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International environmental policy and governance

issues: air quality

Resolution 1/7: strengthening the role of the United Nations Environment Programme in promoting air quality

Report of the Executive Director

Summary

At its first session, held in June 2014, the United Nations Environment Assembly adopted resolution 1/7, on strengthening the role of the United Nations Environment Programme (UNEP) in promoting air quality, which followed the publication of a World Health Organization report in which it was estimated that more than 7 million people die prematurely due to air pollution every year.

The resolution encouraged Governments to take action to improve air quality and requested the Executive Director of UNEP to support Governments to implement the resolution. It also asked the Executive Director to develop a global report on action being taken to address air quality.

Following the first session of the United Nations Environment Assembly, UNEP developed an implementation plan and numerous activities were supported at the global, regional and national levels that involved several UNEP divisions and all regional offices and focused on creating awareness, supporting assessments, building capacities, building partnerships and strengthening international cooperation to improve air quality. Most of the activities were developed in partnership with Governments and other partners. UNEP is also in the process of developing a global air quality policy report that will be submitted to the United Nations Environment Assembly at its second session.

To further strengthen the air quality activities of UNEP, there is a need for additional resource allocations and institutionalization of air quality activities in its programme of work.

The present report provides an update on progress made in the implementation of resolution 1/7, as requested in paragraph 7 of the resolution.

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^{*} UNEP/EA.2/1.

I. Background

- 1. In June 2014, the United Nations Environment Assembly adopted resolution 1/7, on strengthening the role of the United Nations Environment Programme (UNEP) in promoting air quality.
- 2. One month before the first session of the United Nations Environment Assembly, the World Health Organization (WHO) launched a new global report on the impacts of deteriorating air quality worldwide, in which it estimated that more than 7 million premature deaths occurred each year as a result of air pollution, about half from indoor air pollution and half from outdoor air pollution. The WHO also stated that 90 per cent of the global urban population was exposed to air pollution levels above WHO air quality standards, and 50 per cent to levels two and a half times or more higher than those standards.
- 3. One of the key pollutants is particulate matter and especially PM2.5 (fine particulate matter, with particles of 2.5 micrometres or less), which can penetrate deep into the lungs and the body, causing respiratory diseases, strokes and cancer, among other ailments. According to WHO, more people are exposed to small particulate matter pollution than to any other pollutant.
- 4. Vehicular emissions and emissions from fossil fuel-fired power plants are the leading causes of deteriorating outdoor air quality in most nations worldwide. The use of low-quality fuels for cooking and lighting is the most important source of indoor air pollution. In developed nations, air quality has improved significantly in the past few decades; however, particulate matter concentrations and ground-level ozone remain a major challenge. In low- and middle-income countries, air quality has been deteriorating considerably in recent decades as a result of urbanization, increased vehicle numbers, rapid industrialization and inadequate waste management practices.
- 5. While UNEP has been promoting better air quality since its inception, resolution 1/7 was the first resolution adopted by the governing body of UNEP that specifically addressed air quality. For example, UNEP cooperated with WHO in 1975 to promote air quality monitoring through a programme called GEMS/Air, which contributed to the early development of air quality monitoring programmes around the world. In 1999, UNEP was among the leading partners that set up the Partnership for Clean Fuels and Vehicles, which targeted one of the most pressing environmental health issues, namely lead pollution caused by the use of leaded gasoline, which was still being used by a majority of countries around the world. Thanks to the support of the Partnership for Clean Fuels and Vehicles, leaded gasoline is all but eliminated today, with only three countries still using small amounts. In 2003, UNEP was among the partners that launched the Climate and Clean Air Coalition to Reduce Short-lived Climate Pollutants, which in a short time has become a leading global programme to reduce air pollution.
- 6. Improving air quality is essential for achieving the Sustainable Development Goals, particularly the goals related to health (Goal 3), climate change (Goal 13), energy (Goal 7), resilient infrastructure (Goal 9) and cities and human settlements (Goal 11). Sustainable Development Goal Target 3.9 calls on reducing pollution, including air pollution, which goes hand in hand with reducing greenhouse gas emissions, both short-lived and long-term climate pollutants. For example, cleaning up the global vehicle fleet and promoting renewable energy will not only save millions of lives but are essential to reducing the use of fossil fuels to limit the temperature rise to less than 2°C.

II. Resolution 1/7

- 7. In its resolution 1/7, the United Nations Environment Assembly encourages Governments to take action to improve air quality (paragraph 1); to formulate action plans and implement air quality standards (paragraph 2); and to make air quality data more easily accessible and understandable to the public (paragraph 3). It also encourages Governments to share with the secretariat of UNEP and Member States the results and experiences of their efforts taken in promoting better air quality (paragraph 4).
- 8. In the same resolution, the Environment Assembly requests the Executive Director of UNEP to support Governments in their efforts to implement the resolution through capacity-building activities; awareness-raising; strengthened cooperation on air pollution; facilitating the operation of existing

¹ General Assembly resolution A/RES/70/1.

² Sustainable Development Goal Target 3.9: By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination.

UNEP-supported intergovernmental programmes on the assessment of air quality issues; and undertaking global, regional and subregional assessments (paragraph 5).

9. In paragraph 7 of the resolution, the Environment Assembly asks the UNEP Executive Director to submit and present a report on the action Governments have undertaken to improve air quality to the United Nations Environment Assembly at its second session. The Environment Assembly also requests the Executive Director to provide an update on progress made in the implementation of the resolution (set out in the present report).

III. UNEP activities

10. In response to the adoption of resolution 1/7, the UNEP secretariat developed an implementation plan that was presented to the Committee of Permanent Representatives in September 2014. The plan focused on action in the following four areas: awareness-raising, assessment, capacity-building and cooperation.

A. Awareness-raising

- 11. In the area of awareness-raising, the UNEP regional offices for Asia and the Pacific, Europe, Latin America and the Caribbean, North America and West Asia were involved in a number of initiatives to promote the issue of air quality, such as regional stakeholder forums on air quality.
- 12. The UNEP regional offices for Asia and the Pacific, Europe, Latin America and the Caribbean, and West Asia also supported regional ministerial meetings and forums on air quality issues. For example, the regional offices for Asia and the Pacific and West Asia supported UNEP/WHO ministerial health and environment forums in their regions and the Regional Office for Europe provided inputs to the air quality session of the Eighth "Environment for Europe" Ministerial Conference.
- 13. The Division of Early Warning and Environmental Assessment included a new and expanded air quality component with air quality data for over 1000 cities in UNEP Live, the environmental information, data and knowledge portal of UNEP. The Division is also developing a strengthened air quality component in the Global Environment Outlook 6 report.
- 14. During the meeting of the annual subcommittee of the Committee of Permanent Representatives, UNEP organized an interactive thematic debate on promoting air quality in the context of "Healthy environment Healthy people," under agenda item 11. The discussion was broadly attended by members of the Committee of Permanent Representatives, as well as non-governmental organizations, civil society organizations and the scientific community. The debate provided a good opportunity to exchange views and updates on national initiatives aimed at improving air quality, and participants agreed on the pressing need for global action on air quality as a major contribution to the implementation of the environmental dimension of the Sustainable Development Goals. Discussions were broadcasted and contributions were also received through the MyUNEA.org platform.

B. Assessment

- 15. In the area of assessment, the regional offices for Asia and the Pacific and for Latin America and the Caribbean are developing regional air quality assessments to be completed by mid-2016.
- 16. In addition, the Division of Early Warning and Environmental Assessment, in collaboration with WHO, has developed the Global Platform on Air Quality and Health, a new programme to promote air quality monitoring that aims to provide improved information and tools to monitor air quality. It has designed a blue print for affordable air quality monitoring technology that can monitor all major air pollutants, making such monitoring affordable for countries that have limited or no air quality monitoring networks in place. UNEP will also make the blue prints for the monitoring unit publicly available. The technology, which has an estimated cost of only \$1,500, was launched in September 2015 and is currently undergoing calibration and testing.
- 17. Following requests from Member States in the West Asia region for UNEP to address sand and dust storms, UNEP is moving forward on a global assessment of sand and dust storms. The main aim is to support policy-making and actions to mitigate, reduce and prevent their occurrence and impacts. The assessment covers policy instruments and actions, as well as the underpinning science, with priority given to concrete action. UNEP is engaging with experts in West Asia, Europe, Asia and the Pacific (China), sub-Saharan Africa, Latin America and the United States. The assessment will be developed in two stages: a first report will be presented to the United Nations Environment Assembly at its second session, and a complete assessment will be finalized in 2017.

C. Capacity-building

- 18. In the area of capacity-building, UNEP is providing support to countries to put in place standards and policies to improve air quality. The Climate and Clean Air Coalition supports eleven global initiatives with major air quality benefits.3 In addition to hosting the secretariat and trust fund of the Climate and Clean Air Coalition, UNEP is actively involved in the management and implementation of 9 of the 11 Climate and Clean Air Coalition initiatives, implementing activities worth over \$8 million. For example, UNEP is one of the co-leads of the Supporting National Action Planning initiative to reduce short-lived climate pollutants, with country projects being implemented in most regions. Other Climate and Clean Air Coalition initiatives where UNEP is a leading implementer are the Oil and Gas Initiative, which is targeting emissions from the oil and gas sector, and the Heavy Duty Diesel Initiative, which targets particulate matter and black carbon emissions from diesel vehicles. At the regional level, the regional offices are supporting a wide set of activities to reduce short-lived climate pollutants emissions; for example, the Regional Office for Africa is supporting seven African countries to reduce short-lived climate pollutants emissions.
- 19. Further, the Division of Technology, Industry and Economics is supporting the implementation of a global strategy that aims to reduce the emissions of PM2.5 from the global vehicle fleet, which is often the biggest source of small particulate matter pollution in cities. Through the Partnership for Clean Fuels and Vehicles and the Climate and Clean Air Coalition, UNEP has been supporting over 80 countries worldwide to introduce cleaner fuels and vehicles standards and policies that reduce particulate emissions. It is estimated that these activities will contribute to avoiding 500,000 premature deaths every year by 2050.
- 20. The Division of Environmental Law and Conventions is implementing the fourth Programme for the Development and Periodic Review of Environmental Law. The mid-term review of the Programme, which will result in a report for submission to the Environment Assembly at its second session, has identified air quality among the most pressing issues that require priority action from the international law community during the remaining period of the Programme and beyond. In particular, government experts at the mid-term review meeting held in Montevideo in September 2015 highlighted the need for a more holistic and coordinated approach to prevent and control pollution of global significance, including transboundary air pollution such as tropospheric ozone pollution, by addressing all relevant emissions sources.

D. Cooperation

- 21. In the area of cooperation, UNEP cooperates closely with other United Nations organizations, in particular WHO and the World Meteorological Organization. The World Meteorological Organization complements the efforts of UNEP in promoting air quality monitoring by providing access to and analysis of modelled aerosol data, integrated with satellite, aircraft and surface-based observations. In May 2015, the sixty-eighth World Health Assembly adopted a resolution entitled "health and the environment: addressing the health impact of air pollution". The resolution urged Member States to protect public health from air pollution by focusing on research, awareness-raising, cooperation, monitoring, implementation of WHO guidelines and standards, policy dialogue and the involvement of the health sector. The resolution called on WHO to support Member States in addressing air quality and implement its recommendations and made a special reference to resolution 1/7. Following the adoption of the World Health Assembly resolution, UNEP and WHO have engaged in consultations to coordinate the implementation of the resolutions of the Environment Assembly and World Health Assembly. WHO and UNEP have also launched several initiatives to develop joint activities and programmes to promote better air quality and are involved in the development of a new urban health initiative under the Climate and Clean Air Coalition.
- 22. At the regional level, several new cooperation initiatives have been launched. For example, UNEP is hosting the Asia Pacific Clean Air Partnership, bringing together various air quality initiatives in the region with a focus on assessment, knowledge-sharing and best practices. Several regional offices have launched similar initiatives to promote regional cooperation in promoting better air quality.
- 23. Additional details of activities undertaken by UNEP to implement resolution 1/7 are set out in the annex.

³ See http://www.unep.org/ccac/Initiatives/tabid/130287/Default.aspx for the initiatives.

⁴ In section 2 (4), the World Health Assembly requested the Director-General to "work with other United Nations partners, programmes and agencies, in particular with reference to the United Nations Environment Assembly resolution on air quality" (http://apps.who.int/gb/ebwha/pdf_files/WHA68/A68_R8-en.pdf).

E. Global air quality policy report

- 24. As requested by the Environment Assembly in paragraphs 4 and 7 of the resolution, UNEP is developing a global report on actions being undertaken by Governments to promote better air quality. The report is expected to be released in May 2016 and distributed among Member States in time for its consideration at the second session of the United Nations Environment Assembly. The report will provide details on existing effective policies to show how countries are making progress in addressing air pollution and to share best practices. It will look at, inter alia, a rapid application of existing and proven policies and technologies, through sharing and exchanging those policies and technologies; regional and subregional harmonized approaches; strong international cooperation mechanisms to support uptake of policies and technologies; and legal and institutional frameworks, and implementation and enforcement mechanisms, especially at the national and regional levels. On 11 June 2015, the Executive Director of UNEP wrote to all Member States requesting them to provide information to support the development of the report.⁵
- 25. On the basis of reports received from Member States and other sources of information, UNEP has developed a catalogue with summarized country overviews of policies and actions related to air quality, with a focus on industry, transportation, outdoor open burning and indoor burning. In November 2015, the Executive Director sent a letter to all Member States with a web link to the catalogue⁶ and requested them to verify the information included in the catalogue, which forms an important basis for a global air quality policy report to be presented to the Environment Assembly at its second session.

IV. Strengthening the air quality activities of UNEP

- 26. On the basis of resolution 1/7, the secretariat is strengthening existing initiatives and developing new initiatives to promote and support better air quality, for example by supporting regional assessments and policy initiatives, including with regional economic cooperation organizations; promoting zero and low emissions transport (including electric mobility); promoting strengthened institutional and legal frameworks as part of the Programme for the Development and Periodic Review of Environmental Law, supporting countries in developing air quality monitoring and assessment programmes; and building partnerships to promote air quality initiatives.
- 27. Its air quality work is a key component of a strengthened focus on the environment and human well-being at UNEP. Member States will further discuss its work on air quality during the second session of the United Nations Environment Assembly, which will have a special focus on the environment and human well-being.
- 28. The third meeting of the annual subcommittee of the Committee of Permanent Representatives to UNEP, held in Nairobi on 26–30 October 2015, included a dedicated session on air quality that revealed a growing interest among Member States for UNEP to strengthen its air quality work.

A. Coordination

29. The overall coordination of activities relating to resolution 1/7 has been undertaken by the Division of Technology, Industry and Economics of UNEP. Air quality was included in the environmental governance subprogramme of UNEP, pending further discussion on how to best integrate air quality within the subprogramme structure of UNEP.

B. Resources

- 30. Additional staff have been hired to strengthen air quality activities throughout the organization, in particular to support the air quality monitoring programme, UNEP Live, the reduction of particulate matter emissions, the strengthening of air quality action at the regional level, the development of the air pollution policy catalogue and the drafting of the air quality policy report that will be submitted to the Environment Assembly at its second session.
- 31. Additional resources to implement resolution 1/7 and to strengthen the air quality work of UNEP have come from several sources. Resources from the Environment Fund were reallocated and funds from partnership programmes and additional extrabudgetary resources were used. However, to further develop the air quality activities and programmes of UNEP for the long term, additional core and extrabudgetary resources will be needed.

⁵ As of 11 November 2015, 14 countries have responded to the letter of the Executive Director of UNEP.

⁶ The catalogue can be found at http://unep.org/Transport/Airquality/.

C. Institutional strengthening

- 32. After consultations with the Committee of Permanent Representatives, the secretariat developed an options paper that was submitted to the Committee in September 2015. The paper outlined three options for further strengthening and institutionalizing air quality in UNEP: (a) continue with the current approach of having air quality activities spread over several subprogrammes (but with greater visibility for the air quality work of UNEP); (b) create a new standalone subprogramme for air quality (a new eighth UNEP subprogramme); and (c) create a new expected accomplishment combining air quality activities of UNEP into one of the existing subprogrammes.
- 33. At the third meeting of the annual subcommittee of the Committee of Permanent Representatives to UNEP, Member States put forward suggestions on how to further strengthen air quality within UNEP, including in the medium-term strategy 2018–2021 and the programme of work for 2018–2019. The secretariat will submit the next version of the medium-term strategy and the programme of work in December 2015, taking into account comments received from Member States.

Annex

Details of air quality activities of the United Nations Environment Programme following the adoption of resolution 1/7 of the United Nations Environment Assembly

Capacity-building

In paragraph 5 (a) of resolution 1/7, on strengthening the role of the United Nations Environment Programme (UNEP) in promoting air quality, the United Nations Environment Assembly requested the Executive Director of UNEP to undertake strengthened capacity-building activities on air quality to support Governments in their efforts to implement paragraphs 1, 2 and 3 of the resolution (to take action to improve air quality, to establish nationally determined ambient air quality standards and to make air quality data more easily accessible and understandable to the public). The activities undertaken by UNEP include the following:

- Support to air quality monitoring, pollution control measures and national policy development in Asia (Regional Office for Asia and the Pacific))
- Support activities of the Climate and Clean Air Coalition to Reduce Short-lived Climate Pollutants at the country level, including Bangladesh, Jordan, Maldives and Iraq (regional offices for Africa, Asia and the Pacific, and West Asia)
- Agreements to assist in developing standards for air quality data management across the Arab Gulf countries (Regional Office for West Asia)
- Support to phasing out of leaded fuel in Iraq (Regional Office for West Asia)
- Support implementation of Regional Plan for Action on Atmospheric Pollution in three countries (Regional Office for Latin America and the Caribbean)
- Support to more than 50 country projects to reduce air pollution from vehicles through the following global programmes: Partnership for Clean Fuels and Vehicles, Global Fuel Economy Initiative and Share the Road (Division of Technology, Industry and Economics)
- New UNEP South-South programme to include a pilot project on reducing air pollution from bus fleets and motorbikes (Division of Technology, Industry and Economics)
- UNEP co-lead of the Climate and Clean Air Coalition's Heavy-Duty Diesel Initiative and support to country and city projects in all regions to reduce air pollution from diesel vehicles (Division of Technology, Industry and Economics)
- Seminar and expert meeting on environmental law and air quality (Division of Environmental Law and Conventions)

Awareness-raising

In paragraph 5 (b) of resolution 1/7, the United Nations Environment Assembly requested the Executive Director of UNEP to raise awareness of the public health and environmental risks of air pollution and the benefits of improved air quality. Activities undertaken by UNEP include the following:

- Stakeholder forum on clean air in Asia Pacific to share best practices and facilitate cooperation (Regional Office for Asia and the Pacific)
- First Forum of Ministers and Environment Authorities of Asia Pacific on the theme of environment and health (Regional Office for Asia and the Pacific)
- High-level air quality science panel in Asia-Pacific (Regional Office for Asia and the Pacific)
- Provided inputs to a thematic document on air quality for consideration at the Eighth "Environment for Europe" Ministerial Conference (Regional Office for Europe)
- Data and public awareness for regional action plan and network (Regional Office for Latin America and the Caribbean)
- Joint UNEP/WHO project on air quality monitoring in West Asia (Regional Office for West Asia)

- Establishment of UNEP/WHO Ministerial Health and Environment Forum in Arab States (Regional Office for West Asia)
- North American Multi-Stakeholder Dialogue on the implementation of the United Nations Environment Assembly (Regional Office for North America)
- Air quality panels during multi-stakeholder session on the Sustainable Development Goals and climate change (Regional Office for North America)
- Strong air quality focus in the next Global Environment Outlook (Division of Early Warning and Environmental Assessment)
- Launch of a thematic e-discussion on the MyUNEA.org platform to increase public participation in air quality debates and discussions
- Organization of the first interactive debate on air quality during the meeting of the annual subcommittee of the Committee of Permanent Representatives

Assessment

In paragraph 5 (e) of resolution 1/7, the United Nations Environment Assembly requested the Executive Director of UNEP to undertake global, regional and subregional assessments. Activities undertaken by UNEP include the following:

- Regional assessments focusing on the science-policy interface, with the cooperation of the Climate and Clean Air Coalition, for completion in 2016/2017 (Regional Office for Asia and the Pacific, Regional Office for Latin America and the Caribbean)
- South-South cooperation in implementation of the regional action plan (Regional Office for Latin America and the Caribbean)
- Development of global data indicators for urban air quality health (Division of Early Warning and Environmental Assessment)
- UNEP Live real-time air quality data for 1000 cities (Division of Early Warning and Environmental Assessment)
- Increased focus on air quality in the Global Environment Outlook 6 process and report, with an emphasis on the linkage between air quality and health (Division of Early Warning and Environmental Assessment)
- Support to modelling and standards development for air quality assessment (Division of Early Warning and Environmental Assessment)
- Development of UNEP air quality monitoring unit aimed at cost-effective monitoring and evaluation of air quality and related health impacts, based on the use of novel yet affordable sensor technology (Division of Early Warning and Environmental Assessment)

Strengthening cooperation

In paragraph 5 (c) of resolution 1/7, the United Nations Environment Assembly requested the Executive Director of UNEP to explore opportunities for strengthened cooperation on air pollution within the United Nations system. Activities undertaken by UNEP include the following:

- Regional environment health forums, jointly organized by UNEP and WHO (regional offices for Africa, and Asia and the Pacific)
- UNEP hosts East Asia Acid Deposition Network (Regional Office for Asia and the Pacific)
- Established collaboration with the Economic Commission for Europe Convention on Long-range Transboundary Air Pollution through the Acid Deposition Minitoring Network in East Asia (EANET) (Regional Office for Asia and the Pacific)
- Providing regional coordination function for the Climate and Clean Air Coalition (Regional Office for Asia and the Pacific)
- Helped set up a new regional partnership, entitled the Asia-Pacific Clean Air Partnership (Regional Office for Asia and the Pacific)
- Convened joint training programmes and workshops with the Basel, Rotterdam and Stockholm conventions secretariat and the Minamata Convention interim secretariat (Regional Office for Asia and the Pacific)

- Support to the preparations of the Eighth "Environment for Europe" Ministerial Conference (air quality focus) (Regional Office for Europe)
- Established tripartite cooperation between WHO, the Economic Commission for Europe and UNEP on air quality and health (Regional Office for Europe)
- Member of the joint preparatory committee under the League of Arab States and WHO (Regional Office for West Asia)
- Prepared draft regional strategy for health and environment (air quality is one of the top priority areas) for the next meeting of the preparatory committee (Regional Office for West Asia)
- First Africa/Middle East Expert Meeting and Workshop on the health impact of airborne dust, held in November 2015 and co-organized by the Regional Office for West Asia, WHO and the World Meteorological Organization (Regional Office for West Asia)
- UNEP hosts the Climate and Clean Air Coalition secretariat, which supports partner initiatives to improve air quality (Division of Technology, Industry and Economics)
- UNEP supports the implementation of several Climate and Clean Air Coalition initiatives, including heavy-duty diesel emissions; waste, oil and gas sectors; finance; and urban health (Division of Technology, Industry and Economics)
- UNEP and WHO to cooperate in new UNEP South-South health programme, which will include an air quality component and pilot (Division of Technology, Industry and Economics)