversity and other biodiversity-related Conventions promote SEA as a tool for mainstreaming the conservation and sustainable use of biodiversity into development. We will explore the kinds of biodiversity information needed to support effective SEA and also the benefits that SEA can bring to effective planning for biodiversity. Workshop C6.1 draws on examples where spatial biodiversity planning has been integrated with strategic planning for development. We then explore practical aspects of integrating biodiversity considerations with SEA in Workshop C6.2. We will spend a third session (C6.3) refining the latest CBD guidance on SEA and biodiversity before discussing how SEA can be used to promote the Millennium Development Goals and to make critical links between biodiversity, poverty and development needs (Workshop C6.4). Finally we will discuss how SEA might streamline environmental assessment with a particular focus on biodiversity (C6.5).

Workshop C6.1 Planning for Biodiversity and Development: SEA as a Tool

Topic chair: Jo Treweek, SES, Jo@treweek.fsnet.co.uk

Ekurhuleni Metropolitan Municipality Report Outlining Possible Methods of Entrenching Biodiversity Principles into All Aspects of the Ekurhuleni Integrated Development Plan. Elisabeth Olivier

Systematic Conservation Planning in the Cape Floristic Region and Succulent Karoo, South Africa: Enabling Sound Spatial Planning and Improved Environmental Assessment. Susie Brownlie

Biodiversity Inputs to Strategic Environmental Assessments: Integrating Insights from Advances in the Science of Systematic Conservation Planning. Dave Le Maitre

Integrating Biodiversity Issues into Strategic Environmental Planning. A Case Study of the Umlathuze Municipality, Richards Bay, South Africa. Thea Jordan

Strategic Environmental Assessment of the Dai Tu District Socio-Economic Development Plan Bruce Dunn

Workshop C6.2 SEA and Biodiversity in Practice

Topic chair: Martin Slater, Environment Agency UK, martin.slater@environment-agency.gov.uk

Inclusion of Environmental Risk Assessment within Strategic Environmental Assessment (SEA), As a Way to Ensure the Biodiversity Conservation in Brazilian Oil and Gas Exploration & Production (E&P) Offshore Areas. Katia Cristina Garcia, Emilio Lebre La Rovere, Alvaro Bezerra de Souza Junior

Strategic Environmental Assessment as a Tool to Implement Shell's Biodiversity Standard. Susana Muhamad, Shell, The Netherlands

SEA of the India Ecodevelopment Project: A Review of Prospects and Challenges for Biodiversity Conservation. Asha Rajvanshi

Integrating Biodiversity Considerations in SEA of an Irrigation Project in Central India. Vinod Mathur

Workshop C6.3 International Guidance and Principles on SEA and Biodiversity

Facilitated Group Work

Facilitators: Helen Byron, RSPB; Roel Slootweg, SEVS- Slootweg en van Schooten Consultancy

CBD Guidelines on Biodiversity in SEA - International Guidance and Principles on SEA and Biodiversity: Refinement from Experience. Roel Slootweg, Robert Hoft, Arend Kolhoff, Rob Verheem

Draft guidelines will be provided prior to the Conference. Participants are requested to consider how the guidelines could be applied, based on their experience.

Workshop C6.4 Panel Discussion

SEA and Biodiversity: Delivering the Millennium Development Goals

"A good practice is an action, approach or process that introduces or catalyzes changes in local or national attitude, policy, or pro-MDG action. A good practice leverages resources, policies, or the interests of constituencies, and enables partners to put in to place programmes that advance the MDG."

This panel discussion will focus on how SEA can help to catalyse capacity building and action to promote the MDGs, taking a regional focus. The panel will have representatives from Central America, Southern Africa, South and South East Asia, who will make brief presentations to focus the discussion. We will examine how biodiversity fits into the MDGs and how SEA can be used to help make critical links between biodiversity, poverty and development needs.

Panel Members:

Susie Brownlie (chair)
Dave le Maitre
Ian Campbell
Ahmad Saeed
Juan Carlos Garcia de Brigard
Kareh Zahedi

Workshop C6.5 Facilitated Group Work

Facilitators: Arend Kolhoff, Development Co-operation NCEIA, akolhoff@eia.nl; Dave le Maitre, Environmentek CSIR, dlmaitre@csir.co.za

Streamlining Assessment and Management for Biodiversity Using SEA: The Case of the Waddensee and Other Stories. Introductory Presentation by Arend Kolhoff

Relevant cases and examples will be requested from participants, who should prepare brief summaries of cases where SEA could have streamlined environmental assessment requirements or would have enhanced outcomes for biodiversity.

Session C6 abstracts (in order of presentation)

An SEA of the Ekurhuleni Metropolitan Municipality's IDP

Elsabeth Olivier, Ekurhuleni Metropolitan Municipality, oliviere@ekurhuleni.com

In terms of the legislation regulating the Municipalities in South Africa, each Local Authority must have an Integrated Development Plan (IDP) to be informed by a Spatial Development Framework (SDF). These are 5-year role out plans reviewed on a yearly basis, to inform the yearly municipal financial budget. Both of these documents/plans are also approved on Provincial Authority level and become legally binding documents.

The legislation guiding the IDP process used many of the principles of the Agenda 21 that was compiled at the Rio Earth summit.

In an SEA of the Ekurhuleni Metropolitan Municipality's IDP, it was found that to a great extent it complies with the Agenda 21 and Johannesburg Plan of Implementation objectives. In terms of sustainable development, the economic and social aspects, receive substantial attention, however the biophysical environmental aspect of sustainable development is not sufficiently integrated into all aspects of the IDP.

The Council of the Ekurhuleni Metropolitan Municipality has approved a report outlining possible methods of entrenching biodiversity principles into all aspects of the Ekurhuleni IDP. The directorates responsible for the IDP and Environment respectively are presently exploring ways of implementing these recommendations.

Systematic Conservation Planning in the Cape Floristic Region and Succulent Karoo, South Africa: Enabling Sound Spatial Planning and Improved Environmental Assessment

Susie Brownlie, deVilliers Brownlie Associates, dbass@icon.co.za

The Cape Floristic Region (CFR) and Succulent Karoo are global biodiversity hotspots, lying mainly within South Africa. Land use has a major impact on biodiversity in these biomes, and sound environmental assessment (EA) in land-use planning is thus a critical factor to ensure that decision-making supports biodiversity conservation.

Environmental Assessment in South Africa is mandatory at project, not strategic level. Since 2000, however, municipalities have had to prepare Spatial Development Frameworks (SDFs) and carry out an associated Strategic Environmental Assessment.

Systematic conservation planning identifies priority areas for conservation action by determining quantitative and scientifically defensible targets for conservation, and looking at options to achieve those targets. Systematic conservation planning can make a significant contribution to the sound preparation of SDFs,

and to effective EA at plan and project levels: broad-scale planning provides a reliable 'red flag' mechanism at both strategic and project level EA, assists in screening and scoping, and directs subsequent investigations; fine-scale planning outputs effectively provide a biodiversity scoping surrogate. At all levels of land-use planning and EA, systematic conservation planning products encourage proactive and positive planning.

A number of examples are provided. Based on these examples, the main lessons and challenges for the future are drawn out.

Biodiversity Inputs to Strategic Environmental Assessments: Integrating Insights from Advances in the Science of Systematic Conservation Planning
David le Maitre, Jeanne Nel, Caroline Gelderblom, Environmentek, CSIR, dlmaitre@csir.co.za

Biodiversity assessment is now a recognised component of environmental impact assessments and guidelines are available or under development for use by both EIA project managers and assessment specialists. The guidelines generally recognise that to be effective biodiversity impact assessments need to address biodiversity at both the species and the ecosystem level and to address compositional, structural and functional aspects of the systems.

Systematic Conservation Planning has been developed to guide decision makers in choosing an optimum set of areas to select for formal protection, or conservation-compatible management, to meet predefined targets.

Historically, SCP like biodiversity assessment, also focused on the compositional and structural aspects of biodiversity (which are combined in the term biodiversity pattern), typically at the community or habitat level.

The SCP approach is now being adapted and expanded to deal with issues of biodiversity function and process because communities can only persist and be sustainable if the evolutionary processes that sustain that community are provided for. These developments are driving the development of new insights and tools which can be used as the conservation inputs for SEA. The outcomes are in the forms of sets of land areas (and river reaches) which can then be used in the decision process. Choices on whether or not to include a particular unit can then be used to update the information with a new optimal set of areas.

Integrating Biodiversity Issues into Strategic Environmental Planning: A Case Study of the Umhlathuze Municipality, Richards Bay, South Africa
Thea Jordan, Umhlathuze Municipality, tjordan@richemp.org.za

Cities have been recognised worldwide as important "sites" of national development and, as urbanisation in South Africa increases, so the demand for its cities to perform in a sustainable and efficient manner escalates. Therefore, it is imperative that cities are planned and managed in a manner that enable a balanced utilisation of resources and the opportunity for an improved quality of life.

Consequently, environmental issues are becoming a major concern in urban development. In many cases the demand for environmental services or biodiversity exceeds supply and consequently results in:

- More frequent flooding with damage to roads, homes and stormwater infrastructure
- Unacceptable air pollution and communities opposed to new industrial developments
- Sedimentation of our estuaries with less ability to produce fish
- Poor water quality in rivers and the sea with costs to health, food production and tourism
- Less resources for the poor, who often rely on environmental services for their livelihoods

The above illustrates a city wherein the human systems and the natural systems are not aligned, and are generating costs, which somebody or a community in the region must and will bear. It also highlights a situation where conflict between "economists" and "ecologists" is prevalent.

It is within this framework that the Umhlathuze Municipality undertook to extend its municipal open space system into the new and expanding municipal area, in accordance with emerging new approaches. It needed to move beyond merely identifying the open space "footprint," and required an elevation of the status of open space as a vital and valuable physical, social and economic asset that is fundamental to the creation of livable cities.

A Strategic Assessment of the environmental assets and services were undertaken within catchment boundaries, since river catchments are becoming widely accepted as appropriate spatial units within which planning and sustainable development should take place. It is estimated that the environmental services within the City of Umhlathuze is worth R1,757 million per annum. Since the study originated in the Town Planning Department of the Municipality, it was also important to ensure that the outcomes of the study directly inform or influence other local and regional plans, development programmes and land use controls.

This case study examines the process followed by the Umhlathuze Municipality to incorporate biodiversity or environmental services into strategic and spatial planning. It will also show how the original aim of the project changed to not only inform open space planning, but also assist in alleviating conflict between developers and environmentalist during Environmental Impact Assessment's (EIA's), since the Municipality "would have done its homework" in terms of the importance of certain areas for biodiversity and ecosystem functioning.

Strategic Environmental Assessment of the Dai Tu District Socio-economic Development Plan

Bruce Dunn, German Technical Cooperation (GTZ), gtz-tdmp@hn.vnn.vn

The GTZ-funded Tam Dao National Park and Buffer Zone Management Project (TDMP) assists stakeholders to develop and implement plans and programs that balance economic, social and environmental interests within the park's core zone and buffer zone.

TDMP is providing technical assistance to Dai Tu District's Department of Planning and Investment (DPI) to conduct a strategic environmental assessment (SEA) of DPI's upcoming 5-year socio-economic development plan. TDMP chose to support an SEA of this plan because about half of the communes in Dai Tu district are located within the park's buffer zone. Therefore, the plan will have a substantial impact on development in the buffer zone.

In applying this tool, four major points were considered:

1. The socio-economic development plan for Dai Tu district is a key planning document for the buffer zone. Environmental considerations that are woven into the plan will then be considered for support within the annual implementation plans.
2. The GOV's policy framework for SEA is quite modest, and therefore there is little procedural guidance on how GOV should undertake an SEA
3. The park and the communes hold a number of environmental values. However, the current socio-economic development planning process does not have a clear mechanism to incorporate these values or consider their sustainability limits
4. Stakeholder knowledge on SEA is very limited in Dai Tu district.

Notwithstanding these challenges, SEA has excellent potential as a planning tool in Vietnam because the nation's major sectors and political jurisdictions operate under a centrally-controlled planning system. In this system, the 'master plan' and the 'socio-economic development plan' guide the design and implementation of investment throughout the nation. Lessons learned from the TDMP SEA will be very helpful to the GOV as it finalises the new Law on Environmental Protection and prepares to develop the decrees, circulars, and guidelines to implement the Law.

Inclusion of Environmental Risk Assessment within Strategic Environmental Assessment (SEA), as a Way to Ensure the Biodiversity Conservation in Brazilian Oil and Gas Exploration & Production (E&P) Offshore Areas

K.C. Garcia, LIMA/PPE/COPPE/UFRJ, garciak@ppe.ufrj.br

The 3.5-square-km Brazilian shore areas include coral reefs, dunes, mangroves and estuaries, some of them endemic, contributing to appoint the country as the largest biodiversity on Earth. However, these ecosystems are being lost, damaged or threatened by the risk of oil spills from E&P activities.

In order to reduce such environmental pressure, the regulatory agency (ANP), together with the Brazilian Environmental Institute (IBAMA), published, in the last three concession rounds of E&P blocks, environmental license guides and studies, emphasizing the environmental sensibility of the E&P areas. However, this approach only takes into account the plan-level of the decision making process, when politics, plans and programs (PPP) should be addressed; and, furthermore, this is not sufficient to guarantee the incorporation of all environmental issues.

This paper proposes a novel methodology, by utilizing the Environmental Risk Assessment within SEA, as a way to efficiently incorporate all the environmental issues, including the reduction of the risks of oil spills, and its catastrophic consequences to the biological diversity and to the communities of the E&P areas. Moreover, the proposed approach can determine the exclusion (or postponement) of concessions areas with extreme environmental sensibility, as well as the choices for biodiversity-friendly E&P technologies.

Strategic Environmental Assessment as a Tool to Implement Shell's Biodiversity Standard

Susana Muhamad, Shell Global Solutions, susana.muhamad@shell.com

The Shell Group committed to respecting biodiversity in 2001 by adopting the Shell biodiversity standard. The standard focuses on:

- Working with others to maintain ecosystems
- Respecting the basic concept of protected areas
- Seeking partnerships to enable the Group to make a positive contribution towards the conservation of global biodiversity.

For that effect Shell companies will:

- Conduct environmental assessments, including the potential impacts on biodiversity, prior to all new activities and significant modifications of existing ones
- Bring focused attention to the management of activities in internationally recognised hotspots, including the identification of, and early consultation with, key stakeholders.

The standard has been rolled out and projects have been implemented in different companies and operations around the world. After 5 years of the commitment a review has been made in order to inform the formulation of a strategy for the next 5 years. This paper will explore how SEA could be a valuable approach to implement the next 5-year strategy, based on the learning's of implementing biodiversity projects in the past. This is a practical experience from the energy sector in addressing biodiversity aspects and the potential use of Strategic Impact Assessment as a tool to improve performance.

Strategic Environmental Assessment of the India Ecodevelopment Project: A Review of Prospects and Challenges for Biodiversity Conservation

Asha Rajvanshi, Wildlife Institute of India, ar@wii.gov.in

As the evidence and experience of applications of diverse forms of Strategic Environmental Assessment (SEA) is rapidly growing across the globe, consensus over its usefulness as a diagnostic and prescriptive tool for mainstreaming biodiversity into decision making is also increasingly emerging. Due to lack of policy guidance and thrust on SEA in the national EIA framework, the applications of SEA in India is being largely inspired by various global initiatives.

This paper presents the findings of the SEA of the India Ecodevelopment Project (IEP), a GEF funded national priority project implemented in seven protected areas in India. The core objective of the project was to strengthen biodiversity conservation in all the seven sites by establishing critical links between conservation and community well being. The project was designed to address threats to biodiversity resources and ecosystem functioning by optimizing benefits to local communities, improving livelihood opportunities and reducing dependencies on PAs' biodiversity resources.

The SEA of this community oriented conservation project of national significance was conducted to review the success of enabling strategies, interventions and financial investments planned under the project and to improve the performance of the project in all the sites.

The SEA process appropriately captured the major impacts of the project activities and was successful in generating the evaluation framework for reviewing the key strengths and weaknesses of the project. This SEA was helpful in identifying two major shortfalls in the planning of this community oriented conservation project. These included failure to identify some important drivers of changes in biodiversity and neglect of some of the external threats that were more real in the final analysis of threats to biodiversity resources of the PAs. This SEA output provided useful guidance for refining the project plan for improving the biodiversity conservation prospects in future sites of project implementation.

Integrating Biodiversity Considerations in SEA of an Irrigation Project in Central India

V.B. Mathur, Asha Rajvanshi, Wildlife Institute of India, vbm@wii.gov.in, ar@wii.gov.in

In the last three decades of EIA practice in India and in many other countries, integration of biodiversity considerations in impact assessment has made a steady progress. The same is however not the case with the Strategic Environmental Assessment (SEA) for a variety of reasons. Notwithstanding the fact that SEA does not have a universally agreed definition and also a legally binding framework, it provides an excellent diagnostic tool for the evaluation of proposed policies, plans and programmes to facilitate informed decision-making. Incorporation of biodiversity considerations in SEA is still at a nascent stage.

This paper describes the experience of conducting a 'biodiversity driven' and 'EIA inspired' SEA for an irrigation project in Central India, where an earlier EIA had failed to steer the decision-making. The SEA was adopted as a tool to supplement the deficient information and make value additions in critical information needs on biodiversity issues for aiding improved conservation planning and decision-making. The SEA was based on a combination of 'bottom-up' approach involving independent review of the project level EIA and initiation of further assessment for upgrading information on biodiversity issues. This 'biodiversity driven' SEA highlighted the importance assigned to the evaluation of impacts on ecosystem components valued as habitat links and movement corridors for tigers and ecosystem functions and features that characterized habitat suitability for conserving and managing prey base for tiger. The outcomes of SEA played a meaningful role in deciding a new course of impact mitigation and conservation planning which led to the grant of environmental clearance to the project that was first mooted nearly two decades ago.

CBD Guidelines on Biodiversity in SEA

Roel Slootweg, SevS natural and human environment consultants, sevs@sevs.nl; Robert Höft, Secretariat of CBD; Arend Kolhoff, Rob Verheem, Netherlands Commission for Impact Assessment

The Secretariat of the Convention on Biological Diversity (CBD) has requested the Netherlands Commission for Impact Assessment to assist in preparing Guidelines for the Integration of Biodiversity Considerations in Strategic Environmental Assessment. In close consultation with the Biodiversity & Ecology and the SEA sections of IAIA a document has been drafted and reviewed. Inputs from the trade section have also been solicited. The guidelines are based on lessons learned from good quality cases in which biodiversity was an important issue. To further ensure the new guidelines fully reflect the experience of IA practitioners, the draft document has been discussed at the annual IAIA conference in Boston. Further discussion on an advanced draft of the guidelines is proposed for the SEA conference in Prague. The activity is part of IAIA's Action Programme for Biodiversity in Impact Assessment; case studies have been solicited through IAIA's Capacity Building on Biodiversity in Impact Assessment (CBBIA) project. The final document will be presented at a technical meeting (SBSTTA) of the CBD in December 2005, in order to present the guidelines for adoption by the CBD Conference of Parties in 2006.

Session C7 SEA and EIA Tiering: The Missing Link

Topic chairs: Jos Arts, Ministry of Transport, Public Works & Water Management, NL, e.j.m.m.arts@dww.rws.minvenw.nl; Paul Tomlinson, Centre for Sustainability, TRL, ptomlinson@quista.net; Henk Voogd, University of Groningen, h.voogd@frw.rug.nl

This topic will include discussion of notions of tiering of SEA and EIA, case studies, with the aim to discuss ideas and exchange experiences to identify common issues and principles, lessons and useful future directions. The following themes merit attention:

- Applicability, usefulness of tiering in planning practice (strengths and weaknesses)
- Multi-level governance and consequences for tiering (dealing with planning and decision-making at various levels of government and across various sectors)
- Participation and tiering (dealing with different stakeholders and interests in tiering)
- Tiering and quality control in SEA and EIA (enhancing quality of EAs throughout the planning process)
- Tiering and scoping of SEA and EIA (defining adequate scope at different tiers)

- Role of SEA follow-up and EIA follow-up (tiering for tracking adequate implementation of mitigation measures and risk management)
- Role of dynamic planning context in tiering (doing useful tiering in a dynamic planning context, time lag issues, shelf-life of SEAs and EIAs)

Workshop C7.1

Introduction: EIA and SEA Tiering, the Missing Link? Jos Arts, Paul Tomlinson, Henk Voogd

Successful Tiering of Policy-Level SEA to Project-Level EIAs. Charles Alton

Tiering Environmental Assessment in the Swedish Energy and Waste Sectors. Sara Tyskeng

Workshop C7.2

SEA-EIA Tiering for Better Consideration of Impacts on Indigenous People. Merrell-Ann Phare

SEA of Multiple Spatial Plans? Can it Work? Emma James

Is There Life after SEA? Linking SEA to EIA. Ross Marshall, Jos Arts

Discussion and conclusions:

- What are do's and don'ts in tiering?
- What are common principles?
- What are useful future directions?

Session C7 abstracts (in order of presentation)

EIA and SEA Tiering: The Missing Link?

Jos Arts, Ministry of Transport, Public Works & Water Management, NL, e.j.m.m.arts@dww.rws.minvenw.nl; Paul Tomlinson, Centre for Sustainability, TRL, ptomlinson@quista.net; Henk Voogd, University of Groningen, h.voogd@frw.rug.nl

Early in the development of the Strategic Environmental Assessment (SEA) concept, the idea of tiering of environmental assessment at different planning levels was put forward as a key element. Moreover, the idea of tiering can be even considered as one of the major drivers for the development of SEA (see e.g., Therivel et al. 1992, UNECE 1992, Wood & Djeddour 1992, Therivel & Partidario 1996, Sadler & Verheem 1996, Partidario 1999, Fischer 2002, Wood 2003). Many spatial decisions that have a bearing on environmental quality are taken at a higher level of decision making than the project level; as Partidario (1999, p.60) indicates "The reasons [for SEA] are various but initially related to the timing of project EIA, i.e., it enters the decision-making process at too late a stage to be able to influence the final decision in a satisfactory way." Tiering means that by preparing a sequence of environmental assessments at different planning levels and linking them, foreclosure may be prevented, postponement of detailed issues may be permitted and assessments can be better scoped. A tiered approach minimise the problem of Environmental Impact Assessment (EIA) being only a 'snapshot in time'. Accordingly, the EU SEA-Directive (2001/42/EC) explicitly assumes tiering of SEAs and EIAs at different planning levels and the SEA- and EIA-Directive are directly linked (e.g., article 3(2) of Directive 2001/42/EC requires SEA for those plans and programs, which set the framework for future development consent of EIA projects).

Although tiering is an important notion to SEA and EIA in academic literature, it is hardly discussed in a critical manner (Tomlinson & Fry 2002). Surely the concept of tiering might provide a means to address the complexity of planning and decision-making, which environmental assessments must operate. However, its implicit assumption of a linear planning process does not fit well with the dynamic nature of planning and decision-making in practice. For instance, there may be still a considerable gap between a strategic plan subject to SEA and project development with EIA. In planning practice all too often project decisions and EIAs may precede strategic plans and the SEAs that should provide the framework for project decision-making. Nevertheless, it is clear that good coordination between planning levels and between SEA and EIA is needed to achieve sound (sustainable?) planning, efficient and effective de-

cision-making. The question is: how can the link between SEA and EIA that is all too often missing made operational and what is the actual and potential role of tiering?

Case Study: Successful Tiering of Policy-Level Strategic Environmental Assessment to Project-Level Environmental Impact Assessments

Charles Alton, Bonneville Power Administration, charles.alton@comcast.net

Too often, project-level environmental impact assessments (EIAs) worldwide have been reduced to instruments validating a *fait accompli*. As a consequence, environmental practitioners and agency experts often feel pressured to justify a preordained outcome than to actually plumb the depths of alternative actions. Similarly, the general public feels that their ability to influence strategic boardroom decision making is futile so they focus their efforts instead on influencing decisions via the courtroom causing expensive delays in implementation.

The Bonneville Power Administration, United States Department of Energy, successfully implemented a policy-level and project specific actions tiering process. The case study, based on the electric energy utility industry in the Western United States, demonstrates how to effectively and efficiently integrate policy-level SEA and project-level EIA. The process illustrates how the technical and strategic (e.g.,, political, social, cultural and basic health) information can be used at the time when actions are ripe for consideration by all parties.

Tiering Environmental Assessment in the Swedish Energy and Waste Sectors

Sara Tyskeng, Linkoping University, sarty@ikp.liu.se

In my opinion, one of the advantages of tiering is that it helps to make sure that (inter-) national environmental ambitions and strategies are implemented at all levels of decision-making as it sets the frames for future development projects.

Preliminary results from studies of the scope of and tiers between environmental assessments in the Swedish energy and waste sectors show that at the project level, environmental assessments merely focus at local emissions aspects. Furthermore local plans seem only to discuss and assess national environmental strategies and ambitions to some extent. Tiers between the planning and project levels seem also to be very weak as the local plans give the impression of being just paperwork and could easily be adjusted to make room for new projects. The studies also showed that authorities that function as project decision-makers feel they lack legal rights to demand project developers to tier to plans and national policies in their environmental assessments.

It is therefore important to consider factors like what impact different planning levels have on projects and what possibilities decision-makers and other actors actually have to tier. First then could tiering work and contribute to effective decision-making.

SEA-EIA Tiering for Better Consideration of Impacts on Indigenous People

Merrell-Ann Phare, Centre for Indigenous Environmental Resources,

In Canada, a government decision to approve a project can be greatly effected by the rights of nearby indigenous peoples; they have constitutionally-protected rights that require certain government protections. EIA processes do not include the assessment of possible project impacts on indigenous rights; this analysis occurs within government, and appears to be guided by legal and policy considerations to which the public and indigenous peoples are generally not privy.

Consequently, programs, plans or other measures (such as impact-benefit agreements) prescribed to mitigate or compensate indigenous peoples for project impacts on rights can have their own environmental quality impacts that are not subject to the scrutiny of the EIA process.

This paper will suggest that tiering SEA and EIA may present a solution to the problem of how to consider the protection of legal rights, such as indigenous rights, within the context of EIAs. Conducting an SEA that includes an analysis of the existence of and likely impact of any projecton indigenous rights within a geographic planning area may greatly benefit scoping of subsequent project EIAs. A model demonstrating the staging of the SEA, rights analysis and linkages to EIA will be presented, as well as any remaining concerns or limitations of this approach.

SEA of Multiple Spatial Plans? Can It Work?

Emma James, TRL, ejames@trl.co.uk

The paper will form a response to C4: SEA and spatial planning and will specifically address methodological and procedural aspects of carrying out simultaneous SEA of multiple plans.

The intention of SEA is to strengthen the environmental/social evidence base - and this is most effective when organised as an ongoing cycle rather than a one-off activity. Even in the first year of the SEA Regulations in England examples have emerged of authorities attempting to streamline efforts carrying out simultaneous SEA of multiple plans. In recognition of this, the paper will address:

- SEAs for multiple plans – why and how?
- Examples from England since July 2004 – the practical challenges
- A glimpse of the future

Authorities that have carried out simultaneous SEA on multiple plans and have found benefits such as reduced consultation burden and more joined up approach to measuring progress towards sustainable development. However, there are challenges inherent in the process including compatibility in the breadth of issues, lengthening of timescales and the question of who pays for joint mitigation?

The paper will address both the benefits and challenges with a view to stimulating discussion on possible solutions.

Is There Life after SEA? Linking SEA to EIA

Ross Marshall, Environment Agency, ross.marshall@environment-agency.gov.uk; Jos Arts, Transportation/EIA Centre, e.j.m.m.arts@dww.rws.minvenw.nl

The tiered model for SEA (with its ordered progression through policy, plan, or programme to project EIA) has become an established concept within environmental assessment. This model, with its delineated tiers assumes an ordered succession of activities and decision-making until the final end-point is reached. Many comments can be given on the practical relevance of this model.

A fundamental question is how SEA tiers can be linked with subsequent EIA processes in practice? At the conclusion of a SEA, a number of decisions and pre-determined criteria for future action will have been reached and which will require some form of follow-up, e.g.: aspects regarding the determination of environmental and sustainability objectives, decisions regarding the elaboration of alternatives, uncertainties and gaps in knowledge left, future monitoring and mitigation programmes, or public concerns. Accepting that the decisions and information developed at an higher tier of SEA represent essential precursors to the future development of a subsequent EIA, there is a clear need for a structured process to capture and control the delivery of this information and the implementation of decisions into subsequent EIA activity stages. SEA follow-up may provide for this structuring and linking of SEA to EIA as a process management tool.

Recent studies and publications have presented a substantial argument in favour of EIA follow-up in directing and controlling the monitoring, evaluation, management and the communication of impacts arising from EIA.

This paper examines whether there is a practical role for follow-up post-SEA and prior to the start of subsequent EIA processes. Can follow-up experience in EIA be applied to SEA and can it perform a process management function in SEA? The paper will address briefly current status of follow-up in SEA regulations and guidance, and discuss practical issues of its application when bridging the gap between SEA and EIA.

Stream D Cross-Cutting Issues in SEA Practice

Coordinated by Ralf Aschemann, An !dea – Austrian Institute for the Development of Environmental Assessment, Austria, office@anidea.at

Session D1 Data and Scale Issues for SEA

Topic chair: Elsa João, University of Strathclyde, elsa.joao@strath.ac.uk

This workshop aims to clarify how best to handle data and scale issues that will lead to the best possible SEA process. The workshop will be a mixture of short paper presentations and a final panel discussion. In particular, the workshop will try to answer some of these questions:

1. What comes first - data or issues? How to avoid issues being ignored for lack of data? Is an objective-led approach preferred to a baseline-led approach? Can issues alone (i.e., deprived of data to back them up) survive a public enquiry?

2. How much data is enough and what type of data is needed? What are the data needs for different sectors, for different issues (e.g.,, biodiversity, health), for different levels (linked with tiering), for different alternatives, for different stages (e.g.,,, scoping, monitoring), for cumulative impacts, for transboundary issues, for different methods, and for environmental, social versus economic issues?

3. How does the disparity in the data availability affect the importance of different issues? Would SEA objectives for which there is no data lose out in relation to other data-rich SEA objectives? Are quantitative data given more importance than qualitative data, for example in a public enquiry?

4. How does data collection and scale choice relate to 'pragmatic aspects' of SEA ?How does data collection relate to the timing of the SEA process? What to do when resources (money, staff, time) are scarce? Should we give priority to data that is considered 'most important'? Is it possible to classify SEA data in terms of its importance? Are budgets and schedules getting in the way of using sufficient detail in SEA?

5. What are the scale effects in SEA? How does scale affect the determination of significance in SEA and how does it affect the quality of the screening and scoping processes? Are scale effects more important in SEA than in EIA?

6. What detail is relevant for each SEA tier? What data and at what detail is needed for each tier? At what level should certain issues be dealt with? What issues should be dealt at which level?

7. Multi-scale analysis. Are multi-scale analysis needed and do the same issue need to be re-visited at different tiers with different scales?

8. Other data quality issues besides scale issues? What are the uncertainty and accuracy issues in SEA? How best to handle uncertainty and accuracy in SEA? What should metadata for SEA look like? How to take into account data and targets that might change during the timeline of the strategic action? Should data collection be on-going throughout the implementation of the strategic action? Would an 'adaptive SEA' be a solution?

9. Are there any examples of data and/or scale abuse? Have data and/or scale been chosen to suit particular interests rather than what the SEA process requires? If yes, what can be done to protect the SEA process from this abuse?

10. Are guidelines or guidance needed regarding data and/or scale for SEA? If so, how would such guidelines or guidance look like? How would it vary for different sectors (e.g.,, agriculture, waste), levels (e.g.,, regional, local), issues (e.g.,, biodiversity, health), SEA stages (e.g.,, scoping, monitoring)?

11. What information should be included in databases? Should databases keep track of mitigation and enhancement measures that may affect other SEA and project EIA? Who should be in-charge of databases, in order to reduce duplication of effort?

12. What kind of link between data and public participation? Can public participation help with data gaps? Can public participation help with monitoring? Can public participation help with poor data quality? Can the public be trusted on the data provided?

Workshop D1.1 Introduction: Data and Scale Issues for SEA

Topic chair: Elsa João, University of Strathclyde, elsa.joao@strath.ac.uk

What Scale is Relevant for the Decision Making Process? A Multi-Actor Perspective on Xcale. Sonja Karstens, Pieter Bots, Wil Thissen

Scales and Associated Data—or the Other Way Round? What Is Enough for SEA Needs?. Maria Rosário Partidário

Panel Discussion on position paper and paper presentations

Panel members: Riki Therivel, UK; Elvis Au, Hong Kong; Jos Arts, The Netherlands

a) Comments on position paper and paper presentations

b) Panel and paper presenters respond to questions from participants

c) Final key conclusions from panelists, paper presenters and participants

Session D1 abstracts (in order of presentation)

Data and Scale Issues for SEA

Elsa João, University of Strathclyde, elsa.joao@strath.ac.uk

The workshop will start with a short presentation of the key issues raised by the position paper, namely: data issues; scale issues; tiering and multi-scale analysis; data quality, metadata and uncertainty; and data and/or scale abuse.

What Scale Is Relevant for the Decision Making Process? A Multi-Actor Perspective on Scale

Sonja Karstens, Pieter Bots, Wil Thissen; Delft University of Technology/GeoDelft, sonjak@tbm.tudelft.nl

There is no such thing as an 'ideal' scale: difficult trade-offs are involved in the selection of scale. A high level of aggregation might for example secure the progress of the study, contribute to the general political agenda and prevent conflicts. On the other hand, it might fail to recognize the responsibilities and interests of actors and the possibilities for issue trade-offs. In order to be effective a SEA should take the decision making process as a starting point. Therefore the function of the SEA in the decision making process should play a key role in the selection of scale because scale sets bounds on the types of problems addressed, the solutions to be found, and the impacts to be evaluated. This attaches a strategic value to scale because it may intentionally or unintentionally privilege certain actors. This research provides a framework for ex ante evaluation of scale effects from multiple actor perspectives involved in a study and the decision making process. The framework is used in a thought experiment in different case studies. Interviews are conducted to reveal perspectives of different actors of what the consequences might have been if different scales had been used in the study and how they value these consequences. This provides a clearer insight in the trade-offs that need to be made and facilitates making deliberate scale choices.

Scales and Associated Data - Or the Other Way Round? What Is Enough for SEA Needs?

Maria Rosário Partidário, DCEA/FCT-UNL, mp@fct.unl.pt

Given multiple variants of SEA, I got used to thinking of SEA as a function of strategic issues that are associated to a given problem and to the respective scale(s). The underlying note being, however, that at any scale the thinking must be strategic! And so the first thing is to think of what is strategic about the situation or initiative that is the object of assessment, and how can SEA be used strategically. It seems therefore that after understanding what is actually going on, in other words, what is actually being assessed, a next step involves deciding what are those strategic issues that must be explored and at what scale, or range of scales, before progressing into further assessment, including digging for data that ensure the "robustness" of the assessment (whatever this means for strategic decision-making). Deciding what are strategic issues isn't an easy decision in itself. It require "some" data, fair and pragmatic data, but what data?! Now what means data in SEA? Is there one moment in SEA for data collection? Or should data be collected when needed? When, if ever,

should investment be made on significant data collection (e.g.,, baseline)? When is the right moment to decide what data is needed? And how much data will be enough? Shouldn't data be an issue of collective effort together with the strategy development per se? These questions lie in the frontier of the debate between EIA-based SEA and strategically-based SEA. Hot topic and so far unresolved. The debate probably lies between the comfort of knowing everything (presumably!) and not moving before a sound knowledge base, and the capacity to be effectively uncertain while moving forward. Behind the scene is still the same old question: what do we want SEA for? To assist sound decision or to establish a sound information base for decision? Both!! But then what is the priority when we can not have both?

Session D2 Public Participation in SEA - Current Situation and Trends

Topic chair: Bo Elling, Roskilde University, be@ruc.dk

The session will address public participation in SEA practice as it develops from single cases to a more systematic applied process in accordance with certain rules and principles. Its main focus will be how the strategic character of SEA makes public participation desirable, and - on the other hand - how the abstract and general character of SEA also complicates such involvements. Until present challenges have emerged at all levels of PPP for citizen involvement in SEA, such as the integrative approach to SEA, balancing effects, and the sustainability approach. Other challenging trends are the use of IT and the Internet for the dissemination of information, and early involvement of the public in defining and identifying objectives for the PPP and the scope of the assessment. Finally, if public involvement expands at all stages of the SEA process and citizen contributions to substantive parts of the assessment develop, ownership to the final decision and political responsibility will be a highly important issue.

Key issues for consideration at the session:

- Early public participation in the identification of policy, plan or program objectives and means.
- New ways and opportunities for public involvement at specific stages of the SEA process.
- The type of rationality related to SEA and how it can reflect its dialogical character.
- Public involvement in the process of monitoring environmental effects.
- The use of information technologies and the Internet for submission of information in-between the competent authorities and the general public and concerned citizens and how it will affect the SEA process.
- The issue on ownership and political responsibility to final decisions in case of actual public involvement in the SEA process.

The session will include four workshops. The first takes the point of departure in a presentation of the position paper and views on SEA in theory and practice by panelists and paper contributors. The second workshop will be a panel discussion of position paper issues defining a general framework for discussions at the single workshops. The third workshop will present specific papers mainly on theoretical matters that give different approaches to position paper issues. The fourth workshop will present specific case studies on SEA practice (A) and conclude on the session findings (B).

Workshop D2.1 Presentation of session issues, panelists and paper contributors

Presentation of position paper by Bo Elling

Short comments and statements

Presentation of panel members and participants' submitted abstracts

a) Profession within EA
b) View on SEA in theory and practice

Planning of Workshop 2 and Workshop 3

Panelists and paper contributors:

Polina Agakhanyants, Technical University Berlin
Sona Anyvazyan, Center for Regional Development/Transparency International Armenia
Ralf Aschemann, An !dea - Austrian Institute for the Development of Environmental Assessment
Peter Croal, CIDA
Lee Doran, Ecological Writings, Toronto
Bo Elling, Roskilde University
Yuko Furugori and Sachihiko Harashina, Tokyo Institute of Technology
Ainhoa Gonzales, Dublin Institute of Technology
W.F.M. (WIM) Haarmann, Tilburg University
Hilary Schaffer, Stanford University

Workshop D2.2 Panel discussion on position paper issues (listed above)

Panel members:

Ralf Aschemann
Peter Croal
Hilary Shaffer
Yoko Furigori
Ainhoa Gonzales

a) Comments on position paper issues from panelists
b) Responds and comments on questions from participants

Note: In case of exceptional participation part of Workshop 3 may be split into group work, for example after presentation of panelists views and before final plenum discussion (in-between a and b).

Workshop D2.3 Paper presentations

The Place and Role of Public Participation in Monitoring Regional Sustainable Development. W.M.F. Haarmann

Capacity Building Project for Public Participation in Southern Africa. Peter Croal

Public Participation in Master EIS Processes for Land-Use Plans. Hilary Schaffer

Environmental Assessment Systems in USA and Japan. Yoko Furigori, Sachihiko Harashina

New Technologies Promoting Public Involvement: An Interactive Tool to Assist SEA. Ainhoa Gonzalez et al.

Aesthetic and Ethical Values and Public Participation in SEA. Bo Elling

Conclusion of D2.3 by Bo Elling

Workshop D2.4

A. Presentation of case studies

Public Participation within the UNDP/REC SEA Pilot Project in Armenia. Sona Ayvazyan

Public Consultation at the Regional Level Facilitates Decision-making at the Project Level: An example from the Victoria Nile. Lee D. Doran

SEA and Public Participation Experiences in Russia. Polina Agakhanyants

Expected Impact of Stragic Environmental Assessment on National Plans and Programmes in Estonia. Kaja Peterson *(abstract unavailable)*

B. Conclusion of session

Topic chair and panelists present their findings for conclusions of the session for discussion by participants

Final conclusions

Session D2 abstracts (in order of presentation)

The Place and Role of Public Participation in Monitoring Regional Sustainable Development

W.M.F. Haarmann. Telos, haarmann@uvt.nl

Telos (Brabant Centre for Sustainable Development in The Netherlands) has developed a participative method to monitor regional sustainable development. This method was applied in four Dutch provinces, during 2000-2003. We discovered that local and temporal conditions had a considerable impact on the perceptions, preferences and choices of stakeholders. This made it more difficult to compare the outcomes. At the same time, we found out that the involvement of stakeholders in the process of defining and applying indicators for sustainable development proved to be a very good tool to improve the communication and cooperation between actors with different opinions and interests, often coming from very dissimilar backgrounds: from the field of science, via policy-making or the NGO-world to the arena of business. According to the stakeholders this (communication) process was as promising, and according to some even more promising, than the concrete assessment the method was developed for. We now are in the middle of improving both aspects of our approach. We want to ameliorate the possibility to compare outcomes over time and between different regional contexts, and we want to reinforce the participatory approach, by defining more precisely where, when and how stakeholders, and what kind of stakeholders, should be involved. The focus of this paper is on the last aspect. The purpose is to present our findings thus far, and even more so, the questions we have come across and lessons we've learned.

Capacity Building Project for Public Participation in Southern Africa

Peter Croal, Canadian International Development Agency, peter_croal@acdi-cida.gc.ca

The Johannesburg Plan of Implementation describes "good" governance as being essential for sustainable development. Coupled with this is NEPAD and the Commission for Africa report which views good governance as an essential element of poverty reduction in Africa. Most consider good governance to mean: transparent decision-making, access to information and justice, public participation, coherence, subsidiarity, respect for human rights and accountability. A well-planned and implemented SEA does respect all these conditions for good "environmental" governance. However, in Africa, one of the elements of the SEA process, which is quite weak, is public participation. This has large opportunity costs in terms of community empowerment, environmental performance and displaying true democratic reform. Africa and other developing nations are in an excellent position to take advantage of the benefits of SEA to avoid problematic issues made by developed countries in the application of EIA. The Southern African Institute for Environmental Assessment has undertaken a 2-year capacity development project (World Bank and Canadian CIDA supported) to address the SEA and public participation process in the SADC region. The programme has developed a suite of practical PP/SEA tools and methodologies, appropriate to the developing country context, which ensure that all stakeholders involved in an SEA derive full value from the PP process. Calabash outputs are also applicable to the Poverty Reduction Strategy Process (PRSP).

Public Participation in Master EIS Processes for Land-Use Plans

Hilary Schaffer, Stanford University, hilschaf@stanford.edu

The California Environmental Quality Act (CEQA) requires strategic environmental assessments in the form of Master Environmental Impact Reports (EIRs). Three of the six goals of CEQA involve public participation, but few studies have assessed the Act's effectiveness in meeting those participation goals. This research, which investigates Master EIR processes for three recent land-use plans in the San Francisco Bay Area, examines whether and how these processes enhanced the ability of citizens, nongovernmental organizations (NGOs) and government agencies to affect planning decisions. Information has been collected via interviews with participants, including decision makers and representatives of government agencies, NGOs, individual citizens, consultants, and attorneys. In addition, EIR documents and public hearing transcripts have been analyzed. The study emphasizes the influence of Master EIRs on

the information citizens, NGOs, government agencies and decision makers have available to participate in land-use planning, and it also concerns the timing of the Master EIR process relative to key land-use decisions. Results provide useful information for both practitioners and policy makers, in terms of appropriate methods and procedures, to achieve effective public input into land-use plan making.

Environmental Assessment Systems in USA and Japan

Yoko Furigori, Sachihiko Harashina; Tokyo Institute of Technology, sahara@depe.titech.ac.jp

Strategic Environmental Assessment (SEA) has become an important tool to integrate environmental consideration into a decision-making process. It is generally understood as a process for assessing the environmental impacts caused by a proposed policy, plan and program. SEA should be recognized as a supportive method to conduct appropriate decision-making for sustainable development. However, a successful implementation of SEA depends much on a fair and considerate decision-making process based on positive disclosure and public participation. In this paper we review the environmental assessment system of the United States, enacted as the National Environment Policy Act (NEPA), which is the first SEA system in the world, and discuss the decision-making processes concerned and the public participation in them. We, then, make a comparative study on the legal structure of the U.S. and Japan related to or supportive of environmental endeavors that reflects social differences between the two countries. Finally, we consider a realizable and effective SEA system by which Japan could establish a democratic decision-making process.

New Technologies Promoting Public Involvement: An Interactive Tool to Assist SEA

Ainhoa Gonzalez, A. Gilmer; Dublin Institute of Technology, ainhoag@yahoo.com; R. Foley, National University of Ireland; J. Sweeney, J. Fry, University College Dublin, Ireland

Information technologies (IT) are advocated as a key tool to enhance public participation. Distribution of information through IT systems such as the internet is gaining popularity as a rapid and, in most cases, accessible way of informing and involving the public. Concerns associated with technology-aided public participation derive from the apparent division of computer-skilled and 'traditional' citizens. Moreover, while it is perceived that public participation and feedback is enhanced through IT systems, feasible methods for effective inclusion of public concerns and interests in environmental assessment have rarely been explored and defined.This research study is currently developing a holistic and interactive method applying Geographic Information Systems as a tool to assist different stages in the Strategic Environmental Assessment (SEA) process. Public involvement is a vital component of this approach. The software contains a user-friendly public consultation tool (that can be distributed through the internet or used at public displays) that systematically queries, gathers and processes submitted comments, proposals and complaints related to the proposed actions, plans and programmes. The software derives results from a statistical analysis of inputs. Consequently, the outcomes of public consultation are added as a value factor to the spatial (and temporal) analysis of environmental, social and economic features relevant to the SEA. This method will help to address inclusion of public perception which represents an important part of the social element in the SEA process.

Aesthetic and Ethical Values and Public Participation in SEA

Bo Elling, Roskilde University, be@ruc.dk

In my presentation I will argue for an SEA practise, based on a so-called communicative reflection, and renewed compared to current practice in environmental assessment. Empirical works as well as theoretical studies will shortly be presented. Theoretical arguments are based on the German philosopher and sociologist Jürgen Habermas' theories on different types of rationality linked to the differentiation of society into systems and lifeworld. In systems, such as the economic system and the bureaucracy, reflections are based on cognitive-instrumental rationality. In the lifeworld some holistic elements still exist based on mutual understanding and reproduced in communicative everyday practice. It includes ethical and aesthetical rationalities and not just cognitive instrumental rationality.

In the communicative reflection approach to SEA, as proposed, there should be a clear-cut separation of the assessment process, in which the citizens are actively involved, and the political decision-making process, for which the politicians are responsible solely. In the assessment process different types of reflection and rationality can meet and the environment can be considered as a value that should be protected and not just a medium to realize an original proposed action. Conflicts, interests and environmental impacts can be exposed in full instead of being balanced and made invisible in a

proposal for a final decision. Thereby the involved citizens can have real influence on subjects for assessment and the content of the assessment actually carried out.

Thus, I will argue, public participation is not solely a matter of democratisation, but a necessity for the inclusion of ethical and aesthetical values in the planning process.

Public Participation within the UNDP/REC SEA Pilot Project in Armenia

Sona Ayvazyan, Center for Reginal Development/Transparency International, sona@transparency.am

Public participation in the SEA process plays a critical role not only in the monitoring of the environmental effects of plans/programs/policies, but also in stipulating more cautious enforcement of those by the relevant authorities. During transition to a market economy many cities and towns in Armenia experienced extensive violations of the existing urban development plans and policies, which contributed to the environmental degradation of those areas as well as to social frustration. As a matter of fact, the concerned public was not able to monitor and constructively react to breaches due to the lack of access to information on the content of respective plans and policies.Public participation efforts, proposed within the UNDP/REC SEA Pilot Project in Armenia, which focuses on the Master Plan of Yerevan City, anticipate awareness-raising of the concerned public on the content of this plan, in order to build up benchmarks for monitoring of implementation of this as well as other related documents. It is assumed that more informed public can better observe the enforcement and environmental impact and more adequately respond to problems. It's important to highlight the necessity for capacity building of the non-governmental organizations in monitoring and participation in policy implementation processes.

Public Consultation at the Regional Level Facilitates Decision-Making at the Project Level: An Example from the Victoria Nile

Lee D. Doran, Ecological Writings #1, Inc., lee.doran@sympatico.ca

Effective public consultation during a strategic assessment played a critical role in optimising the Bujagali hydroelectric and transmission line project concept on the Victoria Nile River in Uganda. This case study shows how the engagement of key stakeholders provided a framework for decision-making that expedited project approvals. The methodology used was comprehensive, holistic and qualitative. It trusted key stakeholders to identify, prioritise and rate the criteria that mattered to them for the future of 'their' ecosystem. The scale was regional; the timeframe was medium-to-long term (20 years).The approach was grounded in the Limits of Acceptable Change concept that has been used successfully since the 1970's in somewhat different contexts. It recognizes that human and ecological systems change (they are not static) and aspires to manage such change within acceptable limits. The results of the strategic assessment informed specific decisions by the project financiers (led by the International Finance Corporation of the World Bank Group) to protect biodiversity as an 'offset' to the project's impacts. The case study explains how these events unfolded and highlights 'lessons learned' and best practice implications.

SEA and Public Participation Experiences in Russia

Polina Agakhanyants, Technical University Berlin, polina@vexp8.1pb.org

The presented results are based upon investigation of 38 case-studies of environmental decision-making in Soviet Union and Russia. Russian legislation provides possibilities for public participation in strategic decision-making. Institutional forms of public participation in Russia are linked to two administrative procedures - assessment of environmental impacts and environmental review. These procedures are conducted not only for project-level activities but for strategic actions as well. Only one of 38 considered cases demonstrated public participation in strategic decision-making on level higher than "informing". Good practices of NGO participation in law-making in St. Petersburg and Irkutsk were revealed. Many conflicts in considered cases resulted from lack of public participation at strategic stages. Main reasons for poor public participation in SEA are:- often no environmental assessment procedures were conducted for strategic actions at all;- strategic decision-making is not a transparent process;- project-level activities often do not correspond to strategic plans or are implemented in differing conditions, which leads to conflicts and environmental violations;- state authorities lack institutional and professional capacities to provide for PP in strategic decision-making. Recommendations to improve the situation are given, including legislation development and increasing institutional capacities both of public and state power bodies.

Session D3 Addressing Health in SEA - Current situation and trends

Topic chairs: Ben Cave, Ben Cave Associates Ltd. ben.cave@totalise.co.uk; Alan Bond, University of East Anglia - Norwich, alan.bond@uea.ac.uk; Marco Martuzzi, World Health Organization; Suphakij Nuntavorakarn, Health System Research Institute, suphakijn@yahoo.com / suphakij@hsri.or.th

The session will address the consideration of health in SEA practice. Its main focus will be how the strategic character of SEA makes preventative health planning a real possibility, whilst - on the other hand - engagement between health professionals and the other stakeholders involved in SEA may be problematic.

Key issues for consideration at the session will be:

- Ways of strengthening the cross-sectoral application of health in SEA.
- New ways and opportunities for integration of HIA and SEA.
- How to improve the engagement of health professionals in SEA.
- Are there case example of consideration of health in SEA having real benefits?
- Is integration of HIA and SEA desirable?

The session will include four workshops. Workshop D3.1 will take the point of departure in a presentation of the position paper and also of the WHO Europe position on health in SEA. This workshop will take views on addressing health in SEA by panelists and paper contributors. The second workshop will be a panel discussion of the issues raised in Workshop D3.1 and will define a general framework for discussions at the remaining workshops. Workshop D3.3 will present specific papers mainly responding to the position paper issues. Workshop D3.4 will conclude on the session findings and will put in place a plan for future action.

Workshop D3.1 Presentation of session issues, panelists and paper contributors

Presentation of position paper by Alan Bond and Ben Cave

Presentation of paper by Marco Martuzzi describing strategic policy context in SEA and health from WHO Europe's point of view

Short comments and statements

Presentation of Panel Members and participants' submitted abstracts

Planning of Workshop 3.2 and Workshop 3.3

Panelists and paper contributors:

Alan Bond, University of East Anglia
Wiput Phoolcharoen, Suphakij Nuntavorakarn Health Systems Research Institute
Frans van Zoest, National Institute for Public Health and the Environment
Ben Cave, Ben Cave Associates Ltd.
Marco Martuzzi, WHO Rome Office
Paul Tomlinson, TRL Limited

Comfort Hassan, Nigerian Environmental Study/Action Team (NEST)

Workshop D3.2 Panel discussion on health in SEA

Panelists:

Alan Bond (chair)
Wiput Phoolcharoen
Frans van Zoest
Marco Martuzzi
Paul Tomlinson
Ben Cave
Nick Bonvoisin

Comments on position paper issues from panelists

Comments on WHO Europe's position

Health in the SEA Protocol (UNECE)

Responses and comments on questions from participants

Workshop D3.3

The Effectiveness of SEA in Addressing Health Problems - An Ecosystem Approach to Human Health. Comfort Hassan

Models for Addressing Health in SEA: Experiences from Thailand. Suphakij Nuntavorakarn and Decharut Sukkumnoed

SEA and Health Case Studies: Lessons Learnt, and Issues Arising from, Work in Progress in the UK. Ben Cave

Conclusion on workshop 3 by Tharald Hetland and Marco Martuzzi

Workshop D3.4 Conclusion of session

Chair: Ben Cave, Ben Cave Associates Ltd.

Rapporteur: Suphakij Nuntavorakarn

Topic chair and panelists present their findings for conclusions of the session for discussion by participants

Final conclusions

Session D3 abstracts (in order of presentation)

The Effectiveness of SEA in Addressing Health Problems - An Ecosystem Approach to Human Health

Comfort Hassan, Nigerian Environmental Study/Action Team (NEST), fortlara@yahoo.com

The strong interaction and interrelation of economic, social and cultural determinants present a challenge for developing a holistic comprehension of environmental degradation and its impact on human health. Understanding human health in terms of its inter-action with the human environment has traditionally been strongly colored by the experience of medical and to a lesser extent, environmental approaches. Over the last quarter century, thinking about public health have evolved towards a much more global, more ecologic approach. Similarly, natural resource management thinking has progressed and now includes environmental and social factors as well as economic parameters. Both fields have seen a move to a more integrated approach to management (whether of the health or of the environment). These two current thoughts have given rise to the metaphor of the "health ecosystem". The ecosystem approach to human health is a, new, holistic approach that flows from this metaphor - it places human beings at the center of considerations about development, while seeking to ensure the durability of the ecosystem of which they are an integral part. The Niger Delta region of Nigeria therefore portends to showcase a reference point for this type of approach.

Models for Addressing Health in SEA: Experiences from Thailand

Suphakij Nuntavorakarn, Decharut Sukkumnoed; Health Systems Research Institute, tonklagroup@yahoo.com

Since the national health system reform started in 2000, Thai society increasingly perceives health as an ultimate goal for development. Health Impact Assessment has been developed as a learning tool for all stakeholders to analyze health impacts and to support the participation in the policy process. The development and experiences of HIA has contributed to the EIA system reform, which was started in 2003, and this led to, among others, the necessity of SEA development in Thailand. Therefore, the issue of addressing health in SEA has to be explored. Based on the Thai HIA experiences, there are four models for addressing health in SEA:

1. EIA Model: health as the consequences of environmental impacts
2. Eco-system Model: health as a main component in the eco-system
3. Healthy Public Policy Model: health as a comprehensive impact or an integrated assessment
4. Health Inequalities Model: health as a way of living healthy together

It is important to emphasize that these models are not mutually exclusive and thus, more than one model can be applied to a policy process. This depends on the analysis of each public policy process that should focus on the specific policy situation, various policy networks, and different policy framings. However, the consequences from the four different models have to be studied further.

SEA and Health Case Studies: Lessons Learnt, and Issues Arising, from Work in Progress in the UK

Ben Cave, Ben Cave Associates Ltd., ben.cave@totalise.co.uk

Identifying the significant impacts on human health is one of the requirements of the European SEA Directive. This raises a number of questions about how these potential impacts should be identified. It also raise questions about the status of health input within the context of a larger environmental report . It also casts a searching light over the ways in which the health sector contributes to the plan-making process. This presentation will look at some case-study examples of ongoing work in England. The author worked on each of the HIAs of the regional strategies for London and is currently engaged in providing health input to the SEA of a number of regional strategies and to a Local Transport Plan.

Session D4 Assessment of Cumulative Impacts in SEA

Topic chair: Jenny Dixon, University of Auckland, j.e.dixon@auckland.ac.nz

This workshop will explore how cumulative effects assessment (CEA) can become more integrated with SEA at the policy-making and planning level. It comprises paper presentations and a round table discussion.

While significant progress has been made in the past in respect of building a substantive base of theory and methodology in respect to CEA, a crucial impasse point has been reached which needs to be addressed in order to move forward. For example, for a number of years now, a constant theme in the CEA literature relates to the difficulties of working across jurisdictions and across stakeholder groups. Lack of resources, lack of skills on the part of practitioners, poor quality national guidelines and so on, also feature prominently. A further dominant feature has been a focus on the assessment of multiple projects in regions rather than grappling with how assessment of cumulative effects per se might be integrated within relevant planning processes, not just at the regional level but at lower tiers as well. It is only relatively recently that attention has turned towards how CEA might be incorporated more intentionally in SEA and plan making.

Similarly in SEA, methodologies do not often address the assessment of cumulative effects in a substantive way, or acknowledge the sharp realities of political decision-making where addressing cumulative effects adequately can challenge jurisdictional agendas and sensitivities. In many respects, it is the decision-making context that is so problematic in addressing cumulative effects and is often under-rated in our focus on methodologies and practice.

Key issues for consideration at the session:

A) At a methodological level, can SEA be improved to include more emphasis on the assessment of cumulative effects and in what ways?

- Does this mean that land use and spatial plans need to be strengthened?
- If so, in what way?
- Within plans, what mix of regulatory and non-regulatory approaches are most useful for addressing cumulative effects within SEA?
- How might integration between relevant plans be achieved, particularly where these plans are the responsibilities of different agencies?

B) In strengthening SEA for cumulative effects, does it require that SEA is most effective where it can be addressed through land use or spatial planning processes?

- Or are there other forms of institutional arrangements and instruments that are just as, if not more, useful?
- Are there successful examples of where SEA has addressed cumulative effects well and what have been important factors in achieving results?

C) At a more fundamental level, the assessment of cumulative effects, and how likely outcomes might be addressed and overcome, raises questions about the 'how-to'. In this regard, underlying philosophical approaches to planning and environmental management come under scrutiny. For example, many governments have shifted from an emphasis on regulation and prescription towards a mix of regulatory and non-regulatory measures in achieving environmental outcomes sought.

- How does SEA with a focus on the assessment of cumulative effects 'fit' in these models?
- What is likely to work best in mixed models?
- Where and how might we get 'best value for our dollar?'

Workshop D4.1 Presentation of session issues, paper contributors and participants

Coming on Heavy: The Need for Strategic Management of Cumulative Environmental Effects. Jenny Dixon, Marjorie van Roon

Hindrances and Opportunities to Consider Cumulative Impacts. Antoienette Oscarsson

Roundtable discussion to consider key issues

Participants

Morgan Williams, New Zealand Parliamentary Commissioner for the Environment
Martin Ward, Environmental Consultant
Tony Jackson, University of Dundee
Jenny Dixon, University of Auckland
Antoienette Oscarsson, Swedish University of Agricultural Sciences

Session D4 abstracts (in order of presentation)

Coming on Heavy: The Need for Strategic Management of Cumulative Environmental Effects

Jenny Dixon, University of Auckland, j.e.dixon@auckland.ac.nz; Marjorie van Roon

The paper uses an example of the incidence of two heavy metals, Zinc (Zn) and Copper (Cu), in two catchments in a major New Zealand city, to explore the relationship between strategic planning processes and cumulative environmental effects. The paper outlines the planning regime in place within which decision-making occurs and identifies what needs to change in order to ensure that cumulative effects are adequately addressed and managed through policies, plans and practices.

Hindrances and Opportunities to Consider Cumulative Impacts

Antoienette Oscarsson, Swedish EIA Centre, Antoienette.Oscarsson@lpul.slu.se

The paper clarifies hindrances to and opportunities for consideration of cumulative effects in the EIA/SEA process in Sweden. Preliminary results from a case study are presented.

Research on cumulative impacts has shown that small cumulative impacts may result in greater environmental disturbances than a single particular action. Cumulative impacts are mentioned both in the European directive on the assessment of certain projects, 97/11EC, and in the Directive on the assessment of certain plans and programmes, 2001/42/EC. However, two recently performed studies have shown that cumulative impacts are seldom described in Swedish environmental assessments.

A case study has therefore been initiated to investigate different EIA/SEA actors' views and opinions regarding cumulative effects. The aim of the study is to clarify hindrances and opportunities to consider cumulative effects in the EIA/SEA process in Sweden. International studies have presented several suggestions on why cumulative effects are not considered satisfactory in the EIA process.

This research study is investigating whether some of these suggested reasons are also valid for Swedish conditions or if there are other reasons that cause the insufficient handling of cumulative effects. The method used is half structured explorative interviews. The interview questions cover the themes 1) why

should cumulative effects be considered? 2) opportunities and hindrances, 3) how? 4) definition and understanding and 5) examples of cumulative effects from implemented EIA/SEA. In this contribution, preliminary results from the case study are presented.

Session D5 SEA Follow-up

Topic chair: Aleg Cherp, Central European University, cherpa@ceu.hu

There is a growing recognition that SEA should be accompanied by "follow-up" activities adjusting its predictions and recommendations in light of the information obtained during the implementation of the policy, plan or programme (PPP).

The current thinking on SEA follow up has been largely derived from that on EIA follow up. It focuses on monitoring and evaluation more than on management and communication. Conceptual frameworks appropriate for the specific nature of SEA (focus on objectives, complex casual links between PPPs and their impacts, complexity of potential management responses) as well as documentation of practical experience are still lacking.

The exploration of potential links between SEA follow up and other environmental policy and management tools, such as EMS in public authorities may be fruitful in dealing with key challenges of SEA follow up. The session will welcome papers dealing with conceptual or empirical perspectives on SEA follow up, especially with identifying key elements of SEA follow up, discussing its specifics in relation to EIA follow up, addressing management and communication components of SEA follow up and exploring its links with other environmental management tools.

Workshop D5.1 Presentation of position paper, contributions and discussions

Presentations of participants

Presentation of position paper by Aleg Cherp

Short comments and statements

Exploring the Concept of SEA Follow-Up. M.R. Partidário and J. Arts

SEA monitoring of spatial plans in Germany. M. Hanusch

Strategic Environmental Management as a Follow-Up to SEA. S. Emilsson, O. Hjelm, A. Cherp

Concluding discussion and developing recommendations for the session.

Workshop D5 abstracts (in order of presentation)

Exploring the Concept of SEA Follow-Up

M.R. Partidário, DCEA/FCT-UNL, mp@fct.unl.pt; J. Arts, Ministry of Transport Public Works & Water, e.j.m.m.arts@dww.rws.minvenw.nl

Strategic Environmental Assessment (SEA) is thriving, but there has been relatively little attention on what happens to SEA once a policy, plan or programme is approved; that is, monitoring, evaluation and management following adoption of their respective strategies. The purpose of this paper is to explore the concept of SEA follow-up. It addresses first the complexity of follow-up at strategic levels and the specific nature of the strategic decision-making context. A strategic initiative may spread effects in many directions, like a "splash," which has to be taken into account when doing follow-up. Although the complex nature of strategic decision-making may hamper SEA follow-up in practice, it also stresses the need and usefulness of SEA follow-up. In order to deal with complexity of follow-up at strategic decision-making levels a multi-track approach is proposed. This will allow for the use of those methods, moments and information that prove to be useful and relevant in a specific case. Finally some preliminary guidance is provided on how to devise a SEA follow-up programme using a stepwise approach. Far from attempting to provide any prescriptive direction into how to carry out follow-up activities at strategic levels of decision-making, the paper seeks to articulate key concepts and lessons gained with SEA follow-up. It is concluded that SEA

follow-up is basically about managing the policy and planning implementation processes or, more generally, about managing the implementation of strategic level decisions.

SEA Monitoring of Spatial Plans in Germany

M. Hanusch, UFZ-Center for Environmental Research, marie.hanusch@ufz.de

SEA follow-up may have different forms. One of them is the obligation 'to monitor the significant environmental effects of the implementation of certain plans and programmes' laid down in Article 10 of the EU SEA Directive. This monitoring obligation challenges the European Member States to come up with intelligent concepts and mechanisms for SEA monitoring. The Directive leaves it to the Member States to decide upon the specific monitoring provisions, like the bodies responsible for monitoring, the time and frequency of monitoring, and the methods to be used. The paper will present how Germany faces this challenge. The legal set in terms of SEA monitoring, guidance documents, as well as some practical approaches will be presented. The main focus will be on monitoring in terms of the environmental assessment of spatial plans, considering procedural issues (responsible bodies, parties involved, time frequency) and methodological issues (indicator based, checklist based), taking into account different requirements due to different planning levels. Concluding, the ways taken by Germany could be juxtaposed to approaches envisaged by other states, highlighting that a proper SEA monitoring is crucial to close the loop of impact prediction and condition setting.

Strategic Environmental Management as a Follow-up to SEA

S. Emilsson, O. Hjelm; Linkoping University, sarem@ikp.liu.se, olohj@ikp.liu.se. A. Cherp, Central European University, cherpa@ceu.hu

This contribution aims to explore the management component of SEA follow up. It argues that strategic environmental management is capable of addressing various effects of strategic actions including those which are difficult to predict or attribute. Such management can be most directly related to Environmental Management Systems (EMS) routinely practiced in authorities in some countries. The key of linking an EMS to an SEA is determining the SEA's organizational context, i.e., identifying organizations - actors in the strategic initiative undergoing SEA. A weakness of traditional use of EMSs in authorities, consistently pointed by current research literature, is the problem of addressing strategic environmental issues, e.g.,, those arising from authorities' decisions rather than those directly affected by their operations. SEA can be the first step in addressing this deficiency by identifying environmental implications of strategic decisions. The next steps might be reformulating, in more strategic terms, some concepts of EMS use, starting with re-definition of organizational fields and re-placing circular machine-like management tools with a strategy formation and implementation approach.The presented paper is the first step in the research project Strategic Environmental Assessment and Management in Local Authorities in Sweden (SEAMLESS) launched with the MiSt research program.

Session D6 SEA Review

This session is designed to explore the role of review in SEA and provide a forum for discussing the different approaches available. Other approaches to the quality control of SEA reports and processes will also be discussed. As part of the session, review criteria for SEA reports and a protocol for the review of SEA processes, prepared by the Institute of Environmental Management & Assessment will be tabled for discussion.

Workshop D6.1 Quality Control & SEA Review

Opening discussion

- What are the opinions of participants of the quality of SEA reports and processes?
- What approaches to quality control of individual SEAs are currently in use?
- Does SEA review form have a role within quality control of SEA?

Presentation by Karl Fuller: IEMA Approaches to SEA Review

Presentation by Tadgh O'Mahony, EPA Approaches to Quality Control in SEA

The Development and Application of SEA Process Evaluative Criteria. Fiona Walsh

Wrap-up discussion

- Approaches to review and quality control presented
- How can the effectiveness of SEA review be improved?
- Should the role and approach to SEA review change according to the level of SEA being addressed?

Recommendations

- For the role and approach to SEA review
- For the development of review tools

Session D6 abstract

The Development and Application of SEA Process Evaluative Criteria

Fiona Walsh, Open University, Fiona.Walsh@seia.freeserve.co.uk

Although the development and application of criteria to evaluate the quality of SEA Reports is described in the literature, little information is available for analysing the content of the SEA process. This is a significant omission because adherence to certain content requirements can help ensure compliance with legislative provisions and production of a good quality SEA Report

This paper describes the development of SEA Evaluative Criteria for analysing the content of the SEA process. These criteria were developed during a research programme undertaken in Scotland and take into account requirements introduced by the SEA Directive and thinking about good SEA practice.

This paper also describes the results of applying the SEA Evaluative Criteria to examples of three Scottish SEAs from three different sectors—land use planning, renewable energy and transport planning. Two are plan-level SEA prepared by public authorities and the third is a programme-level SEA prepared by a private business. This analysis reveals a number of features relevant to the development of SEA practice, namely:

- Identification of the actual and perceived benefits of SEA
- An indication of the difficulties faced by public and private organisations when undertaking SEAs
- Examples of initiatives to assist in the successful implementation of SEA

Stream E

Improving Standards and Building Capacity for SEA

Coordinated by Maria do Rosario Partidario, New University of Lisbon, Portugal, mp@fct.unl.pt

Session E1 Professional and Institutional Capacity Building for SEA

Topic chairs: Maria Partidario, DCEA/FCT-UNL, mp@fct.unl.pt; Lee Wilson, Lee Wilson and Associates, lwa@lwasf.com

Introduction. Improvements in SEA performance require building of capacity for individuals and organizations. Of particular importance are SEA capacities that influence decision-making in an effective and positive manner, and that do so in ways that are transparent and accountable. Capacity-building will benefit from the "lessons learned," and thus the focus of the workshop will be to share experiences in SEA capacity-building. Workshop discussions will focus on two fundamental aspects related to the "how to" in SEA capacity-building:

1. Basic principles on how to improve the capacity of SEA to impact decision-making.
2. How to generate SEA capacity-building approaches, including forms of communication, guidance documents, training programs, or other, that clearly effect on decision-making.

Workshop E1.1 Successful Stories on Capacity-Building Efforts

Professional and Institutional Capacity Building for Cultural Heritage in SEA. Arlene Fleming , Ian Campbell

Building Capacity for SEA Consultation Response. Lucia Susani

The Environmental Projection Agency's SEA Experience in Ireland - the first twelve months. Tadhg O'Mahony, Gerry Byrne, Alison Donnelly

Sustainable Development and Strategic Environmental Assessment Capacity Building in Iran. S. Ferdowsi, A.H. Hakimian, S.M. Monavari, M. Partidario, H.F. Rad

Workshop E1.2 Workshop discussion: Principles for how to improve the capacity of SEA to impact decision-making

Topic chair: Maria Partidário, DCEA/FCT-UNL

The Role and Impacts of the Audit Process within Strategic Environmental Assessment. Keynote presentation by George Stuetz

Facilitated debate

Wrap-up of key learning points

Workshop E1.3 Workshop discussion: Professional and institutional forms of improving SEA capacities to impact decision-making

Topic chair: Lee Wilson, Lee Wilson and Associates

Professional and Institutional Forms of Improving SEA Capacities to Impact Decision-Making. Keynote presentation by Linda Ghanime

Facilitated debate

Wrap-up of key learning points

Professional and Institutional Capacity Building for Cultural Heritage in SEA

Arlene Fleming, Ian Campbell; Consultants to the World Bank, Afleming1@worldbank.org; icampbell@worldbank.org

The emerging directives, conventions and national policies for SEA include cultural heritage as well as biophysical and social issues. EIA also includes cultural heritage impacts, but often treats the subject in a cursory fashion or ignores it altogether. The same mistake should not be made in the formulation and implementation of SEA.

Tangible cultural heritage can be a key factor in strategic development because in many countries it constitutes an actual or potential socio-economic asset. Furthermore, ignoring it can jeopardize the sustainability of policies, programs and strategies.

Thus, a special effort is required to ensure that cultural heritage is fully covered in SEA, and that the concerned institutions participate in the process. The professional and institutional capacity building requirements needed to achieve this are substantial, especially in view of the fact that the concerned institutions in many countries have been marginalized in national decision-making.

In the case of EIA, a number of methods and instruments are being developed to improve coverage of cultural heritage. To meet the needs of SEA, further developments are required. For example, at the strategic level, an entire cultural landscape may be affected. Similarly, biophysical and social impacts such as changes in settlement patterns, can affect the utilization and physical status of cultural heritage by changing the basic character of an area. Furthermore, the socio-economic value of heritage may change as a result of policies such as the decision to promote tourism. Therefore, new models, databases, training strategies and capacity building approaches are required. The authors present and discuss a number of such innovations in this important field.

Building Capacity for SEA Consultation Response

Lucia Susani, Environment Agency, UK, lucia.susani@environment-agency.gov.uk

The Environment Agency of England and Wales is one of the statutory SEA consultees in the UK, to be contacted by plan and programme makers at specific stages during the SEA process. We are also responsible for providing environmental data relevant to establishing SEA baselines.

This consultative role will result in our exposure to every SEA prepared in England and Wales — an excellent opportunity to guide, monitor and influence the SEA process. Approximately 100-200 SEAs per year are expected.

We have therefore developed a number of capacity-building initiatives to facilitate and maximise our role as effective consultees, and to prepare our staff to respond to consultation requests. Such initiatives include:

- Identification of a suite of SEA objectives, to be offered as part of our consultation response, reflective of key drivers for the Agency.
- Compilation of in-house baseline data packages useful for SEA preparation, to be distributed electronically to plan/programme makers.
- A dedicated internal guidance document on SEA and the consultation process - to ensure that responses are consistent, effective, and representative of Agency concerns.
- A one-page "Do's and Don'ts"guide as a pro-memoriam for plan makers.

The effectiveness and success of these tools will be reviewed.

The Environmental Projection Agency's SEA Experience in Ireland - the first twelve months

Tadhg O'Mahony, Environmental Protection Agency, Ireland, t.omahony@epa.ie; Gerry Byrne, Environmental Protection Agency, Ireland, b.byrne@epa.ie; Alison Donnelly, Trinity College, Dublin, Ireland, alison.donnelly@tcd.ie

The EPA has been designated as an environmental authority in Ireland that must be consulted by competent authorities while screening for or undertaking SEA. This paper outlines in brief the EPA's role in

SEA in Ireland, the procedures we have put in place with respect to fulfilling this role and our experience to date in Screening and Scoping and in the SEA process in general. The development of the EPA's SEA Web Page (www.epa.ie) has provided invaluable guidance to plan/programme makers and SEA Practitioners. The EPA's statutory roles in State of the Environment Reporting and in national environmental air and water monitoring programmes provide relevant background information on the current state of the environment and assists in the identification of environmental problems and issues. GIS has been a key tool in Screening and identifying key issues in Scoping exercises. To date, the EPA has received over 60 Screening Requests from over twenty different authorities. This paper will outline our experience to date in Screening and subsequent Scoping. Issues relating to Screening and Scoping will be highlighted and key actions will be described.

Sustainable Development and Strategic Environmental Assessment Capacity Building in Iran

S. Ferdowsi, UNDP, saeid.ferdowsi@undp.org; A.H. Hakimian; S.M. Monavari; M. Partidario, International Consultant, mp@fct.unl.pt; H.F. Rad, Management and Planning Organization and team member

In spite of the continued efforts being made by various actors, Iran is facing serious environmental challenges like air pollution in urban areas, the depletion of scarce water resourses, degradation of natural vegetation, soil erosion and the loss of biodiversity.

While environmental impact assessment (EIA) approaches have long been practiced in Iran, and notwithstanding the results of applying the current EIA regulations on different types of development projects, needs have been spelled out for upstream integration of environmental concerns in policies, plans and programmes (PPPs) before such PPPs are translated into development projects on the ground; hence the need for a more holistic approach to environmental assessments by employing strategic environmental assessment (SEA) approaches and techniques. In mid-2004, the Department of the Environment, in collaboration with the United Nations Development Programme (UNDP), embarked on the SEA Capacity Building Project.

A rather new model of capacity building was put into practice by which a "core group" of national professional from various sectors (including non-governmental organizations) was brought together. The core group was exposed to the technical and conceptual assistance by a leading international expert in the field of SEA. The national team was entrusted with assessing the needs for SEA, devising a national SEA model and developing technical guidelines that ensure effective application of SEA to PPPs in Iran. Project outputs should contribute to, and promote, the ongoing government activities regarding the Sustainable Development Strategy. This presentation will bring to the attention of the international SEA community the achievements of this innovative process in the IR of Iran as well as the lessons learned.

The Role and Impacts of the Audit Process within Strategic Environmental Assessment

George Stuetz, Office of the Canadian Commissioner of the Environment and Sustainable Development, George.Stuetz@oag-bvg.gc.ca

The audit function is an essential component to all management systems and processes. It is essential in terms of process design, feedback, improvement and learning, and it is essential in terms of accountability. This presentation will focus on the audit process and its relationships to strategic environmental assessment. Three key questions will be answered in this presentation: What is the audit process and how does it relate to strategic environmental assessment? Within an audit context, what key issues should be considered when designing systems and undertaking activities? What should the SEA practitioner expect from the audit process and how should the SEA practitioner best prepare for an audit? The recent strategic environmental assessment audit, conducted by the Commissioner of the Environment and Sustainable Development within the Office of the Auditor General of Canada, will be used to illustrate the presentation. A discussion on the role of other national audit offices with regards to strategic environmental assessment will also be addressed.

Discussion topic: Following earlier examples of successful stories and the keynote speech, discussion of how SEA should impact decision-making and whether we could establish principles for increasing that capacity in SEA: what does it mean for SEA requirements, for SEA content, format, timings, SEA relationship with other decision tools, how to enhance the relevance and acceptance of SEA outcomes for decision-makers.

Professional and Institutional Forms of Improving SEA Capacities to Impact Decision-Making

Linda Ghanime, UNDP, linda.ghanime@undp.org

Recent global assessments are showing that progress towards environmental sustainability has been disappointingly weak. Lack of progress is attributed, in part, to inefficient and inadequate institutional capacities, from enforcing environmental legislation to monitoring environmental indicators.

Developing capacity to address effectively the global lag of environmental sustainability involves further integrating environmental assessment in national institutions and systems of policy making. Strategic environmental assessment (SEA) offers the potential to develop capacity for making complex development/public investment choices in relation to policies, plans and programmes and major investment decisions. Capacity development for SEA is an ongoing process of transformation that requires resources, a willingness to learn, and the use of existing capacities.

An example of institutional support is the OECD/DAC Environet Task Team Good Practice Guidance on SEA in Development Cooperation (in preparation). Support of capacity development in SEA processes includes linking poverty alleviation strategies to environmental assets and constraints, assessing the needs and opportunities for using SEA in the poverty-environment process, SEA capacity building needs analysis and action plans, and developing national regulatory framework for undertaking SEA.

Session E2 SEA Theory and Research

Topic chairs: Olivia Bina, Universidade Nova de Lisboa, olibina@gmail.com; Tabatha Wallington, Murdoch University, T.Wallington@murdoch.edu.au; Wil Thissen, Delft University of Technology, thissen@tbm.tudelft.nl;

Since its inception more than 15 years ago, the notion of Strategic Environmental Assessment (SEA) has drawn increasing attention at conferences, in literature, and in assessment practice and policy regulation. We feel there is an urgent need to reflect more deeply on the essence of SEA. In order to achieve the celebrated purpose of contributing to environmentally and/or broadly sustainable development, and the role of improving policy-making processes, the implicit and explicit assumptions of existing models of SEA (both normative and operational) must be examined, and conventional wisdom about its purpose must be questioned. These 15 years have witnessed both illuminating and confusing progress, which our session seeks to explore in order to direct future theory and research in this field.

The session will be run through group work around key issues of SEA theory, involving facilitated discussions and brief statements from the contributors (listed below), who will present their argument when it becomes relevant as the debate evolves. It should be treated as a single event, divided into three 1.5 hour workshops, and it is our intention to spend considerable time on discussion of key issues, rather than to have formal paper presentations. Each workshop will focus on a set of issues drawn from an analysis of the draft papers and from the position paper prepared for the IAIA Prague preliminary programme.

We expect that the workshops will engage with some of the following issues:

- The different purposes of SEA, including discussion of the different values being promoted and the difference between the purpose of individual SEAs and that of the SEA system introduced in institutional and organizational contexts to influence long-term learning, frame changes, organizational culture and capacity, etc.
- The relevance of context: the constraints and opportunities it may involve in relation to the development of effective SEA systems and to the case-by-case application of SEA to development proposals.
- Different theoretical perspectives on the social PPP formation and implementation processes. These may include: (a) communicative and/or argumentative, interpretations; (b) network, strategic behavior of actors and coalition formation, negotiation, interdependencies, rational planning; and (c) institutional and cultural mechanisms and factors, as well as different forms of learning (social, rational, organizational).

Below is the list of the 15 papers that will be discussed throughout the session, followed by the ab-

stracts. They are in alphabetical order (surnames):

- Cashmore and Nieslony - The contribution of EIA to sustainable development: Lessons for SEA theory?
- Cherp - SEA and Strategy Formation Schools
- D'Ieteren - Contextual issues in ensuring an added value of SEA to tourism planning: the case of the Walloon Region
- Fischer - SEA Tiering - Useful concept or useless chimera?
- Harashina - A communication theory of SEA
- Hilding-Rydevik and Bjarnadóttir - Purpose and Effectiveness of Strategic Environmental Assessment and its dependence on the implementation context
- Jackson and Illsley - An examination of the theoretical rationale for using strategic environmental assessment of public sector policies, plans and programmes to deliver environmental justice, drawing on the example of Scotland
- Joao - SEA as a platform for dialogue and a springboard for innovation
- Kørnøv and Nielsen- Institutional change - A premise for IA integration
- Leknes - SEA and Types of Decision-making Processes – a decision-taker's perspective
- Markus - Alternatives in SEA
- Nilsson - The role of assessments and institutions for policy learning: cases in nuclear and climate policy formation in Sweden
- Nooteboom - Impact Assessment as incentive for social learning
- Richardson - Addressing power, multiple rationality and ethics in theorising Strategic Environmental Assessment
- Vicente and Partidario - SEA – affecting decision-making through communication

Session E2 abstracts (in alphabetical order by primary author's surname)

The Contribution of EIA to Sustainable Development: Lessons for SEA Theory?

Matthew Cashmore, InteREAM, University of East Anglia, m.cashmore@uea.ac.uk; Cordula Nieslony, Germany

Environmental Impact Assessment (EIA) has been portrayed as a 'frontline' tool in facilitating the transition to sustainability, but there is a widespread perception that it is failing to achieve its potential in practice (Sadler, 1996; Benson, 2003; Nieslony, 2004). Rather than focusing on the more tangible limitations of EIA practices, it is argued that the underlying reason it is failing is because the relationship between EIA and sustainable development is inadequately conceptualised. This paper, therefore, aims to advance scientific understanding of their relationship by 'unpacking' what sustainable development means for the theory and practice of EIA. The lack of a consensual definition of sustainable development has been interpreted as a significant, if not intractable, barrier to interpreting how it can be implemented (George, 1999; O'Riordan, 1993). It is suggested, however, that one way in which EIA makes a significant contribution is by providing a forum in which societal interpretations of sustainability can be debated. Furthermore, a richer conception of their relationship can still be developed, by examining causation in EIA. It is argued that the breadth of ways in which EIA contributes to sustainable has been inadequately appreciated, the importance of certain forms of causation has been significantly underestimated, and that some expectations of what EIA can achieve in practice have been entirely unrealistic. It is postulated that, when such factors are taken into account, EIA can be considered to be operating as a 'frontline' tool in operationalising sustainable development, but in a markedly different manner to conventional expectations. This conclusion has important implications for environmental assessment at all tiers of decision-making.

SEA and Strategy Formation Schools

Aleg Cherp, Central European University, cherpa@ceu.hu

SEA literature commonly focuses on the impact of SEA on "decision-making" and the ways to enhance this impact. However, this focus may be too narrow because "decisions" are only a minor part of the strategies that SEA is supposed to influence. The contemporary literature on strategy formation – as developed primarily in relation to private sector organizations – may expand the theoretical debate on the essence, the appropriate forms, and the limits of SEA.

Particularly significant implications for SEA theories may be associated with those schools of strategy formation that transcend the notion of strategies as pre-conceive formal plans designed to achieve certain objectives. These give rise to the following challenges for the notion of SEA as a "systematic analysis of consequences of planned activities":

1. Extending "beyond decisions" to accommodate the notion of "emergent strategies" where significant strategic actions are not necessarily preceded by decisions.
2. Extending "beyond decision-makers" to recognize that strategies are essentially learning collective process not only in their design, but even more so in their implementation.
3. Extending "beyond analytical formalization" to accommodate the limited ability of strategic actors to comprehend uncertain and confusing world.

The paper will examine these challenges by systematically analyzing the implication for SEA theories of the ten dominant schools of strategy formation: design, planning, positioning, entrepreneurial, cognitive, learning, power, cultural, environmental and configuration.

Contextual Issues in Ensuring an Added Value of SEA to Tourism Planning: The Case of the Walloon Region

Emmanuel d'Ieteren, Université Libre de Bruxelles, edieter@ulb.ac.be

Since July 2004 the Strategic Environmental Assessment (SEA) Directive 2001/42/EC is effective. It is therefore to be expected that tourism plans, which fall under the scope of the Directive, will soon have to be submitted to SEA procedures. This new legal framework and its requirements raise methodological questions on how to adapt and integrate SEA processes in tourism planning processes.

Before the 1980 institutional reforms in Belgium, tourism planning in the Walloon Region was integrated with spatial planning on a national level. After the reforms, tourism, environmental and land-use planning competences were transferred to the regional governments. These changes in the institutional arrangements resulted in a shift in tourism development planning and tourism sector organisation from an integrated economic/spatial/environment based approach to an economic dominated sectoral approach. The development of an effective SEA process in the Walloon Region tourism sector must therefore take into account the characteristics and trends of the current policy-making context where tourism planning and environmental planning are not linked.

Based on the case of the Walloon Region, this contribution aims to emphasise the importance of analysing the organisational and planning context before developing a SEA process. Furthermore, it underlines the added value of SEA as a tool which can contribute to integrate environmental concerns into sectoral tourism planning. As a result, SEA can be seen as promoting a more sustainable tourism development through a proactive, integrative, cooperative and participative planning process.

SEA Tiering – Useful Concept or Useless Chimera?

Thomas Fischer, University of Liverpool, Fischer@liv.ac.uk

A number of authors have advertised SEA tiering as a useful concept, particularly in sectoral planning (see Fischer, 2000, Jansson 2000, Brokking et al, 2004, Marshall and Fischer, 2004). Ultimately, if done in a logical way, tiering is thought to be able to support addressing the right issues at the right time. As a result, it is hoped that strategic planning may become more transparent and systematic, allowing for a more effective consideration of environmental aspects. Using terminology originally introduced by Lee and Wood (1978), SEA tiers are often referred to as policies, plans and programmes (PPPs).

Whilst there appears to be some broad agreement among the SEA community that policy-related SEAs might need a different, more 'flexible' approach from more rigorous, EIA-like plan and programme SEAs, there are currently no commonly agreed on definitions for the different tiers. Furthermore, in the academic literature, whereas some authors have chosen to use the terms policy, plan and programme making, others have preferred to talk about policy design, planning and programming. In this context, whether this signifies differing understanding has yet to be established. What is also clear is that, outside the academic world, in planning practice, terms are not used in a systematic manner, but interchangeably. For example, what is referred to as a programme in one system may be very similar to a plan, policy, concept, strategy or vision, in another.

In this paper, differences in the use of terminology regarding SEA tiers are examined. It is argued that the concept of SEA tiering may be more than a chimera, but that, in order to be useful, some agreement on what stands behind the various terms is needed. In this context, it is suggested that the clearest and most meaningful distinction probably exists between SEAs that are applied in political decision making, i.e., after a PPP submission to cabinet or parliament (as practiced, for example in Canadian SEA, Danish environmental assessment of bills and the Dutch e-test), and those SEAs that are conducted in public and, at times, private administration-led planning processes, which may or may not need later political approval (as practiced in most planning systems world-wide). Furthermore, it is suggested that in both situations, SEA can take various forms that may be expressed by different planning tiers. It is hypothesised that whereas structured and more rigorous, rational-like approaches may have an important role to play in administration-led planning, it is questionable whether they can be valuable to the same extent in political processes.

An important reason for some of the confusion is that certain authors appear to have used the term policy to describe the political SEA-category, whereas others have used it in terms of a distinct 'planning' tier. Furthermore, normally, no proper distinction is made between the terms plans and programmes. For example, in transport planning, the terms network-plans and programmes appear to have been used for the same 'thing' by different authors. Based on the findings of the paper, it is suggested that a more careful and consistent use of terminology is urgently needed, if we are to advance on both SEA theory and practice.

A Communication Theory of SEA

Sachihiko Harashina, Tokyo Institute of Technology, sahara@depe.titech.ac.jp

I consider that the role of SEA is to conduct discussions in a public space to ensure the environmental and social considerations. One of the characteristics of SEA is a way for exchanging information between decision-makers and stakeholders based on various kinds of paper documents. This is a due to information transaction problems in public participation. Though we see many stakeholders in the process of project EIA, the situation is different on the strategic level of decision making. The information exchange could be conducted through meetings by representatives of stakeholders and experts related to the topic, as the number of explicit stakeholders groups are usually limited. It, therefore, is possible to conduct the process based on meetings in the case of SEA on higher stages of decision-making. This is a new style of SEA.

I have a communication theory of SEA which could illustrate the social technology for making the decision-making process transparent to the society. I classify two kinds of SEA process: meeting-based and paper-based. The paper based way is the communication process mainly through papers such as documents, letters and so forth. It is a usual EIA process. In the process, meetings such as that for informing, hearing, and discussions are conducted complementarily. The usual EIA process, therefore, is a combination of communication by papers and by meetings, and a major part is based on exchanging various kinds of papers. Another style of SEA by meeting is mainly based on very open discussions conducted by a group of representative selected ad-hoc who address the problem, and papers are also produced in the process. As the new SEA based on meetings was applied in a consensus building process of waste management problem in a region in Japan, I would like to make an input of the theory by illustrating this example. The SEA process by highly transparent meetings was conducted and they could build a consensus on the strategic decision-making process.

Purpose and Effectiveness of Strategic Environmental Assessment and its Dependence on the Implementation Context

Tuija Hilding-Rydevik, Holmfridur Bjarnadóttir; Nordregio, Stockholm, Sweden, tuija.hilding-rydevik@nordregio.se

Our starting point for this contribution is the assumption that there exist a number of implicit models of how Strategic Environmental Assessment (SEA) works and which impacts it has on policymaking. What normative assumptions that underpin these models and what normative values and principles that ought to be driving is on the whole unaddressed and unanswered by scholars in the field.[1]

The aim of this paper is to put these normative statements in perspective and thus contribute to the discussion concerning the purpose and effectiveness of SEA implementation. A set of normative statements concerning the purpose and the effectiveness of SEA will be picked out — for example from a key document like the EU directive 2001/42/EC.

This set of statements will be contrasted with results from empirical studies concerning the experiences of integrating environmental perspectives with other sector perspectives in different local and regional planning contexts in Sweden. We will then discuss the implications of these results for formulating the purpose of SEA implementation and for expectations concerning possible achievements of SEA implementation (effectiveness) in relation to different contexts. As a basis for the discussion theories concerning learning (individual as organizational), professions, planning and institutions will be applied.[2]

1 These statements are originally made by Bartlett and Kurian (1999) concerning Environmental Impact Assessment (EIA). We find these valid also for SEA. Bartlett, R V and Kurian, P A (1999) "The theory of environmental impact assessment: Implicit models in policy making." Policy and Politics, vol 27, no 4, pp 415-433.

2 In relation to the position paper this contribution will address all three themes identified for the Theory and Research session. We will also respond to some of the statements made in the position paper.

An Examination of the Theoretical Rationale for Using Strategic Environmental Assessment of Public Sector Policies, Plans and Programmes to Deliver Environmental Justice, Drawing on the Example of Scotland

Tony Jackson, Barbara Illsley; University of Dundee, a.a.jackson@dundee.ac.uk

Analysis of the legislation and official guidance issued by the various UK jurisdictions for implementing the European Union strategic environmental assessment (SEA) Directive reveals significant variation not only in the range of public sector policies, plans and programmes (PPPs) to be covered, but also in the methodological underpinnings of this technique. This reflects the different interpretations of the strategic purpose of environmental assessment made by the country's public sector decision-makers. The Scottish Executive has linked SEA firmly to its commitment to environmental justice and 'open government,' seeing this technique as meeting a need for enhanced public scrutiny of the processes of public sector decision-making with regard to the environment. It has placed an Environmental Assessment Bill before the Scottish Parliament that is specifically drafted to this end, extending SEA to all Scottish PPPs. In the rest of the UK, the public sector has subsumed the SEA Directive within various initiatives to promote sustainability development through planning processes reliant on a technical-rational methodology. In this setting, SEA provides one element of a quality assurance proofing process to test governmental decision-making for its compatibility with pre-determined policy objectives for the delivery of sustainable development.

We assess the range of United Kingdom official guidance on this technique for its insights into the current debate on the theoretical rationale for SEA. This has seen the purpose of SEA subjected to fundamental examination, which is attempting to establish its contribution towards the realisation of public sector planning objectives. Drawing on our research on measuring plan performance outputs, we consider the capacity of officially-recommended analytical tools for SEA, such as sustainability indicators and frameworks, to deliver their intended outcomes. Our findings send support to those who question the efficacy of basing SEA methodology on a technical-rational conceptualisation of planning. The Scottish approach is considered to offer SEA a sounder theoretical basis, according the technique a deliberative and discursive role intended to enhance public participation in governmental decision-making processes that impact on the environment.

SEA as a Platform for Dialogue and a Springboard for Innovation

Elsa João, University of Strathclyde, elsa.joao@strath.ac.uk

The paper starts by arguing that SEA is about people working together to achieve common good, and for this, dialogue is crucial. This dialogue often starts within a single organisation, for example between the planning department and the transport department of a local authority (often more like separate fiefdoms in practice). Interestingly, SEA training can provide the much-needed platform for dialogue. At a recent SEA course run for a Scottish local council, staff had been handpicked to use the SEA training as an opportunity to start the dialogue between the different parts of the council (including some that traditionally had not dealt with environmental assessments). A barrier for this dialogue is the perception that SEA will be a burden and that there are not enough resources to go around. The motivation for starting the SEA process might therefore be greatly reduced. However, necessity (in this case for more resources) can lead to creativity and innovation. This paper will describe three case studies where the local authorities have come together with ingenious solutions that allowed them not only to save resources but also to perform the SEA process more efficiently and with higher quality.

Institutional Change - A Premise for IA Integration

Lone Kørnøv, Eskild Holm Nielsen; Aalborg University, lonek@i4.auc.dk, ehn@plan.auc.dn

IA processes create a formal opportunity for learning, whereby knowledge, know-how and preferences are acquired and constructed as an ongoing process. However, IA functions in institutions – defined as a setup of formal and informal rules, procedures and mechanisms for monitoring and sanctions. These institutions either hinder or support the potential learning as part of impact assessment in planning and policy-making. The understanding of mechanisms by which institutions permit, empower, constitute, limit and show path dependency [what is this? ooops] in relation to integrating IA is the focus in the paper.

This paper takes as a point of departure that IA practices have not been fully integrated into the policy making processes, but has rather been appendage activities. There are many explanations to this. First of all, IA methods and guidelines must be appropriated to existing policy making processes. Existing institutions are often dominated by a sector oriented approach, which means that it does not provide IA with an updated framework in terms of environmental aim and objectives. One of the crucial objectives for IA is to predict the likely significant effects on the environment, and in order to cope with this, it requires for the organisation to have sufficient baseline data, staff with knowledge from many disciplines etc. From an institutional point of view, the IA organisations must have the capacity to work proactively rather than reactively, which have been the common trajectory in the past. IA and the proactive approach is a challenge for existing institutions.

Based upon theories on learning and institutional change, the paper analyses three perspectives on knowledge and know-how acquired through IA in institutions. The three perspectives relate to: (1) Procurement, (2) Organisation and (3) Use of knowledge in relation to IA activities. For each perspective, the paper will analyse and present institutional mechanisms influencing the integration of IA and learning. On the basis of these findings, recommendations relating to institutional change are put forward.

SEA and Types of Decision-making Processes – A Decision-Taker's Perspective

Einar Leknes, Rogaland Research, elek@rf.no

The logic of Strategic Environmental Assessment (SEA) is to inform public decision-making by generating knowledge about external impacts of proposed policies, plans or programs. The decision making process itself will be of major importance for the SEA's ability to contribute to policy-making. This paper will therefore try to take the decision-takers perspective:

1. How can SEA contribute to "my" decision-taking?
2. How will different types of decision-making processes set limitations for SEA's contribution to the decision making processes?

Public decision-making encompass multiplicity of logics. The departure point is principal types of decision making processes encompassing among others negotiation, voting, administrative assessment, experiments and rule compliance. Each of the types has characteristics that make up the context elements of the decision making process and will be described.

Based on these types and by using two SEA-cases as examples, this paper tries to illuminate (a) how SEA typically will be used in the differentdecision-making process, and (b) possibilities for adapting SEA to the types of decision-making processes. The paper tries to pinpoint the conditions for contribution of SEA to good governance in the different types of decision making process.

Alternatives in SEA

Eric Markus, Blekinge Institute of Technology, eric.markus@bth.se

This contribution looks at alternatives in SEA and questions the view that SEA is (or ought to be) a policy-level version of EIA. The contribution presents the case study of the Swedish-Danish Öresund Bridge, its decision-making process, and discusses general conclusions drawn from this study to EA and planning. The case study has as its focus the handling of alternatives in SEA. From this perspective, the conference contribution will attempt to shed light on the relationship between strategic decisions and projects and identify some of the theoretical and empirical difficulties with alternatives in strategic decisions and assessment. Projects can also be seen as shaping (or strongly influencing) policy formulation, thus reinforcing the argument that linear, rational planning is not what *de facto* happens on the 'non-project'-level.

The overall conclusion is that SEA, if applied as a clone of project-EIA, cannot comfortably fulfil a useful role in the decision-making process in planning. This, in turn, opens up for the questioning of the workings of SEA: is SEA truly necessary for achieving more sustainable planning? Can SEA be an obstacle to sustainability in planning? The answers naturally depend on the issues of tiering, the breadth of the concepts of 'sustainability' and 'environment'— and, by extension, on the definition and form of SEA itself.

The Role of Assessments and Institutions for Policy Learning: Cases in Nuclear and Climate Policy Formation in Sweden

Måns Nilsson, Stockholm Environment Institute, mans.nilsson@sei.se

The integration of environmental concerns into sector policies is a key principle in European policymaking. It can be treated analytically as a process of policy learning by which actors in a policy sector reframe their goals, strategies and activities towards sustainable development. This paper examines, in climate and nuclear policy processes in Sweden, how policy learning is affected by the institutional arrangements surrounding the policymaking process and the advancement of knowledge through different types of assessments. First, it identifies patterns of policy learning in the construction of arguments and policies, and determines whether learning occurs mainly incrementally or in more profound reframing processes. Second, it examines the influence of the institutional context in terms of rules and procedures surrounding policymaking, and the role assessments play for learning through their effect on knowledge assimilation and social interactions. Based on the empirical analysis, suggestions are given on how to enhance the potential for learning towards policy integration in the process in terms of designing the assessment process and substance, as well as the institutional context in which it functions.

Impact Assessment as Incentive for Social Learning

Sibout Nooteboom, DHV Consultants, Sibout.Nooteboom@dhv.nl

In a social constructivist worldview, learning organizations are the only way to effectively link knowledge to complex decision-making — i.e., achieving an alternative development rather than only mitigating and compensating adverse impacts. SEA helps a lot as incentive for social learning, though it may become encapsulated and its value forgotten. Impact assessment procedures make sectoral actors vulnerable and therefore create an incentive to come to an understanding with adversaries. Transparency is needed to create interdependencies in networks of sectoral actors and affected groups like future generations or their representatives, but closedness is also needed for these networks to develop influential views that create sustainable breakthroughs. This can be seen in Dutch case examples. Closedness is needed for trust to develop away from the spotlights because supporters initially don't understand that adversaries work together for a better future. Increase interdependencies through transparency, but don't make everything transparent.

Addressing Power, Multiple Rationality and Ethics in Theorising Strategic Environmental Assessment

Tim Richardson, University of Sheffield, tim.richardson@sheffield.ac.uk

This paper engages with debates in the environmental assessment literature about the lessons that can be learned from planning theory, and explores implications for the conceptualisation of SEA. It argues that the current communicative turn in EA echoes a movement in planning theory, but that the lessons from this planning debate have yet to be integrated into the conceptualisation of SEA.

The paper seeks to do this by examining SEA from a perspective which is ambivalent about the claims made for the communicative approach, and by combining concepts of power, rationality, value and ethics in a different way.

First, the paper briefly sets out how planning theory has engaged with these concepts. It then argues that SEA needs to engage with competing multiple rationalities, and the inescapable presence of value conflicts within SEA. It then turns to recent debates to show how the question of value has become a very difficult issue in theorising SEA. These issues are illustrated with cases where the practice of SEA opens spaces of struggle where values and knowledge are contested, and where power geometries are mediated and consensus sought, suggesting a situated, context dependent understanding of SEA. Finally, the paper reflects on how SEA might be conceptualised reflexively and ethically in the face of power.

SEA – Affecting Decision-Making through Communication

Gustavo Vicente, Maria do Rosário Partidário; New University of Lisbon, Portugal, gv@fct.unl.pt, mp@fct.unl.pt

One of the acknowledged differences between project-based analysis and strategic levels of assessment is the subjectivity associated to problem perception, much of which depend on individual, or group of individuals, personal values. At this level of values a variety of ideologies, cultural beliefs, world visions, conflicting interests, different needs and political options come into play, inter-cross and create multiple combinations that lead to different views on why a problem is a problem, for whom is it a problem, and whether it is a problem.

To cope with this multifaceted reality, SEA should be able to engage such different perceptions, including the assessors and the decision-makers' perspectives, since the actions and decisions of these two key groups will ultimately reflect in their own values systems, or not, the values of the other different groups in the society. This value integration, or value acknowledgement, is key in permitting the visibility of the society values every time a strategic decision is taken.

In this contribution it is argued that focus should be put at earlier stages of problem identification, when the perception of the problem, or problems, start taking shape, to enable those that take, or strongly influence decisions, to fully understand the problem(s), inherent issues and the widespread of its relevance, and subsequently engage in the implementation of SEA, before findings and recommendations are even sought.

To face up to this challenge, the authors suggest the development of communication strategies, capable of exploring and revealing the possible synergies and understandings between the environmental assessors and the decision-makers, this way facilitating SEA's influence in decision-making processes. In this context this contribution explores the communicational nature of SEA and its potential to affect the context within which decisions are taken.

Session E3 Developing SEA Guidance

Governments and donor organisations around the world are busy implementing their specific versions of SEA. Consistently, such introductions of SEA are accompanied by the development of some sort of SEA guidance. This session draws on practical experience in developing such guidance material to distinguish lessons learned, so that we may avoid continual "reinvention of the wheel" in SEA guidance development.

Sessions E3.1 and E3.2 will start with two presentations, followed by in-depth discussion on the session theme.

Workshop E3.1 Solving Common Challenges in Developing SEA Guidance and Increasing Effectiveness of SEA Guidance Material

Topic chair: Bobbi Schijf, Ameco Environmental Services, The Netherlands, bobbischijf@wanadoo.nl

Development and Use of SEA Guidance for the EU SEA Directive. Riki Therivel

SEA Guideline for Japan. Kenichiro Tomiyasu, Yasusuke Kurosaki

Discussion on the session theme facilitated by the session chair

Workshop E3.2 What Should Be Common to All SEA Guidance Material?

Topic chair: Bobbi Schijf, Ameco Environmental Services, The Netherlands, bobbischijf@wanadoo.nl

Keeping It Short: The Environment Agency SEA "Do's and Don'ts Guide." Lucia Susani

Analysis of Objectives in Strategic Environmental Assessment of EU Structural Funds Planning Process. D. Pereira, B. Ocon, J.J. Rodriguez, J.J. Oñate

Discussion on the session theme, facilitated by the session chair

Development and Use of SEA Guidance for the EU SEA Directive

Riki Therivel, Oxford Brookes University, riki@ukoxford.freeserve.co.uk

The development of SEA guidance in response to the European SA Directive raised remarkably similar issues in different countries. These included how to integrate SEA with existing planning systems, how to make SEA manageable and practical, how to ensure that SEA was as effective and powerful as possible, and how to ensure that the guidance promotes legal compliance with the Directive. However, the process of writing and using the guidance varied dramatically, with different organisations involved and different levels of use and ownership. The development and use of five guidance documents — for Iceland, the Lombardia region of Italy, Portugal, Scotland and England— is reviewed, with a focus on England. The presentation is based on an article co-written by five SEA experts: Therivel et al. (2004) 'Writing Strategic Environmental Assessment Guidance', Impact Assessment and Project Appraisal 22(4), pp. 259-270.

SEA Guideline for Japan

Kenichiro Tomiyasu, Ministry of the Environment, Government of Japan, KENICHIRO_TOMIYASU@env.go.jp; Yasusuke Kurosaki, Nippon Koei Co., Ltd., a3492@n-koei.co.jp

The Ministry of the Environment, Government of Japan (MOE) developed a provisional strategic environmental impact assessment (SEA) guideline for the waste management sector in November 2003. In this presentation, we describe objectives and features of the guideline and a case study. The guideline shows SEA procedures and important points when municipalities design those plans. Although some municipalities already have SEA frameworks, there have been only a few SEA cases. Therefore, we hope this helpful guideline contributes to promoting SEA in Japan. Before the guideline was developed, a case study was conducted in order to make clear important procedures of SEA. Main characteristics of the case study are that it shows 1) who should do what in each step of SEA procedures, 2) how to design an environmental consideration policy and developing alternatives based on this policy, 3) timing and methods of public participation, and 4) examples of documents for consultation.

Keeping It Short: The Environment Agency SEA "Do's and Don'ts Guide"

Lucia Susani, UK Environment Agency, lucia.susani@environment-agency.gov.uk

In the UK, a number of SEA guidance documents have been prepared. The documents range in length from eight to 80+ pages, and, although thorough, can sometimes prove overwhelming. To combat SEA "information overload," the Environment Agency of England and Wales has developed a one-page Guide summarising key SEA principles, in particular for local development documents prepared by local Authorities. The "SEA Do's and Don'ts Guide" has been designed for accessibility and user-friendliness. On the document, a flow diagram indicates each of the key stages of SEA: Screening, Baseline, Scoping, Assessment and Reporting, Consultation and Decision Making, and Monitoring. For each stage, a number of relevant "Do's" and "Don'ts" provide snappy reminders of SEA principles. For example, for baseline development, plan makers are urged to "do stick to relevant issues; don't collect excessive detail."In scoping, "do consider a range of options; don't be afraid of being creative." For assessment and reporting, "do ensure assessment is evidence-based; don't hide uncertainties." A handful of process-wide "do's and don'ts" are also suggested.

The one-page document was distributed widely and made available electronically. A positive and enthusiastic response was received on the effectiveness and accessibility of the information. The importance of brevity, visual clarity, and immediacy in guidance documents is highlighted.

Analysis of Objectives in Strategic Environmental Assessment of EU Structural Funds Planning Process

D. Pereira, B. Ocon, Universidad Politécnica de Madrid, d.pereira@upm.es; J.J. Rodriguez, Analisis e Información Ambiental, aia@aiaconsult.com; J.J. Oñate, Universidad Autónoma de Madrid, juan.onate@uam.es

The strategic level of impact assessment must face up the analysis of objectives and goals. How we can resolve this problem is a key methodological decision, specially when evaluators pursue the inclusion of the main findings of environmental assessment process in the political and social agenda, and the measures included in the planning document are not clearly defined (number, size, design properties, spatial location and moment of development and others).

Using the experience of the preceding period of EU structural funds planning process (2000-06), we raise some reflections about methodological issues related with this kind of analysis and the means to integrate it inside the environmental and sustainability policy framework. Those questions are focused on the qualitative analysis of objectives and goals and how make it operative through the tiered chain of planning documents and evaluations during the whole planning process. This analysis is based on planning documents (from regional development plans to operative programs and related documents), strategic environmental assessments, and intermediate evaluations conducted during 2000-06 UE structural funds planning process in several EU countries.

Session E4 Search for Appropriate Organisations

Topic chairs: Holger Dalkmann, Wuppertal Institute for Climate, Environment and Energy, holger.dalkmann@wupperinst.org; Lone Kørnøv, Aalborg University, lonek@i4.auc.dk

Having in mind that planning and decision making processes are not rational and linear, value free and technical processes only, central questions are raised in relation to the development and use of SEA. Different kind of SEA types and varied frameworks provide different opportunities for the integration of SEA processes and results.

The main aim of the session is to focus on 'hit factors' for SEA from the perspective of decision-making, actors' constellations and process organisation. This discussion will be based on the actual situation, where new SEA procedures often meet old decision-making structures with existing routines and formal as well as informal processes.

When discussing appropriate organisations for integrating SEA, the session will address the following questions:

1. How can we in the SEA process cope with formal and informal organisational structures and decision-making processes? How could the process be organised in a more formal and transparent manner?
2. How can we when organising the SEA work support the dialogue and thereby challenge the different rationalities and exchange expertise and preferences?
3. When organising the SEA work, how can we produce and bring knowledge at the right time and at the right level of detail to the decision makers and the broader public to ensure use of the results?
4. When organising the SEA work, how can we cope with the political system and support a transparency in relation to the decision making process? Which role could public participation play in relation to the political processes?

Workshop E4.1 Challenges for a Successful SEA Implementation

Political Decision Making and the Influence of an SEA Process. Marc Van Dyck

An Independent Body to Oversee SEA: Bureaucratic Burden or Efficient Accountable Administration? Anna McLauchlan and Elsa João

Implementation of SEA — Challenge or a Bridge Too Far. Astrid Paulussen, Emilija Savanovic, Petra Boonman

Actor's Teamwork Developing a National Strategy for Waste Prevention and Processing for Austria – A Proactive Step Towards Bridging the Gap Between Experts' Work and Political Decision-Making. Sabine Mayer

Workshop E4.2 Roundtable Discussion: Search for Appropriate Organisations

A short introduction will focus on 'hit factors' for SEA from the perspective of decision-making, actors' constellations and process organisation. The introduction, insight from workshop 1 and statements from invited contributors forms the basis for a roundtable discussion focusing on a) appropriate organizations to integrate SEA in decision making and b) how to get there.

Political Decision Making and the Influence of an SEA Process

Marc Van Dyck, Resource Analysis NV, mvd@resource.be

The serious and sometimes controversial political decisions that have to be taken on plans or programmes with a huge spatial, social and economical impact on the affected population, ask for input from the SEA process. However, not all of this input fits into the politicians agenda. And that is why the influences between the SEA process and the political level go both ways.

When a political decision making culture is not based on planning processes, this information exchange is deficient or does not exist at all, and the influence of the SEA processes may lead to inadequate decision-making, which in its turn will give rise to protest or to a bad image for both the planning instrument SEA and the political decision-makers.

SEA is vulnerable to political influence and meets boundaries that limit the positive influence of SEA research processes on political decision making. In the SEA sessions in Boston (IAIA'05) these boundaries (institutional, societal and information boundaries) were addressed and illustrated with a few case examples.

This paper will try to take the analysis of the cases a step further and relate the planning culture to the effectiveness of SEA output in political decision making. A proposal for specific adaptation of the SEA process to the political decision making culture as well as the planning culture will be presented. The supporting factors to overcome the difficulties in streamlining the SEA assessment with the ongoing political decision making process, as well as the pitfalls, will be identified.

An Independent Body to Oversee SEA: Bureaucratic Burden or Efficient Accountable Administration?

Anna McLauchlan, Elsa João; University of Strathclyde, anna.mclauchlan@strath.ac.uk, elsa.joao@strath.ac.uk

This paper addresses two questions posed by the position paper: "How could the process be organised in a more formal and transparent manner?" and "When organising the SEA work, how can we cope with the political system and support a transparency in relation to the decision making process?".

Through a review of the international experience in the context of "good practice" SEA, this paper proposes a number of services that a hypothetical independent organisation could perform to improve SEA practice (e.g., providing guidance, auditing). It then proposes alternative organisational structures that could facilitate such supporting services, questioning what aspects of such structures would be appropriate in different European countries. This paper reflects the current debate in Scotland about whether an independent organisation to administer SEA is needed to support Scottish SEA practice. The paper also briefly explains how the SEA Directive is being implemented in Scotland as, interestingly, Scotland is going beyond the SEA Directive requirements by also considering the SEA of policies.

Implementation of SEA - Challenge or a Bridge Too Far

Astrid Paulussen, Emilija Savanovic, Petra Boonman; Ministry of Transport, Public Works & Water Management, a.m.paulussen@dww.rws.minvenw.nl, p.c.m.boonman@dww.rws.minvenw.nl

How to assure good implementation of SEA? What are the major issues that affect the overall 'climate' for and acceptability of environmental assessment at the policy plan and program level? This paper discusses some issues and challenges related to the development and successful implementation resulting in meaningful strategic environmental assessments of government policy and program proposals.

The Dutch Ministry of Transportation, Public Works and Water Management has no experiences of doing a formal SEA within the legal framework of European Directive 2001/42/EC. It finds itself facing the task to implement SEA in its organization. Moreover, being a government organisation, the Ministry is responsible and obliged to take this new directive seriously in order to give a good example and to make SEAs, which have an added value to the policy- and plan-making process. Is it possible to implement SEA in such a way that it not only appraise plans and programs but also contributes to the development of policies, plans or programs? The Ministry has much experience with EIA at the project level, having the responsibilities of competent authority as well as proponent/developer.

This experience might be useful for the integration of SEA into the mainstream of policy- and decision-making. This paper is an invitation to discuss the challenges and to exchange experiences from other countries.

Actor's Teamwork Developing a National Strategy for Waste Prevention and Processing for Austria – A Proactive Step Towards Bridging the Gap Between Experts Work and Political Decision-Making

Sabine Mayer, Federal Environmental Agency, sabine.mayer@umweltbundesamt.at

Within the framework of compiling the 'Federal Waste Management Plan 2006,' a consensus-building process similar to SEA has been initiated by the governing authorities in order to develop an innovative national strategy for waste prevention and processing for Austria. At the time the process started, SEA had not been implemented in the Austrian Waste Management Act. Accordingly there was no legal requirement to undertake an SEA for the whole Waste Management Plan. Even though this process is not legally obliged to meet all SEA requirements, it practically covers all necessary elements, but leaves more flexibility in the process design.

This initiative shall provide for a consensual suggestion from relevant stakeholders, outlining which steps the Ministry of Environment shall take in order to achieve advanced waste prevention such as an efficient reduction of amount and content of harmful substances in wastes and waste processing. The given time frame is four years (2006-2010). The stakeholders identified should not only represent a qualified cross-section of opinions and positions, but should also be in positions which can effectively influence the final political decision and also enhance the chance for practical implementation of the agreed outcome.

The presentation will focus on key factors of successful active participation with links to experiences with this high-level waste-experts teamwork. This begins with setting objectives such as limits for the process, stakeholder identification, constitution of different roles and agreeing upon general principles and process rules. Moreover, it will provide an insight into the mode of operation in reaching consensual results without sacrificing quality, strengthening the crucial role of facilitation. In addition, experiences and findings will be outlined with a view to move towards SEA requirements in dealing with competent authorities' structures such as relevant stakeholders.

Session E5 Operating SEA Knowledge Centres

Topic chair: Petrie van Gent, Commissie M.E.R. Netherlands Commission for Enviriionmental Impact Assessment, pgent@eia.nl

The application of Strategic Environmental Assessment (SEA) increased quickly over the last years, not only in number but also in ways of application. In view of introducing or improving the use of SEA in countries and institutions, it is important to know about actual developments. During this session we would like to discuss the dissemination of SEA information and experiences and how this can be facilitated by "SEA knowledge centres." What kind of information is required, which tools do we need to reach different user groups and what may (or may not) we expect from these centres?

Workshop E5.1 Where Do You Look for SEA Information? And Do You Find What You Are Looking For?

Facilitated round-table discussion on how/where participants look for SEA information and experiences, and whether they can find it, yes or no. The debate will be supported by various posters* on SEA information and knowledge centres. There also will be access to internet to be able to discuss digital information sources. The discussion will result in an overview (matrix as suggested in the position paper) of the kind of information and experiences that is sought after, and whether that is available.

* *including Academy of Sciences, Republic of Tajikistan (Prof. M. Isobaev, coordin@yandex.ru); Netherlands Commission for EIA (Petrie van Gent, pgent@eia.nl) and others.*

Workshop E5.2 How to Facilitate (Better) Availability, Accessibility and Applicability of Good SEA Information

Continued round table discussion. Based on the outcomes of the Workshop 5.1: if we know what is out there, we can try to define the gaps in information provision and exchange. Special attention will be given to those groups with less access to facilities.

The session will come up with recommendations and concrete suggestions on whether "SEA knowledge centres" have a role to play in effective information provision. If yes, how? If not, what else can we do?

Session E5 abstract

The Ways for Better Environment Assessment at the Central Asian Regional Level (poster)
M.J. Isobaev, Academy of Sciences, Republic of Tajikistan, coordin@yandex.ru

The Central Asian (CA) region has a lot of ecological problems. The priority in this set should be given to the drinking water, childrens' environmental health, and air pollution. Some joint actions toward combating these issues have been done and number of strategic environmental programs have been created. The Strategic Environment Assessment's key question is access and sharing of environmental information. With the goal of creating a basis for effective sharing of environmental information, the project named Capacity Building in Environmental Information Management System in Central Asia has been launched by CA NIS including Tajikistan, Kazakhstan, Turkmenistan, and Kyrgyzstan. The project is financially supported by the Government of Finland and is to be continued for two years. The author of the presentation has been appointed as analytical laboratory expert in charge of highlighting the main problems which had arisen at the initial stage of the project. The regional information system should have an electronic database concerning the environmental pollution. This means that all analytical investigations are to be carried out by using standardized methodic and common indicators for the purposes of environmental monitoring. Since the project's inception, two regional workshops have taken place (Dushanbe 2004, Almaty 2005) and the problem was discussed thoroughly, but no decision on this subject was elaborated.

To date, some actions on improving the situation with standardized methodic and common indicators have been taken by CA NIS national experts and it is expected that one additional workshop dedicated to this issue will take place soon. The Strategic Environment Assessments should be based on available laboratory instrumental data information. That is why the organizations involved in Environmental Information Management System projects should have modern equipments and the results of analyses should be taken continually.

Unfortunately, the laboratory equipment which was examined in many governmental and scientific organizations in the Republic of Tajikistan is not responding to the project's needs. Some actions towards improving situations in this area should also take place. In the local level we are also planning to conduct trainings of laboratory technicians on topics of efficient use of standardized methodic and common indicators for the purposes of environmental monitoring.

Session E6 Distance Learning and E-learning in SEA

Topic chairs: Brendan Barrett, Gerard Brady, United Nations University, barrett@hq.unu.edu, brady@hq.unu.edu

The purpose of this session is to:

- Examine recent experience in the development of online and distance learning on SEA
- Explore potential synergies between existing SEA e-learning initiatives internationally and regionally
- Illustrate various methodologies designed to produce good, quality assured distance and e-learning on SEA

Online Learning for SEA in Coastal Management for the Mediterranean (poster), by A. G. Abul-Azm, Gonzalo Malvarez, Paola Minoia, Ivicia Trumbic, Maja Fredotovic

Oxford Brookes University Distance Learning Course in SEA. Riki Therivel

SEA E-Course Module and Ayuquila River E-Case Study. Brendan Barrett, Gerard Brady

Session E6 abstracts (in order of presentation):

Online Learning for SEA in Coastal Management for the Mediterranean (poster)

A.G. Abul-Azm, Egyptian Environmental Affairs Agency, ecma@access.com.eg; Gonzalo Malvarez, Universidad Pablo de Olavide, gcmalgar@dhuma.upo.es; Paola Minoia, Centre of Excellence for Sustainable Development in the Mediterranean Coastal Areas (CESD), minoia@unive.it; Ivicia Trumbic, Priority Action Plan/Regional Activity Center (PAP/RAC), ivica.trumbic@ppa.htnet.hr; Maja Fredotovic, University of Split, mfredot@efst.hr

This poster presents the outline and the initial steps taken by four universities and one institution in the Mediterranean to create and implement a new postgraduate course in Integrated Coastal Area Management (ICAM) in the Mediterranean Region, filling the gaps of existing education programmes with particular emphasis on the managerial aspects. Strategic Environmental Assessment is one of the important tools of ICAM. However, the poster deals with the crucial issue to introduce through an EU standardised curriculum the possibility for stakeholders to achieve the necessary capacity building that is required to manage the complex coastal environments of the Mediterranean. The project is funded by TEMPUS, and the Joint Educational Programme (JEP) is intended to create an effective network of higher education institutions to share resources and capabilities available in the consortium members and in line with the EU principles and regulations including the Bologna Declaration for developing advanced concepts in education.

Oxford Brookes University Distance Learning Course in SEA

Riki Therivel, Oxford Brookes University, riki@ukoxford.freeserve.co.uk

Oxford Brookes University's distance-learning course in SEA is a web-based course designed to support a masters-level programme and also as a stand-alone course for training and professional development. The course provides extensive coverage of SEA theory and practice and allows students to carry out the many steps involved in SEA and also to analyse a range of supporting reports, regulations and guidance. The course also provides practice in critical analysis, succinct written presentation, use of information technology (Web searches, Adobe, e-mail), and possible participation via the Internet. This presentation will focus on key aspects of the course and provide a demonstration of the course module.

SEA E-Course Module and Ayuquila River E-Case Study

Brendan Barrett, Gerard Brady, United Nations University, barrett@hq.unu.edu, brady@hq.unu.edu

UNU Online Learning works on a variety of educational technology projects to support the fundamental mandate of the UNU in terms of conducting research and capacity development activities. Based in the Media Studio located in the UN House at Tokyo, UNU Online Learning's approach focuses on creativity, innovation and good design of open content, in collaboration with our partners. Drawing on this approach UNU Online Learning is currently working on the development of "e-course modules" and "e-case studies," which will be used among our partners for education in sustainable development. Key to this presentation is the e-Course Module on SEA, which integrates video, tables and figures and text into a user-friendly interface, incorporating content from Oxford Brookes University's Distance Learning Course in SEA. This course is to be used to support a unit for the UNU-Global Virtual University's online Master's Programme on Global Environment and Development Studies. This presentation will provide a demonstration of the e-Course Module in SEA and also demonstrate how other e-learning objects as the Ayuquila River e-Case Study can support the course.

Session E7 Capacity Development Manual for the Implementation of the Protocol on SEA

Sponsored by the Netherlands Ministry of Housing, Physical Planning and the Environment

Topic chairs: Nicholas Bonvoisin, U.N. Economic Commission for Europe, nicholas.bonvoisin@unece.org; Ausra Jurkeviciute, The Regional Environmental Center for Central and Eastern Europe (REC), ausra@rec.org

The Protocol on SEA to the Espoo Convention on Environmental Impact Assessment in a Transboundary Context was signed in May 2003 by thirty-six states and by the European Commission. Now, within the workplan of the Espoo Convention, a Capacity Development Manual is being developed to support the implementation of the Protocol. The Manual will provide comprehensive materials for use in activities planned to develop capacity in the practical implementation of the Protocol. The conference will provide an opportunity for participants to comment on the draft Manual and to influence its eventual content, distribution and use. Participants who wish to attend this session should ask topic chairs to provide them with the latest version of the Manual before the conference.

Workshop E7.1 Introductory Workshop

Topic chair: Ausra Jurkeviciute, REC, ausra@rec.org

Introduction to the session and workshops: clarification of the objectives. Ausra Jurkeviciute

Capacity development framework for the UNECE Protocol on SEA (workplan, overview of activities). Nick Bonvoisin, UNECE

Purpose of the Manual. Jiri Dusik, REC

Overview of Module 1 - Structure of the Manual, target audience and users' guide. Nick Bonvoisin

Relevance of the TM to the implementation of the Directive. David Aspinwall, EC

Module 2 – Trends and developments in SEA with particular reference to implementing the UNECE Protocol on SEA. Barry Sadler

Workshop E7.2 Workshop on the Application Modules

Topic chair: Ausra Jurkeviciute, REC, ausra@rec.org

Module 3A and 3B – Key issues in the application of the Protocol on SEA, and application of the Protocol on SEA to plans and programmes. Nick Bonvoisin

Module 8 - Presentation of the outline of the case studies. Ausra Jurkeviciute

Workshop E7.3 Workshop on the Practical Implementation

Topic chair: Jiri Dusik, REC, jdusik@rec.org

Module 4 - Implementing the Protocol on SEA within planning and programming processes. Nick Bonvoisin

Module 5 - Overview of basic applicable methods and tools. Barry Sadler

Module 10 - Tasks for practical work on SEA case studies within capacity development programmes for the Protocol on SEA. Ausra Jurkeviciute

Workshop E7.4 Workshop on the Capacity Development Module and on the Pilot National Manuals

Facilitated by Henrieta Martonakova

Module 9 - Capacity development for the Protocol on SEA: presentation of capacity-building methods and tools. Ausra Jurkeviciute

Capacity development activities (Capacity-building needs analysis in selected countries of East-

ern Europe, the Caucasus and Central Asia, Manual). Henrieta Martonakova, UNDP Regional Center for Europe and CIS (focusing on the selection processes of the capacity building and manuals)

Implementation of the Protocol on SEA in Georgia. Lia Todua, Centre for Strategic Research and Development of Georgia

Strategic Environmental Assessment Practices in Moldova. Dumitru Drumea, Ministry of the Environment and Physical Planning, Moldova

National Capacity Development Manual for the UNECE Protocol on Strategic Environmental Assessment: Experience of Ukraine. Olena Borysova and Evgenia Varyvoda, Kharkiv National Karazin University, Ukraine

Future development. Jiri Dusik and Nick Bonvoisin

Session E7 abstracts (in order of presentation)

Implementation of the Protocol on SEA in Georgia

Lia Todua, Center for Strategic Research and Development of Georgia, liatodiua@gol.ge

At the moment in Georgia there is a special situation with regards to SEA introduction. There are several points to be taken into account:

- Lack of planning regulations and need for urgent development of those. The country has no formal planning regulations: soviet planning system completely collapsed and no new one is developed so far. Actually the country is in the process of development (actually at the very begining) of a new planning system, both at central and at local level.
- Formal existence of SEA-type procedure declared at legislative level. Georgian legislations provides for EIA procedure for a list of plans and programs. But in reality it never works. Formally that means that at least formally the country does not have to introduce SEA, but just to improve the procedure so that it works.
- Changes in permitting-licensing system with the goal to ease the process for entrepreneurs. Meaning that it is a right moment to also change something with regards to plans and programs.

The challenge in this situation is to develop SEA procedure in parallel with development of planning system in Georgia. We consider it as promising and interesting. Accordingly, I will present:

1. The situation in the country with planning practices, EIA, and perspectives for SEA intorduction
2. Our work on manual, its target groups and suggested way of use, its outline and already developed parts
3. Correlation of the 1 and 2 and perspectives

Strategic Environmental Assessment Practices in Moldova

Dumitru Drumea, Ministry of the Environment and Physical Planning, Moldova, drumead25@yahoo.com

Actual practices on Environmental Assessment in Moldova are based mainly on evaluation of the damages caused to environment due to a certain types of social and economic activities. According to legislation, each type of these activities needs an environmental impact assessment study. Actually there is rather good experience in developing of such studies in the country, which allows the development and then implementation of adequate measures aimed at environmental protection and rational use of natural resources.

Strategic Environmental Assessment issues have become a point for discussion after the country declared its intent to join to the European Union. The willingness of the Moldovan State to enter the EU demanded development of national and regional strategic programs aimed at sustainable development in the country, overcoming of actual economic constrains, etc. Actually there are some nationwide programs, which are under implementation like "Moldavian village," "drinking water supply in rural areas," "development of the organic agriculture," etc. All these documents need a strong strategic environmental assessment and this is widely recognized by different levels of political and sectoral authorities.

Development of the manual on Strategic Environmental assessment in Moldova started on the national workshop on this topic, where representatives of main stakeholders recognized the vital necessity for this. In the framing of the manual development, a series of consultation meetings were held in 2005. During these field trips, local authorities were informed about the manual's development and draft of its outline was discussed with them. On the basis of such discussions, one could conclude that soon a guideline-type manual should be developed in Moldova with indication of concrete steps, phases etc., which could be used further by potential users in development of strategic documents.

National Capacity Development Manual for the UNECE Protocol on Strategic Environmental Assessment: Experience of Ukraine

Olena Borysova, National Academy of Municipal Economy, Ukraine, borysova@velton.kharkov.ua; Evgenia Varyvoda, Kharkiv National Karazin University, Ukraine, yarogtchuk@yahoo.com

Elaboration of the national SEA capacity building manual as the tool for UNECE SEA Protocol implementation in Ukraine was recognized as a priority for strategic environmental assessment system development. This study presents national features, needs and concerns related to the elaboration of the national manual. The nanual outline is based on the findings of the regional overview prepared for the capacity building needs assessment for the UNECE SEA Protocol project. At present, it is envisaged that national manual will include Introduction to the capacity building manual, Introduction to SEA, Key issues in the implementing of the SEA Protocol, Key elements of the SEA process, Overview of basic applicable methods and tools, Public participation in SEA, Implementing SEA Protocol with planning processes, SEA process management, Evaluating the quality of the practical application of the SEA Protocol, and Capacity building for the SEA Protocol. THe national manual shall serve as guidance for the SEA Protocol implementation, provide resource materials for theoretical and practical introduction to SEA, and supply examples of SEA best practice. Target groups of the national manual are identified as planners, impact assessment professionals, government officials, researchers and NGOs.

Poster Abstracts

Strategic Environmental Assessment in Flanders-Belgium: Is There an Implementation Strategy?

Jan De Mulder, Ministry of Flanders, AMINAL-Environment Administration, an.demulder@ugent.be and jan.demulder@lin.vlaanderen.be

On 18 December 2002, the Flemish Government adopted new EIA-legislation (decree) including a chapter on SEA, which transposes – at least partially the EU SEA Directive of 2001. This decree contains a number of definitions and general procedural provisions that include issues on participation/consultation, scoping and decision making (justification).

The SEA chapter came into force on 21 July 2004 – the ultimate transposition date for the EU SEA Directive. However, up to now formal scope of application has been identified in an executive order due to a lack of political willingness.

Some SEAs have been finished or are now being prepared. The unclear legal situation does not enhance the application of SEA.

It was the intention to learn from a few "experimental SEAs" done before the transposition date. Some preliminary observations on finished SEAs (lessons learned) cannot be dismissed such as the tendency of planners to "control" the SEA-work (fear that the SEA may lead to undesirable political reactions) and the lack of transparency and communication in general.

The paper will give an overview of other lessons learned from finished and ongoing SEAs. A particular focus will be the relationship with the wider institutional framework and the federal plans and SEAs.

Testing SEA in Practice: Austrian Experience on What Worked, What Did Not Work and How We Try to Make SEA Work

Kerstin Arbter, Strategic Environmental Assessment, Consulting & Research, office@arbter.at

Between 1997 and 2004, seven SEA pilot projects were carried out in Austria to test the SEA Directive in planning practice. Our first SEA approaches stuck closer to the Directive's requirements. We gained valuable methodological experience. But we also learned that procedural issues are at least as important for effective SEAs as methodological ones. Therefore, after four pilot SEAs, we developed a new approach – the SEA Round Table. This is a participative approach trying to (1) fully integrate the planning and the SEA process and (2) to actively involve the interest groups concerned throughout the whole process, from defining aims to choosing the planning solution. This new approach increased the effectiveness of SEA distinctly. In particular, the SEA for the Viennese waste management plan showed how SEA (1) increases the quality of the plan, (2) can be used as an instrument to reconcile various interests concerned, (3) fosters the plan's implementation and (4) contributes to a better environment by solving problems at their roots. The SEA Round Table approach goes beyond the Directive's requirements in some aspects, and our experience is promising.

SEA Guidelines for the Evolution of Strategy Papers in Development Co-operation

Fernagut Marianne, Hens Luc, Human Ecology Department, Free University Brussels, Jean.Huge@vub.ac.be

Strategic Environmental Assessment (SEA) in development co-operation is still in evolution. However, international commitments for both sustainable development and aid harmonisation induce the need to clear out current practices of SEA in development co-operation.

Guidelines can play a role in establishing a more systematic approach and a common framework and contribute to the acceptance of the SEA-approach within the donor/lender agencies and the recipient countries. Coordination on the use of SEA will be necessary for evolving aid modalities in line with the call for delivering aid more effectively.

The presented guidelines address country strategy papers of the Belgian Directorate General of Development Co-operation and equivalent plans and programs. The study emphasises the need to focus on set-

ting up environmental objectives and ensuring the compatibility of the strategy with other environmental policies, plans and programs, both at a national and international level. In the same field of research, the Free University of Brussels recently started a project on the sustainability appraisal of Poverty Reduction Strategy Papers. The SEA approach may prove very useful in attaining an integration of poverty reduction and environmental issues.

Sustainability Windows (SuWi). Multi-Level Decision Aid Tool for Managing Complex Systems

Stefan Glaser, Human Ecology Working Group of the University of Vienna, Stefan.glaser@univie.ac.at

Projects affecting the public entail cross-scale interactions, non-linearities and interdependent effects reflected in the ecological, economical and social domain. Therefore, a linear analysis of causes and effects becomes arbitrary and misunderstanding and conflicts among related stakeholders increase, bearing additional costs and risks for planning and management.

To address these conflicts we develop a multi-level decision aid tool, SuWi, which tackles both, the need for improved system understanding and the need for enhanced participation. Drawing on key indicators of co-evolutionary interactions, dynamic system modeling and GIS computer simulations, SUWI clarifies and visualizes interdependencies of sub-systems and non-linear dynamics in order to identify and process necessary information to balance decisions between ecological and socio-economic issues. Heading for sustainability, the central idea of SuWi is to facilitate a shared vision of the complex system/ the project. This provides the stakeholders involved in the decision-making process with 'integrative information' about the system in question, but allows them to develop their own way to reach context-dependent solutions.

The Ways for Better Environment Assessment at the Central Asian Regional Level

Muzafar Isobaev, Academy of Sciences, Republic of Tajikistan, coordin@yandex.ru

The Central Asian (CA) region has a lot of ecological problems. The priority in this set should be given to the drinking water, children's environmental health and air pollution. Some joint actions toward combating these issues have been done and number of strategic environmental programs have been created. The Strategic Environment Assessment key question is access and sharing of environmental information.

With the goal of creation of basis for effective sharing of environmental information, the project named "Capacity Building in Environmental Information Management System in Central Asia" has been launched by CA NIS including Tajikistan, Kazakhstan, Turkmenistan, and Kyrgyzstan.

The project is financially supported by the Government of Finland and is to be continued for two years. The author of the poster has been appointed as analytical laboratory expert and is in charge of highlighting the main problems which had arisen at the initial stage of the project. The regional informational system should have an electronic data base concerning environmental pollution. This means that all analytical investigations are to be carried out using standardized methodic and common indicators for the purposes of environmental monitoring.

Since the project's inception, two regional workshops have taken place (Dushanbe 2004, Almaty 2005) and the problem has been discussed thoroughly, but no decision on this subject was elaborated. To date, some actions on improving the situation with standardized methodic and common indicators has been taken by CA NIS national experts and it is expected that one additional workshop dedicated to this issue will take place soon.

The Strategic Environment Assessments should be based on available laboratory instrumental data information. That is why the organizations involved in Environmental Information Management System projects should have modern equipment and the results of analyses should be taken continually.

Unfortunately, the laboratory equipment which was examined in many governmental and scientific organizations in the Republic of Tajikistan is not responding to project's needs. Some actions toward improving the situation in this area should also take place.

At the local level we are also planning to conduct training of laboratory technicians on topics of efficient use of standardized methodic and common indicators for the purposes of environmental monitoring.

Education in Coastal Management for the Mediterranean

A. G. Abul-Azm Cairo University, Egypt, ecma@access.com.eg; Gonzalo Malvarez, Universidad Pablo de Olavide, gcmalgar@dhuma.upo.es; Paola Minoia, Centre of Excellence for Sustainable Development in the Mediterranean Coastal Areas (CESD), minoia@unive.it; Ivicia Trumbic, Priority Action Plan/Regional Activity Center (PAP/RAC), ivica.trumbic@ppa.htnet.hr, Maja Fredotovic University of Split, mfredot@efst.hr

In the European Union a long tradition in the development of environmental protection, conservation and related regulations have provided the basis for a sophisticated view on the management of complex systems, like the coastal environment. Educational programs have somewhat reflected this preoccupation with the proliferation of courses in environmental management, in general, with great attention to technical and the legal aspects.

In parallel with the thematic advancement in the disciplines that affect the studies of environmental systems (and their management) the EU has moved forward significantly in the facilitation of sound basis for the design and implementation of higher education curricula, culminating in the signature of the Bologna Declaration, which sets the standards for future models for the EU and other countries seeking highly developed concepts in learning and teaching.

Complex problems of the Mediterranean coastal area of Croatia and Egypt, as best representative countries of the region, demand an integrated, multidisciplinary and interdisciplinary approach with a sound scientific basis and co-operation of all involved stakeholders, public and private institutions and organizations through Integrated Coastal Area Management (ICAM). Strategic Environmental Assessment is one of the important tools of ICAM. The crucial issue is, thus, to introduce through an EU standardized curriculum, the possibility for stake holders to achieve the necessary capacity building that is required to manage the complex coastal environments of the Mediterranean.

In phase II of the Mediterranean Action Plan (MAP), inadequate human resources allocated for the coastal management activities are one of the main shortcomings in the protection of the Mediterranean environment and its coastal region. This problem is particularly acute in Mediterranean countries; Croatia and Egypt are well suited representatives of this situation.

One of the issues that has stopped Mediterranean Region countries from engaging with EU members has been a geographical barrier encountered by stakeholders, at work, to access higher education programs. However, with the advancements in Information and Communication Technology, a full curriculum in ICAM can be developed on the basis of an easy access e-learning program heavily based on the ideas from the Bologna Declaration and its ECTS based modular teaching methods. Therefore, the provision of an Internet based post-graduate course on ICAM, created by several Mediterranean Universities, should be recognized as an exceptional value for capacity building in all Mediterranean countries.

This poster presents the outline and the initial steps taken by four universities and one institution in the Mediterranean To create and to implement a new Postgraduate Course in ICAM in the Mediterranean Region filling the gaps of existing education programs with particular emphasis on the managerial aspects. The Project is funded by TEMPUS, and the Joint Educational Program (JEP) is intended to create an effective network of higher education institutions to share resources and capabilities available in the consortium members and in line with the EU principles and regulations.

Poster Abstracts

The Swedish EIA Centre

Swedish EIA Centre, www-mkb.slu.se, mkb@slu.se; Sida EIA Helpdesk, sida-mkbhelp@slu.se

The main purpose of the Centre is to enhance quality of EIA and SEA and be the national centre for further education, information and research in Sweden. The Centre also functions as adviser and organizes a network in which more than 1200 EIA professionals take part. The Centre is situated at the Swedish University of Agricultural Sciences (SLU) in Uppsala.

Education, courses and seminars

The Swedish EIA Centre gives undergraduate EIA courses on several levels, including master theses. A postgraduate training course for EIA professionals is also provided. The Centre arranges open seminars and conferences on EIA/SEA related topics. Customized training courses and seminars are also provided. Lately, seminars concerning the implementation of the EU Directive 2001/42/EC on SEA, have been in great demand.

Sida EIA Helpdesk

The Swedish EIA Centre, provides an EIA Helpdesk for the Swedish International Development Cooperation Agency (Sida/Asdi). The assignment includes for example:

- Review EIA documents for Sida-supported projects
- Advice on terms of reference for EIA
- Support national or regional EIA centres in Sida partner countries
- Assemble information in the area of EIA/SEA
- Provide EIA training for Sida staff and cooperating partners

Research and development

The Swedish EIA Centre is disseminating information about research as well as doing own research. The research regards for instance:

- SEA in comprehensive and early planning processes in Sweden
- SEA of the use of abandoned farmlands in Estonia
- Indicators for EIA and future eco tourism in Nicaragua
- Cumulative effects in EIA.

The development work comprises a wide field, including, for example:

- Upgrade EIA competence among university teachers
- Establish guidelines for environmental monitoring of roads and railways
- Integrate SEA into regional development planning
- Advice on EIA of nuclear waste treatment

Inclusion of Environmental Risk Assessment within Strategic Environmental Assessment (SEA), as a Way to Ensure the Biodiversity Conservation in Brazilian Oil and Gas Exploration & Production (E&P) Offshore Areas

Katia Cristina Garcia, Federal University of Rio de Janeiro (UFRJ), garciak@ppe.ufrj.br; Emilio Lebre La Rovere

The 3.5-square-km Brazilian shore areas include coral reefs, dunes, mangroves and estuaries, some of them endemic, contributing to appoint the country as the largest biodiversity on Earth. However, these ecosystems are being lost, damaged or threatened by the risk of oil spills from E&P activities.

In order to reduce such environmental pressure, the regulatory agency (ANP), together with the Brazilian Environmental Institute (IBAMA), published, in the last three concession rounds of E&P blocks, environmental license guides and studies, emphasizing the environmental sensibility of the E&P areas. How-

ever, this approach only takes into account the plan-level of the decision making process, when politics, plans and programs (PPP) should be addressed; furthermore, this is not sufficient to guarantee the incorporation of all environmental issues.

This paper proposes a novel methodology, by utilizing the Environmental Risk Assessment within SEA as a way to efficiently incorporate all the environmental issues, including the reduction of the risks of oil spills, and its catastrophic consequences to the biological diversity and to the communities of the E&P areas. Moreover, the proposed approach can determine the exclusion (or postponement) of concessions areas with extreme environmental sensibility, as well as the choices for biodiversity-friendly E&P technologies.

Barriers Preventing Large-Scale Usage of Renewable Energy

Jordan Macknick, mackrnov@yahoo.com

As the world is attempting to utilize more renewable energy, a number of barriers are preventing its large scale usage. Using the heavily industrialized countries of the Czech Republic and the United States, this paper examines those barriers and offers recommendations to overcome these barriers. The barriers are separated into four categories: economic, political, social, and technological/infrastructural, though the means to overcome those barriers entails actions from all sectors. Regions in the Czech Republic and regions around the state of Minnesota are analyzed in on-site case studies and are found to have complementary renewable energy situations. Each region could better its renewable energy sector by modeling certain aspects of its policies on the other region, as the Czech Republic needs more NGOs and more technological and economic support, things already present in Minnesota. Similarly, the Minnesota region needs a better electricity grid infrastructure and more consistent policies within and among states, for which the Czech Republic serves a great model. Accomplishing these goals requires concerted efforts from lawmakers, NGOs, utilities, citizens, and engineers, and could be best organized through a series of conferences in both areas, which would serve to bring together these different actors.

A Case Study on SEA of Surrey County Council in the UK for Applying Learning to SEA Practices in Japan

Takashi Shimizutani, Sachihiko Harashina; Tokyo Institute of Technology, tshimizu@depe.titech.ac.jp, sahara@depe.titech.ac.jp

SEA has been a rapidly emerging area of interest and practice for the last decade, and SEA activities by EU member states seem to be specially proactive after the agreement of the European Union SEA Directive in 2001. In the UK, qualitative approaches such as environmental appraisal in 1993 and sustainability appraisal in 1999 were introduced as guidance before the agreement of the SEA Directive. With regard to Japan, SEA is not yet legislated at the national level, and SEA legislation has been made only in a few local governments. Studying on SEA cases practiced in local government in the UK might be bale to provide useful tips for introducing SEA practices in Japan, especially for the prefecture level.

This study focuses on the SEA of Waste Local Plan conducted by the Surrey County Council in the UK. The methods used for this study were critical review of the SEA documents and interviews for the responsible officers for the SEA. As far as findings are concerned, the information which needs to be prepared for assisting a SEA is identified besides the information related to SEA methods.

Inspection Panel of the Environmental and Social Consideration Guideline of JICA

Sachihiko Harashina, Tokyo Institute of Technology, sahara@depe.titech.ac.jp

The Japan International Cooperation Agency (JICA) is the major organization for Official Development Assistance (ODA) in Japan. It has three functions: assisting the planning process of big projects, con-

ducting basic surveys for making gifts, and technology transfer to developing countries. It has a big role for assisting studies on big projects supported by official loans of the Japanese government. It therefore is required to make enough considerations to environmental and social impacts caused by its activities. JICA already has a guideline for this purpose. By strong requirement from the Japanese Diet for revolution of the Ministry of Foreign Affairs, JICA started to revise the environmental guideline.

The new guideline is fairly high level for sustainable development by requiring good practice of EIA. For instances, it requires three-time public consultation, very positive information disclosure, and introduction of SEA. The author analyses the characteristics of the guideline and the reason why it had been done, and in particular why was it successful to introduce SEA into the revised guideline. It should give good suggestions to development cooperation activities. The process of creating it was very transparent. Major stakeholders were collected into the study committee including not only academics but also the representatives from major ODA related governmental bodies, NGOs, and the business world. Diverse opinions were collected and put into the committee. After the committee report was made, JICA made the draft of the guideline. It then held also several public consultation forums. Public comments were collected. The very transparent process made it possible to achieve a high level of guideline which includes SEA.

Using SEA for Urban Underground Infrastructure Appraisal

Nikolai Bobylev, United Nations University, bobylev@hq.unu.edu

At the turn of the twenty-first century, nearly half of the world's population (about three billion people) lives in urban areas. It is estimated that in the next twenty-five years, almost two billion more people will move to cities. This expansion will predominantly occur in the developing world, where "young" metropolises are growing. Development of underground infrastructure is needed for a city to be sustainable, although careful planning and environmental appraisal is indispensable for archiving urban sustainability goals.

This paper will discuss SEA application for elaboration and analysis of strategies for urban underground infrastructure development at a policy, plan, and program levels. Meso-analysis of urban underground infrastructure environmental assessment will be given, which means that focus is made on setting the agenda for development and policy formulation, rather than legal issuers and practical implementation of decision-making process. For this study, given obvious lack of information and great level of uncertainty in input data, streamlined approach is used, which means that priority is given to reliability of information for setting the policy, rather than production of accurate and detailed data. Analysis is based rather on qualitative data; however, some quantitative techniques are used.

Addressing Natural Hazards in the SEA Process

Paula J. Posas, pposas@gmail.com / posas@alumni.duke.edu

The environment is usually thought of as an object that living beings inhabit and modify. However the "environment" can also be an agent acting on human plans, inter alia, in the form of geologic, atmospheric, and hydrologic events that reach the status of natural hazards or disasters. The static environment and dynamic environment are like two sides of a coin, and both are critically important to consider in strategic environmental assessment (SEA).

While the existence of natural hazards can be glossed over in the policies, plans, and programs of some developed countries, not addressing them in developing countries can lead to poorly designed development that increases vulnerability to hazards and engenders disastrous consequences, perhaps erasing decades of investment, deepening the levels of poverty, and reducing the society's resilience to future events. According to the World Bank's 2001 World Development Report, between 1990 and 1998, 94% of the world's 568 major natural disasters and more than 97% of all natural disaster-related deaths were in developing countries.

Poster Abstracts

In light of recent events, past experiences, and striking statistics, the environmental vision of SEA proponents and practitioners working in developing countries must encompass natural hazards. This paper offers guidance on the conceptual framework and methods of natural hazard risk management and entry points for smoothly and effectively addressing natural hazard risk in the SEA process.

SEAs for Prority Setting in Food Policy Illustrated Using Biotechnology

Nicholas Linacre, International Food Policy Research Institute (IFPRI), n.linacre@cgiar.org

Meeting the food needs of the world's growing population while reducing poverty and protecting the environment is a major global challenge. Genetically modified crops appear to provide a promising option to deal with this challenge. However, there is a need to make strategic decisions on how to spend limited agricultural research funds in order to achieve a maximum impact with regard to finding sustainable solutions to end hunger and poverty. In this paper, we propose using SEA for policy research and priority setting process regarding new technologies, taking the development of Genetically Modified Organisms (GMOs) as an example. We outline a Strategic Environmental Assessment approach currently being consider at the International Food Policy Research Institute (IFPRI) for use in evaluating biotechnology polices and potential applications. We show that this method is a useful tool for the international agricultural research centers supported by the Consultative Group for International Agricultural Research (CGIAR) to meet its objectives to streamline business processes, strengthen accountability, sharpen the research agenda it supports, foster broader partnerships, and increase relevance and impact of CGIAR research in achieving international development goals.

Developing an Indicator Set for Use in SEA

Alison Donnelly, Mike Jones, University of Dublin, Alison.Donnelly@tcd.ie; Tadhg O'Mahony, Trinity College; Gerry Byrne, Environmental Protection Agency, Ireland

The principle aim of indicators in the context of Strategic Environmental Assessment (SEA) is to assess the impact of plans and programmes on the environment and to illustrate and communicate this process in a simple and effective manner. Indicators are used to monitor change and predict impacts.

There are several environmental receptors outlined in the SEA Directive which must be addressed in the process. Numerous lists of indicators have been proposed at the EU, national and regional levels from which SEA practitioners may choose. However, while such lists may be useful guides they may also restrict and influence practitioners. In this paper we present a working methodology for developing a set of indicators for each specific plan or programme. We will concentrate on four environmental receptors i.e., biodiversity, water, air and climatic factors, however, it is intended that the basic principles will be applicable to all environmental receptors listed in the SEA directive. The output(s) of this methodology will help maximise existing resources, minimise the need for monitoring and reduce the cost associated with the implementation stage of SEA. It is anticipated that this methodology will be of benefit to other environmental users for monitoring purposes.

Notes

Notes

Reporting Format

Conference Outcomes and Publications

Standard conference proceedings will not be produced for IAIA SEA 05 Prague. However, the following products are expected to be developed from the conference:

- An SEA Handbook (possibly in two volumes) that will include some or all of the topics discussed at the conference (see below)
- Special issues of one or more 'trade' journals
- 'Bulletins' on aspects and lessons related to SEA process design, good practice, tool kits and linkages, quality of training, etc.

Reporting Format for Conference Streams

Topic	Key Issues
Stream A. **SEA Legislation and Policy** *Coordinator: Urszula Rzseszot*	• What are the main trends in this area? • What are the key features of SEA arrangements that have been established in different countries? • What lessons can be drawn from experience with SEA implementation (e.g., main strengths and weaknesses of the process)? • What are the main outputs and outcomes of SEA implementation (e.g. has it made a difference to decision-making or to the quality of the environment)?
Stream B. **SEA Practice in Key Sectors** *Coordinator: Rob Verheem*	• What are the main trends in this area? • What are the main strengths and weaknesses of SEA practice in the key sectors identified below • What are the main factors that contribute to success or shortfall (e.g. framework, process, methodology, capacity etc)? • What is the role and contribution of SEA to planning and decision-making and to environmental outcomes?
Stream C. **Linkages Between SEA and Other Assessment or Planning Tools** *Coordinator: Thomas Fischer*	• What are the main trends in this area? • What arrangements have been made to link SEA with other assessment and planning tools in the areas identified in C1 to C8? • What lessons and examples of good practice can be drawn from experience with linking or integrating SEA and other tools or processes? • What is the role and contribution of SEA to decision-making and environmental outcomes?
Stream D. **Cross-Cutting Issues in SEA Practice** *Coordinator: Ralf Aschemann*	• What are the main trends in this area? • What works well or shows promise in addressing the aspects and areas identified in D1 to D7? • What examples and lessons of good practice can be identified? • How can the effectiveness of SEA practice be improved in addressing cross-cutting issues?
Stream E. **Improving Standards and Building Capacity for SEA** *Coordinator: Maria Partidario*	• What are the main trends in this area? • What progress has been made in taking forward the aspects and areas identified in E1 to E7? • What more needs to done and what are the priorities for future action? • How might IAIA contribute to that agenda?

Reporting Format

Reporting Format for Topic Sessions

Main trends and issues	• Itemization of the main trends, issues and developments discussed at the session • Indication of aspects that are of particular importance or presentation of pressing challenges for SEA (e.g., for legislation, practice, linkages, cross-cutting issues or improving standards and building capacity)
Profile of the status, quality and effectiveness of SEA	• Rate the current status of the aspect, area or component of SEA being addressed (e.g., relatively well developed, some deficiencies, numerous limitations, etc.) • Main strengths and weaknesses of SEA process and practice as applied to the topic discussed in the session, and, where possible, highlighting contributory factors (e.g., specific arrangements, procedures and methods that work well or poorly) • General quality of information and products delivered through or from SEA with regard to the topic area, and, if possible, their relationship to elements of process or approach • Outcomes and benefits that are derived from SEA application for the aspect, area or component discussed (e.g., for policy or plan-making and implementation, safeguarding environmental quality, building institutional capacity, etc.)
Key findings and lessons	• Main conclusions from the session and their implications for SEA development in general or for the particular aspect, area or component discussed • If possible, formulation of these as principles, performance criteria or lessons of good practice for SEA development in general or for the particular aspect, area or component discussed
Future directions	• Key research and development needs to improve SEA quality and effectiveness for aspect, area or component discussed • Priorities for future development of SEA for the aspect, area or component discussed or in general (moving the field ahead and beyond its current scope of application)

General Information

Registration and Fees

The registration fee entitles delegates to the list of participants, delegate packet, attendance at all sessions, coffee breaks, lunches, and special events, unless an additional fee is noted.

Registration fees should accompany the registration form. Fees are accepted by MasterCard or Visa. Credit card charges will be processed in the U.S. dollar equivalent of the Euro (€) and will appear on your credit card statement at the conversion rate of the day the charges were processed. Offical receipts for on-site registration will be issued by mail after the conference. Checks or money orders made payable to IAIA in Euros are also accepted.

IAIA refunds registration fees upon written request received before 26 July 2005. A €50 processing fee is retained. After 26 July no refunds are issued for cancellations or no-shows. Substitutions for paid registrants may be made in writing without financial penalty. Refunds are issued after the conference.

Lunches

Lunches will be served in the Eurest dining hall at the University campus (building #11 on the campus map). The dining hall will be open for the conference participants daily from 11:45 to 14:00. A selection of a minimum of three main dishes (including vegetarian) will be offered. The meal includes one bottled drink (soft drink or beer) and tea/coffee. Any additional beverages must be purchased.

Lunch vouchers, valid for September 28, 29, and 30, are included in the registration fee and will be distributed upon check-in at the registration desk.

DEVCO Day Participants, September 26: Sponsors are limiting this lunch to 100 people. Lunch tickets will be distributed during check-in at the registration desk for the first 100 pre-registered delegates. Delegates who registered after the 100-person maximum are responsible for purchasing their own lunches.

Additional food and beverage facilities: a restaurant (open 10:30–23:00) and self-service café (07:00–18:00) are located in the Eurest building. A buffet is available in the college dormitory JIH (15:00–01:00), and Wienna and JAS hotel restaurants are located within 5-10 minutes' walk. People are expected to pay in cash at all these facilities.

Coffee Breaks

Coffee will be served in general areas outside the session rooms.

Conference Party

The conference party takes place at 19:30 on Wednesday, 28 September, at the Monastery restaurant and brewery Strahov.

The conference party is free for registered delegates. The fee for accompanying persons is 30 Euros; please pay at the IAIA registration desk.

The party menu consists of typical Czech meals, including spit-roasted piglets and a variety of salads. Two drinks (beer or wine or soft drinks) and a cup of coffee or tea per person are available to all delegates and paid guests. Additional beverages may be purchased.

About the Monastery

The rustically-styled Monastery is part of the Prague castle area and is located on a hill which overlooks the Prague Castle, the Vltava River, and the historic centre of Prague.

The restaurant seats 500 guests, with a further 150 places available on the summer terrace. A very good beer has always been served in the Monastery restaurant. The first mention of a brewery dates from the turn of the thirteenth and fourteenth centuries. During the 15th century Hussites Wars, the Monastery was burned down and the brewery was destroyed. Brewing privileges were only renewed in 1515 by the Czech King Vladislav. In 1629 the brewery was entirely closed down by a resolution issued by a Abbot Kaspar of Qeustenberk. The last full reconstruction was completed in the middle of 2001. The brewery has been restored and a restaurant has been set up with its own dark 14° "St. Norbert" beer, named after the founder of the Premonstratensian order. The wine served by the restaurant also comes from the Moravian Premonstratensian cellars and bears the name of the founder of the order – St. Norbert.

How to get to the Monastery by public transport:

Address of the Strahov Monastery: Strahovské nádvorí 302, Praha 1.

The Monastery is within walking distance of the hotel Pyramida (2 minutes). If you are travelling from central Prague, take tram 22 at the stop Národní trída and continue in the direction of the stop Pohorelec. From here the restaurant is just a few steps away—please follow the signs ("IAIA-SEA PARTY, STRAHOV").

You can take trams no. 22 or 23 to get to Pohorelec from other parts of Prague, too.

From the conference venue, take bus number 147 to Dejvicka metro station.

General Information

Business Services

The conference facility provides twenty computers with Internet access at reasonable rates. The facility is open during conference hours. Professional photocopying services are also available at the conference site; however, interested parties must contact Ivana Kasparova (kasparova@kostelec.czu.cz) in advance to book a time to make the copies.

Participants List

A list of pre-registered participants is provided in the delegate packet.

Presentation Equipment

All conference rooms are equipped with computers and IBM-compatible PowerPoint facilities. Participants should prepare presentations in Windows 2000/PowerPoint versions to ensure compatible animation schemes.

Presenters should plan to arrive at their sessions early to load their presentations.

Accommodation, Local Transfers and Sightseeing in Prague and the Czech Republic

PragInt Travel Agency is coordinating logistical arrangements for the conference.

Accommodations at selected hotels are available at specially reduced prices for conference delegates. Information on hotels, hotel reservations, transportation, sightseeing, excursions, car rentals and more is available through PragInt. PragInt has compiled a list of attractive sites and trips.

See the PragInt desk at the conference facility for information or for tourism services, or contact Pragint at PragInt Travel Agency, s.r.o.; Prokopova 9; 130 00 Praha 3; Czech Republic. Phone: + 420 221 416 491. Fax: + 420 224 224 246. E-mail contact: sea2005@pragint.cz; www.pragint.cz.

Conference Venue

The IAIA-SEA Prague 2005 conference takes place in the conference center on the Czech University of Agriculture (CUA) campus. Plenary sessions, some concurrent sessions and meetings, the registration desk, and the conference secretariat are located in the Congress Hall and the Study and Information Center (SIC); other sessions take place in nearby buildings.

The university campus is located in Prague-Suchdol, at the Northwest edge of Prague. Address of the CUA: Ceska zemedelska univerzita (Czech University of Agriculture), Kamycka 129, 160 00 Praha 6 – Suchdol.

Transportation within Prague

Arriving at Prague

Prague's Ruzyne Airport is located 15 km west of the city centre. There is a bank for money exchange (daily 7:00 - 23:00; if you arrive at night, you are advised to change money before you pass through customs), car-rental office and public phones, bar, shops, etc. You can make your way from the airport to our campus by city bus, airport shuttle or taxi.

CSA (Czech airlines) operates from 7:30 to 19:30 an airport shuttle bus from the Airport to Dejvická metro station (which serves also a transportation hub to the conference) and to Namesti Republiky (this stop is the very center of the Prague city). The shuttle costs approximately Kc 60,-.

Even less expensive transport to the Prague city and the conference is offered by bus no. 119, which goes every 15-30 minutes from the airport to the Dejvická metro station (transportation hub to the conference). The bus ticket costs Kc 20,-. The travel time between the airport and Dejvicka is about 30 minutes.

Official airport taxis are plentiful and line up in front of the arrival terminal. If you travel from the Prague Airport directly to the conference venue, advise taxi driver to go directly (i.e., not via Dejvicka) – this whole trip will take 20-25 minutes. Expect to pay about Kc 400,- to Kc 500,- for the 20 minute ride to the Dejvická and up to Kc 800 for ride to the center of Prague.

Travelling to the Conference Venue

The conference venue is located in Suchdol (the outskirts of Prague 6 district) which can easily be reached within 15-20 minutes by public transport from Dejvická station. Bus no. 107 or bus no. 147 can take you from Dejvicka to a stop called "Ceska zemedelska univerzita " (The Czech Agriculture University – CUA). Then you will cross the main street and go to the Conference Center located within the University campus (follow the signs).

City Transport in Prague

Public Transport

The Metro network consists of 3 lines (A, B, C) and IAIA SEA 05 participants are most likely to use mainly A (the green line) which connects the city center with station Dejvicka which the central hub for public transport to the conference venue. All metro lines operate daily from 5 a.m. to 12 p.m. Intervals between trains are 2-3 minutes (workday rush hours) and 4-10 minutes (off-peak hours).

Trams and buses operate daily from 4:30 a.m. to 24:00 a.m. and their schedules are located at individual stops.

The Funicular onto Petrin Hill (nearby the Prague Castle Hill) operates daily from 9:00 a.m. to 11:30 p.m. with traffic intervals from 10 to 15 minutes.

Tickets and Fares

Passengers have to obtain their tickets before boarding the trams, buses or entering the metro system. The ticket is valid only if marked in the validation appliance.

Single tickets that enable transfer between any means of public transport cost Kc 20,- and can be used 75 minutes from validation. These tickets can be bought at most metro stations, hotels, news stands, travel bureaus, department stores, etc. Single tickets can also be bought from the slot machines located at metro stations or near some stops of surface transport.

Short-term tickets include 24-hour ticket (Kc 80,-), 72-hour ticket (Kc 220,-), 7-day/168-hour ticket (Kc 280,-) and 15-day/360-hour ticket (Kc 320,-). These tickets are valid for all the city transport facilities and allow transfers. On such a ticket, owner's name and the date of birth have to be filled in. The ticket is valid from the moment of its marking. These tickets can be bought in the Information Centres of the Prague Information Service (PIS).

Taxi

Taxis can be found in front of hotels (more expensive) and at all the important places. The prices for taxi services must be stated at a noticeable place of the car. Approximate prices in 2005:

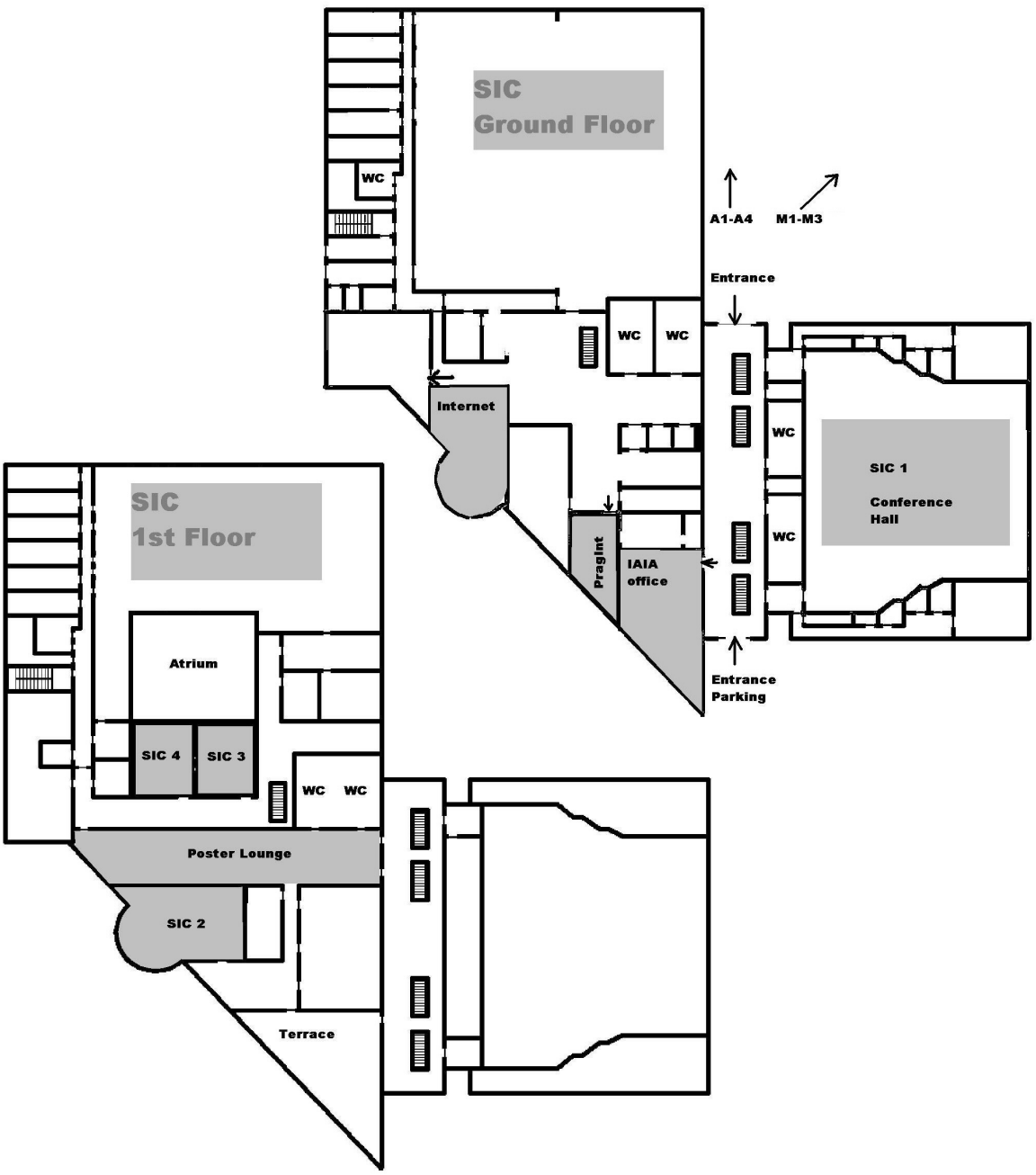
- Ride in the district of the capital city of Prague Kc 23,- — 25,- / 1 km
- Boarding fee Kc 25,- — 35,-
- Waiting Kc 4,- — 5,- /1minute

The best cheapest and the best quality service is usually ensured by ordering a taxi from one of the following nonstop taxi dispatching offices:

AAA Taxi (phone 140 14)
Citytaxi (phone 257 257 257)
Halotaxi (phone 244 114 411)
Profitaxi (phone 844 700 800)

You can also easily book a taxi through the conference travel agent PragInt.

Conference Venue (SIC)



International Experience and Perspectives in SEA

International Association for Impact Assessment

IAIA was organized in 1980 to bring together researchers, practitioners, and users of various types of impact assessment from all over the world.

IAIA members number over 2,500 and reside in over 100 countries. IAIA activities are carried out locally and regionally through its extensive network of Affiliates and Branches.

IAIA's Vision: IAIA is the leading global authority on best practice in the use of impact assessment for informed decision making regarding policies, programs, plans, and projects.

IAIA's Values: IAIA promotes the application of integrated and participatory approaches to impact assessment, conducted to the highest professional standards. IAIA believes the assessment of the environmental, social, economic, cultural, and health implications of proposals to be a critical consideration to sound decision-making processes, and to equitable and sustainable development.

IAIA's Mission: IAIA provides an international forum for advancing innovation and communication of best practice in all forms of impact assessment to further the development of local, regional, and global capacity in impact assessment.

1980 - 2005
Celebrate the Spirit
of IAIA's 25th Anniversary!

International Association
for Impact Assessment
International Headquarters
1330 23rd Street South, Suite C
Fargo, ND 58103 USA
Phone +1 701 297 7908
Fax +1 701 297 7917
info@iaia.org www.iaia.org

The Regional Environmental Center for Central and Eastern Europe

The Regional Environmental Center for Central and Eastern Europe (REC) is a non-partisan, non-advocacy, not-for-profit international organisation with a mission to assist in solving environmental problems in Central and Eastern Europe (CEE). The center fulfills this mission by promoting cooperation among non-governmental organisations, governments, businesses and other environmental stakeholders, and by supporting the free exchange of information and public participation in environmental decision-making. For more information, please visit www.rec.org.

The Czech University of Agriculture

The Czech University of Agriculture in Prague (CUA) has historically been a natural center of agricultural education in Bohemia. Nowadays it is a prime educational institution that offers theoretical and applied research, training of young scientists and advisory services in Agriculture and Forestry. The University is a temporary home for 6,000 students and 1,000 staff members. For more information, visit www.czu.cz/english/index.html.

Front cover photo courtesy Czech Tourism Archives

International experience and perspectives in SEA
26-30 September 2005
Prague, Czech Republic