



Eighth Environment for Europe Ministerial Conference

**Batumi, Georgia
8–10 June 2016**

**Report of the Eighth Environment for Europe Ministerial
Conference**

Addendum

Chair's Summary of the Conference

**By His Excellency Gigla Agulashvili, Minister of
Environment and Natural Resources Protection of Georgia,
Chair of the Conference**

[unedited version]



Economic and Social Council

Distr.: General
10 June 2016

Original: English

Economic Commission for Europe

Eighth Environment for Europe Ministerial Conference

Batumi, Georgia, 8–10 June 2016

Item 8 of the provisional agenda

Closure of the Conference

Report of the Eighth Environment for Europe Ministerial Conference

Addendum

Chair's Summary of the Conference

**By His Excellency Gigla Agulashvili, Minister of
Environment and Natural Resources Protection of Georgia,
Chair of the Conference**

I. Introduction

1. The Eighth Environment for Europe Ministerial Conference was opened by the Prime Minister of Georgia. He delivered a welcoming address emphasizing the unique role of the Environment for Europe process in providing a platform for all countries to identify urgent environmental issues, set priority directions and make concerted efforts to promote sustainable development in the pan-European region. He described the efforts of Georgia under the two main themes of the Conference — Greening the economy in the pan-European region and improving air quality for a better environment and human health — and underscored its strong commitment to grow green and develop sustainably by facilitating resource efficient consumption and production, boosting renewable energy, supporting the development of green transport and green buildings, and developing ecotourism. He highlighted the immense significance for Georgia of the Conference's discussion on education for sustainable development as the first Intergovernmental Conference on Environmental Education was held in Tbilisi in 1977.

2. The Executive Secretary of the United Nations Economic Commission for Europe (ECE) delivered a statement stressing the importance of the Environment for Europe process for building friendships and partnerships, as well as leading to strong political solutions and environmental progress in countries and between countries. He highlighted the main achievements of the process and the key elements to be discussed by the Conference under its two themes. The Executive Secretary expressed the conviction that the process could become a strong pillar in the efforts to implement the Sustainable Development Goals, as it can turn the global goals into concrete policies, principles and practices. The Environment for Europe process could also become a valuable mechanism for keeping track of progress towards the Sustainable Development Goals with the Shared Environmental Information System and the review mechanisms.

3. The Chairman of the Government of the Autonomous Republic of Ajara welcomed delegates to Batumi — a city increasingly becoming a hub of international conferences and multilateral events. The city of Batumi is actively engaged in promoting sustainable development through concrete actions and projects for improving the state of the environment of the Ajara region. A climate change strategy for the Ajara region guides the related activities, such as reducing the number of greenhouse gas emissions and promoting sustainable and green development, serving as good example for other regions of Georgia. Specific policies are being developed to protect the forest, water, air and biodiversity. With support from the United Nations, Batumi is engaged in the Green City project, including activities to improve the environment in the city by implementing a sustainable transportation policy and putting in place a more sustainable urban policy.

4. On the topic of 25 years of pan-European cooperation: from Dobris to Batumi, the Ambassador of the Czech Republic reminded the participants that the Environment for Europe process emerged as a platform for bringing States and their leaders closer, in order to cooperate, and fostering dialogue towards restoring the priceless natural heritage in the region and protecting human health and the environment. The Environment for Europe process responded to a demand for addressing environmental concerns by generating multilateral environmental agreements, facilitating transboundary cooperation, shaping a vision for the environmental dimension of sustainable development and identifying and addressing the challenges ahead. Its achievements have marked history and are building blocks of the regional contribution to the implementation of the 2030 Agenda for Sustainable Development. The process needs to be kept relevant for all by ensuring its adaptation and contribution to the achievement of the Sustainable Development Goals — a challenge also providing an opportunity for a renewed common ground for joint activities and enhanced cooperation in the region. Integration remains a huge challenge in attaining sustainable development. In that regard, using the already established and well-functioning platform offered by the Environment for Europe process would be effective and cost

efficient in supporting the delivery of the 2030 Agenda. The process was reformed to adapt it to the changing needs of the region and for it to remain relevant for all countries — it needs to be made fit for the 2030 Agenda, by enhancing its holistic approach, creating more synergies and increasing its effectiveness. As the Environment for Europe process will celebrate its thirtieth anniversary in 2021, the Czech Republic expressed interest in hosting the next Ministerial Conference.

5. The Deputy Executive Director of the United Nations Environment Programme (UNEP), in his opening address, stressed that integrating the environment across virtually all of the goals in the 2030 Agenda and the Paris Agreement on Climate Change reflects wider momentum for change at the national, municipal and community levels and, increasingly, in the private sector. He informed the participants of the outcomes of the second session of the United Nations Environment Assembly with regard to the 2030 Agenda, climate change, clean air and inclusive green economy, drawing links with the two main themes of the Batumi Conference. He emphasized the worrying trends with regard to climate change and the loss of biodiversity, as flagged by the Global Environment Outlook assessment on the pan-European region. He also drew attention to striking findings of recent UNEP research on environmental crime.

II. The environment dimension of the 2030 Agenda for Sustainable Development — moving forward in the pan-European region

1. Multilateral environmental agreements, mechanisms, policies and institutions supporting the 2030 Agenda for Sustainable Development

6. The adoption in 2015 of the 2030 Agenda for Sustainable Development and the Paris Agreement on Climate Change was highlighted by participants, with several delegations pointing out synergies between the two landmark frameworks. Many highlighted the complexity of the 2030 Agenda, combining the three dimensions of sustainable development, and the need for an integrated approach to its implementation. Political commitment was underlined as being crucial for achieving the Sustainable Development Goals (SDGs). It would also be important to promote ownership of actions at all levels and to involve various actors in their execution. It was stressed repeatedly that economic growth would have to be decoupled from environmental degradation and that economic growth could not be expected without greening the economy. Societies should move towards sustainable consumption and production patterns, implying the rational use of natural resources.

7. The implementation of the global and regional multilateral environmental agreements in synergy would provide strong support to countries in reaching the SDGs. The role of international cooperation in supporting the implementation of the 2030 Agenda was highlighted, along with the importance of regional initiatives — such as the Astana Water Action. Only through joint action could progress be made. A number of delegations noted their efforts to harmonize national legal and policy frameworks to serve the implementation of the 2030 Agenda, with many mentioning also national policy documents adopted to guide their efforts in implementing the 2030 Agenda. In addition, several countries reported the formation of new — or the conversion of existing — inter-ministerial, multi-stakeholder or other platforms for the coordination of implementation efforts at the national level. The integrated nature of the new agenda would mean addressing challenges across sectors and no longer working in silos. Sectoral policies should be aligned to ensure progress across SDGs and the creation of win-win opportunities.

8. A number of delegations pointed to the need to build partnerships, ensure stable investment and share green technologies. The requirement for policy advice and capacity-development to support the implementation of the 2030 Agenda was also flagged. However, differences should be taken into account and practices tailored to local circumstances. Several countries and organizations informed the Conference of concrete examples of measures taken to support implementation of specific SDGs and expressed their readiness to share their experiences.

9. Several delegates underlined that environmental ministers should take the lead to ensure implementation of the environmental dimension of SDGs. They should raise knowledge and convince other ministers and other actors, such as civil society and the private sector, of the importance of the environmental aspects of SDGs. Notably, they should work in cooperation with ministries of economy and finance to advance the use of economic instruments for environmental protection and create economic incentives for the private sector to use innovative technologies that minimize negative impacts on environment and health. The importance of cooperation between scientists and policymakers was also underscored.

10. Many participants highlighted the central role of ECE in supporting implementation of the 2030 Agenda and providing platforms for cooperation. ECE had solid experience in integrating agendas in an effective manner and in serving as a cooperation platform, fostering the exchange of experience. The Environment for Europe ministerial process was playing a role in driving environmental policy and could therefore support the implementation of the 2030 Agenda in the ECE region and be used for follow-up and review. The process was also providing an opportunity for civil society to influence ministerial discussions. ECE was able to offer a number of mechanisms to support the implementation of SDGs and monitor progress towards reaching them, in particular its multilateral environmental agreements, the Environmental Performance Review (EPR) Programme and the UNECE Strategy on Education for Sustainable Development, as well as through its work on environmental information, indicators and statistics.

11. The use of the Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters as a crosscutting tool to support the implementation of the 2030 Agenda was highlighted, with several speakers noting the importance of public access to information and public participation. The Convention on Environmental Impact Assessment in a Transboundary Context (Espoo Convention) and its Protocol on Strategic Environmental Assessment enabled the integration of environmental considerations in sectoral policies and projects. The Espoo Convention, the Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Water Convention) and the Convention on the Transboundary Effects of Industrial Accidents were seen as important for promoting transboundary cooperation in the achievement of SDGs. The strong alignment of the Water Convention and its Protocol on Water and Health with SDGs was noted by several speakers. Concerted action between the conventions, seeking substantive and institutional synergies, both at the international and national levels, would improve effectiveness and efficiency.

12. The importance of integrating the principles of education for sustainable development into national policy frameworks was underlined, while the UNECE Strategy on Education for Sustainable Development should provide a useful tool to integrate sustainable development into education, one of the greatest challenges in the new agenda. There was a need identified for ECE, the United Nations Development Programme, the United Nations Environment Programme, the Regional Environmental Centres and other organizations to continue their valuable support to countries. The role of the Task Force for Implementation of the Environmental Action Programme in developing capacities, supporting policy reform and transferring good practices and advanced knowledge to the countries of the Caucasus, Central Asia and Eastern Europe was highlighted. The Organization for Economic Cooperation and Development expressed its renewed

commitment to host the Task Force under a new name, the GREEN Action Programme Task Force, to better reflect the theme of greening the economy.

13. Finally, there was particular praise for the EPR Programme, with its proven record of getting results. It could support implementation of the 2030 Agenda through the exchange of experience, the peer review process and in follow-up and review. Several reviewed countries committed to using EPR recommendations to implement SDGs.

14. A festive event followed to celebrate 20 years of successful implementation of the Programme. It brought together 45 countries that have been involved in the EPRs throughout the two decades, either as reviewed countries and/or by providing expertise or financial support, as well as 12 international organizations that have provided expert support to the EPR Programme, therefore highlighting the remarkable cooperative spirit and nature of this peer review mechanism.

2. Keeping the pan-European environment under review

15. The Minister of Natural Resources and Environmental Protection of Belarus presented the follow up to the Astana Ministerial Conference decision to establish a Shared Environmental Information System (SEIS) across the pan-European region. He noted that reporting on the follow up to this decision has focused on the online availability of data sets relevant to SEIS and the range of reporting obligations under multilateral environmental agreements, where access to environmental information and data are key to informed and effective policy-making. It was highlighted that the progress report provides the basis for the Working Group on Environmental Monitoring and Assessment to continue to evaluate the establishment of SEIS and provide access to environmental information and data in support of regular environmental reporting.

16. The Executive Director of the European Environment Agency (EEA) presented the State of the Environment Report 2015 and noted the great importance of traceability of data and information contained within the report. The SEIS concept and the European Environment Information and Observation Network were highlighted as a unique model of cooperation and knowledge exchange, including the collaboration between ECE, UNEP and the EEA. It was further noted that significant progress has been achieved over recent years in improving online accessibility of data and indicators, including the improvement of infrastructure. Specific examples were provided, such as the new European Union's air quality electronic reporting system. Finally, it was noted that the next State of the Environment Report 2020 could be a model for the next regional Global Environment Outlook and that the use of regional and global knowledge platforms is essential to monitor the SDGs.

17. Testimonials on SEIS were presented by the State Secretary of Environment of the Republic of Moldova, the Director General of the Federal Ministry of Agriculture, Forestry, Environment and Water Management of Austria the Director of the Informational and Analytical Centre for Environmental Protection of Kazakhstan and a Senior Policy Advisor at the United States Department of State. The Republic of Moldova noted that inter-institutional cooperation is essential so that environmental information and data can be shared and reused. She highlighted the link between SEIS and green economy projects with specific examples to emphasize that the sharing of data and the multiple use of already existing indicators will reduce the costs of the development of indicators and the burden of reporting with a view to better supporting policymaking. Austria noted that open public access to up-to-date air quality data is a core element of its national SEIS. Challenges included the provision of affordable monitoring equipment and data management devices. He stressed that targeted capacity building, involving international organizations and national administrations, regional and country-specific activities, were needed to achieve substantial progress in online availability of information and data. Austria stated that it

stands ready to share its expertise on air quality monitoring and emission inventories. Kazakhstan highlighted its national report on the state of the environment, which focuses on their use of natural resources using ECE environmental indicators. He stated that his country was promoting the green economy through the Green Bridge partnership. He also noted the various environmental issues in Kazakhstan, in particular related to water and energy. Kazakhstan has developed a five-year framework programme on partnership for development based on the SDGs. The United States of America noted its support of the work on SEIS through the Committee on Environmental Policy, particularly in the context of the 2030 Agenda and national reporting on the SDGs. He said that SEIS should evolve to integrate economic and social information and data. This could be done by further engagement with the European Conference of Statisticians in its work on implementing the United Nations System of Environmental and Economic Accounts.

18. The Executive Secretary of ECE and the Director of the UNEP Regional Office for Europe launched the sixth Global Environmental Outlook (GEO-6) Assessment for the pan-European region as the regular pan-European environmental assessment, following up on the decision at the Astana Environment for Europe Ministerial Conference. The regional coordinator of the UNEP Division of Early Warning and Assessment presented the key findings of the assessment, including the state and trends in the region, effective policies, means to strengthen environmental governance and outlooks. The report provides a comprehensive integrated environmental assessment of the pan-European region, which offers a foundation for improving environmental policy, identifying emerging issues and enhancing the science-policy dialogue.

19. The launch was followed by a panel discussion on the outcomes of the pan-European regional assessment and the importance of state of the environment reporting for decision-making and for the achievement of the SDGs. Opening remarks were made by the moderator, the Minister of Environment, Waters and Forests of Romania, followed by interventions by the Minister of Environmental and Nature Protection of Croatia and the State Secretary of Environment of Slovakia. It was noted that the assessment is timely now that governments and society are focusing their attention on the implementation of the 2030 Agenda. Further, the assessment stresses the need for reversing environmental degradation and reducing pollution to ensure a sustainable future. It was underlined that strong and resilient ecosystems will enable sustainable development. It was also highlighted that the outlook component is an important part of the assessment that emphasizes mega trends. Some challenges were also underscored, including the need to integrate data better, improve data analysis and make better use of environmental data and statistics, especially within the framework of the SDGs. It was moreover noted that the assessment process should facilitate taking actions and decisions at the national level and enhance cooperation to manage shared environmental problems.

20. The Deputy Director of the State Agency on Environmental Protection of Kyrgyzstan noted the country's recent inventory on biodiversity, the online version of its State of the Environment Report and the upcoming Environmental Performance Review (EPR). The European Union welcomed the launch of the assessment and noted that the summary of key findings and policy messages is of high quality, coherent and provides useful analysis of the thematic priorities for the region. It also encouraged the use of SEIS principles. The Russian Federation noted its support to the assessment process and that the involvement of the Working Group on Environmental Monitoring and Assessment was highly appreciated. It expressed support of the progress report on SEIS and conveyed the need to maintain the reporting and expand on the SEIS core indicators. The Russian Federation further commented on a few technical aspects of the report related to air quality and monetary valuation. It also noted that monetary approaches to the evaluation of the health impacts of poor air quality can be misleading. The non-governmental organization European ECO-Forum stressed that the assessment process can play an important role, as a

participatory and cross-disciplinary process, to inform decision making and help to improve our environment.

21. UNEP provided some clarifications referring to the air quality data in the assessment and the importance of monetary valuation to raise awareness of the costs of inaction.

III. Towards a new society: 10 years of education for sustainable development

22. The High-level Meeting of Education and Environment Ministries was moderated by the two co-Chairs, the Minister of Education and Science and the Minister of Environment and Natural Resources Protection of Georgia. The Ministers delivered welcoming addresses on behalf of the Georgian Government. The Meeting was invited to consider the progress made by the member States in implementing the first ten years of the UNECE Strategy for Education for Sustainable Development (UNECE Strategy for ESD or Strategy) and reaffirm the commitment of the participating member States to the future implementation of the Strategy by the adoption of the future implementation Framework and the joint Ministerial Statement.

23. The Minister of Education and Culture of Cyprus delivered a keynote address highlighting the important role of the UNECE Strategy for ESD as a key driver for developing and incorporating education for sustainable development into all levels of education, changing approaches to learning and engaging a broad range of stakeholders for implementing the Strategy effectively in the region. The Minister for the Environment of the Netherlands called on all countries to unite their ESD efforts and seek a more complete learning repertoire for a sustainable future. The Assistant Director General for Education of the United Nations Educational, Scientific and Cultural Organization (UNESCO), in his video keynote address, urged countries to strengthen cooperation with ECE as a key partner in jointly implementing the Global Action Programme on ESD and contributing to the 2030 Agenda for Sustainable Development. The ECE Executive Secretary highlighted the important achievements of the Strategy's implementation during the last decade and welcomed the continuation of the process for further development of ESD strategies, plans and mechanisms on the national level.

24. The Chair of the Steering Committee on Education for Sustainable Development presented the major findings of the evaluation report on progress in implementation of the UNECE Strategy for ESD from 2005 to 2015, highlighting key achievements and encountered challenges. The findings of the report were taken into consideration in the Framework for the future implementation of the UNECE Strategy for ESD and the draft Ministerial Statement on Education for Sustainable Development presented for adoption by the High-level Meeting.

25. Many country delegations and representatives of European ECO-Forum, the Regional Environmental Centre for Central and Eastern Europe (REC) and UNEP made interventions focused on the implementation of Strategy during the past decade and outlining key achievements, lessons learned, challenges encountered and future plans with reference to the proposed future implementation framework.

26. Ministers and Heads of Delegations adopted the Framework for the future implementation of the UNECE Strategy for ESD and the Batumi Ministerial Statement on Education for Sustainable Development by acclamation giving a way forward for further implementation of the Strategy in the ECE region. Also, Georgia informed of its intention to discuss with the international community the possibility of developing a new binding agreement on ESD.

IV. Greening the economy in the pan-European region

27. The session was opened and chaired by the State Secretary for the Environment of Switzerland, who spoke of the commitment of his country to green economy transition through the adoption of the 2013 Green Economy Action Plan, as well as its active engagement in supporting the elaboration of the Strategic Framework on Greening the Economy in the pan-European region and the Batumi Initiative on Green Economy (BIG-E). He highlighted that the scarcity of resources, security of supply and competitiveness are key reasons for all economies to move towards a green economy. He called on countries to swiftly move towards a greener economy, by adopting the right policy mix. He emphasized that the green transition offers opportunities for new markets for business and to build more stable and resilient economies. Furthermore, it is a means towards the achievement of the Sustainable Development Goals and the implementation of the Paris Agreement.

28. Via a live connection from New York, Bertrand Piccard, Swiss Aviation Pioneer, Solar Impulse pilot and Goodwill Ambassador of UNEP, called for urgent action by the gathered political leaders, including the adoption of ambitious policies and programmes to move forward the green economy transition. He emphasized that many of the required technologies for this transition are already available and it is time for strong political will and commitment for the changes required, so that greening the economy is an attractive option for everyone.

29. The Secretary General of the Club of Rome delivered a keynote speech highlighting the shortcomings of the current economic growth model and provided evidence to show that it has failed to reduce the gap between rich and poor as well as poverty. He emphasized that the answer lies in a new economic approach, such as greening the economy. Recognizing potential high costs associated with the transition to a greener economy, he emphasized the need to provide the right incentives, legislation and market interventions to make the transition more affordable.

30. A keynote address delivered by the Minister of Environment, Waters and Forests of Romania highlighted that the environment is the engine of economic growth. She also emphasized greening the economy is not only about changing economic models, but also changing models of governance and mentalities, which is a challenging task. She noted that obstacles in the minds of decision makers and society need to be removed. As our society is at “the point of no return”, in the context of climate change, and the cost of inaction is far too high, she called for renewed effort and actions that match each country’s specific needs, cultural context and resource endowment.

31. The Minister of Natural Resources and Environmental Protection of Belarus, announced the country’s commitment to strategically improve its environment and economy and to achieving the Sustainable Development Goals and targets. This would be done through the development of a Green Economy Action Plan, which targets transport, energy, agriculture and education. The specific actions include improvement and simplification of taxation, implementation of extended producers’ responsibility, development of new green infrastructure and transport, support for greener agriculture and the creation of a network of green schools.

32. A short video produced by ECE and UNEP, with interviews from six Ministers and senior representatives of ECE and UNEP, was screened for the participants.

33. Following its presentation delivered by the Secretary General of the Ministry of Environment for Portugal, on behalf of the Chair of the ECE Committee on Environmental Policy, the Conference endorsed by acclamation the Strategic Framework for Greening the Economy in the pan-European region. The Framework equips countries with a common vision and three broad objectives to reduce environmental risks and ecological scarcities, enhance economic progress and improve human well-being and social equity for the transition to a green economy. The Strategic Framework includes nine focus areas for the transition to a green economy and to contribute to the achievement of the Sustainable Development Goals targets.

34. BIG-E was also launched, made up of 101 voluntary actions from 34 countries and organizations, and remains open to additional commitments until 2018. Two more countries announced in plenary that they would submit their pledges soon.

35. The plenary was closed with a video prepared by European ECO-Forum, which called for Ministerial leadership, engagement in support of a green economy transition and mutually reinforcing trade and environment policies. The session then split into two parallel roundtables to discuss the following issues related to the thematic document for the green economy session: (a) opportunities and challenges; (b) paths to sustainability; (c) green incentives; and (d) cooperation.

36. Delegates highlighted that green economy is a key path towards sustainable development and referred to numerous approaches and initiatives that countries of the region are undertaking in this direction. Transitioning to a green economy to stay within planetary boundaries does not mean greening at the margins, but requires a fundamental change in economy and society, underpinned by political commitment and leadership, including in countries that rely on large oil and gas resources. Adjustments and new approaches should account for different interests and mentalities of societies.

37. The real challenge is not the novelty of the concept, but rather its complexity. Numerous issues remain to be addressed, with limited financial resources and policy fragmentation among the most cited. Green investments and innovation, research and development of new technologies, technology transfer from developed countries to countries with economies in transition and support for small businesses all require financing. However, investment choices can have long-term implications and should thus avoid the lock-in of existing technologies, limit options or hinder the development of substitutes. The use of market-based instruments, the removal of harmful subsidies, including fossil-fuel subsidies, and shifting from taxing labour to taxing use of natural resources were mentioned as necessary actions. Furthermore, government funding to leverage green private financing was highlighted as a good approach and opportunities to scale-up further these activities should be pursued.

38. Participants urged policymakers to carry out natural capital accounting and valuation of ecosystems services, using, for example, the United Nations System of Environmental-Economic Accounting, working with the Conference of European Statisticians, the World Bank and OECD. There is a need to go beyond GDP, work on ecological footprint, based on alternative indicators and ways of measuring progress. Regular review and long-term analysis of the environmental and social impacts of policy and decision-making are necessary for a successful green economy transition. There is a need to think more holistically.

39. Effective integration of environmental considerations into legal and regulatory frameworks, institutional mechanisms that allow for inter-ministerial and cross-sectoral coordination, to harmonize and balance conflicting interests of different stakeholders, were also emphasized. Strategic Environmental Assessment and Environmental Impact Assessment, based on the Espoo Convention and its protocol, were considered to be helpful tools for that purpose.

40. Decoupling economic growth from environmental degradation requires behavioural change towards more sustainable lifestyles, including food and nutritional choices. Education for sustainable development, public awareness and good communication to stakeholders on the benefits of a green economy were considered to be essential. The role of civil society in monitoring progress towards green economy was also mentioned.

41. A green economy has to be inclusive and create new green jobs. Delegates reported that in some countries green jobs are increasing at a rate of three per cent per year, especially in sectors like solar energy and cycling. Furthermore, a green economy needs to be climate resilient and address the social impacts of climate change, which are expected to

be particularly acute for the most vulnerable groups in society, dependent on natural resources, who may require safety nets to ensure their well-being. The need to link global risks to local circumstances was also reiterated in this context.

42. On paths to sustainability, delegates reflected on successful approaches for efficient use of natural resources and enhancement of ecosystem services, highlighting among others: reuse and recycling; strengthened producer responsibility; eco-labelling; new business models such as collaborative consumption and circular economy solutions; and the role of art in promoting a sustainable value chain.

43. Sustainable agriculture and forest management and the water, food and energy nexus were also emphasized as key focus issues and delegates from Central Asia noted their commitment to energy efficiency, effective waste management, sustainable transport and water efficient irrigation technologies to reduce water intake. Energy lies at the heart of the green transition and achieving the right clean energy mix to meet the commitments under the Paris Agreement on Climate Change was viewed as being of paramount importance. Moving away from the traditional energy sector for some countries, however, is proving to be difficult due to the social implications and possible job loss. The use of fiscal incentives and standards to stimulate energy efficiency in the building sector were highlighted as effective market-based instruments.

44. The need to integrate corridors and cities into sustainable infrastructure and urbanization patterns and ensure good environmental governance was also expressed.

45. It was noted that some governments are already leading by example, by greening their own activities and operations and reporting on environmental performance. Mandatory sustainable public procurement, for example for catering services, office equipment or street lighting, and increased use of renewable energy in public buildings were mentioned as steps in that direction.

46. The need to move from a linear to a circular economy requires life-cycle cost analysis, improvement of the quality of the secondary raw materials and addressing environmental and social considerations throughout entire supply chains, including at the design stage. The circular economy package of the European Union aims at achieving this and it was mentioned that creating a circular economy has significant benefits. This could represent a seven per cent GDP gain by 2030.

47. The need for inclusive platforms for dialogue to share good practices, experiences and lessons learned at local levels was expressed. Delegates also mentioned the need to enhance engagement of businesses and to expand scientific networks and research. They further highlighted the role of regional cooperation, along with the need to build on important existing programmes, processes and partnerships, like the Environment for Europe process, the EPR Programme, the UNECE Strategy for Education for Sustainable Development, the Strategic Framework for Greening the Economy in the pan-European region and the Batumi Initiative on Green Economy, Partnership for action on green economy, the Eastern Partnership on Greening Economies in the European Union Eastern Neighbourhood project and the 10 Year Framework of Programmes on Sustainable Consumption and Production Patterns. It was proposed that a regular forum should be convened to support and take stock of BIG-E implementation, as well as to promote BIG-E beyond the pan-European region. It was also suggested to promote and use the environmental and social standards agreed within the ECE region when developing the Silk Road Economic Belt.

48. An initiative on mapping, monitoring and engagement to build a broader stakeholder community was proposed to foster civil society participation.

49. There is a need for a strong knowledge base and effective knowledge sharing mechanisms, such as the Green Growth Knowledge Platform (GGKP). The GGKP will promote national BIG-E commitments, provide knowledge sharing support for the region

and communicate BIG-E actions globally. Switzerland pledged 100,000 Swiss Francs as a contribution to the activities of GGKP in support of this initiative.

V. Improving air quality for a better environment and human health

50. Despite the substantial progress achieved in the pan-European region over the past decades, air pollution continues to pose threats to our health, environment and economies. Joint efforts should continue to ensure a healthy future for the next generations. The Convention on Long-range Transboundary Air Pollution (Air Convention) and its protocols comprise the leading example of a regional multilateral platform to tackle complex air pollution challenges.

51. The Minister of Natural Resources and Environmental Protection of Belarus informed the participants of the progress made towards expansion of its monitoring network and the emission reductions achieved through the implementation of various policies. It also shared its plans for further measures.

52. The Deputy Mayor of Tbilisi outlined the key challenges related to air quality in the city, in particular those related to the transport sector, which is responsible for about 90 per cent of emissions. She proposed ways to mitigate the problem, based on a reorganization of the transport system.

53. The Director of the WHO Regional Office for Europe stressed the gravity of the health impacts of air pollution and urged political leaders to implement fully the commitments already made, globally and regionally. She called for a better use of the latest evidence and enhanced data and tools collected and provided by the environment and health sectors. She underscored the need to capitalize fully the synergy and coherence provided by relevant regional processes and on the partnerships and collaborations that these enable.

54. A representative of the Nordic countries reconfirmed their commitment to work towards improved air quality and introduced the Batumi Action for Cleaner Air (BACA), which was endorsed by the Conference by acclamation. It is expected that the actions by ECE member States and interested stakeholders will inspire action on air pollution issues that are not currently being addressed. They will also aid the further implementation of countries' commitments under the Air Convention and its protocols. The initiative was launched in a festive ceremony with the participation of children from Batumi to remind all of the commitment to future generations so that they can breathe fresh air and live in a healthy environment.

55. The session then split into two parallel roundtables to discuss the following issues related to the thematic document for the air quality session: (a) pollutants and policies; (b) sectors and funding; (c) public awareness and participation; and (d) cooperation.

56. During the roundtable discussions, the participants noted that fine particulate matter, nitrogen oxides, ground-level ozone, ammonia, persistent organic pollutants, heavy metals, methane and hydrofluorocarbons threaten human health and the environment. Among effective policies that help tackle air pollution in the region there were different regulatory, institutional and technical measures mentioned by delegations. It was specifically underlined that the use of the end-of-pipe technologies and renewable sources of energy has brought about significant reductions in emissions.

57. OECD presented a recent study on the economic consequences of outdoor air pollution. Environment Ministers should be able to defend expenditure on measures to reduce emissions of air pollutants by drawing attention to the huge economic costs of air pollution. These costs could amount by 2060, if we continue with the current brown economy, to one per cent of global gross domestic product (GDP) on average, with the

highest rate in the ECE region, where it might reach three per cent of GDP. These costs included market costs, associated with health expenditures, agriculture yields and labour productivity. Non-market costs associated with mortality and morbidity are estimated as being about seven times higher. Premature deaths resulting from air pollution could rise from 3 million in 2010 to 6–9 million per year in 2060. Some speakers provided evidence from their countries supporting the very significant costs of pollution to their economies, including human health. Several delegates pointed that the benefits of improved air quality exceeded by far the cost of pollution reduction measures.

58. The need to decouple economic growth from air pollution has been stated as a general remark during the discussion. It is essential to link the process of standards setting with health-related indicators and targets. Many countries had adopted measures and some notable successes in reducing emissions had been achieved, such as the reduction of sulphur emissions. The implementation of various economic instruments such as congestion and pollution charges, green deals and subsidies for industry have proven to be effective. The introduction of integrated environmental permits, the review of emission standards for stationary and mobile sources and stricter environmental control and penalties for main polluters were also mentioned.

59. However, many speakers called for swift action to address emissions from key sources, which include transport, domestic heating, industry, agriculture, energy, waste and mining. Among the main pollutants of concern highlighted by the participants were particulate matter, ozone and nitrogen dioxide. Many participants noted the impact on human health of particulate matter, nitrogen dioxide and ozone, with ozone also affecting ecosystems and agriculture. Particular attention should be paid the impact of air pollutants on vulnerable groups, such as children, pregnant women and the elderly, and on those living in pollution hotspots, including the area affected by the Aral Sea disaster.

60. A specific component of particulate matter, black carbon, was noted for its severe impact on both human health and the environment, and also being an important driver of climate change in the Arctic. One delegation expressed the wish to see global action taken on black carbon. The importance of methane as an air pollutant, in addition to being a potent greenhouse gas, would justify action also, according to one speaker. In this regard, a number of countries mentioned that, in the oil and gas sector, measures are taken to reduce methane emissions from flare gas. In agriculture, challenges remain to curb ammonia emissions. There was also reference to other pollutants present in air, such as pesticides, polychlorinated biphenyls, dioxins and other toxic substances. In addition, attention was drawn to toxic substances in construction materials, the burning of plastics in domestic stoves and the open burning of waste, particularly in the countries of the Caucasus, Central Asia and Eastern Europe.

61. Several speakers referred to a range of persistent problems in relation to the above sectors and pollutants. Technological advances in monitoring have increased the countries' ability to both measure and trace pollutants so as to inform policy development and the public, being the basis for governmental action, and to assess the effectiveness of measures (one country gave the example of monitoring of persistent organic pollutants). Nonetheless, there remain challenges in monitoring, both indoor and outdoor, and in the expansion and harmonization of emissions inventories, with these challenges being particularly severe in some parts of the region.

62. Some delegations referred to policy targets, notably to bring air pollution down to levels that no longer harm people and the environment. Countries have developed strategies, with speakers noting synergies between air and climate strategies, another the need for integrated action across sectors and at all levels. Several countries were revising national legislation to incorporate international standards. The importance of coherently addressing climate change and air pollution was underlined by several delegations also in the context of achievement of Sustainable Development Goals.

63. Speakers reported on a wide range of measures being taken in the transport sector: vehicle and fuel standards; spatial and urban planning that takes account of mobility needs, the banning of the most polluting vehicles from parts of cities; financial incentives for the exchange of old vehicles; compensation for the use of bicycles; and measures to encourage the use of electric vehicles. However, there are challenges remaining, notably with regard to emissions from diesel vehicles, calling for additional measures to be undertaken, such as the removal of subsidies and tax differentials between fuel types. Several speakers mentioned, with regard to the industrial sector, the importance of adopting emission limit values for different installations and the encouragement of the use of best available techniques, also as an instrument to modernize and refurbish existing facilities. Countries were making efforts to increase energy efficiency in various industries.

64. Several delegations pointed to remaining challenges in the residential sector, in particular in rural areas, related to the use of solid fuel for cooking and heating. This sector significantly contributes to indoor and outdoor air pollution in a number of countries. Other measures suggested were the removal of subsidies in other polluting sectors, such as subsidies to the use of fossil fuels, especially coal, the extension of district heating and smart spatial planning in relation to both mobility and exposure to polluting sources. It was observed that the polluter pays principle has yet to be fully implemented.

65. One country gave the example of the introduction of a tax on nitrogen dioxide emissions. Companies were able to obtain an exemption from the tax by agreeing on abatement measures and contributing to a fund to support enterprises in implementing such measures. The scheme had led to technical innovations, such as ships switching from marine diesel to liquefied natural gas. Another country referred to the use of public and private funds to finance air pollution reduction measures. One civil society speaker proposed a levy on the chemical industry to finance measures for safe waste management, while also suggesting that further measures could be taken to move away from the production of materials that could cause air pollution later in their life cycle.

66. One speaker observed that the public perception was that industry was most responsible for air pollution, whereas that was not generally the case. People were not sufficiently aware of the impact of their personal choices about individual behaviour, notably concerning mobility. The full and active engagement of an informed and empowered public was noted as a prerequisite to the success of policies aimed at good air quality. Several delegations emphasized that this would require transparency, better dissemination of comprehensive information and outreach. It was also noted that the implementation of the Protocol on Pollutant Release and Transfer Registers and similar tools facilitated access to information on pollution generated by specific installations. Some countries shared their experience in ensuring public awareness and access to information, specifically by means of information technologies and advanced platforms collecting nation-wide monitoring information and providing it to public in a user friendly manner in real time.

67. The representatives of civil society expressed their concerns with the level of access to information and public participation in the air quality management issues in some countries. Specifically, it was highlighted that information on emission inventories and concentrations of key air pollutants in the most populated areas was not always readily available in all countries of the region. It was further mentioned that the public should be educated on the impacts of air pollution, specifically on health, and non-governmental organizations can play a decisive role in this process. Education should also be provided to the general public on the ways and means to decrease emissions in the context of a household, for example, by proper burning of solid fuels.

68. It was highlighted that, in some countries, over 50 per cent of certain pollutants comes from transboundary sources, not necessarily within the ECE region. Many speakers underscored the need to take measures at the international as well as national and local

levels. Due to the transboundary character of air pollution, of paramount importance will be: international cooperation, as well as the exchange of information and the sharing of experiences, including beyond the ECE region; coordinated action; and technical assistance. Most delegations made reference to the Convention on the Long-range on the Transport of Air Pollution and its protocols, with several urging the ratification of the three latest revised protocols. Speakers referred to valuable policy tools developed under the Convention. Other important instruments of cooperation included the Climate and Clean Air Coalition to Reduce Short-Lived Climate Pollutants, the United Nations Framework Convention on Climate Change and the Minamata Convention on Mercury. The participants also pointed to the United Nations Environment Assembly resolution on strengthening the role of the UNEP in promoting air quality in the context of the UNEP global efforts in this area.

69. Several delegations referred to their voluntary commitments under BACA and praised the initiative.

VI. Presentation of other initiatives, agreements, pledges or policy tools on subjects related to the Conference themes

70. The Joint Statement in support of the Efforts on Reforestation and Afforestation in the Aral Sea Basin, between ECE and the Executive Committee of the International Fund for saving the Aral Sea, was signed by the Executive Secretary of ECE. The Joint Statement draws attention to the need for concerted action and international assistance to enable the improvement of the environment and human health in the Aral Sea region.

VII. Adoption of the Conference outcomes

71. Ministers and Heads of Delegation adopted by acclamation the Ministerial Declaration.