

ECE/BATUMI.CONF/2016/9

ENVIRONMENT FOR EUROPE
UN ENVIRONNEMENT POUR L'EUROPE
ОКРУЖАЮЩАЯ СРЕДА ДЛЯ ЕВРОПЫ
გარემო ევროპისათვის

BATUMI, 8–10 June 2016



Eighth Environment for Europe Ministerial Conference

**Batumi, Georgia
8–10 June 2016**

**Summary of key findings and policy messages of the
pan-European regional assessment of the Sixth Global
Environment Outlook**



Economic and Social Council

Distr.: General
29 April 2016

Original: English

Economic Commission for Europe

Eighth Environment for Europe Ministerial Conference

Batumi, Georgia, 8–10 June 2016

Item 2 (b) of the provisional agenda

**The environmental dimension of the 2030 Agenda for Sustainable
Development — moving forward in the pan-European region:
keeping the pan-European environment under review**

Summary of key findings and policy messages of the pan-European* regional assessment of the Sixth Global Environment Outlook

**Note by the Sixth Global Environment Outlook High-Level
Intergovernmental and Multi-stakeholder Advisory Group****

Summary

The pan-European regional assessment of the Sixth Global Environment Outlook will be launched at the Eighth Environment for Europe Ministerial Conference. At its special session in February 2016, the United Nations Economic Commission for Europe (ECE) Committee on Environmental Policy agreed that a summary of that assessment, containing the key findings and policy messages, should be submitted to the Conference (ECE/CEP/S/2016/2, forthcoming).

The document was developed by the European members of the Sixth Global Environment Outlook High-Level Intergovernmental and Multi-stakeholder Advisory Group, with support from United Nations Environment Programme and in consultation with the ECE secretariat. The members and observers of the ECE Committee on Environmental Policy were consulted on the draft summary during its preparation phase.

The document aims to facilitate the ministerial discussion on keeping the pan-European environment under review.

* In the context of the present document the term “pan-European” applies to the United Nations Economic Commission for Europe region with the exception of Canada and the United States of America.

** The document is submitted on the above date as it is an outcome of the meeting of the Sixth Global Environment Outlook High-Level Intergovernmental and Multi-Stakeholder Advisory Group, which took place from 30 March to 1 April 2016.



I. Overall picture

1. The pan-European regional assessment of the Sixth Global Environment Outlook argues for more urgent action, both through existing policies and the implementation of the 2030 Agenda for Sustainable Development (2030 Agenda), to address the challenges that the region is facing.
2. Regional and global multilateral environmental agreements have improved regional environmental conditions, access to information and public participation. Further improvements are feasible through better implementation and improved access to justice.
3. The region's resource footprint is unsustainable, owing to its overuse of natural resources and its trading patterns with other regions. Ecological, societal and economic resilience will be negatively affected in coming decades by global megatrends that are largely outside the region's direct control and influence.
4. Environmental challenges are now more systemic, multifaceted, complex, uncertain and intertwined with socioeconomic factors. Four of nine planetary boundaries have been crossed due to human-induced changes: i.e., climate change; biodiversity loss; land-system change; and altered phosphorus and nitrogen cycles. Poor air quality, climate change, unhealthy lifestyles and the disconnection between society and natural environments increasingly affect human health in the region and give rise to new risks.
5. Resilient ecosystems, efficient resource use, clean air, sufficient clean water, sustainable management of chemicals and waste and sustainable cities are essential for a healthy planet and healthy people. However, neither environmental policies alone nor economic and technology-driven efficiency gains will be sufficient to achieve sustainability. More ambition is needed. The 2030 Agenda and its Sustainable Development Goals recognize this reality.
6. Living within planetary boundaries will require fundamental transitions in energy, food, mobility and urban systems and entail profound changes in predominant institutions, practices, technologies, policies and lifestyles. New governance coalitions involving national and subnational levels of government, businesses and citizens are urgently needed.
7. The transition to a truly inclusive green economy must be built on resilient ecosystems, clean production systems, healthy consumption choices, reduced negative distributional effects of environmental policies and improved overall environmental justice for all.
8. Positive long-term outlooks call for an urgent shift from incremental to transformational change in order to: decarbonize energy and transport systems and reduce other harmful emissions; restore ecosystems; decouple resource use, including material footprints, from overall economic performance; "green" public and private sector procurement; strengthen environmental responsibility in business; and incentivize lifestyle changes.

II. Key findings

Climate change

9. Climate change is one of the largest threats to human and ecosystem health and to achieving sustainable development. It is also an accelerator for most other environmental risks. Growing impacts include melting ice, sea level rise, increasing flood and drought frequency, degrading ecosystems, loss of biodiversity, soil function and food productivity, and changing disease vectors and exacerbated air pollution impacts on health.

10. Greenhouse gas emissions in the European Union are stable or declining, but in the South-Eastern European subregion they are increasing. Largely through efficiency gains, emissions have decreased in the majority of sectors except for transport, refrigeration and air conditioning. Further mitigation actions should be targeted at transport, agriculture, energy and raw materials, as part of the transition to a circular economy.

11. To stay within range of 2°C–1.5°C temperature increases and already foreseen impacts, strengthened government action at the national and subnational levels, as well as multi-stakeholder coalitions, are needed on mitigation and adaptation, including accounting for emission footprints. Adaptation priorities include: improved water management, notably with regard to coastal floods; growing crops suited for increased temperatures; and building green infrastructure to enhance resilience to extreme weather, particularly in urban areas.

Air quality

12. Air quality is the largest health risk to the pan-European population, with disproportionate effects on children, the elderly and the poor. Over 500,000 premature deaths in the region were attributable to ambient air quality and 100,000 to indoor air quality in 2012. More than 95 per cent of the urban population are exposed to pollution above the World Health Organization guidelines. Excessive deposition of nitrogen continues to damage ecosystems. Lifestyles, consumption and transport patterns have the most influence on air quality in region.

13. Many parts of the region have seen improvements in air quality over recent decades thanks to effective regulations that reduced pollutant emissions. Many of the sectors that impact on air quality also contribute to greenhouse gas emissions. Particulate matter and ozone are the most important pollutants contributing to adverse outdoor air quality.

14. The bodies under the Convention on Long-range Transboundary Air Pollution and its protocols have been successful in connecting scientific evidence with policy actions. The available evidence supports further policy actions on integrated air quality and climate policies. Policies should also prioritize lifestyle changes and efficiency measures, reductions in emissions at their source and emerging risks, such as ozone and newly identified health effects. Research efforts are required to bridge the considerable knowledge gap on indoor air pollution.

Biodiversity and ecosystems

15. Biodiversity loss and ecosystem degradation continue apace, despite increased conservation and restoration efforts. The main regional pressures are from increased land-use change, particularly agricultural intensification, urbanization and habitat fragmentation by transport infrastructure. In Western and Central Europe, only 38.4 per cent of the original species abundance remains, while 77 per cent remains in the Russian Federation.

16. Full implementation of the European Union Natura 2000 network, in conjunction with the Emerald Network and the Pan-European Ecological Network, is needed. Together with increased synergies with other existing environmental policy instruments, this would alleviate pressures by providing protection for a broad range of terrestrial and aquatic ecosystems, habitats, species and landscapes of pan-European importance.

17. Integrating biodiversity and ecosystem considerations into all aspects of spatial planning would further enhance protection efforts, as would new regulations for land and soil protection. Ecosystem-based management approaches offer a cost-effective means to alleviate the multiple pressures on biodiversity, especially from food and forestry production, consumption and tourism.

Chemicals

18. Chemical pollution impacts on human health and ecosystems across the region, with hazardous chemicals of particular concern owing to their toxicity, shortcomings in their management and a lack of transboundary controls. Other priority concerns include endocrine disruptors in consumer products, hazardous substances in electronic and electrical products, environmentally persistent pharmaceuticals and nanomaterials.

19. Mercury emissions in the region are still significant, and new emerging issues such as some toxic chemicals in consumer products pose challenges yet to be tackled. Heavy metals and persistent organic pollutant concentrations in air, sediment and soil have on average been reduced across the region, though hotspots remain. Parts of Eastern Europe, the Caucasus and Central Asia have legacy stockpiles of obsolete pesticides, as well as a continued reliance on heavy and highly resource-intensive industries and chemical-intensive agriculture.

20. Full and coherent implementation of the three global conventions on chemicals would improve management controls and reduce risks for human health and ecosystems. The Globally Harmonized System of Classification and Labelling of Chemicals has not yet been fully implemented. The regulations on products pertaining to chemicals must be improved. More policy attention is needed to early signals from science.

Waste

21. Waste volumes continue to grow. Disposal of waste in landfills is the major environmental challenge in several parts of the region, despite progress with recycling in many countries. Handling of waste from electrical and electronic equipment is a growing concern, with control of transboundary movements insufficient under the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal.

22. Reducing food waste in the region is a key challenge. About a third of European farmland is currently used to grow food that is thrown away. Food waste mainly occurs at the distribution and consumption stages in Western and Central Europe, whereas production processes generate most losses in other parts of the region. Plastics waste management is a major challenge given limited recycling options, lack of sustainable substitutes and growing concerns about marine litter.

23. The waste hierarchy is widely accepted as a guiding framework to increase economic value from resource use and to reduce waste. Closing resource-use loops through the promotion of circular economy principles offers further pathways to minimize waste and maximize resource use.

Freshwater

24. Freshwater pollution — mainly from agriculture — to surface waters and groundwaters is the main reason for poor water quality, also affecting coastal areas and regional seas. Between urban and rural communities there are large differences in the levels of access to sanitation and safe drinking water. There are also large differences within the region regarding the collection and treatment of wastewater.

25. Irrigation, over-abstraction and highly polluted return flows threaten groundwater supplies, most notably in Central Asia. The chemical status of water is generally improving in the European Union, but progress is slow for diffuse pollution. Microplastics and emerging contaminants — such as brominated flame retardants, certain veterinary and human pharmaceuticals and anti-fouling biocides — have made their way into all the pan-European seas, via rivers. In several transboundary river basins, water allocation challenges are increasing.

26. The ECE Convention on the Protection and Use of Transboundary Watercourses and International Lakes and the European Union Water Framework Directive¹ are the most important instruments, alongside bilateral and multilateral conventions on transboundary river, lake and groundwater basins, such as the Danube. Improved coordination between energy, agriculture, biodiversity and water policies can further improve water quality and quantity, as well as support climate change adaptation objectives and increase ecosystem resilience.

Coastal, marine and ocean resources

27. Coastal, marine and ocean resources are overexploited for multiple reasons and with wide-ranging impacts. The major threats are urbanization, agriculture, fisheries, transport, industrial development, chemical products and effluents, and energy production. Efforts to reduce pollution loads are overwhelmed by more systemic challenges, such as climate change.

28. Biodiversity loss and habitat degradation of marine ecosystems continues, heightening the risks of the irreversible loss of ecosystems' resilience and services. Nutrients loads also remain high. The impacts of new pollutants, including plastic wastes and marine litter, are growing. Climate change impacts are increasing and include acidification, sea level rise and shifting species vectors caused by warming waters.

29. Due to the multitude of socioeconomic-ecological links, threats and negative impacts, there is a need for a more integrative approach to national, supranational, interregional and global policy responses and transnational cooperation. Ecosystem-based management approaches offer promising, cost-effective ways to deal with the cumulative negative effects of human activities.

Land

30. Land-use change is leading to the deterioration of the physical and chemical properties of soils, thereby causing water and air pollution. Soils are also under threat from climate change, erosion, contamination, salinization, floods and landslides, which in turn threaten food and nutrition security. Urban sprawl causes the loss of arable land, natural habitats and biodiversity.

31. The loss of green areas in cities has exacerbated climate change effects and caused deterioration in the physical and mental health and cognitive development of children. The externalization of pan-European land demands means that for every hectare of land used in the region, four are used elsewhere to meet the final demand in the region's economies.

32. Legislation in this area is considered inadequate throughout the pan-European region. Sustainable land management policies are needed to deal with multiple threats and impacts. Promoting practices such as organic farming, agroecology and integrated soil fertility management would sustain crop production systems. Restoring green areas and installing green roofs and "living walls" would mitigate climate change impacts in cities.

III. Governance, knowledge and outlooks

33. The pan-European environmental governance system that has emerged over the past three decades shows important differences between countries, as well as gaps and unexploited opportunities for synergies between policies and priority areas. Enhanced

¹ Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy.

cooperation is essential to address the multiple systemic, transnational and transboundary problems and the global challenges that are expected to impact the region in coming decades.

34. Further environmental progress can be achieved in the coming years through improved implementation of existing policies. In the longer term, an array of global megatrends coupled with continuing unsustainable systems of production and consumption are expected to exacerbate environmental pressures and impacts.

35. Global megatrends expected to affect the longer-term environmental outlook include: diverging population and migration trends; increasing urbanization; more global competition for resources; an increasingly multipolar world; and climate change. Some of these trends offer opportunities for new innovations; others increase the risks of resource scarcities and conflicts.

36. The pan-European outlooks suggest in particular the need to halve material resource use in Western Europe and to stabilize it elsewhere. Other outlooks for the region point to increasing water stress in Southern Europe and Central Asia, a significant loss of biodiversity and ecosystem services across the region, acute climate change impacts on coastal and agriculture systems and further human health impacts from air pollution and exposure to chemicals. Increasing policy coherence across these thematic areas could improve the longer-term outlook overall.

37. Environmental degradation has also exacerbated social problems and increased social and economic injustices and inequalities. Improvements have been achieved through legal frameworks for public participation in decision-making. These need strengthening urgently, given the rate and scale of current and expected further degradation in coming decades.

38. Successful models of environmental governance should be built upon well-designed policies, their implementation and enforcement, pay close attention to early signals from science and society and ensure adequate oversight capacities and investments in knowledge systems, e.g., data, indicators, policy evaluation and sharing platforms. Greater investments are needed in environmental accounting systems to ensure external costs are addressed, and in foresight processes to identify possible future risks, opportunities and conflicts.

39. Greater application of the “precautionary principle” can reduce risks in a world where thresholds and limits are being breached and where endpoints are increasingly uncertain. Achieving progress under greater uncertainty requires coalitions between government institutions, businesses and civil society, to agree on pathways for tackling different societal risks. Vertical coordination between national and local policy levels will be instrumental in accelerating the transition towards sustainable development models in urban areas.

40. The Sustainable Development Goals should be seen as providing a strategic opportunity for environmental policy to contribute to transformative processes as well as a support mechanism for strengthening adaptive capacities and resilience within societies on all levels, instead of a cost factor and constraint on development and competitiveness. Operationalizing the Sustainable Development Goals will require ambitious quantitative targets and indicators so that progress towards sustainability can be tracked properly to ensure convergence on a shared regional vision and ambition within planetary boundaries.

41. There is no doubt that achieving a healthy planet and healthy people requires urgent transformation of the current systems of production and consumption that most contribute to environmental degradation and inequalities in human health and well-being.