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Capacity Building in Environment and Health (CBEH) project

Strengthening health in environmental assessments in Estonia

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 took place in June 2012 to review the specific capacity needs Estonia in relation to: implementation of Health Impact Assessment (HIA); further integration of health in environmental assessments (EA); and use of methods for quantitative risk assessment in local assessments.

HIA is a prospective process – it looks at the potential effects of policies, plans, programmes and projects on health. One of the drivers for looking into HIA and its implementation in Estonia was the occurrence of a number of fires in the area of the city of Kunda. This focus provided a platform to examine ways of working between environment and health and to develop a programme for HIA at a country level.

One of the key findings was the need to define clear roles and responsibilities between environment and health for the implementation of risk assessment and HIA. Consequently, the main outcome was a plan for the integration of health in EA. Using information provided by participants on existing EA activities, one project was specifically identified as being useful to develop those needs.

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 |
| EIA | environmental impact assessment |
| EU | European Union |
| HIA | health impact assessment |
| NATO | North Atlantic Treaty Organization |
| NEHAP | National Environment and Health Action Plan |
| RDF | refuse-derived fuel |
| SEA | strategic environmental assessment |
| UNECE | United Nations Economic Commission for Europe |

Executive summary

In the frame of a project on capacity building in environment and health, co-funded by the European Commission, a workshop took place in June 2012 to review the specific capacity needs in the country in relation to: implementation of Health Impact Assessment (HIA); further integration of health in environmental assessments; and use of methods for quantitative risk assessment in local assessments.

HIA is a prospective process – it looks at the potential effects of policies, plans, programmes and projects on health. One of the drivers for looking into HIA and its implementation in Estonia was the occurrence of a number of fires in the area of the city of Kunda. This focus provided a platform to examine ways of working between environment and health and to develop a programme for HIA at a country level.

Senior representatives from the Ministry of Social Affairs, the Ministry of Environment and their subordinated institutions in Estonia attended the two day workshop in Tallinn. Participants examined case studies and took part in group discussion.

One of the key findings was the need to define clear roles and responsibilities between environment and health for the implementation of risk assessment and HIA. Consequently, the main outcome was a plan for the integration of health in environmental assessments. Using information provided by participants on existing environmental assessment activities, one project was specifically identified as being useful to develop those needs.

The Estonian Health Board is ideally positioned to take a lead in further activities to explore better ways of working, through intersectoral collaboration and with support of other ministries.

1 Context

This report provides findings from a workshop that was held on 14–15 June 2012 in Tallinn to analyse capacity for health in impact assessments in Estonia. Participants from the Ministry of Environment and the Ministry of Social Affairs and subordinated institutions 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 Estonia (chapter 2).
- Section 3 describes the case studies that were discussed in the workshop and the lessons that were identified and the current collection on environment and health data in Estonia (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 15).

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.

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 (EC 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 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, 19–23 March 2012 with 70 representatives of the environment and the health sector from the eight EC 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 Estonia were interested in further developing in-country capacities in environment and health. There was special interest in additional training in quantitative risk assessment methods. Risk assessment is part of the broader HIA process so it was decided to examine the case study of the Kunda fires that had been presented at the Riga workshop.

Participants from Ministry of Environment and the Ministry of Social Affairs were invited to the workshop. 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).

Workshop participants focused 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 03);*
- *Impact assessment – a brief introduction and linking it to EIA and SEA: J Nowacki, WHO and G Gibson, Gibson Training & Consulting (Appendix 04);*
- *Environmental health and opportunities for Health Impact Assessment in Estonia: J Tomasova, Health Board (Appendix 05); and*
- *Environmental Impact Assessment, and Strategic Environmental, Assessment; SEA in practice in Estonia: H Kalle, Hendrikson & Ko (Appendix 06, part 1).*

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” (Acheson, 1988; WHO Regional Office for Europe, 2013). 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).

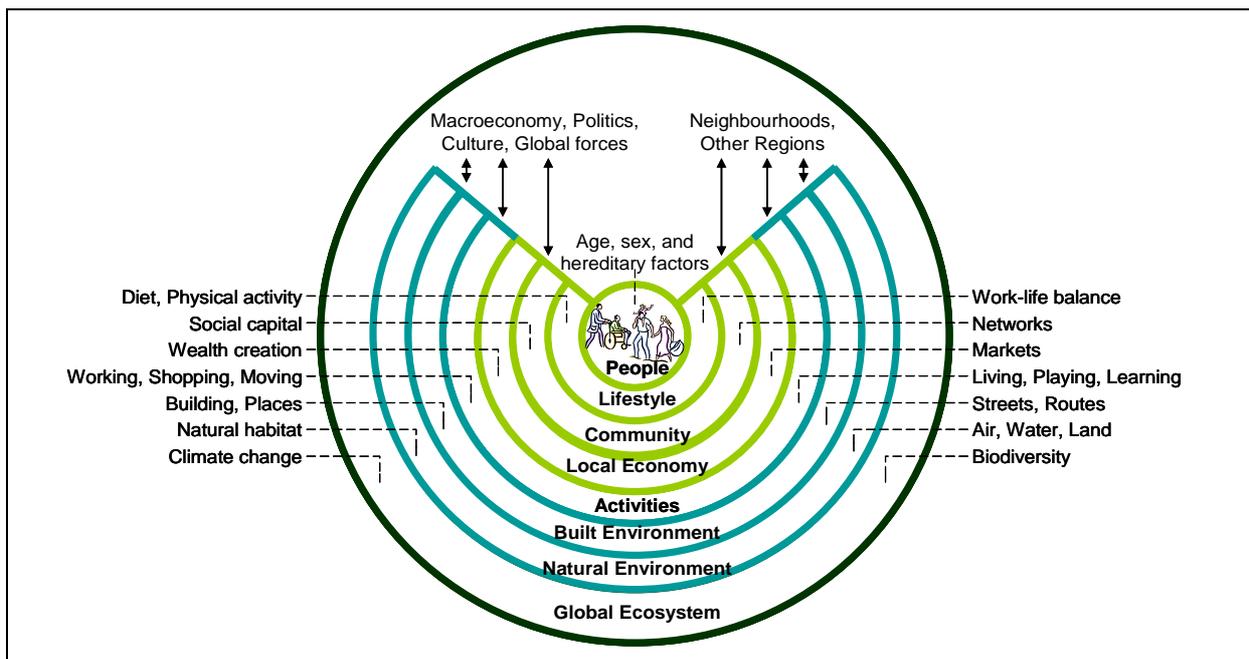
There are therefore overlaps between the two disciplines but few links. The specialists in environmental health, including air quality specialists, hydrologists and acoustic engineers, have much to contribute to, and to gain from, Public Health specialists whose concerns include surveillance of population 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 J, Martuzzi M, Fischer G (2010:4), adapted from Barton & Grant (2006:252)

2.2 Health Impact Assessment (HIA)

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

a combination of procedures, methods and tools for systematically judging 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, environmental assessments. 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. 2).

Fig. 2: 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).

2.2.1 HIA in Estonia

The Ministry of Social Affairs has overall responsibility for HIA but there are no legal provisions to require that an HIA be carried out; also, there are no established guidelines for its execution and there is no officially recognized training for experts.

HIA is conducted, however, despite the lack of a standard approach, usually by external consultants. Workshop participants reported that, in some regions of Estonia, the Health Board occasionally contributes to the review of HIA reports. Participants also noted that those taking part in the reviews rarely felt confident in their level of training.

2.3 Health in environmental assessment

Environmental Assessment (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 European Union (EU), but also in Australia, Brazil, Ghana, Nigeria and the United States (Harris-Roxas et al.; 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).

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

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).

- 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 United Nations Economic Commission for Europe (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, 2004, and in Parma, 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 (UNEP, 2002).

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

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 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, 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 environmental assessments in Estonia

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

The regulations on EIA and SEA do not prescribe which health aspects should be covered and good practice has not been established so coverage varies from one case to another.

In Estonia health is considered within SEA but as with EIA the focus is mainly on environmental factors (see Appendix 06, part 1) and the chapters devoted to health tend to be very general.

The Ministry of Social Affairs/Health Board and the Ministry for Environment do not have an established channel of communication about environmental assessment. This increases the challenge of ensuring that health is consistently and competently covered.

3 Case studies

Over the course of the two day workshop a number of presentations were made. These can be found in the Appendices. They were presented by their authors and then revisited throughout the workshop providing a variety of discussion points.

Presentations included:

- *Environmental Impact Assessment, and Strategic Environmental, Assessment; SEA in practice in Estonia: H Kalle, Hendrikson & Ko (Appendix 06, part 2);*
- *Case study on Kunda fire: H Maran, Environmental Agency/Inspectorate (Appendix 07) and K Aidla, Health Board (Appendix 08); and*
- *EIA/HIA case studies in practice in Estonia: J Ruut, Health Board (Appendix 09).*

3.1 Kunda fire

Kunda City, in the north of Estonia, has been the site of cement manufacturing since the 19th Century. It is well-placed for cement manufacture as there are local sources of limestone and fuel, namely oil shale. Kunda Nordic Cement is the main employer in Kunda City. Since 2010 Kunda Nordic Cement has sought to reduce its reliance on oil shale and has used alternative fuel sources including refuse-derived fuel (RDF).

In June and August of 2011 there were two fires in the Kunda Nordic Cement RDF warehouse and one in a location 1km from the warehouse. The fires started in stored RDF. These were classified as major incidents: the fires took 60 hours, 50 hours and 17 hours, respectively, to extinguish.

In the aftermath of the fire the Environment Ministry took measurements to determine the levels of air and soil contamination. The handling of this incident had become a source of debate within the Ministry of Social Affairs/Health Board, and the Ministry of Environment.

The activities conducted in the aftermath of the Kunda fires were discussed in the workshop. Participants considered the roles and actions of the environmental and health departments, including:

- the actions which had been carried out and would need to be carried out in future;
- data which had been gathered and are needed by the other departments;
- how that data had been used; and
- how the incident had been communicated.

The fires at the Kunda Nordic Cement warehouses were major incidents, caused by industrial practices, which posed a hazard to human health and to the environment, and it is often observed that environmental legislation is developed and adopted in response to major incidents (Harris-Roxas, 2012). The Kunda fires were no exception and prompted the examination factors such as regulation and enforcement, data gathering, communication, and the role of cooperation between Ministries and their institutes. They offer an example where health and environment need to work together. This in turn will contribute to a better understanding of how HIA may be implemented within Estonia.

Emergency planning is also of key concern, though this is not typically part of environmental assessment.

More details are in Appendix 15 of this report.

Gaps/needs identified

The following gaps were identified in the workshop. While these observations were based on the Kunda fires, they also reflected the currently perceived gaps for the various ministries and departments which could be delivering HIA.

- i) Roles and responsibilities
A clear understanding and attribution of responsibilities is a prerequisite to achieving consistent outcomes.
- ii) Channels of communication and communication strategy
There are channels of communication between the departments, but they could be used more effectively. In this regard it is important to define how cross-agency communication should occur, at what point and who should be involved. In addition it is important to define when, how and by whom the public should be adequately informed about incidents. For both internal and external communication channels, all monitoring data need to be available, for this departments need not only to agree internally but also between departments on what is required to be measured and what information to provide. Communication, both internally focused and externally focused, needs to be examined critically, and a communication strategy should be developed.
- iii) Private sector
Analytical laboratories and hospitals charge for their services to other departments, acting in this instance as commercial ventures. It is important to define, when these laboratories and hospitals have to be involved, which action and information is needed from them and who has to pay for the analyses (see paragraph iv).

Also, because of limited resources or partial capabilities in the public sector, often HIAs are conducted by the private sector consultants.
- iv) Resources
If several ministries are involved in the management of an incident like the Kunda fires, there need to be clear arrangements over the time and resources needed to carry out the analysis, collate the reports, etc., especially when resources are not allocated within departments. This is covered further in Appendix 15 on the fires.

Workshop delegates also discussed the importance of reviewing the protocol that governs actions in the event of an emergency. In case of an emergency clear guidelines on how to proceed with cross-ministry work and communication are needed. While each department usually has established practices of internal response to an emergency, an interdepartmental hierarchy of control in an emergency is also needed. This will be considered in Appendix 15 devoted to Kunda.

3.2 Health in environmental assessments and HIA case studies in practice in Estonia

- *EIA and SEA in practice in Estonia by H Kalle, Hendrikson & Ko. (Appendix 06, part 2).*
- *HIA examples from the Health Board, by J Ruut & N Šubina (see Appendix 09)*

Four other case studies were used to illustrate the opportunity to incorporate health into EIA and SEA.

An SEA on three options for the construction of a road bridge to connect the Estonian mainland to an island had merits and disadvantages. Its presence would enable people to access amenities and services such as health care and jobs more readily. However, others would have their lives affected by the introduction of a road system which previously did not exist. The degree to which different communities would be affected by environmental degradation had been assessed. The question of noise, light, and air pollution all needed to be evaluated in relation to their impacts on health.⁴

A second SEA, assessing the Masterplan of Parnu City focused on the need to re-route traffic due to a loss of structural integrity of the existing road. Health effects were assessed through the considerations of water quality, noise, air pollution, and electromagnetic radiation. There was no element of social assessment, such as division of communities, or opportunity for enhancement of walking strategies.

An EIA which had been conducted on a planning application for a go-cart track found that the health of the local population was likely to be adversely affected as a result of the emissions from the vehicles, (notably particles of rubber) and the storage and refilling of vehicles with fuel. The results of this study were used by the Municipality to refuse planning permission. This EIA raised issues of concern regarding public health which were sufficiently serious to have the project rejected. This is a strong illustration of what can be achieved when the determinants of health are scoped in at the pertinent point of every study and assessed systematically and rigorously.

The fourth case study was an HIA undertaken by the Regional Health Board, to inform an SEA of the development of an ex Russian naval base. The HIA was designed to inform decision-making regarding the project itself. It did not consider social impacts, and stakeholder engagements. The data presented pertained to some of the complex engineering for the redevelopment, but was limited in its assessment of effects, both within the construction phase, and with regards to synergistic effects. There had not been any stakeholder engagement.

The discussions which followed the presentations raised a number of issues.

1. How can the ministries ensure the quality of impact assessments commissioned by them and undertaken by consultants? If the ministry undertakes the work itself, what kind of peer-review procedure, if any, should be put in place?
2. How to conduct reliable quality assessment?
3. The mechanisms and criteria for commissioning an HIA are unclear.
4. The expertise to carry an HIA out is lacking.

⁴ Land loss and positive benefits, such as time to travel had been looked at, but there had not been taken account of, for example, the great big arc lights which were going to be used to light the road in a previously pristine night sky- sleep disturbance from light changes has an effect on heart rhythms.

5. There is a lack of understanding of the interplay between SEA and HIA.

The following areas for improvements were identified:

Develop capacity

An enhanced integration of health into environmental assessments requires an understanding of the links between the environment and the health of the population as well as an understanding of the objectives of EIA and SEA. Both environment as well as health experts need to understand the additional value that health experts can provide to the EIA/SEA. Hence there is a need to develop capacity of health professionals to contribute to planning and to environmental assessment as well as developing capacity among planners and environmental scientists to work with health professionals.

In order to work on impact assessments, a medical degree is not required as prerequisite, but knowledge of public health and the environment is important as is the ability to make connections between relevant issues, ask the right questions, analyse the appropriate data, and compile a meaningful and unbiased report.

Integrating health into environmental assessments requires a cross-sectoral and multidisciplinary approach; working with universities to develop capacity for integrating health into wider policy-making, for example, may be beneficial; also including training in health and environmental assessment in curricula for planners, environmental scientists and public health is important.

Licensing of experts

One option for HIA 'experts' (practitioners) to demonstrate competence is a licensing mechanism. This can be done on the basis of a particular level of education, and demonstrated amount of HIA training (e.g., forty hours), similar to the EIA licensing scheme, as well as ability to carry out HIA under supervision. It should be backed up by support and a programme of continuing professional development.

Additionally a health module could be included into the mandatory training for EIA licensing. Whether and how this could be done would need further discussion within the responsible authority of the EIA licensing, the Ministry of Environment.

Regardless of a licensing system for HIA practitioners being in place or not, experts in the ministries will need to better understand HIA in order to be able to commission and know how and when to use a HIA. For this they would not need to become a licensed practitioner themselves.

Expertise

There are international networks of practitioners and others, which provide useful information and discussion fora. Further information is available in chapter 7.

Experts in their own fields within the various ministries can provide a vital network. Based on the information presented in this report ministries could identify what the needs are, and

who can respond in the first instance, from this pool of expertise, and to build on this in order to create capacity within Estonia.

4 Data collection in Estonia

Presentations included:

- *Environmental data collections (in Estonian), K Keskkonnateabe Keskus (Appendix 11);*
- *Statistics in Estonia on health, the environment and social economics: I Valdmaa, National Institute for Health Development (NIHD) (Appendix 12); and*
- *Risk assessment in small scale areas/Environmental burden of disease: F Mitis, WHO Regional Office for Europe, via Skype (Appendix 10).*

The presentations on environmental data collections and statistics on health, environmental and socio-economic data revealed the wide range of data sources that is available, why it is collected, and how it can be accessed, e.g. when undertaking HIA, EIA and SEA. There is also much expertise throughout the various ministries which can be called upon to provide assistance at any time. Experts from health and from the environment ministries should be involved at in the early stages and most notably at the planning stage, especially as inter-ministry collaboration could be a powerful precursor to improved health outcomes for the population of Estonia.

The presentations also revealed some of the health inequalities existing between different areas of Estonia, implicating the need to examine the implications of policies, plans, programmes and projects on the whole population but also on health, its distribution, and other social inequalities.

In addition to the presentations on the Estonian data collection a separate presentation was given by WHO on methodological issues for small cohort studies. This was further enhanced by considering the burden of disease. The presentation was used to discuss the implications of small scale area studies to ensure that HIAs take account of the limitations which are imposed upon the ministries by virtue of the population dynamics of the country.

5 Ways forward

Presentation included

- *Lessons learned, needs and options for capacity building in environment and health: J Tomasova, Health Board; R Pruul, Ministry of Environment (Appendix 13)*

Participants developed an initial action plan to move forward the operations of the various ministries. These are summarized in Table 1.

Table 1: Tasks and responsibilities

| Task | Responsibility |
|---|---|
| Amend/review legislation on EIA, SEA and public health | Ministry of Environment, Ministry of Social Affairs |
| Establish a working group | Ministries, Health Board, Environment Board, Inspectorates |
| Develop a training programme | Ministries, Health board, Environment board, Universities |
| Include a module on human health in the EIA training prior to licensing | Ministry of Environment, Ministry of Social Affairs; Health Board |
| Establish a quality system for health input to environmental assessment and for HIA | Health Board |

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

There is no explicit statutory requirement to conduct standalone HIA, but human health is a core requirement of the SEA Directive. The EIA Directive is also concerned with protecting human health, although the procedures for providing the health input have not been clarified.

Environmental assessment is currently carried out in Estonia as part of the decision-making process. Environmental data can be used to inform HIA – for example, air emissions modelling, water quality data, impact on climate change, flood data. For this the development of a protocol for delivering health input to environmental assessment and/or HIA is needed. More generally, there is a need for better understanding, within the health sector, of EIA and SEA and within both the health and the environment sector of how sound decision-making can be underpinned by HIA. 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. Hence, if used at the correct point in the process it can assist decision-makers at strategic level or at project level.

Although these principles are straightforward, goals such as ‘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 most unlikely to be heard. They often lack the ability to engage in consultation processes, especially if this is done by use of the written word, and are more likely to be at the receiving end rather than be part of the decision-making process.

5.1 Moving forward through common projects

The development of Paldiski harbour was presented (Appendix 09 – and discussed in section 3). This project could be an opportunity to further develop the SEA, with a thorough health component, taken step by step by all players, supported if necessary by an external review at each stage, possibly involving WHO. Paldiski was a Russian naval base in the past. Funding

is available from the North Atlantic Treaty Organization (NATO) for a variety of projects (see Appendix 14) within which Paldiski would appear to meet several of the Category A criteria. An application for funding could be submitted, not only under the auspices of cleaning up from contamination, but also as a demonstrator project leading to country best practice which could be repeated on other contaminated sites.

6 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.

Several lessons can be learnt from the Kunda fires incidents; some of these are discussed below.

Regulatory compliance

For HIA or an enhanced integration of health into environmental assessments to happen on a regular basis one of the main drivers is its introduction and/or specification in current laws and regulations.⁵ A review of existing national laws to determine which legal drivers can be used is needed. As a starting point, some of the possible drivers are presented in Appendix 04, which gives a short overview on international legal drivers and agreements.

Responsibility

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

It is important to identify which organization should oversee the mechanisms to require health input to environmental assessment and/or standalone HIA or to commission it. Political support needs to be sought for this process.

Quality assurance

Criteria to evaluate the quality of the health input to environmental assessment and/or standalone HIA should be established. Standards for health in environmental assessment (SEA and EIA) and for standalone HIA in Estonia should also be defined.

⁵ The National Environment and Health Action plan (NEHAP) has been substituted by the National Environment Action Plan. Several ministries are involved in this. It includes issues such as housing, and indoor air. It does not consider sectors such as planning, or transport, or energy, which each have considerable impacts on health. Estonia's capacity building could include developing an understanding of the strategies which affect the health of people in Estonia.

Licensing experts

How can HIA experts and practitioners demonstrate competence? One option 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.

Develop a process for health input to environmental assessment 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.

Guidelines for HIA and for health in environmental assessment that are specific to Estonia should be developed: there is a wide range of guidance documents and resources for HIA (see chapter 7) that would serve as useful starting points.

Capacity building

The steps above require a long-term process. Capacity building is a key component, which can be achieved through training, such as that provided in Riga, and the Tallinn workshop, but also training on specific issues, such as on small area risk assessment. It is also important to ensure that health in environmental assessment 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.

Networks within Estonia for health in environmental assessment and for HIA should be developed and promoted. There are many experts in their own fields within the various ministries. With greater collaboration and cooperation, they can provide a vital network within Estonia.

Capacity development in Estonia by establishing links with international networks of practitioners should be supported. These networks provide useful information and discussion fora.

Communication

Channels of communication need to be identified and used at several levels. They need to operate within departments, across ministries, to the public, inwards from the public, and in both directions with the media. There need to be clarity of purpose and contents, including on:

- what needs to be communicated,
- by who,
- to whom,
- when,
- how,

- who will receive the responses, and
- how will information be acted upon?

A useful reference is provided in 'ISO14064:2004 Guidelines on communication'. Although it is intended for communicating environmental performance, the principles described can be applied to any process, or organization.

With reference to the examples and experiences discussed in the workshop, several issues emerged; for example, one of the main concerns from the Kunda incident was that the public were not adequately informed. The following items were considered important tasks and goals to be pursued for improved communication:

- Improve the understanding of the role of the other Ministries.
- Develop protocols for communicating between Ministries and ensure that these function during an emergency.
- Audit relevant processes, and establish common terminology. Develop an online glossary of acronyms and technical terms.
- Develop protocols for requesting and for sharing information between Ministries.
- Develop protocols for communicating with the public in the event of an emergency.

Resources

There is a need to clarify, in advance of any one undertaking, how departments will be financed or reimbursed for all activities related to an assessment including matters such as time taken to collate the reports, commissioning of analyses, etc.

Also in regard to the further implementation of HIA or an enhanced integration of health into environmental assessment, there is a need to allocate resources for this, e.g. for staff dedicated to commissioning standalone HIAs and/or getting involved in environmental assessments, for training of staff, for developing guidelines and pilot projects etc.

Joint projects

Joint projects would provide an excellent opportunity to develop capacity in health input to environmental assessment and/or HIA. As described above, the development of Paldiski harbour could be an opportunity to further develop the SEA, with a thorough health component, taken step by step by all players, supported if necessary by an external review at each stage. As a former Russian naval base it might be possible to apply for NATO funding not only under the auspices of cleaning up from contamination, but also as a demonstration project leading to country best practice which could be repeated on other contaminated sites.

7 Additional resources

| | |
|--|--|
| International Association for Impact Assessment (IAIA) | www.iaia.org |
| International Association for Impact Assessment wiki resource | http://bit.ly/SNGAdM |
| HIA at WHO | www.who.int/hia/about/en |
| HIA Gateway | http://bit.ly/124SSDz |
| HIA Blog | http://bit.ly/VAbK6y |
| HIA group on Linked-In | http://linkd.in/12iCKO2 |
| Resources for quality standards in HIAs: | |
| <p>A review package for Health Impact Assessment reports of development projects. Ben Cave Associates Ltd. 2009.</p> | http://bit.ly/k63NtC |
| <p>North American HIA Practice Standards Working Group. Minimum Elements and Practice Standards for Health Impact Assessment 2010.</p> | http://bit.ly/IO8Ngm |

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

The WHO Regional Office for Europe

The World Health Organization (WHO) is a specialized agency of the United Nations created in 1948 with the primary responsibility for international health matters and public health. The WHO Regional Office for Europe is one of six regional offices throughout the world, each with its own programme geared to the particular health conditions of the countries it serves.

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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 took place in June 2012 to review the specific capacity needs Estonia in relation to: implementation of Health Impact Assessment (HIA); further integration of health in environmental assessments (EA); and use of methods for quantitative risk assessment in local assessments.

HIA is a prospective process – it looks at the potential effects of policies, plans, programmes and projects on health. One of the drivers for looking into HIA and its implementation in Estonia was the occurrence of a number of fires in the area of the city of Kunda. This focus provided a platform to examine ways of working between environment and health and to develop a programme for HIA at a country level.

One of the key findings was the need to define clear roles and responsibilities between environment and health for the implementation of risk assessment and HIA. Consequently, the main outcome was a plan for the integration of health in EA. Using information provided by participants on existing EA activities, one project was specifically identified as being useful to develop those needs.

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