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## Economic Commission for Europe

Meeting of the Parties to the Convention on  
Access to Information, Public Participation  
in Decision-making and Access to Justice  
in Environmental Matters

### Working Group of the Parties

#### Twenty-fourth meeting

Geneva, 1–3 July 2020

Item 3 (b) of the provisional agenda

**Substantive issues: access to information**

## Report of the Task Force on Access to Information on its sixth meeting

### *Summary*

The Task Force on Access to Information under the Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters was established by the Meeting of the Parties to the Convention at its fourth session through decision IV/1 (see ECE/MP.PP/2011/2/Add.1, decision IV/1). At its sixth session (Budva, Montenegro, 11–14 September 2017), the Meeting of the Parties renewed the mandate of the Task Force to carry out further work under the authority of the Working Group of the Parties (see ECE/MP.PP/2017/2/Add.1, decision VI/1).

Pursuant to the above-mentioned mandate, the present report of the Task Force on its sixth meeting (Geneva, 3 and 4 October 2019) – held back-to-back with the workshop on “Open Data for the Environment” (Geneva, 2 October 2019) – is being submitted for the consideration of the Working Group of the Parties at its twenty-fourth meeting.



## Introduction

1. The sixth meeting of the Task Force on Access to Information under the Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (Aarhus Convention) (Geneva, 3 and 4 October 2019)<sup>1</sup> was held back-to-back with the United Nations Economic Commission for Europe (ECE)/European Environment Agency workshop on “Open Data for the Environment” (Geneva, 2 October 2019). The mandate for the Task Force was established by decision IV/1 of the Meeting of the Parties to the Convention (see ECE/MP.PP/2011/2/Add.1), and renewed through decision VI/1 (see ECE/MP.PP/2017/2/Add.1). The Republic of Moldova leads this work area.

2. The meeting was attended by experts designated by the Governments of Albania, Armenia, Austria, Azerbaijan, Belarus, Belgium, Bosnia and Herzegovina, Croatia, France, Georgia, Ireland, Kazakhstan, Kyrgyzstan, Latvia, Malta, Mongolia, North Macedonia, Norway, Poland, the Republic of Moldova, Serbia, Spain, Slovakia, Switzerland, Tajikistan, Ukraine and Uzbekistan. A representative of the European Commission attended on behalf of the European Union. Representatives of the European Environment Agency, the European Investment Bank and the Joint Research Centre of the European Commission (the latter by video-link) also took part in the meeting.

3. Representatives of the United Nations Environment Programme (UNEP), the United Nations Office for Disaster Risk Reduction (UNDRR), the United Nations Institute for Training and Research (UNITAR), the Office of the United Nations Special Rapporteur on the implications for human rights of the environmentally sound management and disposal of hazardous substances and wastes and of United Nations specialized agencies such as the International Labour Organization (ILO), the World Meteorological Organization (WMO) and the World Health Organization (WHO) took part in the meeting. Staff from ECE representing the Statistical Division and the secretariat to the Convention on the Transboundary Effects of Industrial Accidents (Industrial Accidents Convention) also participated in the meeting.

4. Representatives of the Organization for Security and Cooperation in Europe (OSCE) and Group on Earth Observations also participated in the meeting.

5. Representatives of review bodies, Aarhus Centres, business, professional, research and academic organizations were also present, as were representatives of international, regional and local non-governmental organizations (NGOs), many of whom coordinated their input within the framework of the European ECO-Forum.

## I. Opening of the meeting and adoption of the agenda

6. The Task Force Chair, Ms. Valentina Tapis (Republic of Moldova), opened the meeting.

7. The Task Force adopted its agenda for the meeting as set out in document AC/TF.AI-6/Inf.1.

## II. Thematic focus: Active dissemination of environmental information

8. The Chair highlighted dynamic developments in approaches to active dissemination of environmental information and outlined major subjects to be considered at the meeting.

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<sup>1</sup> Documents for the Task Force meeting, as well as a list of participants, statements and presentations, are available at [www.unece.org/index.php?id=50574](http://www.unece.org/index.php?id=50574).

## A. Effective provision of information in case of an imminent threat to human health and the environment

9. The Chair recalled that, in accordance with article 5 (1) (c) of the Convention, each Party should ensure that, in the event of any imminent threat to human health or the environment, whether caused by human activities or due to natural causes, all information which could enable the public to take measures to prevent or mitigate harm arising from the threat and was held by a public authority was disseminated immediately and without delay to members of the public who might be affected. That provision was linked with the obligations to establish a mandatory system ensuring an adequate flow of information to public authorities about activities which might significantly affect the environment (art. 5 (1) (b)) and to encourage operators whose activities might have a significant impact on the environment to inform the public regularly of the environmental impact of their activities (art. 5 (6)).

10. The Chair underscored the potential synergies with other relevant international forums and the Convention's contribution to the 2030 Agenda for Sustainable Development and the Sendai Framework for Disaster Risk Reduction 2015–2030. She drew attention to the summary report on the results of the survey on the implementation of the recommendations on electronic information tools (ECE/MP.PP/WG.1/2017/4, annex, and AC/WGP-21/Inf.2) and the overview of the provision of information in case of an imminent threat to human health and the environment in accordance with article 5, paragraph 1 (c), of the Convention (AC/TF.AI-6/Inf.4).

11. The representative of UNDRR underscored the importance of the rights-based approach to disaster risk reduction as a substantial part of sustainable development linked to the protection of the rights to life and to information. To prevent and mitigate human and economic losses, the Sendai Framework promoted the accessibility of early warning systems, the use of the multi-hazard approach, effective decision-making, better disaster risk assessment, mapping impact on urban zones and rural communities and accessibility of disaggregated data. UNDRR supported the accessibility of information by: (a) ensuring accurate data collection and analysis (for example, through establishing indicators for the Sendai Framework Monitor, launching the Inventory system of the effects of disasters, preparing the Global Assessment Report on Disaster Risk Reduction); (b) making information available to the public (for example, through cooperation with the World Broadcasting Union and networks of journalists); and (c) building effective partnerships (Climate Risk and Early Warning Systems initiative, Risk-informed Early Action Partnership and Global Alliance for Disaster Risk Reduction and Resilience in the Education Sector).

12. The representative of WMO explained that timely weather, water and climate warnings to the public relied on an effective multi-hazard early warning system that could empower the public to act appropriately in sufficient time to reduce the possibility of personal harm and damage to property and the environment. As a major national responsibility for disaster risk reduction, a people-centred multi-hazard early warning system should address several hazards and impacts of similar or different type in contexts where hazardous events might occur alone, simultaneously, cascading or cumulatively over time, with consideration of the potential interrelated effects.<sup>2</sup> The system should include: (a) disaster risk knowledge; (b) detection, monitoring, analysis and forecasting of the hazards and possible consequences; (c) warning dissemination and communication; and (d) preparedness and response capabilities. To implement such a system, roles and responsibilities of public and private sector stakeholders should be clarified through regulatory, planning, budgetary, coordination, and operational frameworks from the national to the local level. Good practice examples in effective dissemination of warnings included the Cyclone Preparedness Programme of

<sup>2</sup> See World Meteorological Organization, Multi-hazard Early Warning Systems: A Checklist. Outcome of the first Multi-hazard Early Warning System Conference, 22 and 23 May 2017, Cancún, Mexico (Geneva, 2018). Available at [https://library.wmo.int/index.php?lvl=notice\\_display&id=20228#.Xns094hKiUk](https://library.wmo.int/index.php?lvl=notice_display&id=20228#.Xns094hKiUk); and M. Golnaraghi, ed., Institutional Partnerships in Multi-Hazard Early Warning Systems: A Compilation of Seven National Good Practices and Guiding Principles (Berlin/Heidelberg, Springer-Verlag, 2012).

Bangladesh, the Early Warning System of Cuba and the vigilance system of France. Warnings had become increasingly accurate due to international support of coordinated research and an operational network facilitated by WMO. The network, which comprised the Global Observing System, the World Weather Information System and the Global Data-processing and Forecasting System, enabled monitoring, detection, forecasting and exchange of weather-, climate- and water-related information through a common alert protocol, engaging most national meteorological and hydrological services. Through that network, a wide range of global and regional forecast products and services had been provided to support the national services such as hazard analysis and early alerts.

13. The representative of WHO reported on the implementation of the 2005 International Health Regulations.<sup>3</sup> The Regulations set out legally binding obligations on the States Parties to notify WHO of all events of international health concern, including communicable disease outbreaks, radiological events, chemical incidents and food or product contamination. Such events could be natural, accidental or deliberate. In addition, the key obligations of the States Parties included consultation and information exchange with WHO, response to public health risks that might spread internationally and development of core capacity, including related to risk communication and management of chemicals events and radiation emergencies. A self-assessment reporting tool assisted States Parties in assessing available capacities on an annual basis. In 2017, the level of capacity for emergency risk communication in WHO regions remained at 60–80 per cent and was lowest in Africa. The capacity should be further strengthened regarding real-time data exchange, communication of risks with a high degree of uncertainties and connection between experts, public officials and the public. Some guidance documents and capacity-building material had been further developed to assist States Parties and stakeholders in strengthening the required capacities.

14. In the discussion, the following issues were highlighted:

(a) The importance of timely notification of international organizations, affected countries and the public of events of international concern, even when the threat to human health and the environment had not yet become imminent, and transparent communication of risk assessments and situation reports to all those affected;

(b) The need to educate the population on how to deal with the information provided on such events in a responsible way and to act accordingly, especially in the affected areas.

15. The representative of the secretariat of the Industrial Accidents Convention highlighted the relevant provisions of the Convention and key relevant documents, which, among other things, covered: the identification and notification of hazardous activities; and the adoption of policies, strategies or measures for prevention of, preparedness for and response to industrial accidents and promotion of public access to information and participation. The above-mentioned provisions were closely linked to the respective provisions of the Aarhus Convention and provided detailed guidance, for example, on the types of information to be made available to the public with respect to hazardous activities. The eighth report on the implementation of the [Industrial Accidents] Convention (2014–2015) (ECE/CP.TEIA/2016/10) showed that, despite a slight improvement in public access to information and participation in most Parties, the level of the availability of the respective procedures varied significantly among Parties. Some Parties had reported that public participation was not fully granted – for example, for preparedness measures but not for preventive measures – or was restricted to the domestic public (ECE/CP.TEIA/2016/10, para. 68). The Working Group on Implementation had encouraged countries to exchange good practices to reach a higher degree of public participation by organizing seminars, workshops and other relevant activities to support putting in place legislation that would grant the same rights to the domestic and foreign public (ECE/CP.TEIA/2016/10, para. 30). Online training courses, cartoons and other capacity-building material had been developed aimed at assisting Parties and stakeholders in raising awareness and strengthening public engagement.

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<sup>3</sup> World Health Organization, *International Health Regulations (2005), third edition* (Geneva, 2016), available at [www.who.int/ihr/publications/9789241580496/en/](http://www.who.int/ihr/publications/9789241580496/en/).

16. The representative of OSCE provided an overview of the activities aimed at increasing capacities of the participating States in disaster risk reduction and support for the 2030 Agenda and the Sendai Framework. The activities focused on wildfire management, flood risk reduction, climate change and security, hazardous waste management, protecting electricity networks from natural hazards and community-based disaster risk reduction. Community involvement was noted as an important common element that could be implemented with the critical support of the Aarhus Centres. In Albania, Armenia, Bosnia and Herzegovina, Kyrgyzstan, the Republic of Moldova, Serbia and Tajikistan, Aarhus Centres had strengthened their capacities to enhance local communities' awareness of disaster risk reduction through a special project under the auspices of the Environment and Security Initiative. The role of Aarhus Centres could be strengthened through the development of an Aarhus Centre assistance implementation plan, the identification of disaster vulnerabilities and capacity-development needs to support community-based disaster risk reduction, focusing actions on priority areas, supporting gender mainstreaming, resource mobilization and visibility and promoting the exchange of experience and good practices.

17. The representative of Cabinet Juris Eco Conseil underlined certain common challenges in achieving the objectives set for the Aarhus Convention, Sustainable Development Goal 16 and the Sendai Framework. Possible solutions in the European Union could include: (a) strengthening the partnerships between independent experts and the European Union to advance risk assessment; (b) continuing further work regarding the cross-cutting recognition by different public authorities of stress factors induced by environmental hazards; (c) raising awareness of judges, magistrates and police of new and emerging environmental risks; and (d) adoption of cross-cutting security strategies. That approach would require monitoring the effectiveness of the implementation of environmental law by collecting qualitative data. The International Centre for Comparative Environmental Law had carried out a project aimed at measuring such effectiveness based on legal indicators. The research had revealed that environmental policies were not evolving to address the current risks and that certain indicators were not able to capture the situation at the local level.

18. The representative of the European Commission Joint Research Centre explained how the Copernicus Programme<sup>4</sup> had supported European disaster risk management and civil protection operations with a dedicated Emergency Management Service. The Service had provided value-added information for different types of disasters derived from satellite Earth observations and in-situ data by applying meteorological and geological models. The Service included on-demand mapping for all disasters, the European and Global Flood Awareness Systems, the European and Global Drought Observatories and the European Forest Fire and Global Wildfire Information Systems. Being complementary to national efforts, the Service had supported all phases of the disaster management cycle, including prevention, preparedness, response and recovery activities, and had become easy to integrate in the respective workflows. The information was made publicly available in accordance with the Open Data policy and the Infrastructure for Spatial Information in Europe<sup>5</sup> framework. Several elements remained crucial for the effectiveness of such a service: (a) the agreed assessment of a threat or danger (for example, the Canadian Fire Weather Index<sup>6</sup> had already defined many common elements); (b) the use of a common format developed by the Open Geospatial Consortium<sup>7</sup>; (c) proper metadata considerations supporting a common alert protocol in a simple format describing event, type of event, severity, likelihood, etc.; and (d) the application of a unique disaster identification to avoid double counting of events. Some challenges included: (a) the establishment of an authoritative disaster loss database in all countries based on common standards; (b) the adherence to the "one-voice" principle to provide warnings to the public while promoting open data; (c) the promotion of risk awareness and risk culture among the public, especially at the local level; and (d) the prevention of the spread of misinformation and fake news.

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<sup>4</sup> See <https://emergency.copernicus.eu/> .

<sup>5</sup> See <https://inspire.ec.europa.eu/> .

<sup>6</sup> See <https://cwfis.cfs.nrcan.gc.ca/background/summary/fwi> .

<sup>7</sup> See <https://www.ogc.org/docs/is> .

19. In the discussion, several issues were highlighted:

(a) Connection of disaster management tools with those used for industrial accidents, including those caused by natural causes, such as the European Union Accident Damage Analysis Module;<sup>8</sup>

(b) Support to the Global Disaster Alert and Coordination System,<sup>9</sup> a cooperation framework between the United Nations, the European Commission and disaster managers worldwide to improve alerts, information exchange and coordination;

(c) The limited possibility of modelling and forecast of forest fires given that they were mostly caused by human carelessness.

20. The representative of Albania provided an overview of the country's civil emergency preparedness system. As recent events had shown, Albania faced high environmental and economic risks from multiple hazards that required an effective preparedness and response system. Therefore, the respective legal framework had been improved in 2019 by introducing several obligations: (a) the adoption of the national and local strategies for disaster risk reduction; (b) the setting out of the responsibilities of planning and management bodies; (c) the harmonization of urban planning with disaster risk reduction and risk assessment components from the national to the local level; (d) the issuing of risk assessment certificates for development projects; (e) the development of civil emergency plan at all levels; (f) the definition of the list of critical infrastructure facilities; and (g) the introduction of a free unified emergency number. The legal framework had also further strengthened the functioning of the early warning system covering meteorological, seismological, forest fire and other hazards. Further systematic improvements relied on international cooperation regarding the flood forecasting and warning system, national public awareness campaigns and legal and institutional development. Further work should focus on the effective implementation of the newly adopted legislation, increased institutional and public awareness, capacities and coordination and the promotion of international and regional cooperation.

21. The representative of Spain outlined the approaches to dissemination of information in emergency situations. The legal framework defined the operation of the National Civil Protection System and granted everyone the right to be properly informed by the public authorities about significant collective risks that concerned them, the measures planned and adopted, and the actions they should take to prevent such risks. The Centre for the Monitoring and Coordination of Emergencies: managed the National Civil Protection Information Network, the Civil Protection National Alert Network and the Communications and Emergencies Network; periodically published data and statistics on emergencies; channelled information through different means to the public; and supported international cooperation. An established free unified emergency number covered not only landline but also mobile networks supporting automated notifications. Television, radio and other means could also be used to disseminate relevant information. Additionally, the National Emergency Radio Network had been established to replace or complement other communication tools adversely affected by emergencies. The Network was formed of radio amateurs residing in Spain who collaborated on a voluntary unremunerated basis with the General Directorate for Civil Protection and Emergencies of the Ministry of the Interior. The Network maintained a permanent and hierarchical organization across the country enabling it to guarantee speed and effectiveness of action.

22. The representative of Tajikistan highlighted the Aarhus Centres' role in raising public awareness of and facilitating the population's involvement in disaster risk reduction and the mitigation of the consequences of harmful impacts on the environment. The Centres supported efforts to raise public awareness of disaster risk reduction and multi-stakeholder discussion on land management in the face of climate change and mitigating health and environment risks in the areas affected by stocks of highly hazardous pesticides. The country had also established a Rapid Response Team for Disaster and Risk Assessment under the auspices of the Committee of Emergency and Civil Defence, bringing together the respective

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<sup>8</sup> See <https://adam.jrc.ec.europa.eu/en/adam/content> .

<sup>9</sup> See <https://www.gdacs.org/> .

public authorities, Aarhus Centres and other stakeholders to support disaster risk management. Emergency information could be effectively distributed to the public via television, social media, mobile applications and websites.

23. The Task Force:

(a) Highlighted that the effective implementation of article 5 (1) (c) of the Convention supported the achievement of the relevant Sustainable Development Goals and could contribute to the work under the auspices of the Sendai Framework and other international commitments, as addressed by the representatives of UNDRR, WHO, WMO, the Industrial Accidents Convention and OSCE;

(b) Welcomed the exchange of experience, good practices, challenges and lessons learned as presented by the delegations regarding the provision of information to the public in accordance with article 5 (1) (c) of the Convention;

(c) Highlighted the importance of transparency and effective risk assessment in the event of any imminent threat to human health and the environment and of the provision of the information held by a public authority, immediately and without delay, to the members of the public who might be affected to enable them to take measures to prevent or mitigate harm;

(d) Called on Parties to: ensure an adequate flow of information to public authorities from operators whose activities might significantly affect the environment in case of related imminent threat to human health and the environment; and encourage such operators to cooperate with the public authorities as appropriate to ensure that all information was disseminated immediately and without delay to members of the public who might be affected;

(e) Encouraged the use of the established emergency telephone numbers, radio emergency networks, media, including traditional media and social media, online portals and mobile applications used for the routine dissemination of environmental information to provide information to the public in case of emergencies, as appropriate, in accordance with the needs of different users;

(f) Noted the importance of addressing the use of electronic information tools to support the implementation of article 5 (1) (c) of the Convention in the updated Recommendations on electronic information tools;

(g) Encouraged Parties and stakeholders to continue the exchange of information on the implementation of article 5 (1) (c) of the Convention through national implementation reports, case studies on electronic information tools and resources for the Aarhus Clearinghouse for Environmental Democracy and highlighted the importance of continuing the discussion in the next intersessional period.

## **B. The use of modern technologies by the public**

24. The Chair recalled that the Maastricht Declaration adopted by the Meetings of the Parties to the Convention and to its Protocol (Maastricht, the Netherlands, 2 July 2014) acknowledged and encouraged increased use of new opportunities offered by modern communication tools, Internet-based and other social media to the public (ECE/MP.PP/2014/27/Add.1–ECE/MP.PRTR/2014/2/Add.1, para. 8).

25. The representative of Austria discussed the interconnection between official data and citizen action related to air quality monitoring. In Austria and the European Union, online public access to air quality data had been already provided for a long time, including access to near real-time data and an air quality index. The established online platforms provided the possibility to analyse and investigate root causes of particular issues. Complex limit values with high political and public attention, especially on fine particulate matter, required a transparent objective presentation to decision-makers, the media and the public. For example, automated cumulating statistics of exceedances for each calendar year could be provided with

full access to monitored air quality data. Furthermore, the Open Data Austria portal<sup>10</sup> allowed public authorities at all levels to make data sets available to the public for use and reuse. The portal had also collected feedback on reuse by registering users' applications. For example, one application visualized Vienna air quality combining data from official and other sources. The application enabled the public to register their sensors with the platform and share data according to the technical specifications. Such data could provide additional complementary information, especially in situations where there was a lack of sufficient monitoring capacities. Therefore, several current trends had been noticed: (a) the increasing use of the Open Data framework to encourage the public to reuse and recombine the data and information produced by the public authorities and the public; (b) the increasing use of air quality sensor measurements by the public that could provide additional indicative information for decision-makers; and (c) the use, exclusively, of quality-assured air quality monitoring, with calibrated stations and recognized reference methods for official information, policy assessment and reporting.

26. The representative of the NGO Arnika (Czechia) outlined obstacles to and suggestions for the use of electronic information tools in Bosnia and Herzegovina and Ukraine. In Bosnia and Herzegovina, access to environmental information remained complicated due to the complex structure of the Government and the lack of: a one-stop portal for environmental information; environmental information published online by certain public authorities; and information in open and machine-readable formats, metadata and technical specifications. Therefore, the public often missed the chance to participate in decision-making due to a lack of timely access to information. Consequently, Arnika had established an alternative e-board, bringing together information made available online by different public authorities, thus informing the public about opportunities to participate. For Ukraine, the members of the public were often not sufficiently aware of the high levels of air pollution that could pose a threat to their health, or of the level of danger posed by such a situation, due to the lack of published online real-time data. Members of the public in Ukraine had installed sensors to monitor air quality to compensate for the lack of available data. However, platforms established by NGOs might not be the most sustainable solution to the above-mentioned challenges and the way forward lay in the possibility to combine data from different sources. Therefore, it would be important to change the perception of public authorities that the public would not understand the published data and information, or that published data should be completely quality-assured, given that delays in data release could lead to continuous pollution exposure and preclude timely action.

27. The representative of University College London (United Kingdom of Great Britain and Northern Ireland) explained how technological advances and an increased level of education had shifted the role of the public from users to producers of environmental information, providing an opportunity to build a partnership with experts, researchers and the Government to respond to current information needs regarding the changing environment. That situation had led to an increase in data crowdsourcing and citizen science initiatives to monitor the impact of climate change, the quality of water and beaches, biodiversity observatories, etc. Many citizen science initiatives had produced high quality data but required attention and management. Several good practices for quality assurance could be used, such as multiple observations, moderation, use of geographic and domain knowledge, technology-based calibration for instrumental observation and adherence to the established procedures for data collection and submission. Further development was supported by the growing international networks for sharing best practice and guidelines and knowledge sharing. To harness the benefits of that development, capacity-building and other measures should be taken to promote the use of citizen science information by the public authorities.

28. In the discussion, the following issues were highlighted:

(a) The importance of a new role for the public as information providers, especially in emergencies, and the potential for involving children and youth;

(b) The need to continue a thorough discussion on the relationship between citizen data and official data at the national level in an open way;

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<sup>10</sup> See [www.data.gv.at](http://www.data.gv.at) .



(c) The advantages of access to data and information from different sources as open reusable records, so as to address information needs in relation to disaster risk reduction, climate change and other environmental challenges;

(d) The role of Aarhus Centres in raising awareness among local communities, public authorities and business operators of data on flood risks, environmental damage, etc.;

(e) The growing public engagement in data collection, including litter marine watch, clean schools, air pollution, etc.

29. The Task Force:

(a) Welcomed the exchange of experience, good practices, challenges and lessons learned as presented by the speakers regarding the use of modern digital technologies by the public;

(b) Noted the importance of addressing the use of modern digital technologies and the provision of environmental information by the public (for example, citizen science, lay, local and traditional knowledge, other citizen engagement initiatives) in the updated Recommendations on electronic information tools;

(c) Encouraged Parties and stakeholders to continue the exchange of information on recent developments in the use of modern digital technologies by the public through case studies on electronic information tools and resources for the Aarhus Clearinghouse and highlighted the importance of continuing to consider that issue in the next intersessional period.

### C. Update of the Recommendations on electronic information tools

30. The Chair recalled the request by the Meeting of the Parties through decision VI/1 (ECE/MP.PP/2017/8, para. 13 (b) (i)) regarding the update of the Recommendations on electronic information tools set out in decision II/3 (ECE/MP.PP/2017/8, annex). In that regard, the secretariat presented the outcomes of the workshop on Open Data for the Environment (see annex to present document) and several speakers highlighted relevant examples.

31. The representative of the European Commission presented the outcomes of a project<sup>11</sup> aimed at promoting good practices for nationwide environmental information systems and tools for data harvesting at the European Union level. The project had assessed the progress of the member States in disseminating environmental information through various platforms linked to the national environmental information system against four evaluation criteria, namely content, sharing, usability and governance. The research had resulted in good practice guidance providing recommendations and a road map on how to set up a well-functioning portal, its assessment grid and demonstrator tool linking to e-reporting and Reportnet 3.0. The project supported the alignment of national environmental information systems with the European Union Infrastructure for Spatial Information in Europe and Open Data<sup>12</sup> frameworks and activities related to the Convention and the establishment of the Shared Environmental Information System in the pan-European region.

32. The representative of Norway reported on the functioning of the eInnsyn<sup>13</sup> electronic public records portal, which provided an effective tool for the Government to implement the freedom of information framework and the right to review documents in practice. The portal had provided the public with one-stop access to over 40 million records – including meeting proceedings and internal documents – from 116 governmental agencies and the municipality of Oslo in open access or upon request through electronic case handling. The portal contained only documents metadata and links where they could be found, so that public authorities could manage and control their documents themselves. Archives standards had defined data structure when data was transferred to electronic public records. The service could be used

<sup>11</sup> See [https://ec.europa.eu/environment/legal/reporting/studies\\_en.htm](https://ec.europa.eu/environment/legal/reporting/studies_en.htm) .

<sup>12</sup> See <https://ec.europa.eu/digital-single-market/en/open-data> .

<sup>13</sup> See <https://einnsyn.no/> .

anonymously and free of charge. While direct access to documents was used by a limited number of public authorities, further progress in the portal's development would include the application of an "open by default" approach, increased availability of data in digital form, automated harvesting of data, connection to other public services and careful consideration of personal data protection and its extension to the local level, leveraging the experience of the municipality of Oslo.

33. The representative of Serbia reported on the country's approach to the operation of the national integrated environmental information system underpinned by a well-developed legal framework. The Environmental Protection Agency managed the system, providing public access to environmental information through its portal,<sup>14</sup> organized by key themes. The portal themes further linked to the respective thematic portals, including the Air Quality, Water Quality, Pollen Concentration, National Register of Pollution Sources, Waste Management, Biodiversity and Environmental Indicators portals. Additionally, work had been undertaken to provide access to environmental data sets as open data records on the Agency's portal and the Serbian Open Data portal<sup>15</sup> and to report them to the European Environment Agency within European Environment Information and Observation Network cooperation. The experience also showed the need for a careful approach in promoting reuse of official data by the public, especially through mobile applications, and the combination of data from different sources to prevent the spread of misinformation and fake news due to computational or other errors.

34. The representative of Kazakhstan reported on the updating of electronic tools for the dissemination of environmental information. The following tools had recently been launched online; the national report on the state-of-the-environment in electronic interactive format;<sup>16</sup> the pilot portal for the pollutant release and transfers register; the State registry of natural resources; and the State registry of waste production and consumption. Further work should focus on the update of the respective legal framework, raising public awareness of the new tools, progressive digitalization and integration of different registers and other elements of the nationwide environmental information system.

35. The representative of France reported on the preparation of the 2019 national report on the state-of-the-environment,<sup>17</sup> turning the release of a static report into a continuous web-centred process taking into account users' needs. The 2019 report would include three layers, namely: (a) a synthesis report; (b) thematically focused reports covering three themes per year, with the current focus on environment and health, natural resources and biodiversity; and (c) a continuously updated website as a key resource centre providing environmental data and information on any topic in the field of the environment and interlinked with environmental information on other portals. The format and content had been defined through design workshops with external users using the "service design" method. Users approached included: (a) policymakers and public authorities; (b) members of the public, private sector, academia and other users; and (c) "opinion" leaders, such as teachers, journalists and bloggers. The report would be another milestone in the implementation of the digital strategy of the Ministry for the Ecological and Inclusive Transition.

36. The representative of Green Dossier and the Eastern Partnership Civil Society Forum shared a civil society perspective on how environmental impact assessment digital tools functioned in practice in Belarus, the Republic of Moldova and Ukraine. While the establishment of such tools and their openness to the public should be clearly welcomed, several common challenges persisted, such as a lack of public attention, difficulties for the public in following progress in decision-making procedures and the low quality of environmental impact assessments reports. It remained important to continue supporting the enhancement and improved accessibility of the established tools by: consulting the public and other interested users; documenting and making accessible good practices; making such tools more resilient to potential impact from institutional and other reforms of the public authorities.

<sup>14</sup> See [www.sepa.gov.rs/](http://www.sepa.gov.rs/) .

<sup>15</sup> See <https://data.gov.rs/sr/> .

<sup>16</sup> See <http://newecodoklad.ecogofond.kz> .

<sup>17</sup> See <https://ree.developpement-durable.gouv.fr/> .

37. In the discussion, several issues were highlighted:

- (a) The increasing availability of reports on the state-of-the-environment in electronic interactive format addressing the needs of different users;
- (b) The need to continue the exchange of good practices on information harvesting and other tools allowing for reporting time to be reduced while increasing information accessibility;
- (c) The current trend of more frequent release of data as open records with less stringent quality assurance.

38. Turning to the update of the Recommendations, the Chair brought to the attention of participants a document on an indicative timeline of the updating process (AC/TF.AI-6/Inf.2) and documents providing an overview of the drafting proposals and the case studies received following a consultation launched in advance of the current meeting (AC/TF.AI-6/Inf.3 and Add.1).

39. The participants suggested addressing the following issues in the updated Recommendations:

- (a) Recent developments of electronic information tools, including related to the state-of-the-environment reporting as presented by France and Kazakhstan and the case studies by Belgium, the European Environment Agency and Spain, electronic public records systems, Copernicus and other Earth observations systems, big data and health-related information;
- (b) The prominent role of the Aarhus Centres in raising awareness and capacity development;
- (c) Integration of reporting on the Recommendations into the Convention's national implementation report;
- (d) Extension of the types of information to be published online to cover information on decision-making procedures and on the pollution of air and water;
- (e) The outcomes of the initiatives to promote access to environmental information through Open Data and e-governance frameworks;
- (f) Promotion of interoperability, provision of data to be accompanied by metadata, web services, near-real time and other dynamic data and citizen science input;
- (g) A step-by-step approach to establishing a one-stop access point for environmental information and for harmonization of standards and metadata description to follow;
- (h) Promotion of accessibility to environment-related product information to support the implementation of article 5 (8) of the Convention.

40. The Task Force:

- (a) Took note of the indicative timeline on the update of the Recommendations on electronic information tools (AC/TF.AI-6/Inf.2) and the outcomes of the consultations (AC/TF.AI-6/Inf.3 and Add.1);
- (b) Expressed its appreciation to Parties, partner organizations and stakeholders for submitting case studies on electronic information tools and drafting proposals (AC/TF.AI-6/Inf.3);
- (c) Suggested addressing the outcomes of the workshop on Open Data for the Environment, other relevant activities related to the Shared Environmental Information System in the pan-European region and the European Union Environmental Information Systems project in the updated Recommendations;
- (d) Suggested addressing recent developments regarding reporting on the state-of-the-environment, electronic public records, the use of Copernicus and other Earth observations systems, big data and health-related information in the updated Recommendations;

(e) Took note of the comments received at the current meeting and requested participants to submit to the secretariat their comments and drafting proposals presented at the meeting by 1 November 2019;

(f) Encouraged Parties and stakeholders to continue their active engagement in the consultation process on the update of the Recommendations in accordance with the indicative timeline (AC/TF.AI-6/Inf.2);

(g) Invited national focal points to the Aarhus Convention to liaise with national focal points to the Protocol on Pollutant Release and Transfer Registers in order to provide consolidated comments on the draft Recommendations relevant for the registers' matter and to involve NGOs, Aarhus Centres, academia and other stakeholders in countries in consultations on the Recommendations;

(h) Called on Parties, partner organizations and stakeholders to continue building capacities and providing sufficient resource mobilization to modernizing environmental information systems and promoting their interoperability and accessibility in forms and formats meeting the needs of different users;

(i) Encouraged Parties, partner organizations and stakeholders to continue the exchange of information on recent developments in dissemination of environmental information and the use of electronic information tools through national implementation reports, case studies on electronic information tools, the Aarhus Clearinghouse and its national nodes.

### **III. Stocktaking of recent and upcoming developments**

41. The Chair invited the participants to discuss developments regarding public access to information related to: (a) emissions; (b) the application of restrictions on access to information; and (c) the protection of whistle-blowers and other persons exercising their rights in conformity with the provisions of the Convention.

#### **A. Recent developments regarding access to environmental information and the application of restrictions**

42. The Chair recalled decision VI/1, which encouraged a broad interpretation of the scope of environmental information in line with the requirements of the Convention and keeping the application of restrictions under review. She also drew attention to the document providing an overview of the systemic issues concerning the implementation of the Protocol on Pollutant Release and Transfer Registers and recommendations on how to address them, discouraging the claims of confidentiality for data of pollutant release and transfer registers to ensure the completeness of their data (ECE/MP.PRTR/2017/6/Add.2, paras. 10–12).

43. The representative of Switzerland reported that the Swiss legal framework guaranteed the right to inspect official documents and obtain information on the content thereof, including regarding environmental information contained in energy-related documents. Environmental information should, if possible, be made available as open digital data records. The implementation of an open data policy included the development of an environmental information kiosk to provide public access to 26 million data sets and the publishing of data online on a case-by-case basis, free of charge, respecting the protection of personal data. Exceptions to the freedom of information should be interpreted narrowly. An assessment of both the interest in access to information and the interest in restricting it should be carried out on a case-by-case basis, taking into account the significance and likelihood of an impairment in case of access to the requested information and its proportionality. In general, the country endeavoured to grant broad access to information.

44. The representative of the Office of the Commissioner for Environmental Information of Ireland addressed the challenges in the interpretation of the definition of “environmental information” in the light of the dual regime set out by legislation on freedom of information and access to environmental information. For example, the application of the “minimal connection test”, primarily linked to decision-making and other environmental purposes, had

been further modified by the *Minch* case.<sup>18</sup> In that case, the Court of Appeal had interpreted “likely” in the definition of “environmental information” to mean “capable” and had found that the National Broadband Plan was in fact a “measure” that was “likely” to affect the environment. Some other cases dealt with by the Commissioner underscored the challenge of defining the likelihood of a connection in the light of that interpretation. The broad interpretation could also give rise to potential conflicts with other rights and privileges protected by law, including related to emissions and the right to privacy and data protection, legal professional privilege, intellectual property rights, Cabinet confidentiality and presidential immunity. Access to environmental information should focus on environmental matters and should not generally be used as an alternative access mechanism for information that was more readily understood as falling within the ambit of freedom of information legislation. More clarity should be given to the proper interpretation of the definition of “environmental information” and the need to ensure that the significant obligations designed to facilitate public access to such information were complied with by public authorities in a manner that could contribute to a better environment.

45. The representative of the Centre for Ecology and Sustainable Development (Serbia) reported on the collection of and access to information on greenhouse gas emissions. Key projects and activities undertaken at the national level to tackle climate change contained an information component, including: the development of a national legislative framework; the extension of the scope of the national pollutant release and transfer register to cover greenhouse gas emissions; and the establishment of a climate change portal and publicly accessible reporting under the United Nations Framework Convention on Climate Change. Work undertaken included a collaborative action by many public institutions, NGOs and knowledge centres. Further work should focus on the adoption of overarching climate change legislation, increasing public awareness and human capacities in a systematic manner, ensuring the inclusion of public awareness and multi-stakeholder involvement in capacity-building projects and the promotion of a national dialogue on climate change matters.

46. The representative of the NGO Gamarjoba (Georgia) highlighted the importance of transparency with regard to the development and operation of nuclear and other environmentally hazardous activities as a precondition for effective public participation and prevention of possible social controversies. The major challenge remained in public access to environmental information related to such activities mainly held by large corporations. Moreover, the lack of information sharing could undermine efforts to investigate a specific pollution or health problem. For example, in Georgia, different public authorities had attempted to investigate lead contamination, but those efforts had been unsuccessful due to a lack of information sharing and coordinated interaction. Therefore, it remained important to share good practices on the disclosure of sensitive environment-related information with respect to environmentally hazardous activities or cases of pollution, ensure inter-agency coordination and keep applicable restrictions under review.

47. The Task Force:

(a) Welcomed the exchange of experience, good practices, challenges and recent policy and legislative developments as presented by the delegations regarding the scope of environmental information, its public access and the application of exceptions;

(b) Welcomed recent developments regarding publishing environmental information as open digital data records, as reported by the speakers;

(c) Encouraged the Parties to keep under continuous review the application of the exceptions to disclosure of environmental information, especially on emissions.

<sup>18</sup> High Court of Ireland, *Minch v. Commissioner for Environmental Information and Anor*, Case No. IEHC 91, 16 February 2016; and Irish Court of Appeal, *Minch v. Commissioner for Environmental Information and Anor*, Case No. IECA 223, 28 July 2017.

## B. Protection of whistle-blowers and other persons exercising their rights in conformity with the Convention

48. The Chair recalled the respective commitments in accordance with article 3 (8) of the Convention and the Budva Declaration (ECE/MP.PP/2017/17–ECE/MP.PRTR/2017/3) adopted by the sixth session of the Meeting of the Parties to the Convention (Budva, Montenegro, 14 September 2017). That work had become crucially important in supporting countries' efforts to achieve Sustainable Development Goal 16 (peace, justice and strong institutions) and target 16.10 (ensure protection of fundamental freedoms).

49. The representative of the Office of the Special Rapporteur on the implications for human rights of the environmentally sound management and disposal of hazardous substances and wastes presented the Special Rapporteur's recent report<sup>19</sup> laying down principles on the protection of workers from exposure to toxic substances. The report highlighted that one worker died at least every 30 seconds from exposure to toxic chemicals, pesticides, radiation or other hazardous substances that also could be linked to a violation of environmental law. The principles aimed to empower workers to uphold their rights and to raise concerns about toxic exposure and environmental violations free from threats. Key principles included those stating that: every worker had a right to know, including to know their rights (principle 8); health and safety information about toxic substances must never be made confidential (principle 9); and workers, representatives of workers, whistle-blowers and rights defenders must all be protected from intimidation, threats and other forms of reprisals (principle 11). The Human Rights Council encouraged States, business enterprises and other actors to implement the above-mentioned principles through their respective legal and policy frameworks and through initiatives and programmes to strengthen the coherence between human rights and occupational safety and health standards related to the exposure of workers to toxic substances.

50. The representative of ILO explained how the protection of whistle-blowers disclosing environmental violations was addressed through the relevant ILO instruments, national labour laws and good practices from different countries. Labour law protection of such whistle-blowers could also be linked to the legal protection of workers in the field of occupational safety and health. The established protection did not distinguish between private and public sector employees. Recently, legislative changes to enhance workers' protection had been adopted in Australia, France, Namibia, Norway, South Africa and Sweden, covering the disclosure of incidents related to damage to the environment and other environmental wrongdoing and the prohibition of any retaliation against workers in that regard.

51. The representative of Earthjustice highlighted the crucial role of whistle-blowers in disclosing wrongdoing. Many Parties to the Convention had already adopted laws to protect whistle-blowers, either generally or at least in certain fields. At the European Union level, the newly adopted Directive 2019/1937<sup>20</sup> provided several innovations in that respect. Moreover, the Parliamentary Assembly of the Council of Europe had also adopted resolution<sup>21</sup> 2300 (2019) on improving the protection of whistle-blowers all over Europe noting a proposal for the Directive and reiterating key measures to be taken. Such measures should ensure a broad definition of whistle-blowers, a wide scope covering breaches related to protection of the environment, radiation protection, nuclear safety and public health, clear reporting procedures, a ban on retaliation, legal remedies and effective follow-up. Whistle-blowers should also be able to use documents at the workplace for a report without risking criminal liability. Therefore, the Parties to the Convention should introduce or broaden the protection of whistle-blowers offered by national frameworks in the spirit of the above-

<sup>19</sup> See A/HRC/42/41; and Human Rights Council resolution 42/21 on the protection of the rights of workers exposed to hazardous substances and wastes, adopted by the Human Rights Council on 26 September 2019.

<sup>20</sup> Directive (EU) 2019/1937 of the European Parliament and of the Council of 23 October 2019 on the protection of persons who report breaches of Union law, *Official Journal of the European Union*, L 305 (2019), pp. 17–56.

<sup>21</sup> See <http://assembly.coe.int/nw/xml/XRef/Xref-DocDetails-EN.asp?FileID=28150&lang=EN>.

mentioned recently adopted texts to achieve their objectives and enhance the implementation of article 3 (8).

52. The Task Force:

(a) Recognized that effective legislative, practical and other measures for whistle-blowers, workers and other persons to report violations supported environmental law enforcement;

(b) Welcomed the exchange of experience, good practices, challenges and recent policy and legislative developments as presented by the delegations regarding the protection of whistle-blowers and other persons exercising their rights in conformity with the Convention;

(c) Noted that effective implementation of article 3 (8) of the Convention was closely linked to implementation of article 3 (3) of the Protocol on Pollutant Release and Transfer Registers and that they were crucial for achieving Sustainable Development Goal 16 and its target 16.10;

(d) Reiterated that the above-mentioned provisions were also closely linked to the implementation of the respective principles on human rights and the protection of workers from exposure to toxic substances reported by the Special Rapporteur on the implications for human rights of the environmentally sound management and disposal of hazardous substances and wastes (A/HRC/42/41) and relevant ILO instruments;

(e) Welcomed the relevant initiatives of the Parties, as reported by the speakers, and called on Parties to continue taking the necessary legislative, regulatory, practical and other measures supporting safe operation of whistle-blowers, workers and other persons exercising their rights in conformity with the Convention and ensuring safe reporting of cases of penalizations, persecution or harassment for their involvement;

(f) Encouraged Parties and stakeholders to continue the exchange of information on the protection of whistle-blowers and other persons exercising their rights in conformity with the Convention through national implementation reports and the Aarhus Clearinghouse.

#### **IV. Activities under other international forums dealing with access to environmental information**

53. The Chair invited the representatives of the respective international forums to share information about their activities to measure and monitor progress towards environment-related Sustainable Development Goals and to explore opportunities for building synergies.

54. The representative of the ECE Statistical Division highlighted recent developments and challenges in measuring progress towards environment-related Sustainable Development Goals and their targets through the global indicator framework. While the environmental dimension accounted for 93 out of 232 indicators, based on UNEP analysis, only 23 per cent percent of the indicators demonstrated good progress and 9 per cent of them indicated low likelihood that the target would be met without increased action. The common challenges included insufficient data for 68 per cent of those indicators, lack of methodology for data collection for 30 per cent, discrepancies of data between the international and national levels, lack of machine-readable or downloadable data and metadata and harmonization of standards and harvesting tools at the national level. Therefore, improved measuring capacities, evidence-based decision-making and the effective coordination of data collection and sharing should be ensured. ECE continued to support countries in establishing effective statistics systems for Sustainable Development Goals, including through developing guidance, a road map and a knowledge hub<sup>22</sup> on statistics for Sustainable Development Goals accessible to the public. Generally, access to statistical data by the public was set out by the Fundamental Principles of Official Statistics,<sup>23</sup> including principle 1 related to equal access and principle

<sup>22</sup> See <https://w3.unece.org/sdghub/>.

<sup>23</sup> General Assembly resolution 68/261 on the Fundamental Principles of Official Statistics (A/RES/68/261), adopted by the General Assembly on 29 January 2014.

6 related to the confidentiality of primary data, the United Nations Statistics Quality Assurance Framework and the Open Data framework increasingly adopted by ECE member States.

55. The representative of UNEP presented the key findings of the sixth Global Environment Outlook,<sup>24</sup> prepared through a comprehensive and consultative process and welcomed by the United Nations Environment Assembly at its fourth session (Nairobi, 11–15 March 2019). The report analysed different drivers of environmental change and their impact on the current state-of-the-environment and possible scenarios, including adverse effects of continuing business as usual. While the state of environmental data and knowledge had significantly improved since the fifth report, the remaining gaps seriously undermined evidence-based decision-making and required further serious investments in improving data management underpinned by modern digital technologies. Such an approach would allow for the strengthening of monitoring of the progress towards environment-related Sustainable Development Goals and the effectiveness of environmental policies that should aim to prevent further degradation and irreversible impacts in nearly all environmental areas and human health. Further action should focus on integrated and coherent policymaking, underpinned by the participatory approach and promotion of systemic social and technical innovations for transformative changes.

56. The representative of the Group on Earth Observations secretariat, also speaking on behalf of the Executive Secretary of the Earth Observations for Sustainable Development Goals Initiative, reported on the potential of Earth observations for the 2030 Agenda, the Paris Agreement, the Sendai Framework and the New Urban Agenda. Earth observations had already been used for temporal monitoring of floods, wildfires, droughts and water-resource management in near real-time. Additionally, a specific initiative had been launched to organize and realize the potential of Earth observations in combination with geospatial, statistical, environmental and other information to advance the 2030 Agenda. The work should encourage a collaborative action to address restricted access to some types of data, lack of data discoverability from different sources, harmonized methodologies and standards and capacity-building. The work had resulted in good practice guides, relevant data sets and reproducible and openly searchable methodologies, a toolbox and the development of GEO Knowledge Hub and capacity development. To harness the available potential, Earth observations should be better integrated into methodologies for the Goals' indicators, the generation of national statistics and environmental monitoring.

57. The representative of UNITAR outlined the potential in the use of pollutant release and transfer registers for monitoring progress towards the Sustainable Development Goals. The registers could support the attainment of Goal 3 (health), Goal 6 (water), Goal 11 (cities), Goal 12 (sustainable consumption and production), Goal 13 (climate action) and Goal 14 (oceans) and contribute to Goal 4 (education), Goal 16 (peace, justice and strong institutions) and Goal 17 (partnerships). Readily available comparable data from those registers could support the measuring of progress towards Sustainable Development Goal target 12.4 by media (air, water and land) but could also simultaneously contribute to measuring annual trends related to the reduced waste generation relevant to target 12.5, the quantity of chemicals released to water relevant to target 6.3, resource use and clean technologies relevant to target 9.4 and access to data relevant to target 12.8 and target 16.10. To support the use of registers to monitor and report on Sustainable Development Goal indicators in a comparable way, harmonization should continue related to sectors and thresholds, chemicals, release types and data formats. Registers' data should be better integrated into the methodologies for the Goals' indicators.

58. The Task Force:

(a) Welcomed the exchange of information on recent activities to measure and monitor progress towards environment-related Sustainable Development Goals as presented by the speakers;

<sup>24</sup> United Nations Environment Programme, *Global Environmental Outlook–GEO 6: Healthy Planet, Healthy People* (Nairobi, 2019). Available at [www.unenvironment.org/resources/global-environment-outlook-6](http://www.unenvironment.org/resources/global-environment-outlook-6).



(b) Invited Parties to take additional measures to address the challenges in collecting and sharing data for environment-related Sustainable Development Goal indicators and to consider the use of data resulting from Earth observations and pollutant release and transfer registers for that purpose, as relevant.

## **V. Approval of conclusions and closing of the meeting**

59. The Task Force agreed the meeting's key outcomes as presented by the Chair at the meeting (AC/TF.AI-6/Inf.6) and requested the secretariat, in consultation with the Chair, to finalize the report and incorporate the agreed outcomes. The Chair thanked the speakers, the participants, the secretariat and the interpreters, and closed the meeting.

## Annex

### Workshop on Open Data for the Environment

#### Chair's summary

#### Introduction

1. The Workshop on Open Data for the Environment (Geneva, 2 October 2019)<sup>a</sup> was jointly organized by the United Nations Economic Commission for Europe (ECE) and the European Environment Agency back-to-back with the sixth meeting of the Task Force on Access to Information (Geneva, 3 and 4 October 2019). The event was organized pursuant to decision VI/1 of the Meeting of the Parties to the Convention.
2. The meeting was attended by experts designated by the Governments of Albania, Armenia, Austria, Azerbaijan, Belarus, Bosnia and Herzegovina, Croatia, Georgia, Ireland, Kazakhstan, Kyrgyzstan, Latvia, Malta, Mongolia, North Macedonia, the Republic of Moldova, Serbia, Spain, Slovakia, Switzerland, Tajikistan, Ukraine and Uzbekistan. A representative of the European Commission attended on behalf of the European Union. Representatives from the European Environment Agency and the European Investment Bank were also present.
3. Representatives of review bodies, Aarhus Centres, business, professional, research and academic organizations were also present, as were representatives of international, regional and local non-governmental organizations (NGOs), many of whom coordinated their input within the framework of the European ECO-Forum.
4. The workshop was chaired by Ms. Valentina Tapis (Republic of Moldova), the Chair of the Task Force on Access to Information under the Aarhus Convention. Welcoming remarks were also delivered by the representatives of ECE and the European Environment Agency.
5. The workshop aimed to share case studies, challenges and good practices in promoting open data for the environment<sup>b</sup> and take stock of the outputs provided by the European Environment Agency project<sup>c</sup> on further implementation of the Shared Environment Information System principles in the six Eastern Neighbourhood countries funded by the European Union.

#### I. Setting the scene

6. The session featured presentations by the representatives of the European Commission, the European Environment Agency and Ecoropa, followed by an interactive discussion.
7. In the discussion, the following developments and issues were highlighted:
  - (a) Adoption of a data package by the European Union focused on public sector and public-funded, private sector and research data, including the adoption of: the European Union Open Data Directive;<sup>d</sup> the Guidance on sharing private sector data in the European

<sup>a</sup> Material for the workshop is available at [www.unece.org/environmental-policy/conventions/public-participation/aarhus-convention/tfwg/task-force-on-access-to-information/joint-unece-eea-workshop/doc.html](http://www.unece.org/environmental-policy/conventions/public-participation/aarhus-convention/tfwg/task-force-on-access-to-information/joint-unece-eea-workshop/doc.html).

<sup>b</sup> See <https://eni-seis.eionet.europa.eu/east/areas-of-work/access-to-environmental-information>.

<sup>c</sup> See <https://eni-seis.eionet.europa.eu/east>.

<sup>d</sup> Directive (EU) 2019/1024 of the European Parliament and of the Council of 20 June 2019 on open data and the re-use of public sector information, *Official Journal of the European Union*, L 172 (2019), pp. 56–83.

Union data economy;<sup>e</sup> and the updated Recommendation on access to and preservation of scientific information.<sup>f</sup> The Open Data framework should be implemented taking into account the Infrastructure for Spatial Information in Europe, general data protection and copyright frameworks;

(b) Activities and outputs of the European Environment Agency project on further implementation of the Shared Environment Information System principles in the six Eastern Neighbourhood countries, including the preparation of a good practice report, maturity reports and road maps for the target countries to improve dissemination and sharing of environmental data and information through e-governance and open data initiatives;

(c) The trend in the increased collection of environmental data and information in digital form and their publication online by public authorities to advance the dissemination of environmental information in accordance with the Aarhus Convention;

(d) The need for public authorities to adopt the necessary data policy framework to promote open data along with providing technical tools;

(e) Data quality and engagement with the public remained key factors in promoting the use of open data in the environmental domain. Environmental information should be available, easily discoverable and reusable technically and legally. Broad user feedback should be well integrated throughout the whole lifecycle of data management;

(f) There was a need to establish a regular institutional dialogue at the national level to improve access to environmental information and interoperability between different information systems;

(g) Reuse of data allowed for the creation of synergies by reducing repetitive work, reporting and providing details for better evaluation of the current situation, especially in emergencies;

(h) Making environmental data and information more accessible for use and re-use through electronic information tools could facilitate better engagement of youth in environmental protection.

## II. Benefits, progress and current challenges in open data for the environment

8. The session featured an introductory presentation by the representative of the European Environment Agency contractor on the project mentioned in paragraph 5 above and presentations by Armenia, Azerbaijan, Belarus, Croatia, Georgia, Ireland, the Republic of Moldova, Slovakia and Ukraine, followed by an interactive discussion.

9. In the discussion, the following key needs and challenges for promoting the Open Data framework in the environmental domain among the Parties depending on their progress as appropriate were highlighted:

(a) The need to leverage e-government initiatives for fostering environmental information sharing and dissemination, especially by using interoperability standards;

(b) The need for better coordination between public authorities holding environmental information within Open Data and e-governance frameworks;

(c) The need to update the legal framework to align it with national e-governance and Open Data frameworks, good practices and international standards;

(d) The need to raise awareness of the public authorities and the public about the nationwide Open Data framework and the benefits of information use and reuse;

<sup>e</sup> Available at <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=SWD%3A2018%3A125%3AFIN>.

<sup>f</sup> Commission Recommendation (EU) 2018/790 of 25 April 2018 on access to and preservation of scientific information, *Official Journal of the European Union*, L 134 (2018), pp. 12–18.

- (e) The need to strengthen skills of civil servants to use and manage information as open data records;
- (f) The need to adopt standards for describing environmental data sets, metadata and information published;
- (g) The need for enforcement mechanisms, incentives and/or capacity-development for opening up public sector information;
- (h) The need to publish environmental data and information in machine-readable formats;
- (i) The need to establish quality control mechanisms;
- (j) The lack of time series and metadata for environmental data;
- (k) The lack of user-friendliness and multilingual aspects of websites containing environmental information;
- (l) Insufficient availability of environmental data sets on Open Data portals despite the wide scope of environmental information.

10. The discussion promoted the exchange of knowledge on the progress achieved to date and good practices in each country and possible future initiatives to promote dissemination of environmental information that supported:

- (a) Review and implementation of the legislation and policy framework related to Open Data, e-government and environmental information to reduce legal barriers to promote effective dissemination of environmental information to the public;
- (b) Updating of the relevant websites to make them user-friendly and promotion of public engagement;
- (c) Implementing of the geospatial component of environmental information system;
- (d) Strengthening of cooperation among public authorities, NGOs and international organizations to modernize environmental information systems meeting the needs of different users;
- (e) Improved interoperability of different data sets through harmonization following international standards;
- (f) Adoption and use of metadata standards for environmental data sets in accordance with international standards and good practices;
- (g) Further development of e-services related to environment and environmental information;
- (h) Ensuring constant maintenance of data and metadata published;
- (i) Improvement of capabilities to provide real-time and other dynamic environmental data;
- (j) Building awareness of Open Data and environmental information to promote public participation;
- (k) Promotion of international cooperation and the exchange of experience.

### **III. The way forward for advancing sharing and dissemination of environmental information**

11. The session featured an introductory statement by the representative of the European Environment Agency, followed by an interactive discussion.

12. Further work should leverage on the following needs, challenges and rapid changes:

(a) The need to modernize environmental information systems by integrating data from different sources (such as Earth observations through, for example, the Copernicus Programme, citizens science and private sector information);

(b) The need to strengthen reporting on the state-of-the-environment, for example, through using the upcoming Reportnet3 at the European Union level, and by measuring progress towards the attainment of Sustainable Development Goals, their targets and indicators;

(c) Harnessing rapid changes in technology and growth of big data, the Internet of Things (for example, sensors monitoring the data landscape), artificial intelligence and data science;

(d) The increased pressures on the environment and human health and well-being requiring the accurate and up-to-date knowledge. That includes topics, such as climate change and production change, biodiversity loss and the need to strengthen disaster risk reduction;

(e) The development of new integrated methodologies for the collection, processing and dissemination of environment-related data and information;

(f) The development and implementation of data strategies aligned with policy objectives for the environment, digitalization and circular and green economy and supporting scenario analysis and modelling;

(g) Resource mobilization and international cooperation remained instrumental to implementing the necessary measures to strengthen effective environmental information systems for evidence-based decision-making and public awareness and engagement.

13. The Chair of the Task Force and the representative of the European Environment Agency delivered closing remarks calling for continued support for Open Data and e-governance initiatives for the environment and sharing experience and knowledge on the ways to address existing challenges and harness potential benefits.

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