



Economic Commission for Europe

Meeting of the Parties to the Convention
on Environmental Impact Assessment
in a Transboundary Context

Meeting of the Parties to the Convention
on Environmental Impact Assessment in
a Transboundary Context serving as the
Meeting of the Parties to the Protocol on
Strategic Environmental Assessment

**Working Group on Environmental Impact Assessment
and Strategic Environmental Assessment****Eighth meeting**

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**Exchange of good practices: draft guidance
on assessing health impacts in strategic environmental assessment**

**Draft guidance on assessing health impacts in strategic
environmental assessment****Note by the Bureau***Summary*

This note presents draft guidance on assessing health impacts in strategic environmental assessment, as foreseen in the workplan for the implementation of the Convention on Environmental Impact Assessment in a Transboundary Context and its Protocol on Strategic Environmental Assessment for the period 2017–2020 (ECE/MP.EIA/23.Add.1–ECE/MP.EIA/SEA/7.Add.1, decision VII/3–III/3, annex II, item IV.1). The draft guidance was prepared by consultants with funding from the European Investment Bank and reviewed by the Bureau.

The Working Group on Environmental Impact Assessment and Strategic Environmental Assessment is expected to consider the draft guidance and provide guidance for its finalization prior to its submission to the Meeting of the Parties for adoption at its eighth session (tentatively scheduled to take place in Geneva, 8–11 December 2020).

After the meeting of the Working Group, the draft guidance will be supplemented with selected case studies from the fields of energy, transport and regional development to illustrate practical considerations for the assessment of health and the involvement of health authorities in specific strategic environmental assessments.



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Executive Summary

1. The present draft guidance was commissioned by the Parties to the Protocol on Strategic Environmental Assessment to the Convention on Environmental Impact Assessment in a Transboundary Context (Espoo Convention) under the auspices of the United Nations Economic Commission for Europe (ECE). It was developed by consultants in consultation with ECE, the World Health Organization (WHO) and the European Investment Bank, with funding from the European Investment Bank. It is being released as implementation guidance for the Protocol but is also aligned with the European Commission Strategic Environmental Assessment Directive.¹ The mandate for the guidance is derived from the workplan for the implementation of the Convention and its Protocol for the period 2017–2020 (ECE/MP.EIA/23/Add.1–ECE/MP.EIA/SEA/7/Add.1, decision VII/3–III/3, annex II, item IV.1) adopted by the Parties to the Protocol at their third session (Minsk, 13–16 June 2017).

2. This draft guidance aims to assist Parties and future Parties to the Protocol in efficiently and consistently addressing relevant health issues in strategic environmental assessment. It builds on and further elaborates the recommendations provided in the *Resource Manual to Support Application of the UNECE Protocol on Strategic Environmental Assessment*² (Resource Manual), particularly in its annexes A1.1 and A5.1, prepared in collaboration with WHO. The guidance focuses on the approaches, methods and tools to be applied.

3. Achieving a high level of protection of the environment, including health, is the main objective of the Protocol (art. 1) and the key reason for applying strategic environmental assessment. Article 2 (6) of the Protocol and the present guidance define strategic environmental assessment as: “The evaluation of the likely environmental, including health, effects, which comprises the determination of the scope of an environmental report and its preparation, the carrying-out of public participation and consultations, and the taking into account of the environmental report and the results of the public participation and consultations in a plan or programme”.

4. Health is the absence of disease and the presence of well-being.³ Biophysical, economic, social and behavioural determinants of health should be considered in strategic environmental assessment. However, to date, a limited set of biophysical determinants have tended to be considered, with other determinants being addressed only occasionally and somewhat inconsistently.

5. This draft guidance explains what health-inclusive strategic environmental assessment good practice looks like. The guidance focuses in particular on: the context within which strategic environmental assessment is applied and through which key issues and reasonable alternatives can be determined; and suitable methods and tools that can be used that regard. Furthermore, details of specific health issues and approaches for considering them are established.

6. The Protocol requirement to consult with health authorities is central to the consideration of health in strategic environmental assessment and arises in articles 5 (screening), 6 (scoping), 9 (draft reporting), 10 (transboundary matters) and 11 (decision-making). Good practice requires joined-up and appropriately resourced intersectoral working, including building strategic environmental assessment capacity in public health.

¹ Directive 2001/42/EC of the European Parliament and of the Council of 27 June 2001 on the assessment of the effects of certain plans and programmes on the environment, *Official Journal of the European Communities*, L197 (2001), pp. 30–37.

² United Nations publication, ECE/MP.EIA/17, available at www.unecce.org/fileadmin/DAM/env/documents/2011/eia/ece.mp.eia.17.e.pdf.

³ World Health Organization (WHO), Constitution of the World Health Organization, *Basic Documents*, Forty-fifth edition, Supplement, October 2006. Available at <http://bit.ly/1PNNCdi>.

7. In order to meet the Protocol's aim of supporting the formulation of plans and programmes that enable healthy development, this guidance consists of the following three main parts:

(a) An introduction to strategic environmental assessment and the approach taken by this guidance in accordance with the Protocol;

(b) Good practice principles for integration of health into strategic environmental assessment (following on from those introduced in the Resource Manual);⁴

(c) The integration of health into strategic environmental assessment in practice.

8. Box 1 below provides headline recommendations for addressing health in strategic environmental assessment.

Box. 1

Headline recommendations

1. Use the WHO definition of health (see para. 19 below).
2. Consider whether the "vision" behind the plan/programme (or policy/legislation) has good health alignment, fostering conditions for people to thrive (see para. 44 below).
3. Screening and scoping health to consider lifestyle, community, economic and service determinants, and environmental determinants of health (see table 2 below):
 - Be explicit about links to health;
 - Be proportionate in identifying the most relevant health determinants;
 - Consult local/regional/national public health authorities to understand health priorities.
4. Use guide questions based on the health objective (see box 4 below) to critically appraise, develop and refine the alternatives (see box 6 below).
5. Be clear what the health trade-offs are in relation to the plan/programme and its alternatives (see para. 93 below).
6. Build public health capacity and intersectoral working in strategic environmental assessment (see para. 29 below).

9. This guidance makes recommendations for good practice but does not create new obligations in relation to the Protocol.

⁴ United Nations publication, ECE/MP.EIA/17.

I. Introduction

A. Strategic environmental assessment

10. According to its article 1, the objective of the Protocol:
- [I]s to provide for a high level of protection of the environment, including health, by:
- (a) Ensuring that environmental, including health, considerations are thoroughly taken into account in the development of plans and programmes;
 - (b) Contributing to the consideration of environmental, including health, concerns in the preparation of policies and legislation;
 - (c) Integrating by these means environmental, including health, concerns into measures and instruments designed to further sustainable development.
11. As of August 2019, the Protocol has 33 Parties, including the European Union.⁵ Strategic environmental assessment is currently a formal requirement in over 50 countries and is used by development banks and other organizations.
12. The Protocol is aligned with but differs from the European Commission Strategic Environmental Assessment Directive.⁶ It provides a non-mandatory framework for the application of strategic environmental assessment to policies and legislation (art. 13). The Protocol also places specific emphasis on: the consideration of health and consultation with health authorities; and the participation of the general public. Lastly, the Protocol is accessible to all States Members of the United Nations.
13. The Protocol focuses on the application of an assessment process and on certain substantive aspects and issues to be covered. Furthermore, annex IV, paragraph 8, of the Protocol explains that strategic environmental assessment should provide: “an outline of the reasons for selecting the alternatives dealt with”.

B. Health in strategic environmental assessment

14. A relatively small group of health conditions is responsible for a large part of the disease burden in Europe.⁷ In this context, noncommunicable diseases are particularly relevant, including diabetes, cardiovascular diseases, cancer, chronic respiratory diseases and mental disorders. Many of the driving forces affecting these noncommunicable diseases come from outside the health sector and are associated with plans and programmes prepared in other sectors. This highlights the importance of intersectoral cooperation when undertaking environmental health burden reduction activities.⁸
15. While noncommunicable disease dominates the burden of disease in high-income countries, communicable diseases, particularly for young children, are responsible for much of the burden of disease in low- and middle-income countries. This has implications for the global application of the Protocol. In all contexts, intersectoral cooperation is relevant to addressing underlying environmental and socioeconomic factors, including access to health-care services.
16. The consideration of health in strategic environmental assessment varies between countries and also between sectors. There are differences in the ways that government departments are required to discharge their duties. This has implications for the value given

⁵ Up-to-date status of ratifications is available at:
https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XXVII-4-b&chapter=27&clang=_en.

⁶ Directive 2001/42/EC.

⁷ WHO Regional Office for Europe, “Noncommunicable diseases”, available at www.euro.who.int/en/health-topics/noncommunicable-diseases.

⁸ A. Prüss-Ustün and others, *Preventing disease through healthy environments: A global assessment of the burden of disease from environmental risks* (Geneva, WHO, 2016).

to cross-sectoral working and to plan/programme development methods. For example, in some countries, aspects of public health are formally considered in spatial planning. This creates an expectation that health stakeholders will have some input in plan- and programme-making and in the strategic environmental assessment process. In other countries, public health is exclusively the concern of the health sector and there is lower expectation of cross-sectoral working.⁹ Moreover, the necessary capacity (for example, skills and knowledge) for integrating health and strategic environmental assessment might be underdeveloped in the health sector. Lessons from the WHO “Health in All Policies: Training manual” are relevant to strengthening collaboration between environmental authorities and public health authorities.¹⁰

17. The Resource Manual establishes guiding principles for strategic environmental assessment. It is good practice for strategic environmental assessments to make explicit reference to each of these principles. The principles include “identify the best practicable environmental [including health] option”.¹¹ This involves identifying the issues and alternatives to be assessed in the specific plan or programme, (as well as the policy and legislation decision-making system/hierarchy, see para. 3 of annex III to the Protocol).

II. Principles for considering health in strategic environmental assessment

A. Defining health

18. The Protocol explicitly refers to health wherever the term “environmental impacts” is mentioned. The importance of fully covering human health has been set out by WHO. The preamble to the Protocol refers to the third Ministerial Conference on Environment and Health, the Declaration of which affirms the importance of “fully covering impacts on human health and safety”.¹² The participants at the fourth Ministerial Conference on Environment and Health¹³ committed to taking significant health effects into account when assessing strategic proposals under the Protocol.

19. A comprehensive approach to health, underpinned by the WHO definition of health, is recommended in strategic environmental assessment. The WHO Constitution¹⁴ states that: “Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.”

20. The WHO definition has two parts:

(a) The first part emphasizes how human health encompasses mental and physical health and social well-being. Health affects, and is affected by, environmental, social and

⁹ T. B. Fischer, “The consideration of health in SEA”, in *Health and Strategic Environmental Assessment. Background information and report, WHO Consultation Meeting, Rome, 8 and 9 June 2009*, J. Nowacki, M. Martuzzi and T.B. Fischer, eds. (Copenhagen, WHO Regional Office for Europe, 2010); and A. Bond, B. Cave, and R. Ballantyne, “Who plans for health improvement? SEA, HIA and the separation of spatial planning and health planning”, *Environmental Impact Assessment Review*, vol. 42 (September 2013), pp. 67–73. Available at <https://doi.org/10.1016/j.eiar.2012.10.002>.

¹⁰ WHO, *Health in all policies: Training manual* (Geneva, 2015), available at http://apps.who.int/iris/bitstream/10665/151788/1/9789241507981_eng.pdf?ua=1.

¹¹ United Nations publication, ECE/MP.EIA/17, chap. A1.4, para. 20.

¹² Declaration of the Third Ministerial Conference on Environment and Health, London, 16–18 June 1999 (Commission of the European Communities/WHO Regional Office for Europe). Available at www.euro.who.int/en/publications/policy-documents/declaration-of-the-third-ministerial-conference-on-environment-and-health.

¹³ Fourth Ministerial Conference on Environment and Health: Declaration, Budapest, 23–25 June 2004, EUR/04/5046267/6 (WHO Regional Office for Europe), para. 13. Available at www.euro.who.int/en/home/conferences/fifth-ministerial-conference-on-environment-and-health/past-conferences/fourth-ministerial-conference-on-environment-and-health.-budapest.-hungary.-2004/fourth-ministerial-conference-on-environment-and-health.-declaration.

¹⁴ WHO, Constitution of the World Health Organization.

economic factors. These factors are known as determinants of health and public health is the part of the health sector that seeks to work explicitly with wider society (see box 2 below).

(b) The second part emphasizes the importance of addressing and treating disease and infirmity. This is the role of the health sector.

21. The WHO definition also emphasizes positive aspects of health, indicating that strategic environmental assessment should not focus solely on the adverse aspects of ill health. Furthermore, WHO stresses the importance of addressing inequalities in health (see box 2 below) through sound environmental and health policies.¹⁵

22. Lastly, it should be noted that health is experienced by individuals and by groups. The focus of health in strategic environmental assessment is on population health (see box 2 below) and not on individuals. Populations can be defined geographically or by shared characteristics, for example, gender, ethnicity, age and sexuality.

Box 2

Definitions of important concepts for public health

- **Public health** is the science and art of promoting health, preventing disease and prolonging life through the organized efforts of society.
- **Health status** is a description and/or measurement of the health of an individual or population at a particular point in time against identifiable standards, usually by reference to health indicators.
 - A **health indicator** is a characteristic of an individual, population or environment that is subject to measurement (directly or indirectly) and can be used to describe one or more aspects of the health of an individual or population (quality, quantity and time).
 - A **determinant of health** is the range of personal, social, economic and environmental factors that determine the health status of individuals or populations.
 - A **health outcome** is a change in the health status of an individual, group or population that is attributable to a planned intervention or series of interventions, regardless of whether such an intervention was intended to change health status.
 - The **health sector** consists of organized public and private health services (including health promotion, disease prevention, diagnostic, treatment and care services), the policies and activities of health departments and ministries, health-related non-governmental organizations and community groups, and professional associations.
 - A **risk factor** is social, economic or biological status, behaviours or environments that are associated with or that cause increased susceptibility to a specific disease, ill health or injury.
 - **Population health** is the health outcomes of a group of individuals, including the distribution of such outcomes within the group.
 - **Health inequality** is the generic term used to designate differences, variations and disparities in the health achievements of individuals and groups.
 - **Equity in health** means that people's needs guide the distribution of opportunities for well-being.

Sources: D. Nutbeam, *Health Promotion Glossary*, (Geneva, WHO, 1998); D. Kindig and G. Stoddart, "What is population health?", *American Journal of Public Health* (10 October 2011). Available at <https://ajph.aphapublications.org/doi/10.2105/AJPH.93.3.380>; and I. Kawachi, I.V. Subramanian and N. Almeida-Filho, "A glossary for health inequalities", *Journal of Epidemiology and Community Health*, vol. 56, No. 9 (2002), pp. 647–652. Available at <https://doi.org/10.1136/jech.56.9.647>.

B. Framing health input

23. The present guidance looks at the context within which strategic environmental assessment is conducted and, subsequently, at the assessment's format, with a focus on human health.

¹⁵ Declaration of the sixth Ministerial Conference on Environment and Health, Ostrava, Czechia, 13–15 June 2017, EURO/Ostrava2017/6 (WHO/ECE/European Environment and Health Process). Available at www.euro.who.int/_data/assets/pdf_file/0007/341944/OstravaDeclaration_SIGNED.pdf.

Figure 1

Strategic environmental assessment: context and format – aspects to consider

Abbreviations: SEA, strategic environmental assessment.

Source: adapted from T.B. Fischer, Health in SEA, in *Health in Impact Assessments: Opportunities not to be missed*, R. Fehr and others, eds. (Copenhagen, WHO Regional Office for Europe, 2014).

C. The context for strategic environmental assessment

1. Level of detail

24. The level of detail that is available to analyse and to report upon is determined by the strategic document (plan, programme, policy or legislation) being assessed. For example, there tends to be more geographic, technological process or population specificity (and therefore more detail to explore) on the implications of implementing a plan or programme compared to implementing legislation or policy. This is important for deciding on reasonable alternatives and issues to be considered and how to integrate health into strategic environmental assessment.

25. An important consideration is how specific the assessment can be about the likely population health changes. In some cases, for example, in cross-border cooperation programmes, the focus may be on national population health, with some scope for differentiation of geographic populations, determinants of health or health outcomes. In other cases, there is more scope to identify relevant populations, specific determinants of health and, broadly, the key health outcomes (for example, national resource management plans for sectors listed in art. 4 (2) of the Protocol).

26. In all cases, the level of detail should be proportionate to the identification of the likely significant effects on health of implementing the plan/programme and its reasonable alternatives.

27. Given the strategic (and, typically, long-term) nature of the assessment, detail on emerging population health issues and health priorities can be particularly important to capture and reflect within the strategic environmental assessment.

2. Institutional capacity

28. Even if integration of health in strategic environmental assessment is strongly desired, it may be difficult to achieve because of low institutional capacity. For example, in some countries, different government sectors are used to acting autonomously and may find closer cooperation difficult.¹⁶ Furthermore, technical and/or financial capacity to deal with specific substantive issues all at once may be limited. This is because, on the one hand, more aspects may mean that more data may need to be processed and, on the other hand, covering a range of issues in assessment may also mean having to manage the involvement of (potentially too) many people. The Resource Manual states that developing appropriate institutional capacity is key to effective implementation of the Protocol.¹⁷

29. In this context, the implementation reports of the Protocol¹⁸ are important tools for understanding specific capacity needs. Article 3 (3) requires that:

Each Party shall provide for appropriate recognition of and support to associations, organizations or groups promoting environmental, including health, protection in the context of this Protocol.

The national ratification of the Protocol is therefore a lever within countries for public sector teams involved in strategic environmental assessment to request appropriate additional government funding to allow them to fulfil the Protocol's requirements. It is recommended that requests for such additional funding be led and/or coordinated by public health professionals and ringfenced for personnel time, intersectoral/administration working and training relating to strategic environmental assessment.

3. Requirements

30. Socioeconomic, environmental and health objectives defined in legislation and guidance (for example, in different sectors and at different administrative levels) are not always fully compatible. Therefore, a compatibility test can be an initial task in strategic environmental assessment. If there is inconsistency, integration of issues representing different dimensions (for example, biophysical, social, economic and behavioural) can be problematic. It is good practice for health aspects to be considered at the scoping stage; in particular when making an analysis of the compatibility of the socioeconomic, environmental and health objectives.

(a) In some cases, integration reinforces beneficial health outcomes (see box 3 below);

(b) In other cases, integration can lead to conflict between objectives. For example, a policy to protect biodiversity or cultural heritage may restrict the use of green or blue space for physical activity and access to nature, both of which are beneficial for physical and mental health;

(c) Alternatively, conflicts may exist across the lifecycle of a population. For example, an economic policy may reduce health risks for working age people through better employment, but the policy may also lead to increased emissions, in turn increasing health risks for the young and the frail elderly.

¹⁶ T. B. Fischer, M. Martuzzi and J. Nowacki, "The consideration of health in strategic environmental assessment (SEA)", *Environmental Impact Assessment Review*, vol. 30, No. 3 (3 April 2010), pp. 200–210. Available at <https://doi.org/10.1016/j.eiar.2009.10.005>.

¹⁷ United Nations publication, ECE/MP.EIA/17, chap. B1.2.

¹⁸ United Nations Economic Commission for Europe (ECE), "Review of implementation (national reporting)". Available at www.unecce.org/env/eia/implementation/review_implementation.html.

Box 3

Health co-benefits from mitigating climate change

There are economic advantages to reducing fossil fuel combustion and improving air quality; for example, a reduction in chronic diseases and in their associated health-care costs.

Although uncertainties remain, climate change mitigation in transport should benefit public health substantially. Policies to increase the acceptability, appeal and safety of active urban travel, and to discourage travel in private motor vehicles would provide larger health benefits than would policies focusing solely on lower-emission motor vehicles.

There are economic opportunities associated with developing alternative forms of energy and clear health gains (co-benefits) through decarbonizing electricity production.

Sources: A. Haines and others, “Public health benefits of strategies to reduce greenhouse-gas emissions: Overview and implications for policymakers”, *Lancet*, vol. 347, No. 9707 (19 December 2009), pp. 2104–2114. Available at [https://doi.org/10.1016/S0140-6736\(09\)61759-1](https://doi.org/10.1016/S0140-6736(09)61759-1).

4. Sector

31. The sector plays an important role in the way that strategic environmental assessment is applied. This is down to specific sectoral requirements and to specific plan- and programme-making traditions. Thus, for example, spatial plans differ substantially from transport plans and differences need to be taken into account when attempting to apply strategic environmental assessment effectively. While health may therefore need to adapt to sectoral practices, it should remain a core and visible component of the strategic environmental assessment. It is good practice to make explicit links to health outcomes for the determinants of health for a sector. For example, transport affects health through emissions to air and in the modal choice it offers. Key health outcomes are therefore respiratory and cardiovascular health from emissions and physical activity and obesity from modal choice.

5. Influence of stakeholders

32. According to the Protocol (introductory text), strategic environmental assessment is aimed at: “integrating environmental, including health, considerations into the preparation and adoption of plans and programmes and, to the extent appropriate, policies and legislation”. In this context, it is intended to promote sustainable development. To this end, good practice assessments are carried out with “fairness, impartiality and balance”.¹⁹

33. This is unlikely to be achieved in situations where one (or several) stakeholders dominate the development of a plan or programme and the associated assessment processes. In this situation, it is good practice to be transparent with regards to who (or what) gains and loses. This means approaching the integration of substantive issues with caution. Powerful interests may override issues that strategic environmental assessment, in the interest of promoting sustainable development, aims to protect. It is recommended that trade-off rules be put in place (for example: maximum net gains; burden of argument on trade-off proponent; avoidance of significant adverse effects; protection of the future; explicit justification; and open process).²⁰

6. Administrative levels

34. In many countries, different administrative levels (national, regional and local) are allocated with specific decision-making tasks. This may mean specific alternatives are assessed at a specific administrative level. Knowledge of those alternatives is essential to being able to achieve positive outcomes for environment and health (See Protocol, art. 6 and annex IV).

¹⁹ United Nations publication, ECE/MP.EIA/17, pp. 164.

²⁰ A. Morrison-Saunders and R. Therivel, “Sustainability integration and assessment”, *Journal of Environmental Policy and Management*, vol. 8, No. 3 (2006), pp. 281–298. Available at <https://dx.doi.org/10.1142/s1464333206002529>.

D. The format of a strategic environmental assessment

1. Procedure

35. Articles 5 to 12 of the Protocol set out the strategic environmental assessment procedure. The procedural stages are considered in section III.B below.

2. Substantive issues

36. Substantive issues for consideration of health in strategic environmental assessment include biophysical (for example, flora and fauna, air, water, soils) and landscape aspects. Article 2 states that:

“Environmental, including health, effect” means any effect on the environment, including human health, flora, fauna, biodiversity, soil, climate, air, water, landscape, natural sites, material assets, cultural heritage and the interaction among these factors.

37. Furthermore, and in line with the Resource Manual,²¹ it is good practice to consider behavioural aspects with a connection to health and social well-being. This is also underpinned by the WHO definition of health (as set out in paragraph 19 above).

3. Methods and tools

38. The Protocol does not specify which methods and tools are to be used in strategic environmental assessment. The Resource Manual sets out some analytical and participatory tools.²²

39. Health assessment uses a range of methods, from qualitative to quantitative, and some are presented below. The decision level and the sector play an important role in choosing suitable methods and tools, as does the availability of resources.²³ The transparency of reporting the method and the results are important, as assessment is based on professional judgement.²⁴

40. Analytical approaches include the following:

- (a) Comparative risk assessments to model effects on different populations.²⁵

²¹ United Nations publication, ECE/MP.EIA/17, annex A.1.1.

²² *Ibid.*, chap. A.5.

²³ J. Mindell and others, “A review of health impact assessment frameworks”, *Public Health*, vol. 122, No. 11 (November 2008), pp. 1177–1187. Available at <https://doi.org/10.1016/j.puhe.2008.03.014>.

²⁴ B. Cave and others, *Health in Environmental Impact Assessment: A Primer for a Proportionate Approach* (Lincoln, Ben Cave Associates Ltd/ Institute of Environmental Management and Administration/ the Faculty of Public Health, 2017). Available at www.iema.net/assets/newbuild/documents/IEMA%20Primer%20on%20Health%20in%20UK%20EIA%20Doc%20V11.pdf.

²⁵ See Haines and others, “Public health benefits of strategies to reduce greenhouse-gas emissions: Overview and implications for policymakers”, *Lancet*, vol. 347, No. 9707 (19 December 2009), pp. 2104–2114. Available at [https://doi.org/10.1016/S0140-6736\(09\)61759-1](https://doi.org/10.1016/S0140-6736(09)61759-1); J.A. Patz and others, “Climate change: Challenges and opportunities for global health”, *Journal of the American Medical Association*, vol. 312, No. 15, special communication (15 October 2014), pp. 1565–1580. Available at <https://doi.org/10.1001/jama.2014.13186>; J. Woodcock and others, “Public health benefits of strategies to reduce greenhouse-gas emissions: urban land transport”, *Lancet*, vol. 374, No. 9705 (5–11 December 2009), pp. 1930–1943. Available at [https://doi.org/10.1016/S0140-6736\(09\)61714-1](https://doi.org/10.1016/S0140-6736(09)61714-1); Wilkinson and others, “Public health benefits of strategies to reduce greenhouse-gas emissions: household energy”, *Lancet*, vol. 374, No. 9705 (5–11 December 2009), pp. 1917–1929. Available at [https://doi.org/10.1016/S0140-6736\(09\)61713-X](https://doi.org/10.1016/S0140-6736(09)61713-X); and A. Markandya and others, “Public health benefits of strategies to reduce greenhouse-gas emissions: low-carbon electricity generation”, *Lancet*, vol. 374, No. 9706 (12–18 December 2009), pp. 1953–1955. Available at [https://doi.org/10.1016/S0140-6736\(09\)61715-3](https://doi.org/10.1016/S0140-6736(09)61715-3).

- (b) Various approaches to quantitative modelling of the effects of policies on health;²⁶
 - (c) Reviews of scientific evidence conducted through literature reviews;²⁷
 - (d) Descriptive presentation of local baseline data;
 - (e) Quantitative risk assessments made when there are known toxins and a strong epidemiological and toxicological evidence base.²⁸ This approach is more likely to be used at the project level.
41. Participatory tools include the following:
- (a) Workshops, focus groups or other participative meetings;²⁹
 - (b) Steering groups whose membership includes representatives from environmental authorities, public health authorities and civil society. These enable health input across the assessment process and specialist input on regional or local information and on technical topics such as monitoring;³⁰
 - (c) Training and capacity development in health assessment delivered as a component of an assessment.
42. In all cases, it is good practice for health considerations to be explicit and sufficiently specific to allow meaningful differentiation between alternatives. Given the need for strategic environmental assessment to accommodate a wide range of considerations other than health, it is also good practice for the inclusion of health in methods and tools to be precise and concise while still carrying a strong weighting within the assessment.

III. Strategic environmental assessment and health in practice

43. This section is organized into two main steps: step 1 - Understanding the purpose of a plan or programme; and step 2 - Conducting health-inclusive strategic environmental assessment.

A. Step 1 - Understanding the purpose of a plan or programme

44. To integrate health into strategic environmental assessment effectively, a clear understanding of the plan/programme's purpose is essential. For health, this means considering from the outset whether the intended, or unintended, consequences of the overarching aim, goal or vision align with improving population health in an equitable manner. Article 13 (1) encourages the application of strategic environmental assessment principles, including in relation to health, to the preparation of policies and legislation (which often set the vision for plans and programmes). This approach is good practice.

²⁶ R. Fehr and O. Meikel, eds., "Quantifying the health impacts of policies: Principles, methods, and models. Scientific Expert Workshop", Fokus series, No. 11 (Düsseldorf, Germany, State of North Rhein-Westphalia Institute of Health and Work, 2010). Available at www.lzg.gc.nrw.de/_media/pdf/liga-fokus/LIGA_Fokus_11.pdf.

²⁷ J. Mindell and others, "Improving the use of evidence in health impact assessment", *Bulletin of the World Health Organization*, vol. 88, No. 7 (1 July 2010), pp. 543–550; and J. Simos and others, "The role of health impact assessment in Phase V of the Healthy Cities European Network", *Health Promotion International*, vol. 30, No. S1 (2015), pp. i71–i85. Available at <https://doi.org/10.1093/heapro/dav032>.

²⁸ J. Mindell and others, "A review of health impact assessment frameworks".

²⁹ See *Ibid.*; and J. Simos and others, "The role of health impact assessment"; and M. Thondoo and others, "Systematic literature review of health impact assessments in low and middle-income countries", *International Journal of Environmental Research and Public Health*, vol. 16, No. 11 (2019). Available at <https://doi.org/10.3390/ijerph16112018>.

³⁰ J. Simos and others, "The role of health impact assessment"; for terms of reference for a steering group, see P. Harris and others, *Health Impact Assessment: A practical guide* (Sydney, Centre for Health Equity Training, Research and Evaluation, University of New South Wales, January 2007).

45. The vision is determined by the issues and questions to be addressed by a plan or programme. In this context, table 1 below provides an example of what issues may be addressed at different levels, taking the transport and energy sectors as examples. Questions addressed at different levels set the context and scope for associated strategic environmental assessments.

Table 1
Issues and questions

Tier	Issues and questions
Energy/Transport policies or legislation	<ul style="list-style-type: none"> • How does existing energy/transport infrastructure/use support population health? • What conflicts with maintaining/improving population health arise from the current approach? • What population health and health inequality benefits would accrue (or risks arise) from modifying energy/transport infrastructure or use? • Which options are better for population health and what would be a realistic mix/transition?
Energy/Transport plans	<ul style="list-style-type: none"> • What energy/transport infrastructure/use maximizes positive population health outcomes and minimizes negative population health outcomes? • What population health trade-offs are involved, (for example, land-take)?
Energy/Transport programmes	<ul style="list-style-type: none"> • What infrastructure developments should be given priority, considering costs and benefits (for example, alternative ways to spend money to improve population health) and population health outcomes, positive and negative?
Projects	<ul style="list-style-type: none"> • What are the environmental, social and economic population health effects of specific projects and how can they be avoided, mitigated or enhanced?

Source: adapted from T.B. Fischer, *The Theory and Practice of Strategic Environmental Assessment: Towards a More Systematic Approach* (London, Earthscan, 2007).

46. Table 1 above provides, from the health perspective, a generic overview of what may be addressed where in a policy or legislation, plan, programme and project hierarchy. Specific legislation and/or traditions may lead to the preparation of specific plans and programmes (and associated assessments) that may look different. It is important to be aware of any constraints or gaps that might exist regarding systematically covering different issues and questions, as well as associated alternatives.

47. It is good practice during plan-/programme-making and strategic environmental assessment to establish early on the roles and responsibilities of those who should be approached across sectors/administrations, for example, in health, transport, energy and spatial planning.

48. It is also important to involve actors responsible for implementation of plans and programmes through specific projects. This includes relevant health authorities at appropriate administrative levels.

B. Step 2: Conducting health-inclusive strategic environmental assessment

49. Conducting a strategic environmental assessment in parallel with the process of preparing the plan or programme, with regular engagement between the two processes, is good practice. Strategic environmental assessments are generally led by a competent public authority,³¹ which may use external experts to prepare the report. The role of the public health authority is likely to be focused on review and evaluation.

50. The policies, legislation, plans and programmes that are subject to strategic environmental assessment frame the environment for years to come. Strategic environmental assessment is an opportunity to improve population health. This includes setting the direction

³¹ United Nations publication, ECE/MP.EIA/17, chap. A1.4.

of a plan or programme in a way that promotes (positive) health opportunities, as well as avoiding (negative) health challenges.

51. The practical implications of a strategic environmental assessment mean that all analysis, including that of health, benefits from being presented in a small number of inputs to the decision-making process. While promoting a holistic coverage of health is important, this is not intended to detract from the other topics in the strategic environmental assessment. Good practice is for the links to health across relevant topics to be made explicit. As is shown above, many of the topics in strategic environmental assessment are determinants of health. Where appropriate, the cross-cutting analysis can follow through to a discussion of health outcomes. This can be achieved by including a clear and holistic health objective and using this to make relevant links to established environmental (and other) determinants.

52. Health as a unified concept has potential pitfalls to navigate. These can include the relative power of health-related institutions/teams and the level of understanding of health of those involved in strategic environmental assessment (where there are frequently knowledge gaps, for example, with regards to social determinants of health). Furthermore, the identification and subsequent integration of a wide range of health determinants can be conceptually and practically challenging.

1. Screening

53. Article 5 (1) describes the screening stage whereby Parties are required to determine whether plans and programmes are likely to have significant environmental, including health, effects. This decision determines whether or not a strategic environmental assessment should be conducted. In this context, article 5 (2) requires that health authorities (see article 9 (1)), be consulted. Screening is carried out: based on inclusion or exclusion checklists; through case-by-case screening; or through a combination of both approaches. Annex III provides criteria to support determining likely significance, including identifying: health considerations that promote sustainable development; health problems; risk to health; and the probability, duration, frequency, reversibility, magnitude and extent of health effects.

54. The cross-cutting nature of health means that, as a topic, it has links with many of the other topics considered in strategic environmental assessment. In practical terms, it would be unusual for health to be the sole reason for determining whether a plan or programme should be subject to strategic environmental assessment.

55. The focus for health at screening is on developing a proportionate understanding of the relationship between relevant determinants of health (environmental, social, economic, etc.). It is good practice for the screening conclusion/statement to be explicit about the decisions taken regarding health.

56. In relation to mandatory consultation of health authorities, the national/regional /local government department or organization responsible for public health can advise the plan or programme promoter (and the strategic environmental assessment lead) of the potential intended or unintended consequences for population health.

2. Scoping

57. Article 6 (1) describes the scoping stage, whereby the relevant information to be included in the environmental report is determined (in accordance with art. 7 (2)). This decision determines the relevant likely significant environmental, including health, effects to investigate, and the plan or programme's reasonable alternatives. In this context, article 6 (2) requires that health authorities (see article 9 (1)) be consulted.

58. A variety of established generic methodologies are applied in current practice. The choice of methodology will be influenced by the jurisdiction and the decision tier. The focus here is on the broad health considerations apparent in any strategic environmental assessment approach to scoping.

59. Public health authorities and agencies can support the identification of key health issues, including an overview of main health determinants and their linkages to the sectors covered by the Protocol (art. 4 (2)). Recommendations regarding the level of detail likely to be required and advice on procedures for engagement of stakeholders can be provided.

60. Table 2 below provides an indicative checklist of determinants of health that it is recommended be considered at the scoping stage. In addition, WHO Regional Office for Europe³² also illustrates some key health determinants by sector.

³² WHO Regional Office for Europe, “Health Impact Assessment as part of Strategic Environmental Assessment”, November 2001, table 2, available at www.who.int/hia/network/en/HIA_as_part_of_SEA.pdf.

Table 2

Illustrative determinants of health to consider in scoping, with indicative relevance to sectors

Determinants of health Sectors referred to by the Protocol	agriculture	forestry	fisheries	energy	Industry, including mining	transport	regional development	waste management	water management	telecommunications	tourism	town and country planning or land use
	Health inequalities											
Health inequalities between population groups	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Health inequalities between geographical areas	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Healthy lifestyles												
Healthy lifestyles and leisure activity opportunities	✓	✓		✓	✓	✓	✓	✓	✓		✓	✓
Nutrition	✓		✓			✓	✓		✓			✓
Safe and cohesive communities												
Housing, buildings and connecting routes				✓	✓	✓	✓	✓	✓	✓	✓	✓
Poverty, social exclusion and crime				✓	✓	✓	✓				✓	✓
Socioeconomic conditions												
Education						✓	✓			✓		✓
Employment (including quality)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Environmental conditions												
Air quality	✓	✓		✓	✓	✓	✓	✓			✓	✓
Water	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓
Soil	✓	✓			✓		✓	✓				✓
Noise and vibration	✓	✓		✓	✓	✓	✓	✓		✓	✓	✓
Health- and social-care services												
Access to health- and social-care activities/services				✓	✓	✓	✓			✓	✓	✓
Occupational safety and health	✓	✓	✓	✓	✓	✓		✓	✓	✓		

Source: Adapted from J. Nowacki, “The Integration of Health into Environmental Assessments –with a special focus on Strategic Environmental Assessment”, dissertation at the University Bielefeld, Germany (Copenhagen, WHO Regional Office for Europe, 2018). Available at www.euro.who.int/en/health-topics/environment-and-health/health-impact-assessment/publications/2018/the-integration-of-health-into-environmental-assessments-with-a-special-focus-on-strategic-environmental-assessment-2018.

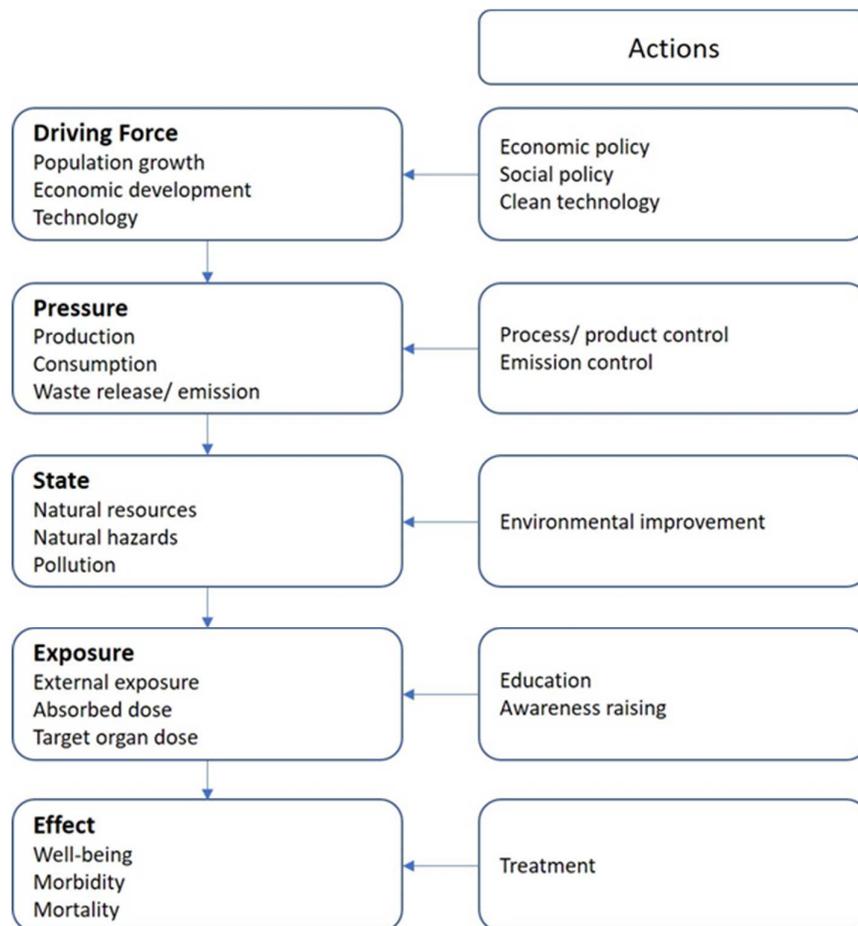
61. The process/rationale for identifying the key determinants of health relevant to a plan/programme’s intended (and potential unintended) consequences can be informed by considering a source-pathway-receptor linkage model. As an example, a Driving Force, Pressure, State, Exposure, Effect, Action framework is introduced below.

Driving Force, Pressure, State, Exposure, Effect, Action framework

62. The Driving Force, Pressure, State, Exposure, Effect, Action framework³³ traces the relationship between health effects and other factors in society. It shows how environmental policy translates into health effects at the individual and population levels.

63. Figure II below shows that the framework explicitly requires consideration of multiple risk factors. It focuses on the fact that a health effect is linked to exposure and on actions that can be taken at each step to protect or to promote health. Other pathway models are useful and can be developed to show the linkages between policies affecting determinants of health and changes in health outcomes.

Figure II

The Driving Force, Pressure, State, Exposure, Effect, Action framework

Source: based on Integrated Environmental Health Impact Assessment System, “The DPSEEA framework”, available at www.integrated-assessment.eu/eu/guidebook/dpseea_framework.html.

64. Table 3 below sets out ways in which the framework can be used in scoping. By describing content relevant to the plan/programme for each stage of the framework, a useful visual representation of the possible impacts of a plan/programme can be generated.

³³ Y. von Schirnding, *Health in Sustainable Development Planning: The Role of Indicators* (Geneva, WHO, 2002); and D. Briggs, C. Corvalán and M. Nurminen, eds., “Linkage methods for environment and health analysis: General guidelines. A report of the Health and Environment Analysis for Decision-making (HEADLAMP) project” (Geneva, United Nations Environment Programme/United States Environmental Protection Agency/WHO, 1996).

Table 3

Using the Driving Force, Pressure, State, Exposure, Effect, Action framework

Stage	Description	Link to the formulation of a plan or programme and a strategic environmental assessment
Driving force	<p>A number of factors on the macro scale ultimately affect human health. For example:</p> <ul style="list-style-type: none"> • The global, national and regional economy will have an indirect impact on human health by affecting income levels and the distribution of income. • A changing climate will mean increased risk of severe weather events with short-, medium- and long-term effects on physical and mental health. • Demographic change will directly and indirectly affect health and well-being through changes to the age and the employment structure of the workforce, meaning that people will have to work until they are older and a smaller workforce will support a larger non-working population. 	<p>These are the global, national and regional forces that shape (or drive) the plan or programme.</p>
Pressure	<p>The various driving forces considered above will result in pressures on the social, economic and physical environment. Pressures are generated on all sectors of economic activity, such as transport, energy, housing, agriculture, industry and tourism. The pressures are manifest in changes to, for example, living conditions, quality of infrastructure, and income poverty.</p>	<p>The pressures refer to the sectors covered in the plan or programme.</p>
State	<p>The state (quality) of the social, economic and physical environment is affected by the various pressures above. These can be adverse or beneficial. Some changes may be complex and widespread – for example, pollution of a whole marine environment or a strengthening of a regional economy – while others may be more localized, for example, contamination of a local water supply or effects restricted to a local economy.</p>	<p>This is likely to be the level at which plan or programme alternatives are tested for the goal of improving the state (quality) of social, economic and physical environment.</p>
Exposure	<p>Even where there are large effects on the state of the environment, people's health and well-being will be affected only when they are actually exposed to a particular state, whether for good or for ill. Many factors determine whether an individual will be exposed, for example, to pollution in the environment. Pollution levels vary from place to place and over time, and people's activities and behavioural patterns may influence the extent to which they come into contact with the environment. Likewise, in the case of economic downturn, not all sections of society are affected.</p>	<p>The plan or programme will play a role in affecting who is exposed to beneficial or adverse factors.</p>
Effect	<p>Once a person has been exposed to a hazard, health effects can vary in type, intensity and magnitude, depending on the type of hazard, the level of exposure and other factors. The ill-health effects of environmental exposures may be acute, occurring relatively soon after exposure (from a single large dose due to an accident or a spill, for example); or they may be chronic, occurring as a result of cumulative exposures over time. A long time may elapse between the initial exposure and the appearance of the adverse health effect, for example, exposure to asbestos and mesothelioma, or exposure to radiation and leukaemia. Dispersal of the population at risk over time and the long incubation</p>	<p>This is the health effect of the preceding stages.</p>

Stage	Description	Link to the formulation of a plan or programme and a strategic environmental assessment
	period make reconstruction of exposures problematic, so that acute health effects are often easier to detect than chronic ones, which may be difficult to relate to specific hazards or sources.	
Actions	An approach to health hazard control and prevention that focuses on hazards of human origin is useful in that it addresses potentially remediable problems (giving due regard to uncertainty that exists about the extent of risks to human health associated with specific agents in the environment, or with the broader development process). Various actions can thus be taken, based on consideration of the nature of the risks, their amenability to control and the public's understanding of and attitude towards the risks.	Actions to manage adverse effects, and to enhance beneficial effects, can be taken at each stage of this framework and can be identified through the strategic environmental assessment process.

Source: Adapted from Y. von Schirnding, *Health in Sustainable Development Planning: The Role of Indicators* (Geneva, WHO, 2002), chap. 7.

65. The framework supports an approach to scoping and assessment under which the impacts considered are not reduced to various sentinel health “issues” but rather considered broadly through the determinants of health and their distribution among the populations affected.³⁴

66. The types of information required to inform strategic decisions are also necessarily broad, ranging from quantifiable evidence of impacts, should they exist (for example, from the scientific literature or existing population health studies for the area), estimates of costs and benefits of varying options, to an informed understanding of stakeholder and community responses to particular options or alternatives or courses of action.

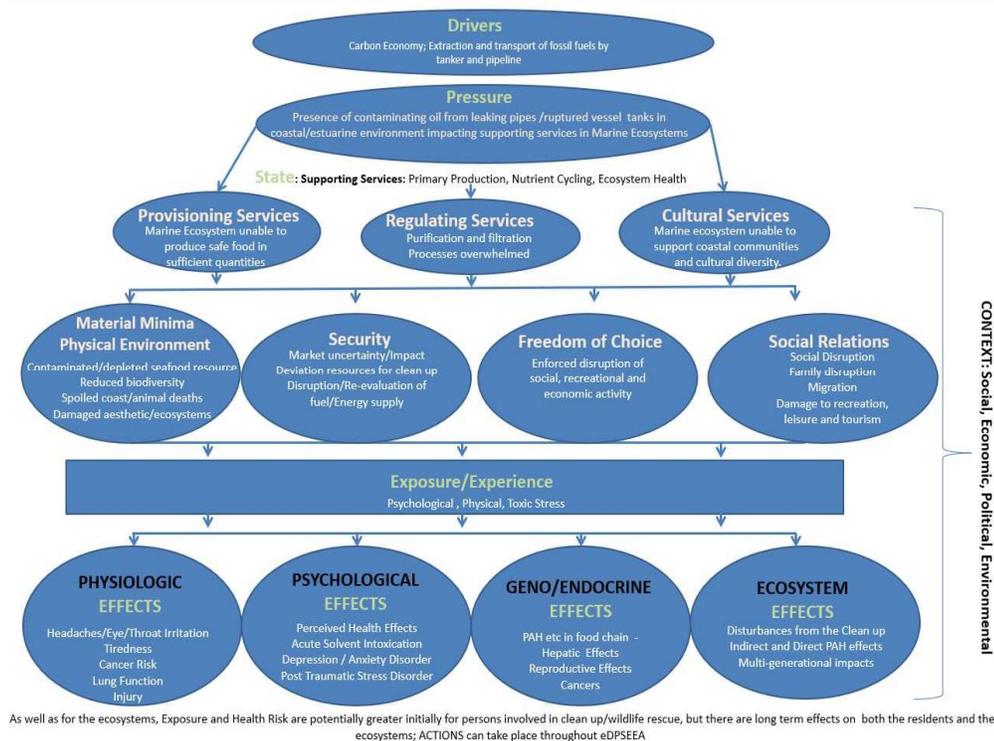
67. Strategic decisions at a large scale are concerned with potential health impacts of multiple similar developments; for example, developments of multiple offshore platforms feeding different and geographically dispersed onshore facilities (for example, with implications for port health). The associated analysis would also need to include other non-project, but related, development activities in the region – for example, transport infrastructure, schools, markets and others – as these would also be important indirectly affected health determinants.³⁵

68. Figure III below provides a worked example relevant to the energy/transport sector. It illustrates the modified and enriched framework referred to in table 3 above that also takes into account social, demographic, economic and behavioural influences and relates these to ecological change. These conceptual models illustrate the thought process for scoping health (which need not be exhaustively reported, though it is good practice to include an appropriate scoping rationale).

³⁴ P. Harris and F. Viliani, “Strategic health assessment for large scale industry development activities: An introduction”, *Environmental Impact Assessment Review*, vol. 68 (January 2018), pp. 59–65. Available at <https://doi.org/10.1016/j.eiar.2017.10.002>.

³⁵ International Petroleum Industry Environmental Conservation Association/International Association of Oil and Gas Producers, “Health Impact Assessment. A Guide for the Oil and Gas Industry”, Report No. 548 (London, 2016). Available at www.ipeca.org/resources/good-practice/health-impact-assessment-a-guide-for-the-oil-and-gas-industry/.

Figure III
Example of the modified framework



Source: L.E. Fleming and others, “Developing a modified conceptual model for Health and Environmental Impact Assessment within Ecological Public Health”, poster (European Centre for Environment and Human Health, 2013). Available at <https://spc.agu.org/2013/files/2013/06/Fleming-AGU-June-2013-eDPSEEA-Poster.pptx>.

69. The Protocol does not specifically provide for a scoping report but in practice its preparation is useful. A scoping report can be structured to broadly indicate how plausible and probable each determinant of health may be as a pathway between the plan- or programme-related change and population level health outcomes.

70. Where a linkage is either implausible or improbable it is not capable of being a “likely” significant effect, so should be scoped out. Where there is uncertainty, the issue may be informed by the scientific literature or public health stakeholders.

71. It is important to find a balance. Scoping many issues in makes assessment of health complex; a tight scope, focusing on a limited number of issues, can fail to adequately address significant impacts. Thus, the determination of what is likely to be “significant” is of central importance for scoping (see box 4 below).

Box 4

Health significance

Article 7 (2) of the Protocol and preambular paragraph 14 of the Strategic Environmental Assessment Directive³⁶ require likely significant effects to be identified. Significance is not defined. It is helpful to recall that article 1 of the Protocol states that: “The objective of this Protocol is to provide for a high level of protection of the environment, including health”.

Consider the following question:

“Should the effect be taken into account in the development of the plan/programme (i.e. scoped in as significant), because the professional judgement of the assessor is that it provides, or is contrary to providing, a high level of protection to human health?” This should include, as appropriate, health prevention, treatment, care and promotion considerations.

Typically, a small change in health risk factors for a few people would not be considered to be a significant health effect.

Overarching questions and sources of evidence (generally for the assessment stage) include:

- Is the expected change in health important, given the scientific literature, baseline conditions and local health priorities?
- Is the expected change in population health acceptable (or desired) for the setting, given consultation responses, regulatory standards and the policy context?

In this context, the sensitivity of the potentially affected population and the expected magnitude of the impact may also be relevant (although detail on these considerations is typically at the project level).

72. Different types of impacts considered in strategic environmental assessment include direct and indirect, secondary, cumulative, synergistic, short-, medium- and long-term, permanent and temporary, positive and negative effects (see annex IV, para. 6, of the Protocol).

73. The evaluation of impact significance may be associated with existing environmental and health objectives and standards. However, compliance with a threshold does not necessarily equate to there being no health effect. Good practice is to set out a reasoned conclusion supporting the professional judgment reached, informed by an appropriate range of evidence sources.

3. Preparation of an environmental report

74. Article 7 (1) requires that an “environmental report” be prepared for plans and programmes subject to strategic environmental assessment. Article 7 (2) requires that the report: “identify, describe and evaluate the likely significant environmental, including health, effects of implementing the plan or programme and its reasonable alternatives”. Annex IV requires the specific inclusion of the relevant: health baseline and its likely evolution; health characteristics, problems and objectives; measures to prevent, reduce or mitigate any significant adverse health effect; health monitoring measures; and likely significant transboundary health effects.

75. The environmental report is a means to explain how environmental and health objectives, as well as alternatives and other issues, were identified and taken into account. Article 7 (3) requires Parties to ensure that environmental reports are of sufficient quality (with regard to the Protocol’s requirements). Aspects of quality review may include the adequacy of alternatives (including to address health effects) and of consultation with health authorities.

76. A common feature of strategic environmental assessment methods is the identification and subsequent use of objectives against which to undertake evaluation. Box 5 below considers health objectives.

³⁶ Directive 2001/42/EC.

Box 5

Setting health objectives

While it is easier to present a long list of health objectives spanning a broad range of health issues and health determinants, a proportionate strategic environmental assessment procedure (with its many other considerations) necessitates a succinct approach with one health objective (encompassing a holistic view of health).

The following generic example may be used or adapted:

“The health objective is to improve the physical, mental and social well-being of current and future populations (including vulnerable groups and those who would be most affected by implementation of the plan/programme); having particular regard to health inequalities, healthy lifestyles, safe and cohesive communities, socioeconomic conditions (including education and employment), environmental conditions and health- and social-care services.”

Where other strategic environmental assessment objectives cover relevant determinants of health, it is good practice to make the link with the health objective explicit.

77. The Resource Manual³⁷ suggests that the best practicable environmental option be established. Furthermore, the evolution of the environment without a plan or programme is to be assessed. Importantly, alternatives should not be made up just to support the development and selection of a preconceived preferred alternative. In this context, public participation and consultation of health authorities can support the decision on what constitute reasonable alternatives.

78. A key issue in the assessment of alternatives is the evaluation of impact significance (see box 6 below). It is recommended that a methodology for carrying out such an evaluation for health be defined and consistently used throughout the environmental report in order to make results transparent, reproducible and comparable. A strategic professional judgment on the likely significance of health effects is key to determining the preferred option.

79. As part of the assessment of alternatives, mitigation measures are considered. It is recommended that enhancement measures be included and the “mitigation hierarchy” be followed. With reference to the source-pathway-receptor linkages considered during scoping (see figures II and III above), it is good practice to identify key opportunities to: intervene where a pathway leads to adverse effects; and reinforce pathways that lead to beneficial effects. This process supports the identification of a small number of criteria relevant to the plan or programme and the health context that differentiates or allows for improvement of the options.

80. While the criteria (or guide questions) may be varied and are not, therefore, prescriptively stated here, it is recommended that they include an appropriate range of key public health concepts and, as appropriate, span the wider determinants of health. Box 6 below provides a generic set of strategic health considerations to inform the assessment of options. The criteria (or guide questions) may be adapted in a variety of ways by strategic environmental assessment methodologies to provide weightings.

Box 6

Generic health criteria or guide questions

In the long-term (time frame to be defined), without significant short-term detriment (over months or years), which option most:

- (a) Narrows health inequalities?
- (b) Promotes healthy lifestyles?
- (c) Promotes safe and cohesive communities?
- (d) Increases socioeconomic conditions for people to thrive?

³⁷ United Nations publication, ECE/MP.EIA/17, chap. A.1.4.

- (e) Increases environmental conditions for people to thrive?
- (f) Improves access to good quality health and social care?

4. Public participation

81. Article 8 (1) explains what public participation should comprise. Importantly, it should be “early, timely and effective” when all options are open.

82. Open and fair public participation may help to resolve possible conflicts of interest, particularly by establishing public values and by taking them into account when considering alternatives in strategic environmental assessment. Public support for plan and programme decisions can increase, based on decisions reflecting expectations and preferences. Publicly acceptable solutions can both reduce costs for plans and programmes by helping to avoid delays and promote better mental and social well-being.

83. Effective public participation is based on good governance principles. In addition to an overall right to participate, transparency (art. 3 (1)) and accountability in the plan- or programme-making process are of key importance.

84. When conducting public participation, it is recommended that health stakeholders (including relevant non-governmental organizations, art. 8 (3)) be mapped regarding their potential influence, attitude, position, background knowledge and interests.

5. Consultation with environmental and health authorities

85. Article 9 (1) requires Parties to designate health authorities to be consulted on draft plans or programmes and environmental reports. Article 9 (3) requires that health authorities be given: “in an early, timely and effective manner, the opportunity to express their opinion”. Article 10 describes transboundary consultations where a plan or programme is likely to have significant transboundary health effects.

86. Strategic environmental assessment is unlikely to improve consideration of health in planning while there continues to be separation of functions between professions and lack of understanding between professions.³⁸ Cross-sectoral work is therefore important. However, this can be challenging.

87. Environmental authorities have data on the environment. Public health authorities have data on the population in their areas. Knowledge of the area and of the environmental and health priorities that have been set are of crucial importance. Access to stakeholders will be key to the consultative aspect of the assessment, as well as wider dissemination of information and knowledge about the plan or programme.

88. One challenge to overcome is that public health authorities may not have strategic environmental assessment expertise or be aware of the process. Paragraph 29 above contains a recommendation on addressing capacity shortfalls in the discussion of institutional capacity.

89. A central tenet of this guidance is that authorities conducting strategic environmental assessment should seek advice from public health authorities (owing to specific requirements to consult health authorities contained in articles 5 (screening), 6 (scoping), 9 (draft reporting), 10 (transboundary matters) and 11 (decision-making)). Establishing (and annually reviewing) joint working arrangements between public health administrations and other key sector administrations (for example, regional development and town and country planning) is good practice with regard to ensuring a shared understanding of the strategic environmental assessments coming forward and the coordination of inputs into those assessments.

90. What then are the essential functions of a public health system and what can environmental authorities request from their counterparts in health? The WHO has reviewed

³⁸ A. Bond, B. Cave, and R. Ballantyne, “Who plans for health improvement? SEA, HIA and the separation of spatial planning and health planning”, *Environmental Impact Assessment Review*, vol. 42 (September 2013), pp. 67–73. Available at <https://doi.org/10.1016/j.eiar.2012.10.002>.

essential public health functions in different regions.³⁹ These are reported differently but can be divided into horizontal and vertical functions (see box 7 below).

Box 7

Essential functions of a public health system

Horizontal functions are basic building blocks for health systems. These include:

- **Governance** - including public health management, planning and institutional collaboration.
- **Health information systems** - including population health surveillance and monitoring, including civil registration and vital statistics systems, disease registries, health-related surveys, disease-specific surveillance programmes, monitoring of health system workforce and performance, risk assessment and data reporting and analysis.
- **Research** - including ethical safeguards, integration of research activities into public health and dissemination and knowledge-brokering to translate research findings into policy and practice.
- **Social participation and health communication** - including health promotion and the arrival of new communication technologies and social media platforms for health, and the continuing goal of designing public health services around people's needs.

Vertical functions are service-based functions that make up the traditional public health services provided by modern health systems. They include:

- **Health protection** - regulations and legal protections for workers, patients, consumers, the environment (can also include environment, occupational health and traffic safety).
- **Health promotion** - community and social participation, intersectoral collaboration, measures to address behavioural risk factors (tobacco, alcohol, diet and physical activity) and the social determinants of health and health education.
- **Health care** - the European Region excludes most health-care services from the public health remit, in order to have specific policy space for population-based services. Health care has, however, been included in this list in order to acknowledge the fact that other regions take a different approach, and to encourage competent authorities to include universal coverage of health care within the scope of strategic environmental assessments.
- **Preparedness for public health emergencies** - including any sudden, large-scale, negative impact on public health arising from outbreaks, natural disasters, severe weather events, migratory flows, accidents, terrorism, or other environmental or human causes. While national health authorities do not **necessarily** take the lead role in managing these emergencies, there are important competencies needed within such authorities for risk assessment and coordinated response.

Source: based on WHO, Essential public health functions, health systems and health security: Developing conceptual clarity and a WHO road map for action (Geneva, 2018).

91. Horizontal functions underpin the cross-sectoral and long-term work needed to develop and implement plans and programmes. Vertical functions are key aspects for health and it is recommended that they be considered in strategic environmental assessment.

6. Decision-making

92. Article 11 (2) requires that, when reaching a decision on a plan or programme, a statement be provided summarizing how environmental, including health, considerations have been taken into account, including the consultation responses from health authorities and the public. Effectively influencing decision-making is therefore an important consideration for health in any strategic environmental assessment. Consequently, health assessors and stakeholders should critically reflect on the characteristics of the decision-making process from the outset.

93. The inclusion of health in the environmental report can allow the decision maker to be clear about any likely significant health trade-offs in relation to the plan/programme and its alternatives. It is recommended that the health trade-offs be set out clearly and explicitly.

³⁹ WHO, *Essential public health functions, health systems and health security: Developing conceptual clarity and a WHO road map for action* (Geneva, 2018).

This includes the health trade-offs in relation to geographic inequalities and inequalities between the general population and more vulnerable population groups (for example, due to age, gender, poor health or socioeconomic status).

7. Monitoring

94. Article 12 (1) states that significant environmental, including health, effects of the implementation of a plan or programme should be monitored. Article 12 (2) requires that monitoring results be made available to health authorities. Good practice monitoring includes four main components:

- (a) Ensuring compliance with the points specified in the strategic environmental assessment and the associated plan or programme;
- (b) Evaluating whether actual impacts are in line with what was envisaged;
- (c) Remedial action in case of unforeseen adverse effects;
- (d) Dissemination of monitoring documentation.

95. Where appropriate, it is good practice for monitoring to be specified in a (post-decision) management plan, in which actions, responsibilities, timelines and reporting requirements are clearly defined. There are technical and institutional aspects to monitoring.

96. The technical aspects to designing monitoring regimes are related to ways in which health change can be tracked. Steps include: defining the population(s) to be monitored; specifying the aims of the monitoring; and defining the outcomes to be monitored.⁴⁰ Routine public health indicators can be used where these are available and suitable. Developing bespoke health-monitoring regimes is not recommended, unless the development of such a regime is an action arising from the plan/programme itself. Integration with other existing or planned monitoring (and auditing) initiatives is therefore important. Consistent with article 12 (1), it is recommended that adaptive management measures (for example, governance arrangements to review the plan/programme) be defined for situations where monitoring identifies consistent unforeseen significant adverse health effects (for example, across several projects brought forward under the plan/programme).

97. The institutional aspects to designing a monitoring regime include specifying who will be responsible for associated activities, including intersectoral working within government and links outside government; for example, inputs from communities and wider civil society.⁴¹

98. Transboundary aspects will also need to be considered. In this context, determining suitable health targets and associated health indicators for relevant determinants of health will facilitate the monitoring and evaluation.

⁴⁰ M. Douglas and others, eds., *Health Impact Assessment of Transport Initiatives: A Guide* (Edinburgh, National Health Service Health Scotland/Medical Research Council Social and Public Health Sciences Unit/Institute of Occupational Medicine, 2007). Available at www.healthscotland.com/documents/2124.aspx.

⁴¹ WHO, "Health in all policies (HiAP) framework for country action", *Health Promotion International*, vol. 29, No. S1 (June 2014), pp. i19–i28. Available at <https://doi.org/10.1093/heapro/dau035>.