
Health, environment and climate change

Report by the Director-General

1. Known avoidable environmental risk factors cause at least 13 million deaths every year and about one quarter of the global burden of disease. Air pollution alone causes about 6.5 million deaths a year, or one in eight of all deaths, placing it among the top global risks to health.¹
2. Member States face a combination of long-standing unresolved and new environmental and health challenges. These range from lack of universal access to clean household energy, safe water and sanitation, to the consequences of unsustainable development, such as air, water and soil pollution and exposure to hazardous chemicals, and more complex, chronic and combined exposures in work and residential settings, and to ageing infrastructure, stagnating environmental health progress, and increasing inequalities, in all countries.
3. These challenges result in a triple burden of environmental risks, including the direct impacts of emergencies, persistent and in some cases expanding infectious disease risks, and noncommunicable diseases. For the latter, environmental risk factors are now of a comparable magnitude to other well-established risks (tobacco consumption, diet, alcohol consumption and physical inactivity).
4. Human influences on the global environment continue to grow. They contribute to climate change, considered potentially the greatest threat to global health in the 21st century. Many Member States already suffer significant loss of life and damage to crucial health infrastructure from extreme weather events. All these developments threaten to undermine gains in health and development, and may exacerbate migration and increase social and political tensions within and between countries. In the absence of strong measures to cut carbon emissions and protect populations from the effects of climate change, rising sea levels will submerge extensive and densely populated coastal areas, including some entire small island nations, by the end of this century.
5. Although the paramount concern is to protect human lives and ensure well-being, environmental degradation also has large economic costs to the health sector. Global health and welfare losses from air pollution in 2013 are valued at about US\$ 5110 billion, or almost 7% of gross domestic product.²

¹ Prüss-Ustün A, Wolf J, Corvalán C, Bos R, Neira M. Preventing disease through healthy environments: a global assessment of the burden of disease from environmental risks. Geneva: World Health Organization; 2016 (www.who.int/quantifying_ehimpacts/publications/preventing-disease/en/, accessed 27 October 2017). Estimates are based on a combination of quantitative assessment and expert opinion.

² World Bank Group, Institute for Health Metrics and Evaluation. The cost of air pollution: strengthening the economic case for action. Washington, DC: World Bank; 2016 (<https://openknowledge.worldbank.org/handle/10986/25013>, accessed 30 October 2017).

About 10% of global gross domestic product is now spent on health care,¹ driven increasingly by the costs of treating noncommunicable diseases. Failure to manage environmental risks and prevent a growing disease burden will therefore increase the strain on health services and national and household budgets.

6. The effects of human actions on the environment are an ethical and human rights issue, as they will be felt by future generations, and have the most severe impact on the most economically, demographically and geographically vulnerable populations.

CURRENT STATUS OF THE PUBLIC HEALTH RESPONSE TO ENVIRONMENTAL AND CLIMATE CHANGE

7. Responsibility for and tools to tackle many environmental determinants of health lie outside the direct control of individuals or the health sector alone. Therefore, a wider societal, intersectoral and population-based public health approach is needed.

8. A wealth of evidence demonstrates the health impacts of individual environmental exposures, for example, to specific chemical or biological contaminants in water. At the same time, however, there is also strong evidence for the cost-effectiveness of many interventions, from small-scale (for instance, point-of-use water treatment) to large-scale investments (for instance, in sanitation infrastructure).

9. There have been notable successes in applying such evidence to intersectoral policy. Examples range from removing lead from petrol in many countries to controlling the depletion of the ozone layer and the associated health risks of ultraviolet radiation through application of measures set out in the Montreal Protocol on Substances that Deplete the Ozone Layer (1987).

10. In dealing with environmental, climate and other determinants of health, WHO promotes a Health in All Policies approach, including coverage of health in environmental and labour regulations and safeguards, assessment of the health impact of development projects, and tackling several environmental health issues in a single setting, community or system. Numerous examples of best or good practice are available,² but such integrated approaches are not applied universally, and are seldom directed to “upstream” environmental and social determinants (such as more sustainable and equitable resource consumption, climate stabilization and protection of biodiversity and ecosystem services) that in turn drive exposure to hazardous health conditions.

11. Many contemporary environmental risks to health are also interdependent and transboundary in nature. These range from the transfer of polluting industries, dangerous work processes, and hazardous waste to poorer and less regulated countries; to transboundary air pollution and radiation risks; and to burning of fossil fuels that drive global climate change. This transfer and extension of risk is occurring against a background of decreased direct investment and the lifting of restrictions by national governments, and an increasing influence of diverse, often politically and economically powerful and multinational, private-sector actors.

¹ WHO. Global Health Expenditure Database (<http://apps.who.int/nha/database>, accessed 8 November 2016).

² Government of South Australia; WHO. Progressing the Sustainable Development Goals through Health in All Policies: Case studies from around the world. Adelaide, Australia: Government of South Australia; 2017 (http://www.who.int/social_determinants/publications/hiap-case-studies/en/, accessed 30 October 2017).

12. At the same time, there is continuous demand for more commonly recognized “downstream” environmental health interventions to deal with the direct and local effects of environmental risks to health – most obviously in the case of responding to emergencies, which can in turn result in and from environmental degradation.

13. The persistent burden of environmental disease and the evolving range of risks clearly call for a strengthening of primary prevention. However, health sector engagement and investment have not increased proportionately to meet the need. According to OECD, Member States typically allocate about 3% of health expenditure to prevention, in contrast to the 97% allocated to curative medicine.¹

14. In confronting challenges of this scale, incremental changes to deal with individual environmental risks are not sufficient, and the environmental contribution to the global burden of disease has remained almost static for a decade. Instead, the health sector must show leadership and work with other sectors to assume its obligations in shaping a healthy and sustainable future.

THE TRANSFORMATION NEEDED: MORE EFFECTIVE UPSTREAM ACTION IN THE 2030 AGENDA FOR SUSTAINABLE DEVELOPMENT

15. The 2030 Agenda for Sustainable Development and its associated Sustainable Development Goals provide the integrated framework for the ambitious changes needed to fulfil the commitments made. The Goals and their targets provide the structure to identify and operationalize actions to safeguard and enhance the upstream determinants of health, and to follow a sustainable pathway to improved, and more equitably distributed health and well-being.

16. Health is relevant to all the Goals, not just Goal 3 (Ensure healthy lives and promote well-being for all at all ages). Within the scope of environmental and climate change, there are specific and important opportunities for health gains through ensuring that health occupies a more dominant position in the agendas relating to nutrition (Goal 2, End hunger, achieve food security and improved nutrition and promote sustainable agriculture); water and sanitation (Goal 6, Ensure availability and sustainable management of water and sanitation for all); clean energy (Goal 7, Ensure access to affordable, reliable, sustainable and modern energy for all); decent work (Goal 8, Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all); sustainable cities (Goal 11, Make cities and human settlements inclusive, safe, resilient and sustainable); responsible production and consumption (Goal 12, Ensure sustainable consumption and production patterns); and climate change (Goal 13, Take urgent action to combat climate change and its impacts).

17. The Goals therefore provide an opportunity for the health sector to engage in broad, inclusive and massively expanded primary prevention, effectively bringing together Principle 1 of the Rio Declaration on Environment and Development (1992) (“Human beings are at the centre of concerns for sustainable development. They are entitled to a healthy and productive life in harmony with nature”) and Article 1 of the Declaration of Alma-Ata (1978) (“... the attainment of the highest possible level of health ... requires the action of many other social and economic sectors in addition to the health sector”).

18. In the 21st century, health should therefore be central to discussions around drivers such as production methods that pollute, deleterious consumption and distribution patterns and disruption of

¹ OECD. OECD Health Data 2006, Statistics and Indicators for 30 Countries. CD-ROM, Paris, 2006.

ecosystems. Moreover, attainment of health should be promoted as an explicit aim, rather than an afterthought, in decisions in key sectors such as energy, transport, technology, water and sanitation, and urban planning.

19. Investment in the capacity of the health sector for policy engagement, assessment and monitoring of investments that are made in other areas of the economy would support promotion of mutually beneficial measures that simultaneously protect health and the environment. This approach would in turn avoid current or future economic costs, allowing reinvestment in health and sustainable development.

20. For example, more sustainable urban transport systems that promote public transport, cycling and walking would reduce air pollution, noise and risk of road traffic injuries, and enhance physical activity levels. More generally, it is estimated that placing a price on polluting fuels in line with their health impacts through air pollution would more than halve the number of premature deaths globally due to air pollution, result in a 20% reduction in greenhouse gas emissions, and generate some US\$ 3000 billion in tax revenues every year – more than 50% of global health spending by governments.¹

21. Progress in tackling environmental and climate risks to health will need to be driven by national health ministries, through leadership in intersectoral governance, evidence-based advocacy, operational programmes, and surveillance and monitoring.

22. The Secretariat is committed to using WHO's mandates and core functions to support this effort, as a priority for the forthcoming draft thirteenth general programme of work (2019–2023).² WHO has also engaged fully in the global environmental negotiations, notably at the 23rd Conference of the Parties to the United Nations Framework Convention on Climate Change (Bonn, Germany, 6–17 November 2017).

LEADERSHIP AND GOVERNANCE

23. Because of the wide scope of issues and the broad range of engaged actors, it is particularly important for WHO to fulfil its constitutional mandate, namely to “act as the directing and coordinating authority on international health work” and “to establish and maintain effective collaboration with the United Nations, specialized agencies, governmental health administrations, professional groups and such other organizations”.

24. The resolutions and decisions of the Health Assembly and WHO regional committees, and the commitments of regional health and environment ministerial processes, provide guidance for dealing with many individual environmental risks to health. However, the most recent WHO global strategy providing an overarching and unifying direction for WHO's work on health, environment and climate change, dates from 1993.³

¹ Coady D, Parry I, Sears L, Shang BP. How large are global energy subsidies? IMF working paper WP/15/105. International Monetary Fund; 2015 (<https://www.imf.org/external/pubs/ft/wp/2015/wp15105.pdf>, accessed 30 October 2017).

² Document EB142/3.

³ WHO global strategy for health and environment, endorsed in resolution WHA46.20 (1993).

25. Over the past three decades, various legally-binding multilateral environmental agreements – such as the United Nations Framework Convention on Climate Change (1992), the Minamata Convention on Mercury (2013), the Convention on Long-range Transboundary Air Pollution (1979) and the Protocol on Water and Health to the 1992 Convention on the Protection and Use of Transboundary Watercourses and International Lakes – which were adopted with health as a central justification, have entered into force. Their mandates present an important opportunity for health actors to shape environmental policy to protect and promote health, and to use their associated policy, technical and financial support mechanisms.

26. More importantly, the major policy and implementation decisions in all sectors are taken at the national and subnational levels. Health actors need to be informed by evidence, connected through institutional mechanisms that allow them to work with other stakeholders (for example, from urban planners to city mayors) and empowered through regulatory frameworks that include health in intersectoral policy-making.

PROVISION OF EVIDENCE-BASED POLICY OPTIONS AND ADVOCACY

27. The health sector has specific responsibility to inform policy-makers and the public on the health impacts of climate and environmental change because of the importance that populations give to health issues and the generally high quality of, and public trust in, evidence pertaining to health matters.

28. There is a continuous need for evidence on the effectiveness of measures to tackle the environmental root causes of disease and on the health impact of sectoral policies. As such decisions often have wide-ranging effects, there is an associated need for capacity to assimilate, interpret and communicate data and evidence from sources not traditionally used by health policy-makers. Evidence of impacts on human rights and equity, public acceptance of measures, and information on the socioeconomic and financial costs to individuals and health systems are particularly important.

29. Progress in this field would also benefit from research that is more directly connected to policy in health and related sectors. The Intergovernmental Panel on Climate Change provides a model for delivering evidence that is policy-relevant but not policy-prescriptive, that could potentially be used, for example through a special report on health and climate change, or adapted for other environmental and health issues, including those at the national level.

SUPPORT FOR IMPLEMENTATION OF THE PUBLIC HEALTH RESPONSE TO CLIMATE AND ENVIRONMENTAL CHANGE

30. Meeting the modern challenges of environmental and climate change risks requires a reversal of the current trend of reductions in human and financial resources for environmental health at the national and international levels. It also requires a broader, integrated set of approaches and skills.

31. Implementation must occur not only through influencing other sectors, but also within the core functions of the health sector. Thus, for example, climate change should be incorporated into risk assessments, preparedness and response plans for health emergencies, climate resilience should be integrated into the building blocks of health systems, and investments should be supported in the provision of energy, water and sanitation for health facilities, as a contribution to universal health coverage.

32. There is still a need for the provision of targeted support for the most vulnerable nations and populations. Such support will include a specific WHO initiative to protect the health of the people of small island developing States from climate risks and to explore approaches to develop national health systems based on climate resilience and sustainable development, in collaboration with the Secretariat of the United Nations Framework Convention on Climate Change and in partnership with the Fijian Presidency of the twenty-third session of the Conference of the Parties.¹

33. Taking action on environmental and climate risks needs significant initial investments, but the benefits may be spread over years or decades, requiring new and innovative national and international funding mechanisms. WHO has requested accreditation to the Green Climate Fund and will work with partners to increase the very low current rate of health sector access to climate financing, with an initial focus on small island developing States, followed by least developed and other vulnerable countries.

MONITORING OF PROGRESS TOWARDS THE SUSTAINABLE DEVELOPMENT GOALS

34. Monitoring of progress towards the Sustainable Development Goals provides an opportunity, and an obligation, to maintain the political and public will to improve health and environmental conditions.

35. Progress across all the Sustainable Development Goals is important for health, but WHO has the responsibility for collecting information on indicators under Goals 3, 6, 7 and 11 and also collects information relating to progress towards the targets of other Goals (for example, Goal 13, through a biennial WHO climate and health country survey to produce the WHO/the United Nations Framework Convention on Climate Change country profiles²).

36. To ensure coherence, it is proposed that tracking the progress of implementation of the draft thirteenth general programme of work 2019–2023³ should be aligned with monitoring of progress towards the Sustainable Development Goals. Monitoring should include: tracking of mortality from air pollution and climate-sensitive diseases; access to water and sanitation, and provision of hospitals with energy and safe water and sanitation; and climate finance for health-related activities in low- and middle-income countries.

ACTION BY THE EXECUTIVE BOARD

37. The Board is invited to note this report and consider the adoption of the following draft decision:

¹ <http://www.who.int/mediacentre/news/releases/2017/climate-small-islands/en/>.

² The WHO UNFCCC Climate and Health Country Profile Project (<http://www.who.int/globalchange/resources/countries/en/>, accessed 17 November 2017).

³ Document EB142/3.

The Executive Board, taking note of the report on health, environment and climate change,¹ the commitment by the Director-General “to address health effects of climate change in small island developing States and vulnerable settings” as a flagship initiative within the draft thirteenth general programme of work 2019–2023, and the launch of that initiative at the twenty-third session of the Conference of the Parties to the United Nations Framework Convention on Climate Change (Bonn, Germany, 6–17 November 2017), decided to request the Director-General:

- (1) to develop, as a priority and in consultation with Member States and other stakeholders as appropriate, and in coordination also with the regional offices, a draft action plan for the flagship initiative to address health effects of climate change in small island developing States and vulnerable settings;
- (2) to develop, in consultation with Member States and other stakeholders as appropriate, and in coordination also with the regional offices, a draft comprehensive global strategy on health, environment and climate change, to be considered by the Seventy-second World Health Assembly in May 2019, through the Executive Board at its 144th session in January 2019;
- (3) to ensure that, in accordance with decision WHA65(9) (2012), the regional committees are asked to comment and provide input on the global strategy on health, environment and climate change.

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¹ EB142/12.