



## **Seventh “Environment for Europe” Ministerial Conference**

**Astana, Kazakhstan  
21–23 September 2011**

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### **Report of the Seventh “Environment for Europe” Ministerial Conference**

**Addendum**

### **Chair’s Summary of the Conference**

**By Mr. Nurgali Ashim, Minister of Environmental Protection of  
Kazakhstan, Chair of the Conference**



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## Economic Commission for Europe

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## **I. Introduction**

1. The Seventh “Environment for Europe” Ministerial Conference was opened by the First Deputy Prime Minister of the Republic of Kazakhstan. He delivered a welcoming address by Mr. Nursultan Nazarbaev, President of the Republic of Kazakhstan. The Conference was invited to consider the “Green Bridge” Partnership Programme, an initiative by Kazakhstan to promote joint investments, technology transfers, exchange of information and projects, and support for transition of the countries of Europe, Asia and the Pacific to a green economy.
2. The Executive Secretary of the United Nations Economic Commission for Europe (ECE) delivered a statement by Mr. Ban Ki-moon, Secretary-General of the United Nations, congratulating Conference participants on the twentieth anniversary of the “Environment for Europe” (EfE) process, and inviting the Conference to come up with specific contributions to the United Nations Conference on Sustainable Development (Rio+20), demonstrating the readiness of the ECE region to take the lead in the transition process towards a green economy. The Executive Secretary stressed the importance of the “Environment for Europe” process as a unique partnership of Governments, all major international organizations and institutions active in the region, non-governmental organizations (NGOs) and other stakeholders to improve the state of the environment throughout the ECE region. He highlighted the main achievements of the EfE process and the key elements to be discussed by the Conference under its two themes.
3. That message was reinforced by the Executive Director of the United Nations Environment Programme (UNEP) in his opening video address. He pointed out the role of sustainable water management in ensuring peace and security and food security, among other issues. He also presented examples of benefits from greening the economy and from investing in environmental assets, including improved well-being, green jobs and better environmental conditions.

## **II. The “Environment for Europe” process: 20 years of pan-European cooperation**

4. A representative of the Czech Republic stressed the role of the EfE process in unifying Europe’s efforts to protect its environment. He described the evolution of the process over the past 20 years from Dobříš to Astana, from promoting the mainstreaming of the environment in economic sectors, strengthening cooperation with NGOs and enhancing environmental democracy, to helping countries in transition from centrally planned to market economies in attaining higher levels of environmental protection. In recognition of the particular role played by ECE in supporting the EfE process, the widow of the late Minister of Environment of the former Czechoslovakia delivered an award to ECE on behalf of the Partnership Foundation, a Czech NGO.
5. The Minister of Environmental Protection of the Republic of Kazakhstan presented the Astana “Green Bridge” Initiative resulting from the sixth Ministerial Conference on Environment and Development in Asia and the Pacific, organized by the Economic and Social Commission for Asia and the Pacific (ESCAP) in Astana from 27 September to 2 October 2010, as well as a “Green Bridge” Partnership Programme. The Programme aimed at promoting interregional cooperation, as a joint effort of States, international organizations, and actors among the public and business sectors from Europe, Asia and the Pacific, for transition to a green economy. The added value of the Programme would be a practical level of long-term cooperation in key economic sectors at various levels, a focus on promoting green business, technologies and investment, integration of actions and a

broad exchange of experiences and practices for the benefit of greening the economy. The Programme could also serve as a regional contribution to the Rio+20 Conference.

6. The Executive Director of the European Environment Agency (EEA) presented the findings of the “Europe’s Environment — An Assessment of Assessments” (EE-AoA) report. More than 1,100 global, regional, national and subnational assessments from the past five years were identified and shared. They covered water and related ecosystems, the green economy and resource efficiency. The report concluded that many assessments were descriptive compilations of information that provided no clear guidance for decision-making. More critically, the policy relevance of the information needed to be improved. Consequently, the report demonstrated the need to put in place a regular assessment and reporting process. The development of a shared environmental information system (SEIS) would support the process. That would require increasing capacity-building and investments in monitoring, reporting and assessment. To support SEIS, EEA had developed “Eye On Earth”, a free global Web service to create and share information between public institutions, the private sector and civil society.

7. The Minister of Environment of Finland presented the scope and key findings of the ECE publication, *Second Assessment of Transboundary Rivers, Lakes and Groundwaters*,<sup>1</sup> and provided specific examples from different subregions. Common challenges across the region included an uneven level of transboundary cooperation, as well as the impacts of agriculture and of man-made hydromorphological changes. Among others, the Second Assessment called for stronger water and environmental governance, policy integration, more collaborative research on the impacts of climate change and enhanced joint adaptation efforts. The process of assessing transboundary waters under the ECE Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Water Convention) was expected to continue with a thematic edition in 2015, followed by a third comprehensive assessment within 8 to 10 years.

8. In the ensuing discussion, it was emphasized that the region had significantly evolved since the first EfE Conference, when many countries in the region were facing serious environmental deterioration and cooperation among countries was in its infancy. Among the major achievements of the EfE process, participants highlighted the establishment of the Environmental Action Programme Task Force (EAP TF) and the Project Preparation Committee; the creation of new Regional Environmental Centres (RECs) for countries of Eastern Europe, the Caucasus and Central Asia; the elaboration of the Aarhus Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters; the launching of the ECE Environmental Performance Review programme; and the publication of pan-European assessment reports on the state of the environment. Examples of subregional and national policies and initiatives complementing those developed for the Pan-European region were also presented.

9. The proposal of Kazakhstan to develop a “Green Bridge” Partnership Programme was welcomed. The initiative of the Government of Kazakhstan to encourage investment in green business was supported. It was highlighted that the proposed Partnership Programme could contribute to a shift towards green economy that would lead to sustainable development by stimulating green technologies and investments. The bottom-up approach and the underlying objectives that inspired the initiative were appreciated. It was noted that further work had to be done in developing the Programme, including on practical issues of implementation and governance aspects.

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<sup>1</sup> United Nations publications, Sales No E. 11.II.E.15. Available from:  
<http://www.unece.org/index.php?id=26343&L=0>.

10. A representative of ESCAP read a welcoming address by the ESCAP Executive Secretary, who referred to the welcome received by the Astana “Green Bridge” Initiative at the sixth Ministerial Conference on Environment and Development in Asia and the Pacific.

11. Delegations considered the EE-AoA report to be a crucial step towards the development of SEIS and its extension to the pan-European region. The expected decision of the Astana Conference to establish a regular process of environmental assessment and to develop SEIS across the region would be an important outcome. The implementation of that decision would be a challenge for EEA and its partner organizations, especially ECE. The contribution of the RECs to the preparation of the EE-AoA report and the need to involve them actively in the extension of SEIS in the region were also emphasized.

12. The *Second Assessment of Transboundary Rivers, Lakes and Groundwaters* was highly appreciated as it provided the most up-to-date and comprehensive assessment of pressing issues related to managing transboundary waters in the ECE region and as it helped to guide further action. It was considered important that such a region-wide assessment process be continued under the ECE Water Convention to benchmark progress in the use and protection of shared waters.

13. Speakers also stressed the need to extend the mandate of the EAP Task Force and to invite ECE to conduct a third cycle of the Environmental Performance Reviews.

14. The Astana Conference was expected to be a model for the upcoming Rio+20 Conference, with its focused agenda and declaration, the emphasis on providing a strong scientific foundation to deliberations and follow-up, as well as the proactive involvement of civil society and the private sector. The Astana Conference and its outcomes are also expected to positively contribute to the successful outcome of Rio+20, particularly with respect to green economy.

### **III. Sustainable management of water and water-related ecosystems**

15. Delegations recognized that while progress had been achieved in the field of ecosystem protection, ecosystems were in many cases taken for granted and their value for socio-economic development was often still not appreciated in decision-making. It was underlined that ecosystem services were of great value for water management and beyond, including for water regulation and flood protection, carbon sequestration, biodiversity, etc. They were in many cases cheaper and more resilient to climate change than man-made infrastructures. They also had social and cultural value.

16. It was stressed that ecosystems needed to be maintained and restored; although that required significant investment, the investment would be paid back in the future through increased flood prevention, real estate values, tourism, etc. Delegations therefore underlined that awareness of the economic value of ecosystem services needed to be raised and taken into account in national accounting systems. However, a common methodology for valuating ecosystem services was missing in the ECE region.

17. Many delegations also noted that the use of payments for ecosystem services was not common and should be enhanced. Among options to promote them was their inclusion in land management. It was, however, noted that the implementation of payments for ecosystem services should not by-pass the establishment of effective pricing of water and sanitation services.

18. It was emphasized that, to ensure their functions, ecosystems needed their share of the water flow. In that respect, a common methodology in the ECE region for ensuring environmental flow would also be needed, in particular in the light of the many hydromorphological changes in European rivers.

19. It was necessary to strengthen efforts to improve the quality of water and preserve water-related ecosystems, including through setting and enforcing discharge permits, enforcement measures, investment in sustainable sanitation and wastewater treatment, reduction of municipal discharges and reuse of grey water. Also, further efforts to reduce pollution from mining, in particular from legacy pollution sites, were called for.

20. Many speakers highlighted that having an ecosystem approach to water management was crucial and that the cooperation between the water and nature protection sectors should be improved. In that context, the cooperation between the Convention on Wetlands of International Importance especially as Waterfowl Habitat (Ramsar Convention) and the United Nations Convention on Biological Diversity was considered important, as well as the synergies between those instruments and the ECE Conventions and Protocols.

21. The links between water, energy, food and ecosystems were also underlined and the need for a greater cooperation with the agriculture and industry sector was stressed.

22. The importance of integrated water resources management (IWRM) as the primary tool for the protection and management of water ecosystems was emphasized. IWRM was recognized as a development tool to address fragmented sectoral planning and implementation processes and promote economic efficiency, social equity and environmental sustainability. In particular, the importance of also taking into account groundwaters, coastal waters and wetlands in river basin management plans was underscored.

23. It was, however, noted that cooperation with other sectors was a challenge, and that despite the fact that IWRM principles were broadly recognized, they were not implemented throughout the region. Other challenges mentioned in the application of IWRM and the protection of ecosystems were: inadequate administrative capacity, limited financial resources and a lack of information, in particular for policy development. With regard to the latter, SEIS and the other platforms for information sharing were considered useful tools.

24. The importance of public participation, including by youth representatives, in the preparation of river basin management plans and the creation of water users associations to prevent and/or address potential conflicts between users was emphasized, but also recognized as not easy to achieve.

25. Finally the importance of National Policy Dialogues in bringing the different sectors together was underlined; National Policy Dialogues were recognized as powerful tools to promote reform of the water sector and the development of modern water strategies and legislation.

26. It was underscored that the water-related European Union (EU) directives, in particular the EU Water Framework Directive (WFD), had driven the improvement of the status of waters in the EU and in countries in the accession process or which had signed agreements under the European Neighbourhood Policy. Based on the same principles as the EU WFD, the Water Convention was considered a useful tool for its progressive application in non-EU countries.

27. The ECE/World Health Organization Regional Office for Europe Protocol on Water and Health was highlighted as a unique tool to address in an integrated manner the challenges of lack of access to safe water and adequate sanitation, impacts on human health and social development, degradation of water resources and their unsustainable use. The process of target setting under the Protocol was essential for the integration of sectors, and should be carried out with wide participation of civil society. Delegations called for the further ratification of and accession to the Protocol by States.

28. Recognizing that the legal framework to address water and health problems in the region was already in place, delegations stressed the need to strengthen implementation, monitor progress and enforce policies and laws.

29. Participants also noted the difficulties in implementing water-related legal instruments, also linked to the associated costs, in particular for wastewater treatment and control of agricultural pollution. Stronger links between the water, environment and finance ministries were needed. Water pricing was also important, and revenues should be reinvested in improving water status.

30. The importance of sanitation for the safety of the water supply chain, as well as the need to include it in IWRM, was repeatedly stressed.

31. The gaps in access to water and sanitation, especially in rural areas, were also lamented, together with the related health burden (in particular due to the high incidence of diarrhoea), which had severe consequences for social development, affecting children in particular. The particularly grave situation of Central Asia was highlighted. That was considered unacceptable, also in the light of the recognition of the human right to water and sanitation by the United Nations General Assembly and the Human Rights Council. An expansion of resources available for increasing access to water supply and sanitation in rural areas and small communities was called for, for instance through the European Bank for Reconstruction and Development Water Fund.

32. Further actions to improve the water and health situation were called for, including: constructions of sewerage networks and wastewater treatment plants or their upgrade to also treat micropollutants, when possible; improvement of the performance of water supply and sanitation systems; protection of sources of drinking water, paying special attention to groundwaters; establishment of basin councils; and establishment of inter-ministerial committees for cross-sectoral cooperation.

33. Delegations underlined the economic aspects of water supply and sanitation, including its business dimension. At the same time, the need to ensure equitable access to water and sanitation, including to the disadvantaged part of the population and those who could not afford water was also stressed.

34. Climate change impacts on health through water were also highlighted, together with the importance of increasing the resilience of water supply and sanitation systems.

35. It was also underscored that addressing water and health problems required transboundary cooperation, and therefore water cooperation should not be limited to chemical water quality but should also look at microbiological components.

36. Speakers recognized that climate change impacts on water were already visible and that adaptation was needed immediately. Water was the primary medium through which climate change impacted on people, ecosystems and economies and should therefore be a focus for adaptation to climate change. Costs of failing to adapt in time to climate change were high due to the potential loss of investments and increased vulnerability. Water investment might be wasted, which could actually decrease resilience instead of increasing it.

37. It was stressed that IWRM was the most powerful tool for adaptation, assessing vulnerability and improving resilience. Having IWRM plans and strategies in place helped Governments in adapting to climate changes. Bringing those and adaptation plans together would lead to better preparation and responses.

38. It was also stressed that climate change impacts needed to be assessed and addressed in coordination and cooperation with all riparian countries in order to avoid negative impacts of unilateral adaptation measures and to increase the effectiveness of adaptation. For example, regional climate change risk assessments should be elaborated as a start.

39. Delegates underlined that integrated management of the risks of extreme weather events required consideration of other sectors, such as rural development and agriculture. More attention was needed to combat droughts, through the elaboration of drought management plans and drought information systems. Cropping patterns might also need to

be revised. Water efficiency could be improved through reuse of treated wastewater and setting targets for water reuse, for reduction of losses in networks, etc. Operating rules of dams might need to be adapted to the changing hydrology.

40. Interlinkages between adaptation and mitigation measures also needed to be considered. For example, it was necessary, but also very challenging, to find a compromise between some mitigation measures, such as hydropower development or biofuels and water protection.

41. Capacity-building and knowledge sharing aimed at providing the right information to policymakers were considered an important part of the solution; in particular, the usefulness of the Global Framework for Climate Services in boosting the availability of climate information needed by policymakers and people to plan ahead and take decisions was noted. UN-Water could bring together the collective experience of the United Nations system on water issues and it could be a partner in the regional preparations of Rio+20.

42. Delegations emphasized that a firm legal basis was necessary to make international water cooperation successful. International legal instruments were available, and ratification of the ECE Water Convention and its amendment opening it to members outside the ECE region, was called for, along with the ratification of the 1997 United Nations Convention on the Law of the Non-Navigational Uses of International Watercourses.

43. Another important prerequisite for transboundary water cooperation was well-functioning joint bodies, such as river commissions.

44. Many delegations shared their good experience with the development of bilateral and multilateral agreements based on the Water Convention and the work of commissions — including on the Danube, Chu and Talas and Sava Rivers — and the cooperation on the Danube-Drava-Mura Rivers, as well as the Estonian-Russian, Finnish-Russian, Kazakh-Chinese and Spanish-Portuguese cooperation and the recently established Romanian-Moldovan bilateral agreement on the Prut and Danube. Many delegations expressed readiness to transfer such positive experience to other basins.

45. Delegations called for the signing of new agreements, where they were missing or outdated, in particular in those basins, such as the Dniester, where a new agreement had been negotiated for a long time and was ready for adoption.

46. The situation in Central Asia was also debated, stressing that the solution of the Aral Sea problems were of both a regional and a global nature and therefore could only be solved through both regional and international cooperation. That underlined the importance of regional mechanisms, in particular the International Fund for Saving the Aral Sea and the Framework Convention on Environmental Protection for Sustainable Development in Central Asia. Also highlighted in that connection were the important role played by the United Nations system (ECE, UNDP, the United Nations Regional Centre for Preventive Diplomacy for Central Asia and the World Bank) and of bilateral donors, in particular the support from Switzerland and the United States of America, and the Berlin Initiative and its programme “Transboundary Water Management in Central Asia”. The Aral Sea Basin Program-3 was considered a good basis for addressing the environmental consequences of the Aral crisis, and the support donors had shown for the programme was promising. Also, the Water Convention should be used increasingly as a conflict-prevention tool in the region, and misconceptions or misinterpretations concerning its provisions and principles should be dispelled.

47. The political and security dimensions of transboundary cooperation were underlined, as well as the potential benefits of cooperation in terms of stability and economic prosperity. It was stressed that Parties to the Water Convention had to use their political weight, including in their high-level dialogue, to promote cooperation, in particular in areas such as the Caucasus and Central Asia, where political and security issues were at stake.

Initiatives to raise awareness on the importance of cooperation, such as the United Nations International Year of Water Cooperation (2013), were also considered important.

48. Other aspects which were stressed as key for successful transboundary cooperation included: a unifying, joint, long-term vision coupled with political will; a common strategy for the management of water resources ensuring their equitable and responsible use; addressing present water needs without impairing those of future generations; joint monitoring systems and data exchange; the active involvement of citizens; and the availability of adequate resources. It was also stressed that good water governance at the national level was a prerequisite for effective cooperation.

49. Discussions showed the high level of awareness of the fact that sustainable management of water resources would be one of the key challenges the world would be facing in the coming decades and that more efforts were needed to address existing and emerging challenges. At the same time, many good practices were available and it was important to move from pilot projects to large-scale application.

50. To that end, some speakers considered it important to keep water high on the political agenda, including by raising the future profile of the EU Water Initiative. The "Green Bridge" Initiative was also important in order to protect water and water-related ecosystems and to foster transboundary cooperation.

51. The Astana Water Action was highly appreciated as a concrete tool to further progress. It was noted that the commitments taken by countries and organizations mirrored the findings of the *Second Assessment of Transboundary Rivers, Lakes and Groundwaters*, demonstrating awareness of the problems and determination to address them. Countries and organizations were invited to continue submitting their commitments under the Astana Water Action.

52. Future international events, such as the Sixth World Water Forum that would take place in Marseille (France) in March 2012, were considered important to continue addressing main water challenges. With a focus on implementing solutions, the World Water Forum would allow further commitments and partnerships between all actors concerned. There would be a strong link with the Astana Water Action and ECE had been invited to present it to the Forum.

53. The importance of raising the debate on water issues at the Rio+20 Conference was also stressed.

#### **IV. Sustainable management of water and greening the economy<sup>2</sup>**

54. Conference participants were unanimous in their view that water and water-related ecosystems were critical assets that provided the basis for human life and economic activity. Maintaining the health and well-being of people in urban and rural settings required the sustainable provision of good quality water supply and sanitation services. Similarly, the agriculture, industry, energy, tourism and other sectors were heavily dependent on water, and their output would be significantly reduced if water supply were interrupted. However, in many parts of the ECE region, demands on water exceeded supply. That was threatening the ecosystem integrity of water bodies, and posing difficult choices about how best to allocate water among competing uses. Addressing those challenges was difficult, but if effective policies were implemented they could stimulate innovation, investment, job creation and the development of new business models that could contribute to greening the economy.

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<sup>2</sup> This section was drafted by the Organization for Economic Cooperation and Development (OECD).

55. The delegates noted that the distribution of water resources within the ECE region varied considerably. Some regions had an overabundant supply and were subject to floods; others were water-scarce and experienced drought. Droughts and floods imposed substantial costs on economies in terms of damage to human health and to natural and physical capital. The effects of climate change were exacerbating those trends.

56. Various factors were driving the increase in demand for water: growing populations and economic activity, as well as changing patterns of production and consumption. Pollution and overexploitation of some water sources, particularly groundwater, were limiting supply. The net effect was that there was growing competition for water resources.

57. Participants agreed that those pressures had to be managed primarily by promoting more efficient use of water so as to reduce the consumption of water use per unit of gross domestic product (GDP). Water should also be allocated to the uses with greatest value. That allocation should also take account of human needs and the requirements of aquatic ecosystems, as well as the demands of economic sectors. Managing the increased competition for water would be particularly challenging for the agricultural sector, which remained the largest user by far in many ECE countries.

58. Delegates reconveyed their satisfaction that progress had been made in strengthening water management by basing it on hydrology rather than administrative boundaries, although much more needed to be done in that regard. Many delegations mentioned that the EU WFD provided an ambitious and comprehensive framework for managing water resources at the level of river basins in Europe. Progress had also been achieved at the international level where the ECE Water Convention was playing an important role, and a variety of initiatives, such as the Convention on Cooperation for the Protection and Sustainable Use of the River Danube, had been developed in specific river basins. Cooperation in the framework of the Baltic Marine Environment Protection Commission, also known as the Helsinki Commission or HELCOM, illustrated how initiatives at the regional level could also support strengthened water management.

59. At the national level, it was essential to establish a policy and institutional framework that set clear targets, and which clearly defined the roles of institutions at different levels of government. It was increasingly important that water management strategies were closely coordinated with strategies in major water-using sectors, such as agriculture and energy. Strategies for water management should be developed and implemented through a participatory process involving all stakeholders. Promoting transparency in decision-making was also essential for efficient and effective water management, and for avoiding corruption.

60. Failure to adequately value the costs of inadequate water supply and sanitation, as well as the potential benefits of investment in the water sector, was one of the reasons why water had not received a sufficiently high ranking in the national priorities of some countries. The costs of inadequate water supply and poor sanitation were reflected in illness and premature deaths, as well as lost production. Analysis of such costs in other regions suggested that the economic returns on investment in the water sector could be 7 to 1.

61. Pricing was the key instrument for managing water resources. Without an appropriate price, water resources would be over consumed. Among other things, that would stimulate construction of oversized infrastructure. Pricing was also essential to ensure the financial viability of the institutions that built and operated water infrastructure.

62. At the same time, participants recognized that pricing instruments should be complemented by other policy instruments. The precise policy mix would depend on country circumstances and the level of development. Regulatory approaches, backed by firm enforcement, had a key role to play, for example, in establishing water quality and effluent standards, implementing environmental impact assessment procedures and promoting the modernization of production processes based on best available techniques.

Education, awareness-raising and other forms of information provision could also promote more efficient use of water.

63. Many countries of the region had benefited from developing strategic financial plans for the water sector. To be effective, those plans should distinguish between the ultimate and repayable sources of finance. The ultimate sources of finance were tariffs, taxes and transfers from foreign donors — the three “Ts”. Those sources were different from loans from international financial institutions or investments by the private sector, which needed to be repaid with an appropriate rate of return. Delegations reiterated that some countries had developed National Policy Dialogues, supported by the EU Water Initiative, OECD and ECE, which sought to develop a consensus among key stakeholders in a country, based on solid analysis. In the context of water and green economy, they had provided in some cases the basis for better integrating water programmes into public budgets, reforming tariffs and clarifying the contributions that donors and the international financial institutions could make to implementing national water programmes.

64. At a minimum, tariffs should be set at a level that covered the operational and maintenance costs of providing water services. If they were set lower, water utilities could not cover their costs and would not be financially viable. However, in many countries in the eastern part of the region, that was not the case. In part, that was because the infrastructure was too large, poorly constructed and inefficient, particularly in using energy. In other parts of the region, water infrastructure that had been built many years ago had to be rehabilitated or replaced.

65. Ideally tariffs should also cover the capital costs of construction and the full environmental costs. The costs to be covered include the costs of abstraction, storage and all other costs required to ensure the ecological integrity of the water sources. Adapting to climate change was increasing the costs of water infrastructure and management. Those costs and how they should be financed deserved further investigation. In that connection, economic instruments, including payments for ecosystem services, merited further consideration.

66. There was a shared understanding among participants that, when establishing tariffs, consideration should be given to social implications, particularly affordability. The best way to address that dilemma was not by keeping tariffs low, which inflated demand for water, undermined financial sustainability of water utilities and benefited the richer segments of the population. Providing targeted support for poor and vulnerable groups was a better way to achieve both economic and social objectives. Where metering existed, that could be in the form of a progressively increasing tariff structure which ensured that all households received a basic quantity of water at no or low cost. Where no metering existed, poor and vulnerable households could receive a payment for water as part of social security payments or in the form of vouchers. Another approach was to reduce tariffs in those areas which were most socially deprived.

67. In some of the poorest rural areas of the ECE region, work in kind rather than tariffs might be the most appropriate way to construct and maintain water supply and sanitation services: access to water supply and sanitation was much worse in rural than in large urban areas, with smaller urban areas somewhere in between. Community-based schemes and/or water users associations could provide a means of developing and managing water services. Further consideration should be given to the conditions under which water users associations and similar arrangements could result in economically, socially and environmentally beneficial outcomes.

68. The delegates agreed that promoting more efficient use of water, whether in urban or rural settings, required more innovation. Innovation could occur in the systems for supplying water services. For example, more attention was being given to the potential role of decentralized systems, and to alternative sources of water supply, such as the use of treated effluent and desalination. The technologies used in water-using economic sectors

were also undergoing change, for example, in industrial processes and irrigation systems. Similarly, consumer products such as washing machines were being redesigned so as to reduce their water consumption.

69. Governments could promote innovation and increase demand for more water-efficient technologies by applying an appropriate policy mix. In addition to pricing, process and product standards could provide incentives for innovation. Further investment in research and development and partnerships with the private sector were also required to make significant breakthroughs. While many more water-efficient technologies had already been developed, further efforts were needed to promote their wider diffusion.

70. The private sector was playing an important role in providing water and sanitation services in some countries, including a number of countries in Eastern Europe, the Caucasus and Central Asia. However, many countries preferred to keep the provision of water services in the public domain, or to adopt limited forms of public-private partnership. The decision to involve the private sector very much depended on national circumstances, and required careful consideration. The private sector had the potential to improve efficiency and reduce costs. However, water operators required careful regulation to ensure that they did not exploit their monopoly situation and increase prices excessively without a commensurate improvement in service provision.

71. It was stressed that managing water resources could be further improved by strengthening the relevant scientific, engineering, financial and economic information. Effective management of water required suitably trained professionals at all levels, from the level of strategic planning ensuring functional water supply and sanitation at the level of households, factories and farms. Ensuring a professional well-equipped workforce should be provided through appropriate education and training. For less developed countries, capacity-building programmes and information exchange programmes also had an important role to play.

## **V. Greening the economy: mainstreaming the environment into economic development**

72. Speakers called for a bold and ambitious approach to implement the green economy. Regarding the policy mix, there was no-one-size-fits-all approach. The policy mix had to be crafted to include regulatory as well as market-based instruments. Full cost pricing should be a central element of the policy mix across all sectors.

73. Transition to a green economy should engage stakeholders, including consumers and businesses, to become more sustainable through education for sustainable development and information-based policy tools and labelling. That would allow for informed decision-making by consumers. There was a need to further raise public awareness on the green economy and also among non-environmental ministries, such as ministries of economy.

74. Governments should not only focus on the supply side of the green economy, but also on creating green markets. Green public procurement was stressed as an important instrument for implementing the green economy, especially to create demand and for market formation.

75. Experience from the region showed that many member States were aiming to meet — or even exceed — their emission reduction targets because they believed that pursuing a low-carbon economy was the right way forward. Studies had shown that implementing a policy mix to reach emissions reduction targets had led to a significant number of new jobs being created, which was particularly relevant in order to help overcome the global crisis.

76. Investing in energy and resource efficiency and in renewable energy was seen to be relevant regardless of countries' economic structures.

77. It was important that energy subsidies were reconsidered and phased out and replaced by more targeted social policies. Social instruments needed to be accurately targeted and to provide the poor with energy-efficient equipment instead of subsidizing energy consumption.

78. The economic importance of natural resource sectors was emphasized. Further development of specific mechanisms for payment for ecosystem services to make the value of ecosystem services more visible was required. It was suggested that the Rio+20 Conference should establish road maps to take into account different country contexts and priorities.

79. For less developed countries in the region, the provision and transfer of green technologies by developed countries represented an opportunity that should be seized.

80. The “Green Bridge” Initiative, which was supported by the sixth Ministerial Conference on Environment and Development in Asia and the Pacific, could be a practical mechanism for transferring green technologies and investment among countries of Europe, Asia and the Pacific. The Green Bridge Partnership Programme, based on that initiative, could provide a long-term and stable base for green investment and cooperation.

81. Two other specific mechanisms were suggested as ways to facilitate the transfer of technology at the international level, and the requisite investments. The existing network of environment protection agencies might contribute to discussion of effective policy mixes to be used in transition to a green economy. Opportunities of the “Green Bridge” Partnership Programme should be further explored. It was also proposed to create an ECE-wide platform for dialogue and sharing experiences on the green economy. That would enable countries to build on their concrete achievements and to share good practices.

82. Countries were encouraged to continue collecting data and examples for further dissemination.

83. In the area of housing, several measures could be considered, such as introducing strict energy standards, as well as financial incentives for households, and taking advantage of available grants for public buildings.

84. Businesses were considered the drivers of the green economy, but there was a need to emphasize that competitiveness and sustainability were not mutually exclusive. It was very important to make the business case for the green economy, without which businesses were unlikely to get involved.

85. Participants stressed the need for technical and vocational training to transition to a green, entrepreneurial and sustainable economy. In that respect, several concrete steps to prioritize could include: (a) teaching students about the importance of moving to a green economy and making them ecologically literate; (b) understanding the needs of industry to transition to the green economy; and (c) ensuring that policymakers' support for educators was sufficient to enable them to provide the requisite training for new skills.

86. The importance of targets and indicators for the green economy was emphasized. The Rio+20 Conference should be used to find ways of going beyond GDP and to discard the traditional concept of GDP.

87. The political economy dimension was also seen as very important. That included gaining broad support for environmental priorities from politicians, managing the expectations of strong interest groups and mainstreaming the environment into sectoral policies.

88. Research and innovation were also key for increasing resource efficiency. In that context, practice had shown that developing clean technology action plans could help stimulate the required green innovation.

89. Financing decisions needed to increasingly take into account sustainability criteria. Public-private partnerships were highlighted as an important instrument for furthering green investments, especially in green infrastructure.

90. A useful and practical outcome for the Rio+20 Conference could be an internationally agreed road map for the green economy. Such a roadmap should consist of both political and action-oriented parts. The political part should elaborate a political commitment for accelerating the transformation to the green economy. The action-oriented part should provide a toolbox with concrete instruments and measures and a clear distribution of work and responsibilities.

91. It was also considered important to progress at the regional and national levels through road maps and action plans.

92. Reference was also made to the Astana Declaration on the Pan-European Agenda for the Astana Environmental Ministers Conference, adopted by the European ECO Forum, which included a number of important recommendations for action on water and green economy.

## **VI. Adoption of Conference outcomes**

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

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