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Capacity Building in Environment and Health (CBEH) project

Strengthening health in environmental assessments in Slovenia

GAP ANALYSIS AND WAY FORWARD

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Abstract

In the frame of a project on capacity building in environment and health (CBEH), co-funded by the European Commission, a workshop was held in Slovenia in order to analyse the specific capacity needs in the country in relation to the implementation of health impact assessment (HIA) and further integration of health in environmental assessments.

During a workshop in Ljubljana in June 2012, ways to enhance capacity in health in environmental assessments (EA) across Slovenia were examined. The aim was for experts in health and environment to review their experience in impact assessments. Discussion focused on the following types of impact assessment: Health Impact Assessment (HIA); Environmental Impact Assessment (EIA); and Strategic Environmental Assessment (SEA).

One of the key findings was that, even though capacity building activities in HIA and different HIA pilot projects have already taken place in Slovenia, there still seem to be unmet needs in various government departments. Furthermore there is a need to define clear roles and responsibilities between environment and health in regard to HIA and further integration of health into environmental assessments.

Keywords

Capacity building – Environmental health – Health impact assessment –
Health management and planning – Public health – Risk assessment

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List of abbreviations

CBEH	capacity building in environment and health
DG Sanco	Directorate General for Health and Consumers
EA	environmental assessment
EC	European Commission
EHMB	European Environment and Health Ministerial Board
EIA	environmental impact assessment
EU	European Union
GIS	geographic information system
HCHIA	Health Care and Health Insurance Act
HIA	health impact assessment
ICCM	International Conference on Chemicals Management
NIPH	National Institute for Public Health
PCB	Polychlorinated Biphenyls
SEA	strategic environmental assessment

Executive summary

In the frame of a project on capacity building in environment and health (CBEH), co-funded by the European Commission, a workshop took place in Slovenia for analysing the specific capacity needs in the country in relation to the implementation of health impact assessment and further integration of health in environmental assessments.

Health Impact Assessment is a prospective process – it looks at the potential effects of policies, plans, programmes and projects on health. Senior representatives from the Ministry of Health, the Ministry of Environment and their subordinated institutions attended a two day workshop in Ljubljana in June 2012, to examine ways to enhance capacity in health in environmental assessments (EA) across Slovenia. The aim of this workshop was for experts in health and environment to review their experience in impact assessments. Discussion focused on the following types of impact assessment:

- Health Impact Assessment (HIA);
- Environmental Impact Assessment (EIA); and
- Strategic Environmental Assessment (SEA).

Participants examined case studies and took part in group discussion. Dialogue was frank and open.

One of the key findings was that even though capacity building activities in HIA and different HIA pilot projects have already taken place in Slovenia, there still seem to be unmet needs in various government departments.

Workshop participants noted the following points:

- there are no legal levers within Slovenia to require an HIA to be carried out;
- even though impacts on health are included in the legal provision of EIA and SEA, mainly bio-physical aspects are considered;
- there are no specific guidelines for the execution of HIA in Slovenia;
- there are no guidelines on the integration of health into environmental assessments in Slovenia available; and
- there are no recognized training resources for people to conduct HIA or how to further integrate health into environmental assessment.

Furthermore there is a need to define clear roles and responsibilities between environment and health in regard to HIA and further integration of health into environmental assessments.

There was consensus that a joint health inclusive EIA or SEA project with environment and health experts would provide an excellent opportunity to further develop national capacities to address the existing needs and develop guidelines specific for Slovenia.

1 Introduction

This report provides findings from a workshop that was held on 18–19 June 2012 in Ljubljana, Slovenia, to analyse capacity for health in impact assessments in Slovenia. Participants from the Ministry of Environment and the Ministry of Health and associated organizations presented health impact assessment (HIA) and environmental assessment (EA) case studies that took health into consideration.

The paragraphs below describe the context in which this workshop took place. The report uses the structure of the workshop and covers the following issues.

- Section 2 describes the background for HIA and health in EA in Slovenia (chapter 2).
- Section 3 describes the case studies that were discussed in the workshop, current environment and health data collection in Slovenia and the lessons that were identified (chapter 3 to chapter 6).
- Section 4 gives an overview on additional resources and list of references (chapters 7 and 8).
- Section 5 contains the appendices with the workshop information and presentations held (appendix 1 to appendix 14).

Context

WHO is assisting capacity building within Europe for countries to have a deeper understanding of HIA and health in EA. This will enhance the health of the citizens of that country and where transboundary issues occur, to influence the health of those living further afield.

Slovenia is a strong supporter of WHO cross-sectoral work in the field of environment and health, co-chairing for example the European Environment and Health Ministerial Board (EHMB). The Ministerial Board is the political advisory and driving force of international policies in environment and health for implementation of the commitments made within the European Environment and Health Process. It is composed by four Ministers of Health, four Ministers of Environment and four members from intergovernmental organizations. Furthermore Slovenia hosted the first European Environment and Health Task Force Meeting (November 2011) and held the presidency of the International Conference on Chemicals Management (ICCM).

The European Centre for Environment and Health of the WHO Regional Office for Europe, has been running the project “Capacity building in environment and health (CBEH)”, co-funded by the European Commission (EC), Directorate General for Health and Consumers (DG Sanco). It is in line with recent orientations in environmental health, as reflected, for example, in the Fifth Ministerial Conference on Environment and Health.

The overall objective of the CBEH project was to strengthen in-country capacity in several European Member States to deal with environment and health issues. Eight European Union (EU) Member States participated in the project: Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia and Slovenia.

One of the main outcomes of the project was an international training workshop on environment and health, held in Riga, Latvia, on 19–23 March 2012 with 70 representatives

of the environment and the health sector from the eight EU Member States. Aims of the event were:

- to provide new insights on environment and health (key topics were selected through discussions at preparatory meetings);
- to offer in depth training on specific areas in environment and health; and
- to provide opportunities for networking among participants of different sectors and countries.

The training was structured through four components:

1. key lectures on priority topics in environment and health delivered by international experts;
2. case studies presented by country representatives;
3. parallel in-depth modules related to health in impact assessments and quantitative methods; and
4. training of trainers.

In follow-up to the Riga international workshop, participants from Slovenia were interested in further development of in-country capacities in environment and health. They used the materials provided at the Riga workshop for a training workshop at national level, held on 15 May 2012 at the Institute of Public Health, Ljubljana.

This report is based on another workshop held in Ljubljana, in June 2012, to examine ways to enhance capacity in health in EA across Slovenia. The aim of this workshop was for experts in health and environment to review their experience in impact assessments. Discussion focussed on the following types of impact assessment:

- health impact assessment (HIA);
- environmental impact assessment (EIA); and
- strategic environmental assessment (SEA).

Workshop participants focussed on the ways in which human health is, or could be, considered.

2 Health in impact assessment

Presentations included

- *Introduction to the Workshop and the Capacity Building in Environment and Health (CBEH) Project: J Nowacki, WHO – Appendix 3*
- *Impact assessment – a brief introduction and linking it to EIA and SEA: J Nowacki, WHO and G Gibson, Gibson Training and Consulting – Appendix 4*
- *Overview on environmental health in Slovenia, including HIA, EIA and SEA in Slovenia's legislation (J Hodalič) – Appendix 5*

Case studies were used to examine what was perceived to have worked well and what could be changed in future impact assessment.

A special focus was on integrating health into EIA and SEA. Gaps in capacity within the health and the environment sector were discussed.

2.1 Defining health

The constitution of the WHO shows the broad scope of health, specifically that health goes beyond states of ill health:

Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity (WHO, 1946).

Actions to protect and improve health, then, must go beyond providing services that reduce the effects of ill health.

2.1.1 Environmental health and public health

The health of the public is inextricably linked with the state of the environment. In the 19th century improvements to urban sanitation led to dramatic decreases in communicable disease. The fields of environmental health and public health have since become distinct from one another but are both important for health in impact assessment.

Environmental health focuses on issues such as water supply and sanitation, air and water pollution control, solid waste management, chemical and food safety, radiation protection, housing settlements and occupational health (WHO Regional Office for Europe, 1990).

Public health has a broader goal: it is defined as “the art and science of preventing disease, prolonging life and promoting health through the organized efforts of society”. Public health works with health professionals to prevent illness and promote good health and with other sectors to address the determinants of health (see Fig. 1) (WHO Regional Office for Europe, 2012).

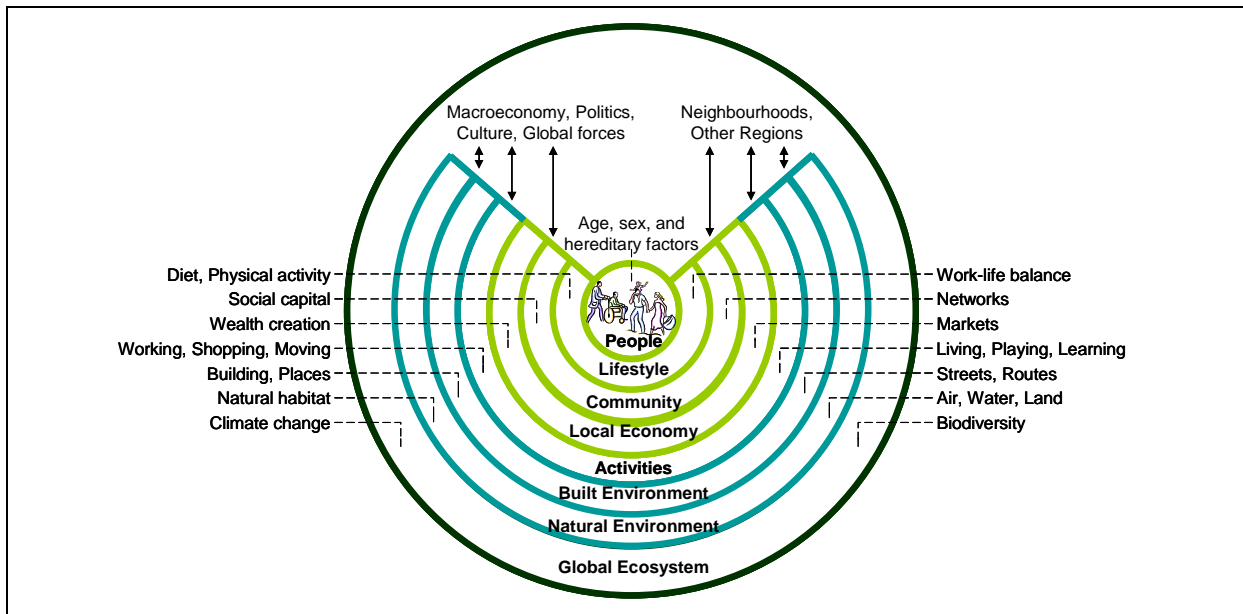
There are therefore overlaps between the two disciplines (e.g. food poisoning) but few links. The specialists in environmental health, including air quality specialists, hydrologists and acoustic engineers, have much to contribute to, and to gain from, public health specialists whose concerns include surveillance of population health and well-being, monitoring and responding to health hazards and emergencies, health protection, health promotion and disease prevention. Hence the imperative to draw the two sides together.

2.1.2 Social determinants of health

Another way of conceptualizing the different domains of health has been expressed by Dahlgren and Whitehead (1991), further developed by Barton and Grant (2006). There are many factors outside the health sector that affect people's health.

Fig. 1 below shows that many factors affect individual and population health. These include individual characteristics such as age and gender as well as lifestyle factors. Moving further from the centre one moves towards factors influenced by policies, plans or programmes outside of the health sector, for example environment, transport, housing, employment, social support, crime and community safety and education.

Fig. 1: The main determinants of health and well-being



Source: Nowacki, Martuzzi, Fischer (2010:4), adapted from Barton and Grant (2006:252)

2.2 Health Impact Assessment

Based on the Gothenburg Consensus Paper (WHO Regional Office for Europe, & European Centre for Health Policy, 1999) HIA is defined as

a combination of procedures, methods and tools that systematically judges the potential, and sometimes unintended, effects of a policy, plan, programme or project on both the health of a population and the distribution of those effects within the population. HIA identifies appropriate actions to manage those effects (Quigley et al., 2006 adapted from WHO Regional Office for Europe & European Centre for Health Policy, 1999).

It can be conducted as a standalone assessment or it can be conducted in conjunction with, or as part of, EAs. These are considered below.

HIA is the main way by which policies, plans, programmes and projects can be examined for their effects on health.

The HIA process is not restricted to any one level of policy-making. HIA is one resource in the suite of possible activities advocated by the World Health Organization for ensuring that all aspects of policy consider public health (WHO & Government of South Australia, 2010) (see Fig. 1).

Fig. 1: Tools and instruments identified in Adelaide Statement

Tools and instruments that have shown to be useful at different stages of the policy cycle include:	
<ul style="list-style-type: none"> • inter-ministerial and inter-departmental committees • cross-sector action teams • integrated budgets and accounting • cross-cutting information and evaluation systems • joined-up workforce development 	<ul style="list-style-type: none"> • community consultations and Citizens' Juries • partnership platforms • Health Lens Analysis • impact assessments • legislative frameworks

Source: WHO & Government of South Australia (2010).

HIA in Slovenia

In Slovenia the Health Care and Health Insurance Act (HCHIA) of 1992 introduces the implementation of HIA (Bizeti et al., 2012). Since then capacity building activities in relation to HIA, as well as different HIA pilot projects, have taken place, nevertheless there still seems to be a lack in meeting the needs of the various government departments. Workshop participants noted the following points:

- there are no *legal* levers within Slovenia to require a HIA to be carried out;
- HIAs are more likely to be done by external consultants rather than by the public sector;
- there are no guidelines for the execution of HIA;
- there is no recognized training for people to conduct HIA.

2.3 Health in Environmental Assessments

EA is carried out at all levels of policy-making:

- SEA is mainly carried out on policies, plans and programmes.¹
- EIA is mainly carried out on projects.

EA is the umbrella term for these processes. From a global perspective EA is the most widespread approach to analysing the ways in which new plans, programmes and projects might affect the environment. This can include effects on human communities.

EA is the only approach for which national legislation and guidelines exist in almost all countries (Morgan, 2012). The scope of EA, as it is practised across the world, has expanded dramatically and it can now include social and health issues. However, this expansion has not been done systematically or clearly.

Widely accepted guidelines for the integration of health and well-being issues into EA do not yet exist. A review of research reveals that, despite the promise of EA as a mechanism to improve human health and well-being, there has been a consistent lack of either a systematic or a full coverage of human health and well-being. This gap has been identified in high- and in low- to middle-income countries for example across the EU, but also in Australia, Brazil, Ghana, Nigeria and the United States (Harris-Roxas et al., 2012; Hilding-Rydevik et al., 2005).

2.3.1 Health within SEA

The rationale of SEA is to ensure that environmental considerations are taken into account and that they inform higher levels of decision-making (Sadler, 2011). The SEA Directive aims:

to provide for a high level of protection of the environment and to contribute to the integration of environmental considerations into the preparation and adoption of plans and programmes with a view to promoting sustainable development (Art. 1 of the SEA Directive 2001/42/EC, European Communities, 2001).

¹ The SEA Directive, which governs SEA in European Union Member States, does not apply to policies but readers may be interested to know that in other jurisdictions SEA can be applied at policy level. In addition Article 13 of the UNECE Protocol on SEA includes the application of SEA at the preparation of policies and legislation proposals “that are likely to have significant effects on the environment including health” (UNECE, 2003).

The plans and programmes which should be subject to SEA are defined by the Directive as being those which:

- are prepared for agriculture, forestry, fisheries, energy, industry, transport, waste management, water management, telecommunications, tourism, town and country planning or land use; and
- which set the framework for future development consent of projects listed in Appendixes I and II of the EIA Directive (85/337/EEC); or
- which have been determined to require an assessment pursuant to Article 6 or 7 of the Habitat Directive (92/43/EEC).

The SEA Directive requires that the assessment identifies the likely significant effects of plans and programmes on the environment, including on issues such as: biodiversity; population; human health; fauna; flora; soil; water; air; climatic factors; material assets; cultural heritage including architectural and archaeological heritage; landscape; and the interrelationship between the above factors.

It is clear that human health is explicitly named as one of the core topics of the SEA Directive. In addition parties to the UNECE SEA Protocol² shall ensure that

environmental, including health, concerns are considered and integrated to the extent appropriate in the preparation of its proposals for policies and legislation that are likely to have significant effects on the environment, including health (UNECE, 2003, Art. 13).

The UNECE SEA Protocol goes further than the SEA Directive as it constantly underlines the consideration of environmental effects including health effects and requires consultation with environmental and health authorities (Art. 9).

SEA was also recognized in the declarations of the European Ministerial Conferences on Environment and Health held in Budapest, Hungary, in 2004, and in Parma, Italy, in 2010.³

SEA has a long-term perspective and provides a relatively early opportunity to consider and address potential effects on human health. If it is overlooked during these early stages it is likely to be harder to raise health issues at later stages. Hence, health in SEA is of great importance. It is also supported by legislation.

2.3.2 Health within EIA

EIA can be defined as:

... a systematic process to identify, predict and evaluate the environmental effects of proposed actions and projects. (Sadler et al., 2002)

² The Protocol on Strategic Environmental Assessment to the UNECE Convention on EIA in a Transboundary Context (UNECE SEA Protocol) was adopted and signed by 35 countries in Kiev, Ukraine on 23 May 2003, and entered into force on 11 July 2010. It follows closely the provisions of the EU SEA Directive to ensure a high level of protection of the environment including health.

³ The declarations of the European Ministerial Conferences on Environment and Health held in Budapest, 2004, and in Parma, 2010, call for the Member States to “take significant health effects into account in the assessment of strategic proposals” (WHO Regional Office for Europe, 2004) and “to use health, environment and strategic IAs to integrate the needs of children into the planning and design of settlements, housing, health care institutions, mobility plans and transport infrastructure” (WHO Regional Office for Europe, 2010).

The EIA process is applied prior to major decisions and commitments being made and ideally is integrated into the project design process (Pettit, 2012).

The EIA Directive on the assessment of the effects of certain public and private projects on the environment (85/337/EEC) is concerned with improving the quality of the environment and protecting human health.

It states that the effects of a project on the environment must be assessed in order to take account of concerns to protect human health, to contribute by means of a better environment to the quality of life, to ensure maintenance of the diversity of species and to maintain the reproductive capacity of the ecosystem as a basic resource for life.

The Directive does not explicitly mention human health *per se* but Art. 3 defines that an EIA shall identify, describe and assess the direct and indirect effects firstly on human beings, followed by fauna and flora among others. Furthermore Art. 5 refers to the information that has to be provided according to Annex IV which also includes effects on the population:

A description of the aspects of the environment likely to be significantly affected by the proposed project, including, in particular, population, fauna, flora, soil, water, air, climatic factors, material assets, including the architectural and archaeological heritage, landscape and the inter-relationship between the above factors. (EIA Directive 85/337/EEC, Annex IV.3).

Nonetheless, human health is often considered to be covered by the analysis for environmental factors such as air and water.

Approaches to EIA vary but commentators find that while EIAs do cover health issues, this is rarely done explicitly or with input from health professionals and that EIA could take a more systematic view and use a more inclusive model of health (Hilding-Rydevik et al., 2005). Harris and Spickett (2010) state that EIA often misses cumulative and synergistic outputs; it rarely addresses social issues; and it almost never considers both together.

2.3.3 Health in EAs in Slovenia

The coverage of health in EA was discussed in the workshop.

In Slovenia health is considered within SEA but the focus is mainly on environmental factors (see Appendix 5). Also the roles of the various ministries, in relation to the consideration of health aspects within the assessment, are not prescribed by law. Thus, the extent to which health is covered in SEA can vary from one case to another.

Chapters on health within EIA or SEA reports are usually approved by the Ministry for Environment, and the conclusions undergo review by the National Institute for Public Health (NIPH) for confirmation. The NIPH may find that there are no impacts of concern, or that further investigations are required.

Since public health experts tend to have a partial view of the whole assessment – because they review the conclusions of the health section only, potential problems with interpretation and completeness may arise, with a risk of miscommunication between the health and environmental specialists. There is the need, therefore, for a stronger integration of the different competences, which will lead to a better shared understanding of the health component within EA.

3 Case studies

Examples presented in the workshop included EIA, governmental description of regional strategy, and university research on capacity to carry out HIA within government departments. They were presented formally by their authors and then revisited throughout the workshop, providing a variety of discussion points. The slides for these presentations can be found in the Appendices.

3.1 Environmental Impact Assessment and health: case studies

Presentations included

- *Case study 1 – Reconstruction of a sport facility (stadium) in the middle of Ljubljana (P Gulič, J Hodalič) – Appendix 6*
- *Case study 2 – Centre for waste management (J Hodalič) – Appendix 7*

Case studies were presented summarizing two EIAs carried out by an independent consultant and reports being approved by the Ministry for Environment.

The first case study concerned a project to rebuild and extend an existing sports stadium. One of the aims of the project was to regenerate an area of a town. The stadium had a façade of historical significance. The assessment found that impacts on human health were likely resulting from noise and air quality. These were considered to be moderate during the construction phase and minor during the use phase. A public consultation on the plan had revealed considerable local opposition to the plan: issues included the proposed destruction of gardens next to the stadium that had been used by the population living in the apartment blocks adjacent to the proposed development for many years.

The wider workshop discussion of this case study suggested that within an EIA several additional impacts should be considered when planning the reconstruction and restructuring of a town area, not only to avoid significant opposition to a proposed plan but also to further protect the health of the population concerned:

- There is a school in the immediate neighbourhood of the stadium. The impacts on a vulnerable population group of schoolchildren are important: not only in regard to noise and air pollution but also in regard to traffic injuries. Beneficial effects on levels of physical activity are possible if the stadium could be used by the school.
- The effects of operational conditions need to be considered: e.g. a multi-storey underground car park would introduce additional pollutants into an area which already has air quality problems.
- Early involvement of the population of the area around the construction may have helped to avoid significant opposition and align the ideas of the local residents and the developer, e.g. would it be possible to protect the gardens or to find alternatives and thus protect a source of food supply?
- Potential beneficial effects are possible: the reconstruction and upgrading of the stadium could also have positive effects on health. These will be felt by those employed in the construction and by their families. Will these jobs be available to the surrounding population?

The second case study concerned the extension of a landfill site in a sparsely populated hilly area. The aim of the enlarged waste management centre was the central processing of mixed municipal waste and the separately collected fractions and disposal of residual waste. The assessment found that there was no impact on human health. A range of factors that were considered by the assessment might have been important to human health, for example:

- air quality;
- quality and quantity of the groundwater;
- environmental pollution by noise;
- environmental pollution by electromagnetic fields;
- impact on environmental pollution by waste as well as visual disturbances; and
- odour (which was not included in the original assessment).

3.1.1 Discussion

If a project is subject to EIA, there is an opportunity to include considerations about human health. Reviewing the stages of an HIA led to a discussion of barriers to HIA implementation. A key question was who will do the HIA, especially when departments lack the expertise needed to carry out an HIA. It would be needed to strengthen the way that the wider scope of health issues are addressed in the screening process. It would also be needed to clarify how and when stakeholders, including health experts, should be involved.

Issues to be considered further for building capacity for health in EA include:

- Evaluation of external consultants to carry out a study – how do they demonstrate competence?
- Competence of responsible authorities signing off the final project – how do they demonstrate their competence?
- Which laws can be used to ensure that a HIA, as opposed to evaluation of health within EIA, will be carried out in the future, and that it will meet certain standards?
- How transparent is the process of the EIA with regards to the developer and the ministries?

3.1.2 Opportunities presented

Participants brought a wide mix of expertise to the workshop. During the discussion participants noted that it would be advantageous if environmental expertise could be brought together with expertise on health and social issues.

The importance of understanding the needs of other departments and the types of request to which other departments are able to respond is crucial. For example requests for a specific epidemiological study on a population are unlikely to be met. There is plenty of data available, however, it is important to frame requests realistically and to understand that the available data is unlikely to provide exact answers to all questions posed. Open questions may be more productive, for example: 'What information can you provide on the health and well-being of the population in X district?' Open questions such as these should be seen as the start of a dialogue.

With respect to HIA this highlights the need for ensuring that someone has ownership and oversight of the HIA process, that there is someone to broker these cross-sectoral links and to ensure that the right data is procured.

Participants discussed what the different professions can offer to each other. Health professionals should be able to offer:

- health information gathered from the nine separate health regions making it more pertinent to studies;
- mortality information;
- cross border information;
- a unique insight into scientifically proven methods of assessment of health;
- knowledge on environmental related health effects, e.g. of air pollution, soil and water contamination, chemical poisoning, etc.
- the ability to carry out epidemiological studies if appropriate; and
- correct and up to date information, such as on links of environmental factors and health issues beyond limit values, dose-response-rates, etc.

They may have a knowledge shortfall on:

- design for green space and public networking (as opposed to a need for it);
- ability to understand the technical nature of the industry being planned;
- the carrying capacity of the location (e.g. can it take more pollution?); or
- information on synergistic and cumulative effects.

Environmental professionals should be able to offer specialist knowledge among others on:

- air pollution and air modelling to distinguish potentially affected areas,
- electromagnetic fields,
- geographic information systems (GIS) and dispersion models,
- green space assessment,
- noise mapping,
- soil pollution,
- visual effects,
- waste management,
- water contamination and the flow of rivers and subterranean water to distinguish potentially affected areas.

Environmental professionals would potentially need to know about:

- health status of a specific population, including vulnerable groups,
- demographic structure, and
- lifestyle of a population.

There are different but complementary skill sets across the different sectors. Meaningful communication is essential. This could be further explored through carrying out a joint HIA or EA, and working together, asking questions of each other, and identifying where the gaps still exist. Working jointly on a project step by step would be beneficial, as it would enable all those involved to determine strengths and weaknesses to build upon or to remedy.

3.2 Regional scale intervention

The case studies discussed above are projects, which will be carried out as part of a development strategy. Strategic questions for each of these project level case studies include:

- Whether a major sports centre is the right choice for regenerating this area of town. Two major sports centres currently serve the town of approximately 280 000 inhabitants, one of which is in close proximity to the proposed development.
- Whether the landfill is the appropriate way to deal with waste in the area.
- In general it would be important to know the wider context of a project; why certain projects had come forward and what are the strategic reasons for those projects as well as if these strategies were subject to a SEA and if human health was included.

Participants also considered strategic assessment.

Presentations included

- *Case study 5 – Municipal spatial plan of the Municipality of Nova Gorica (B Breznik) – Appendix 09*
- *Case study 6 – National energy program (B Breznik) – Appendix 10a and 10b*

Two case studies on regional strategic developments were presented: one considering a municipal spatial strategy, (Appendix 10); the other the national energy strategy (Appendix 11).

With regard to the strategic assessment of the municipal spatial strategy participants discussed how, for transport, a starting point is whether it is necessary to expand the existing roads. For example: can the need to travel be reduced? Can public transport be prioritized?

There was brief discussion about strategic issues surrounding the energy policy.

- How is energy demand to be reduced?
- What are the anticipated trends in energy usage?
- What evaluation has been carried out to assess the possible energy delivery across Slovenia- is local biomass the answer?
- Can wind power deliver enough energy?
- Have all homes been insulated to a level which reduces the need for building another power station?
- Is there a need for another power station, be it biomass, coal, gas or even nuclear?
- What would be the different implications of these different strategic decisions also on human health.

In general, the underpinning *vision* of the strategy needs to be identified. This will inform what the health effects might be. However, with consultation between departments and an input of health evaluation at the early phases, whilst still a paper exercise, the correct outcome can be achieved. A strategy should be a long-term goal.

Participants discussed how SEA, and health input to SEA, can be a strong tool to inform decision-making, as it crosses several disciplines. However, even though external consultants often conduct the assessments, it is important that the relevant public authorities need to

understand any assessment that is commissioned. They need also to have interest, and confidence, in the outcomes of the assessment. A cross-sectoral steering group can be a useful way of ensuring that an assessment is delivered to time and to budget.

Further questions related to commissioning external experts relate to the transparency of the mechanism for consultation. Common practice internationally is that the organization which prepares the strategy also conducts the consultation. Questions to discuss would then be:

- Does this introduce bias?
- How does the timing of the consultation affect people's willingness to engage and their trust in the process?
- If it is done too early then it can be valuable but it can also be hard to raise public interest.
- If it is done too late then it will be difficult to incorporate the voice of local people into decision-making.

3.3 Health services: strategic considerations for a local project

Presentations included:

- *Case study 4 – Urban planning small area – case of Maribor medical center (B Lukan) – Appendix 8*

A local scale case study discussed the expansion of a municipal medical centre. When the new medical centre is operational there will be an increase in the demand for high quality energy intensive equipment. The environmental impacts of the medical centre had been calculated.

In discussion the following questions were raised:

- The hospital is adjacent to a river: extreme weather incidents are likely to increase with climate change: will staff still get to and from the facilities; could patients get there; what happens about emergency vehicles?
- Was the hospital in an area which made it readily accessible to the public – before extending the existing one, was this the right place to be?
- On a social level, was it located in the right area of town: could elderly relatives access the hospital to visit easily? Could they access the hospital without incurring disproportionate financial cost?
- Is the current capacity not sufficient to serve the local people without the expansion? Is the extension of the hospital based on data on population health status, projections on population illness developments, in the catchment area?

An assessment of the strategy for the provision of health care to the local population could be a useful pilot project for the two departments to investigate in terms of the development of a strategic assessment that has an assessment of human health as an integral component.

4 Data collection in Slovenia

Presentations included

- *Data for HIA – Health data and socio – economic data (registries, routine data collection) – possibilities and limitations in Slovenia (M Zaletel) – Appendix 12*
- *Data for HIA – Environmental data – (Geographical coverage of environmental data relevant for human health and the possibility of their use at the territorial level) – possibilities and limitations (N Kovac) – Appendix 13*
- *Case study 7 – Consumption of home-grown vegetables in the region contaminated with PCBs (E Micović, K Groznik) – Appendix 11*

Participants heard presentations on data collection, management and retrieval. One considered health data (Appendix 12) and one considered environmental indicators (Appendix 13).

Both sets of data are collected in order to meet statutory requirements.

In addition a case study on the consumption of home-grown vegetable in a region contaminated with Polychlorinated Biphenyls (PCBs) was given as an example how risk assessment in a small scale area can be done.

5 Existing capacity: a study

Presentations included

- *Presentation of targeted research project ‘The use and effectiveness of SEA and HIA’ (B Stern) – not in the Appendix as results of the study are preliminary*

Participants discussed a survey of the health sector’s capacity, in Slovenia, to deliver HIA. The preliminary findings suggest that the health sector has insufficient understanding of HIA to conduct it efficiently. The research found that training and support is required.

Participants discussed whether external experts might be contracted to carry out HIA or to provide health input to EAs or HIA. It would then be important to evaluate the ability of a consultant to carry out health input to EAs or HIA. This leads to the following set of questions that would need to be answered:

- What level of education should consultants be required to demonstrate?
- What health qualifications should consultants be required to demonstrate?

Participants also discussed the importance of clarifying the funding mechanism for health input to the EA or for standalone HIA. If the health assessment is part of a SEA or an EIA then costs should be met by the responsible authority or the project proponent respectively. The same principle can govern funding for a standalone HIA.

Participants agreed that to date there has been no ownership of health input to EA or of HIA. Participants concluded that ownership of this process should lie with NIPH.

6 Ways forward

Many skills already exist within the various ministries. Capacity on HIA and the integration of health into EAs will be enhanced by transparency, and by leadership and ownership of the process.

There is no explicit statutory requirement to conduct standalone HIA. Human health is a core requirement of the SEA Directive. The EIA Directive is also concerned with protecting human health. It is acknowledged that the circumstances are not clear when health input should be sought.

Environmental assessment is currently carried out in Slovenia and it is informing decision-making. Environmental data can be used to inform HIA – for example, air emissions modelling, water quality data, impact on climate change, flood data.

There is a need to have greater understanding regarding EIA and SEA and how sound decision-making can be underpinned by HIA.

A protocol for delivering health input to EA and/or HIA needs to be developed.

It is important to understand further motivation for deploying HIA in Slovenia, such as the report *Health Inequalities in Slovenia* highlighting the social determinants of health (Buzeti et al., 2011:76), which call for

- improve living conditions;
- abolish unjust distribution of wealth; and
- raise awareness of means by which to tackle the social determinants of health.

The workshop participants highlighted the importance of ensuring that environmental factors are also considered.⁴ Although these principles are straightforward ‘health in all policies’, ‘environmental justice’ and ‘environmental equity’ are difficult to achieve. People who are already disadvantaged by education and poor environment are the ones who are unlikely to be heard protesting. They often lack the mechanism to engage with consultation processes, especially if this is done by use of the written word. These people are more likely to have things ‘done to them’ than be part of the decision-making process.

It should be remembered that HIA has the capacity to identify positive outcomes, such as improved benefit derived from new sources of employment, protection of drinking-water sources, greater access to outdoor play areas, etc. If used at the correct point in the process it can assist decision-makers at strategic level or at project level.

⁴ Buzeti et al. (2011) do not address the effects of living near to industrial blight - the poorest in society are the most likely to live in blighted areas (WHO Regional Office for Europe, 2012). Midgley et al. (2005) analysed English data and found poverty was highest in those areas which also had the greatest concentration of industry.

7 Findings from the workshop and next steps

This section summarizes the findings from the workshop and identifies what action should be taken. Additional questions to consider are who is to undertake these tasks and whether additional assistance is required.

Responsibility

Health input to EA and/or standalone HIA is cross-sectoral: it requires a range of technical expertise as well as communication and advocacy skills.

Participants suggested that NIPH should oversee the mechanisms to require health input to EA and/or standalone HIA or to commission it. Political support needs to be sought for this process.

Quality assurance

Establish ways to quality assure health input to EA and/or standalone HIA.

Develop a process for health input to EA and/or standalone HIA

Health input and oversight is important in all stages of the assessment. This applies to strategic assessments and to project level assessments. The early stages are important: screening establishes whether health input is required and scoping establishes the parameters of the assessment and who should be involved. This will also be beneficial for the latter stages: appraisal, feedback and monitoring evaluation.

Develop guidelines for HIA and for health in EA that are specific to Slovenia: there is a wide range of guidance documents and resources for HIA (see Chapter 8 below) that would serve as useful starting points.

Licensing experts

One option for HIA practitioners to demonstrate competence is licensing. Standards can be developed that consider: level of education; record of HIA training; and ability to carry out HIA. A licensing scheme should be backed up by continuing professional development. A mentoring programme would enhance this option.

Capacity building

The steps above require a long-term process, in turn requiring capacity building. This can be achieved through training, such as that provided in Riga, and the current two-day workshop, but also more focused training, as for example on small scale area risk assessment. It is also important to ensure that health in EA is covered in university curricula and is required by professional standards. This is a cross-sectoral approach and should involve different sectors e.g. public health, planning and environmental scientists.

It may be useful to develop networks within Slovenia for health in EA and for HIA. There are many experts in their own fields within the various ministries. With greater collaboration and cooperation, they can provide a vital network within Slovenia.

Capacity development in Slovenia should be supported by establishing links with international networks of practitioners. These networks provide useful information and discussion fora. Further links are provided in Chapter 8.

Joint projects

Joint projects would provide an excellent opportunity to develop capacity in health input to EA and/or HIA.

8 Additional resources

- International Association for Impact Assessment (IAIA): www.iaia.org
- International Association for Impact Assessment wiki resource for health <http://www.iaia.org/iaia/wiki/hia.ashx>
- HIA at WHO: <http://www.who.int/hia/about/en/>
- HIA Gateway: http://www.apho.org.uk/default.aspx?QN=P_HIA
- HIA Blog: <http://healthimpactassessment.blogspot.de/>
- HIA discussion group on Linked-In: http://www.linkedin.com/groups?gid=2144549&trk=hb_side_g
- Resources for quality standards in HIAs:
 - A review package for Health Impact Assessment reports of development projects. Ben Cave Associates Ltd. 2009. Available at <http://bit.ly/k63NtC>
 - North American HIA Practice Standards Working Group. Minimum Elements and Practice Standards for Health Impact Assessment 2010. www.humanimpact.org/news/24-hiapracticestandards

Further information on stakeholder engagement and public participation can be found at

- Annex A5.2 of the UNECE guidance document for SEA (UNECE, 2011) includes a useful review of methods for public participation in SEA. Available at http://www.unece.org/fileadmin/DAM/env/eia/sea_manual/annexA52.html
- Gray (2007) developed a toolkit on stakeholder engagement for an Interreg IIIB project. Available at <http://bit.ly/RkeOFM>

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Please note: All Appendices can be found on the CD included in the package.

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In the frame of a project on capacity building in environment and health (CBEH), co-funded by the European Commission, a workshop was held in Slovenia in order to analyse the specific capacity needs in the country in relation to the implementation of health impact assessment (HIA) and further integration of health in environmental assessments.

During a workshop in Ljubljana in June 2012, ways to enhance capacity in health in environmental assessments (EA) across Slovenia were examined. The aim was for experts in health and environment to review their experience in impact assessments. Discussion focussed on the following types of impact assessment: Health Impact Assessment (HIA); Environmental Impact Assessment (EIA); and Strategic Environmental Assessment (SEA).

One of the key findings was that, even though capacity building activities in HIA and different HIA pilot projects have already taken place in Slovenia, there still seem to be unmet needs in various government departments. Furthermore there is a need to define clear roles and responsibilities between environment and health in regard to HIA and further integration of health into environmental assessments.

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