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I. Introduction

I would like to thank the organisers and personally the Mayor of Tbilisi for inviting me to this important meeting.

I see this as a good opportunity to discuss how the Aarhus Convention and its Protocol on PRTRs support implementation of major initiatives under the auspices of the Council of Europe (*e.g. the European Charter of Local Self-Government on the right to participate in the affairs of a local authority (CETS No. 207); the Guidelines for civil participation in political decision-making (adopted by the Committee of Ministers on 27 September 2017); the Committee of Ministers' Recommendation CM/Rec(2018)4 on the participation of citizens in local public life, as well as the Revised Code of good practice for civil participation in the decision-making process (adopted by the Conference of INGOs in October 2019).*

The UNECE Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (Aarhus Convention) and its Protocol on Pollutant Release and Transfer Registers serve the twin objective of protecting not only the natural environment, but also people's health, safety and quality of life. Such cross-cutting nature make them highly relevant to the subject of the Conference.

Both Treaties have been leading and inspiring actions to promote access to information, public participation and access to justice in environmental matters throughout the pan-European region and beyond.

- Within the UNECE region:
 - Laws and practices have been revised to bring them into line with the Convention and Protocol.

- Citizens are learning to use the treaties to make their governments more transparent and accountable.
- There is a growing body of jurisprudence based on the Convention and the legislation that implements it.
- In our region it has become unthinkable to plan a major programme or project without an environmental impact assessment that includes public participation.
- Aarhus Centres, act as bridges between public authorities and civil society, support the application of the Convention's principles on the ground and in the daily lives of citizens in 14 countries. These centres, facilitate dialogue between public authorities and civil society, disseminate environmental information and help people understand and exercise their rights under the Convention.
- Beyond the UNECE region:
 - The Convention's and Protocol's successes have inspired the development of similar processes in other areas of the world, most notably in Latin America and the Caribbean where countries have adopted the Escazu Agreement, a legally binding instrument on access rights learning from the Aarhus experience.
 - ECE also works closely with its sister organisation, UNEP, to promote jointly Principle 10 around the globe
- Inspiring other sectors to apply Aarhus principles
 - climate change processes, trade negotiations or policies of international financial institutions draw on the human rights' principles enshrined in the Convention. e.g. World Bank, EIB and EBRD acknowledge that transparency leads to more effective investments, less conflicts and higher efficiency.
- Cooperating with processes under the UN Human Rights Council
 - ECE cooperates on a number relevant processes under the UN Human Rights Council dealing with the matters related to the environment
- Links with UNECE Conventions and Programmes
 - Several UNECE Conventions and Programmes are inspired by the Aarhus Principles and are mainstream human rights into environmental decision-making.
 - Environmental Impact Assessments and Strategic Environmental Assessments carried out under the Espoo Convention include mandatory procedures for access to information and public participation in decision-making
 - The Protocol of Water and Health to the Water Convention also includes relevant procedures
 - The PEP programme integrates environment and health concerns into transport policy recognising importance of public participation

II. Key messages: Role of the Aarhus Convention and Protocol on PRTRs in supporting effective self-Government and participation of public in decision-making on local public life

- Transparency, accountability and the effective inclusion of all inhabitants in decision-making processes - including NGOs, local communities and other stakeholders - are key ingredients for effective self-government and sustainable planning and management of cities and other human settlements.
- The provisions of the Aarhus Convention and its Protocol on PRTRs promote effective access to information and informed participation of the public in decision-making relating to different aspects of such planning and management. They help ensure that the development and implementation of plans, programmes and other decisions related to human settlement planning and management are pursued through transparent, accountable and participatory decision-making. Thereby, helping to identify the most sustainable measures at an early stage of planning.
- Participatory and inclusive decision-making help ensure that the final outcome of a development will be more acceptable, more sustainable, social acceptable and less harmful to the environment. It also means that hidden or unexpected aspects of a proposed planning can be uncovered early, helping to avoid costly mistakes and public unrest.

The Convention and the Protocol drive effective access to information and public participation at local level

- There is a number of examples in the region that demonstrate how the Convention and the Protocol drive effective access to information and public participation at local level. I will highlight few of them.
- New technologies and digitalization, open data, open government, e-government initiatives etc. can help public authorities make information publicly accessible more effective and efficiently. It becomes easier and cheaper for them to actively disseminate data and information through online portals and open data structures as data – in particular spatial data – has become available at a much lower cost. As a result, platforms can also visualize data in form of maps and hence present information in a more user-friendly manner. In addition to making information available by public authorities, citizen driven initiatives like citizen science have increasing potential to facilitate effective access to information and public participation in decision-making (***see a number of data portal examples below, e.g., Ireland, Norway, Lithuania, Ukraine***).
- Citizen Science emerged as a result of two parallel trends (a) a “scientification of society”, and in parallel to this progress in technology. As a result, we have now mobile internet with instruments that can capture location, images, and even barometric measures. Everyone became a user and provider of information. That includes data, information, appropriately packaged experience and knowledge.
- Digitalization and new technologies also allow the public to participate in decision-making easier through mobile applications and online platforms. Online platforms aimed at facilitating public participation in e.g. Environmental Impact assessments (***see examples 8 of France and Slovakia below***) or planning,

construction and local community involvement (*see example 8 of Berlin below*) are one set of examples.

- There is also a trend that NGOs, individual or groups of citizens are stepping in by programming own mobile applications or online tools when they see that important (environmental) information is either not available (*see example 1 on NGO Move Green in Kyrgyzstan below*) or not provided in an easy accessible, user-friendly way by public authorities (*see examples 3 on Code for Germany below*).
- Inhabitants use this information to advocate for their right to a healthy environment and to provide direct feedback to local authorities on where they request the authority to resolve an issue / take action (*see also application example 14 on fix my street from UK*) to improve a government service (e.g. *see 9.2 on Ukraine EIA register and "SaveEcobot" - application informing citizens that a new information with the opportunity to publicly participate in decision-making has been made available online*).
- In addition, with an increasing use of the "Internet of Things", public authorities start also draw on data collected by individuals through their personal monitoring devices (*see example 2 on air monitoring in Vienna and example 11 on schools/kindergarten in Sweden below*) and hence make this environmental information broadly available to the public.
- Other examples provided below that are more closely linked to realizing sustainable urban development (and less on digitalization and new technologies) are the **examples 7 of (a) "energy cooperatives" in the Netherlands** that decentralize power generation and realize the energy transition at local level; (b) **zero waste eco village in the Netherlands**, with the objective to showcase a sustainable community, and (c) **example 10 on the city of Haifa in Israel** that demonstrated that pollution information from a PRTR can influence urban planning and the re-organization of a region.

Challenges and systemic issues include, among others

- Despite of visible achievements, challenges still exist.
- A silo approach towards Open Data, e-government and thematic datasets management as these initiatives by environmental institutions (including environmental information portals) tend to be created in parallel to existing e-government and open data structures. This can lead to multiplication of systems, standards, tools and processes – sharing environmental data between these systems often creates additional challenges when no common standard or interface exists (see open data report: http://www.unece.org/fileadmin/DAM/env/pp/a_to_i/Joint_UNECE-EEA_workshop/Draft_OD_EGOV_GP_.pdf) which lead to hampering of local public's ability to understand and use the information.
- Lack of opportunities for public participation in urban development and insufficient awareness of public's rights.

- With a greater use of online participation platforms and mobile applications, there is a risk that groups that are less familiar with new technology or less well connected to the internet are left behind (elderly, rural population, etc.)
- A lack of sufficient and reasonable time frames for the public to participate – e.g. time frames for the public to get acquainted with the documentation or time frames for the public to submit comments;
- There is no systemic approach to identify the public that may participate. This ultimately also leads to a lack of involvement of vulnerable and marginalized groups.
- Although requirements for notification are in place, a lack of effective notification of the public (in practice) has been observed.

Key actions to address some of these systemic issues are, among others:

- To introduce mechanisms to assure reasonable and sufficient time-frames for public participation;
- To enhance access to „all relevant information” – to allow the public to meaningfully engage in decision-making;
- To provide effective means of notification;
- And to allocate sufficient funding for public participation procedures.

Steps for effective Public Participation

- To assist local officials on a day-to-day basis when designing and carrying out procedures on public participation in decision-making on different issues, they shall follow so-called Aarhus model that provide **Key Steps for effective public participation**:

1. Identification of the public
2. Early, adequate and effective notice of the public
3. Early public participation when all options are open, and reasonable time-frames
4. Access to all relevant information
5. Public entitled to comment and/or to be heard
6. Due account to be taken of public participation
7. Prompt notice of decision
8. If commitments/ operating conditions are revised/reconsidered or updated, repeat the above steps, as appropriate

See: Maastricht Recommendations on Promoting Effective Public Participation in Decision-making in Environmental Matter (see <https://www.unece.org/index.php?id=49142>)

Concluding remarks

- Finally, I would like to thank Parties along with other countries, partner organizations, NGOs and people in the region for your continuous commitment

to promoting environmental democracy. Despite remaining challenges, the Aarhus Convention and its Protocol on PRTRs have already brought about tangible results in terms of enhancing access to information, public participation in decision-making and access to justice in environmental matters in many countries in our region. This is very much due to your strong commitment and hard work.

- I would also like to take this opportunity to express my gratitude to Georgia for considering hosting the next sessions of the Meetings of the Parties of the above-mentioned treaties in the beautiful city of Tbilisi in October 2021.
- The willingness of the Presidency of Georgia of the Committee of Ministers of the Council of Europe to promote civil participation in decision-making does indeed help to demonstrate the commitment of your country to the implementation of such important pillars of human rights as transparency, public engagement and the rule of law. In this regard, it is also my pleasure to note that Ms. Maia Bitadze currently chairs the Bureau of the Aarhus Convention.
- I am looking forward to the lively and fruitful discussions.

III. Practical examples

The examples below are listed in random order, order is not an indication for priority

1. **Improve Air quality - Youth Ecological Movement “Move Green” from Bishkek, Kyrgyzstan**

The NGO MoveGreen improved public access to information on air pollution through installation of mobile devices and enhanced the participation of young people in efforts to reduce air pollution in Bishkek, Kyrgyzstan. As a result, the issue had been taken up by the media and parliament in Kyrgyzstan. The NGO received the Central Asian Youth Environmental Award established by Ecoforum NGOs of Kazakhstan in June 2018 for its activities.

Bishkek has about one million inhabitants. In particular during winter time, the city suffers from smog and air pollution caused by high number of traffic, which focusses mainly on individual motorized transport (cars) due to an underdeveloped public transport network as well as emissions from buildings heated by coal and synthetic materials such as old car tires, plastic, used oils etc.

The NGO Move Green started monitoring the air quality in the city. Members of the NGO installed measuring devices in the city of Bishkek monitoring fine particulate matter. They also developed a mobile application and made this data openly available through an app and thus accessible and understandable to the public. In addition, the Young activists shot photos and videos, interviewed experts and published this information in social networks. The initiative was soon picked up by media. Three months after the initiative started, there were about one hundred articles by journalists. Photos illustrating the smog over the city were increasingly posted and shared in social networks.

Move Green met with Parliamentarians as the Parliament was at that time reviewing

a law on atmospheric protection and made recommendations to the Parliament based on its experience in monitoring air quality. Moreover, the Prime Minister of Kyrgyzstan instructed to create an interdepartmental working group to improve the environmental situation of Bishkek. Move Green representatives were invited to join and were part of this working group developing a 5-year action plan to improve the environmental situation of Bishkek.

More information:

- PPT in ENG: http://www.unece.org/fileadmin/DAM/env/pp/wgp/WGP-22/Special_sessions/Anniversary_segment/WGP-22_Special_Segment_Opening_Keynote_statement_Maria_Kolesnikova.pdf
- Statement in RUS: http://www.unece.org/fileadmin/DAM/env/pp/wgp/WGP-22/Special_sessions/Anniversary_segment/WGP-22_Special_Segment_Key_note_Maria_Kolesnikova.pdf
- Website with project description in RUS: <http://movegreen.kg/en/2017/11/10/kachestvo-vozdruha-v-bishkeke/>

2. Austria - Citizen Science to monitor air quality in Vienna

The air quality of the city of Vienna is monitored not only through data collected by devices set up by the public authority but also devices from individual citizens who linked their personal air quality monitoring devices to feed into the city network of air quality monitoring stations. The data is visualized in a map and published online on <https://guteluft.info/> ("goodair.info"). On the website the public can access information on how to configure the sensor data can be transmitted to the portal and published/included in the map (<https://guteluft.info/mitmachen>).

More information:

- http://www.unece.org/fileadmin/DAM/env/pp/a_to_i/6th_meeting/Presentations/6TFAI_2b_1_Austria_Mayer.pdf
- <https://guteluft.info/>

3. Code for Germany

"A programme by the Open Knowledge Foundation Germany in partnership with Code For America". It runs in 25 cities (also called labs) in Germany with over 500 volunteers. "The Labs are regional groups of designers, developers, journalists and others who meet regularly to work on useful applications around open data. They develop apps that inform, positively shape society and make the work of administrations and authorities more transparent". Volunteers meet regularly in their city and work on programs.

Examples/Summaries in English of some of these coding projects are presented here: <https://codefor.de/en/stadtgeschichten/>

They include, for instance, digital maps displaying playground for kids in a city, available car parking, information about drinking water, visualization of the city budget etc.

A prominent example is the measuring of particulate matter in Stuttgart (one of the most polluted cities in Germany considering the dates of exceeding thresholds for particulate matter) by citizens who build their own monitoring device to measure particulate

matter and then feed the information into a map.

<https://luftdaten.info/> and
<https://deutschland.maps.luftdaten.info/#6/51.165/10.455>

The initiative is linked to the global <https://codeforall.org/> - creating fair and open digital societies. "Code for All is international network of organizations supporting each other to empower citizens to meaningfully engage in the public sphere and have a positive impact on their communities."

4. Norway Oslo, E-governance: Access to all public records of the Norwegian Government and municipality of Oslo

A web-based search page that is developed in order to give easy access to public records for the citizens of Norway. Electronic Public Records is a joint publishing system which allows government bodies at national level as well as the municipality of Oslo to publicize public records online.

Provides Citizens with online access to Public Records from the entire central (and some regional) government. On average they have 200,000 requests for information per year (see reference to PPT below). Contains records entries for the Prime Minister's office, ministries, County governors and all central agencies. As a next step it is planned to automatically harvest data and provide direct access to documents Online.

Access to web plat form: <https://einnsyn.no/sok?sort=>

More information :

http://www.unece.org/fileadmin/DAM/env/pp/a_to_i/TFAI_Case_studies/NO_EInnsyn.pdf

http://www.unece.org/fileadmin/DAM/env/pp/a_to_i/5th_meeting/Presentations/5TFAI_IV_2_EIT_Norway.pdf

5. Ireland - Single web-access to environmental information in Ireland

<http://www.epa.ie/irelandsenvironment/>

The environment portal in Ireland is the 2019 winner of Ireland eGovernment award. "It provides access to all environmental information, licensing and permitting, enforcement regulation, monitoring and environmental assessment, research and education as well as key publications. The portal also provides access to videos, news and events and has a section for contacting the portal administrators. Also, the portal provides a user-friendly web-interface and a functionality for searching information. Though the discoverability of environmental information could be improved (e.g. usage of complex search and/or advanced filtering), the portal is a good example of single web access point for environmental information." (Source: http://www.unece.org/fileadmin/DAM/env/pp/a_to_i/Joint_UNECE-EEA_workshop/Draft_OD_EGOV_GP_.pdf)

More information about the portal can be found in a study made by the UNECE: http://www.unece.org/fileadmin/DAM/env/pp/a_to_i/TFAI_Case_studies/IRELAND_case_study.pdf

The study summarizes the main objectives laid down by Ireland for the portal, and also highlights the legal framework built for it.

http://www.unece.org/fileadmin/DAM/env/pp/a_to_i/Joint_UNECE-EEA_workshop/Presentations/OD4E_3_7_Ireland_Kirwan.pdf

6. **Lithuania geospatial tool to provide services to residents, business and local authorities**

"In Lithuania, the portal "Regia.lt is the regional geo-informational environment service. It is a tool developed for citizens, local authorities and local businesses. It aims to create favourable conditions for making geographically-based decisions and to facilitate the exchange of information. Data providers who sign an agreement with REGIA can create and manage their own data layers in REGIA. As such, data providers can collect and manage data, information and documents in their own data layer and develop as well as provide services based on georeferenced data. The users can decide to make their data layer public or not and who will have access to it. For citizens, it provides a geographic view of different environmental data, including cadastres. For instance, citizens can see the quality of water, the deepness of groundwater, the presence of gas/electricity network, etc. It is a powerful tool for citizens and businesses.

The portal is also available in four languages: Lithuanian, English, Polish and Russian" (Source: http://www.unece.org/fileadmin/DAM/env/pp/a_to_i/Joint_UNECE-EEA_workshop/Draft_OD_EGOV_GP_.pdf)

7. **Netherlands**

7.1. **Energy Cooperatives run by citizens to decentralize power generation and realize energy transition**

Energie-U is an Energy Co-operative of 500 residents from the Dutch city of Utrecht. They produce their own solar energy, install solar panels (also on community buildings) and promote energy efficiency. As not for profit organization, the co-operative can offer energy to its customers at a lower price. See presentation at Aarhus Convention Task Force meeting on Public Participation in Decision-making online at:

http://www.unece.org/fileadmin/DAM/env/pp/ppdm/5th_PPDM/Presentations/Maaike_de_Beer.pdf

In the Netherlands, there exist 110 of such energy cooperatives by 2014. "Citizens are the most important driving force in setting up and running them. These cooperatives can be divided into about 15 wind energy cooperatives that have been in existence for 20 to 25 years, and a new generation of about 95 energy cooperatives (since 2007) with a wider objective than that of the wind energy cooperatives. The second group are involved in power generation from solar or wind energy or another decentralised technology (i.e. 'local energy'), as well as energy conservation. Here, the interests of the local community – local employment and social cohesion – is of prime importance.

The energy cooperatives stand at the crossroads of two important change processes in society: the 'energetic society' and the 'energy transition'. They contribute to two forms of

decentralisation, namely that of the energy supply (towards more local production) and that of the government (the transfer of tasks from higher to lower levels of government, the market and society at large)."

For more information: <https://www.pbl.nl/en/publications/energy-cooperatives-aims-operational-perspective-and-interaction-with-municipalities>, Abstract available in English online at: <https://www.pbl.nl/sites/default/files/downloads/pbl-2014-energy-cooperatives-aims-operational-perspective-and-interaction-with-municipalities-1371-abstract.pdf>

Report by Women Engage for a Common Future (WECF) on the example of Utrecht: The Power of Community Energy – successes from Utrecht and the importance of connections for local energy, available online at: <https://www.wecf.org/wp-content/uploads/2019/06/Power-of-Community-Energy-Successes-from-Utrecht-and-the-importance-of-connections-for-local-energy.pdf>

7.2. Zero waste eco-village of Boekel in the Netherlands

Environmental protection in cities a collective responsibility. UNECE's Aarhus Convention promotes effective and inclusive public participation in environmental matters, helping authorities to involve inhabitants, NGOs and others in decision-making relating to the environment they live. An example is the community-led development of the self-sustained, zero waste eco-village of Boekel in the Netherlands. A group of people plans to build their own sustainable eco village in Boekel that produces zero waste and is self-sustained. The Government supports their efforts and offered them the space to realize this idea.

See presentation at Aarhus Convention Task Force meeting on Public Participation in Decision-making online at:

http://www.unece.org/fileadmin/DAM/env/pp/ppdm/5th_PPDM/Presentations/Maaike_de_Beer.pdf

More information on the status of planning this eco-village is available online at: <https://www.ecovillageboekel.nl/tour-circular-ecovillage-boekel-on-17-1-19/>

8. Online platforms facilitating public participation in decision-making

8.1 France

France recently launched a new online portal that provides access to all public consultations organized by the State service of France (e.g. regarding environmental impact assessments). All necessary information is now presented and available through one single national platform. It aims at involving the public at a very early stage of a project and increase transparency by facilitating access to relevant information and data for the decision-making process.

More information:

http://www.unece.org/fileadmin/DAM/env/pp/ppdm/8th_PPDM/Statements_and_Presentations/8TFPP_2_3_PP_France_Guillemot.pdf

<https://www.projets-environnement.gouv.fr/pages/home/>

8.2 Slovakia

similar initiative to France but allows information and public participation on

environmental impact assessments at neighbourhood level (EIA in my neighbourhood – open data- see from slide 9):

http://www.unece.org/fileadmin/DAM/env/pp/a_to_i/Joint_UNECE-EEA_workshop/Presentations/OD4E_3_9_Slovakia_Tuchyna_Prityi.pdf

8.3 “My Berlin” Public Participation platform

<https://mein.berlin.de/>

Portal provides overview of projects, opportunities to participate in decision-making sorted by district. Projects open for consultation are added by the State of Berlin as well as districts and neighbourhood management teams. Database can be filtered by currently open for public consultation by district and theme. Under “results” information is provided how the information and comments provided by the public will be used and by whom and when and where results of the consultation will be made public.

On example calls for project proposals to realize an idea in one’s own district and get the funding for it <https://mein.berlin.de/projects/stadtteilkasse-tiergarten-sud/>

9. Ukraine

9.1 Ecomapa

Ecomapa is an online inventory and interactive map of landfills and serves as a platform to build coalitions. The map includes environmental information on recycling centres, landfills and waste management as well as hazardous waste etc. Individuals can also to report locations where waste was illegally dumped. . It supports active citizen’s involvement in decision-making. The map is available online at: <https://ecomapa.gov.ua/>

More information available on EcoMapa at:

http://www.unece.org/fileadmin/DAM/env/pp/mop6/HLS/UKRAINE_HLS-panel_2.pptx

9.2 Public authority EIA Register and NGO mobile app linking to this platform

The Ministry of Energy and Environmental Protection of Ukraine developed a Register on environmental impact assessments (<http://eia.menr.gov.ua>) which provides for the implementation of the procedure online, without direct contact between the developer and the authority (anti-corruption measure); the procedure is opened by submitting a notification to the register (the system immediately assigns the case a unique number); publication of the date of official registration of documents in the register.

The Ukrainian NGO “SaveDnipro” created a mobile application on TELEGRAM called “SaveEcobot”, www.saveecobot.com for monitoring of information on permits and procedures for industrial and other environmental pollutants free service to the public. Application is linked to the EIA register and sends registered users a notification on the EIA procedures included on the EIA Register website. Users can specify the region for which they would like to be notified when an EIA procedure has been made available and/or when a specific project has been submitted for EIA. As soon as a document appears in the Register subscriber receives notification and can access this document

directly in the application. It also allows to send comments, as the application has forms and templates.

More information

http://www.unece.org/fileadmin/DAM/env/pp/a_to_i/Joint_UNECE-EEA_workshop/Presentations/OD4E_3_10_Ukraine_Sierova_Averin.pdf

http://www.unece.org/fileadmin/DAM/env/pp/ppdm/8th_PPDM/Statements_and_Presentations/8TFPP_2_4_PP_Ukraine_Sierova.pdf

10. Israel - PRTR air emission data helped to identify and find solutions to health risks at the planning stage of an industrial zone of Haifa

PRTR in Israel is used for urban planning in Haifa city. Haifa had the highest number of reporting facilities to the Israeli PRTR in 2017 – in particular related to petrochemical industry. Israel used PRTR air emission data to account for health risks at the planning stage of an industrial zone of the city of Haifa. This helped decision-makers to identify potential risks and find solutions. The National Economic Council decided to address the health risks by promoting to move the refineries based on the understanding that the pollution is preventing Haifa metropolis area from developing and that the move will lead to the revival of the entire region.

PRTR data can influence urban planning and the re-organization of a region. (http://www.unece.org/fileadmin/DAM/env/pp/prtr/PRTR_Global_Round_Table/GRT-3/Presentations/Item3_c_1-ISRAEL.pdf)

11. Sweden – Internet of Things helps monitor air quality data for pupils

In Gothenburg, data on air quality is made available for easy use by pupils on the way to school via a smartphone app. This data also provides a better basis for policy development by decision makers and citizens, contributing to improved health.

“IVL Swedish Environmental Research Institute will install multiple sensors to measure air and noise pollution around Gothenburg. These sensors will allow users to see the levels of air pollution they are exposed to and enable them to make active choices concerning health risks, for example, by planning their itineraries. [...] Individuals will be advised on alternative forms of transport or routes, both to enhance their own health and wellbeing and to contribute to a cleaner air quality in their surroundings, for example in the environs of schools and kindergartens. The project will target schools to increase awareness both among students and the general public of how our environment is impacted by our behaviour, says project leader Fredrik Hallgren at IVL Swedish Environmental Research Institute. The sensors will measure nitrogen dioxide, particulate matter and noise levels, and in aggregate provide a good picture of the current pollution situation in the city. In total 50 sensors will be installed in the areas around Korsvägen and Gårda in Gothenburg and positioned at schools, kindergartens, streets and at the mouth of the Tingstad tunnel. [...] The project is based on the Internet of Things (IoT) – a collective term for the development which means that machinery, vehicles, household appliances, people, etc., equipped with sensors and processors. The service can be used not only by private individuals, but also by companies, researchers and cities. EcoWeather will support cities in their efforts to mitigate environmental impact. Scientists can use the data provided the service both to show the correlation between health and the local environment, and to evaluate the comparative cost of

different air pollution interventions.” (Source and more information <https://www.ivl.se/english/startpage/top-menu/pressroom/news/nyheter---arkiv/2015-08-24-new-environmental-service-will-facilitate-healthier-job-commuting-and-better-school-environments.html>)

More information available online at:

- Environmental Monitoring of Air and Water with IoT-Technology
http://www.unece.org/fileadmin/DAM/env/pp/prtr/PRTR_Global_Round_Table/GR T-3/Presentations/Item5_a_3-HALLGREN.pptx
- <https://www.ivl.se/english/startpage/top-menu/pressroom/press-releases/press-releases---arkiv/2017-06-05-what-will-the-environmental-weather-be-like-today.html>

12. UNICEF U-report engagement tool for youth

U-report is digital platform (chatbot) which engages in a direct and real-time dialogue with thousands of young people in multiple countries. It is run by UNICEF in 41 countries worldwide that enabled young people to participate in decision-making with the help of their smartphones. Short polls requesting their opinion are sent to young people on a weekly basis and the results are shared with decision-makers and other stakeholders. Partners are following up on the poll results in order to respond to concerns raised by youth.

“U-Report is a free tool for community participation, designed to address issues that the population cares about. Once a U-Reporter has followed U-Report Global on Facebook messenger polls and alerts are sent via Direct Message and real-time responses are collected and mapped on this site. Results and ideas are shared back with the community. Issues polled include health, education, water, sanitation and hygiene, youth unemployment, HIV/AIDS, disease outbreaks and anything else people want to discuss. [...] Individual messages are confidential but aggregated data is transparent. Information received can be disaggregated by age, gender and country in real time and is used to connect young people with their representatives, improve UNICEF programmes and draw attention to urgent issues with national governments and the UN. NGOs, civil society and country leaders can see the information on the site to understand what the people want or need. U-Report relies on volunteer community members serving as U-Reporters to provide information on issues in their communities to create change.”

More information:

- http://www.unece.org/fileadmin/DAM/env/pp/wgp/WGP-22/Special_sessions/Anniversary_segment/WGP-22_Special_Segment_Ureport_Ukraine_Liliya_Lyubomudrova.pdf
- <https://ureport.in/v2/>

13. ICLEI Smartcitipate project on Open Governance in the Smart City

While looking up for more background information on one of the examples, I came across this ICLEI project and scoping report which also seems very relevant to the NEXUS:

Report Open Governance in the Smart City – a scoping report

www.iclei-europe.org/fileadmin/templates/iclei-europe/lib/projects/tools/push_project_file.php?uid=8B0sf56

“The smarticipate project aims to make engaging in the urban planning process easier than ever before. By harnessing the possibilities of open data, smarticipate has created an innovative platform that puts the right information at users’ fingertips, allowing them to have their say on urban planning projects in their locality. London (Royal Borough of Kensington and Chelsea), Hamburg (Free and Hanseatic City of Hamburg) and Rome (City of Rome) are taking part in the three-year project (2016-2019) and have been closely involved in the creation of the smarticipate web platform. Following the pilot phase, the smarticipate platform will be made available to other cities across the continent.

Smarticipate is the first step on a path that could change the way residents and local authorities interact – our aim is to open up the smart city!

The Platform: Smarticipate’s web platform brings users into the urban planning process in an interactive way. Users can view 2D and in some cases 3D models of their locality, comment on proposals, and make their own suggestions. Through the integration of city data sets, the platform can provide immediate feedback on the feasibility of users’ proposals. By simplifying the process of giving input on urban planning issues, more residents can share their thoughts, concerns, and knowledge.

Local governments that adopt the platform following the trial phase will be able to tap into the ingenuity of their residents, gaining valuable ideas and insights. On a wider scale, the platform establishes a basis for the co-creation of new public services and solutions to urban problems [...]

<http://www.iclei-europe.org/projects/?c=search&uid=Ja0Ai2x4>

14. FixMyStreet Platform

“Open source report-mapping software that can be deployed anywhere in the world. Most commonly used for reporting street issues to councils, but flexible enough to fit any project that matches geographical points to email addresses”

How it works (from the website): “FixMyStreet makes it easy for anyone to report a problem without worrying about the correct authority to send it to. FixMyStreet takes care of that using the problem’s location and [category](#), and sends a [report](#), by email or using a web service such as [Open311](#), to the department or body responsible for fixing it. But FixMyStreet doesn’t just send problem reports — it makes the reports visible to everyone. Anyone can see what’s already been reported, leave [updates](#), or subscribe to [alerts](#). We help prevent duplicate reports and offer additional features for [staff users](#) working for the authorities who are actually fixing problems.”

Example: United Kingdom - <https://www.fixmystreet.com/> Report, view, or discuss local problems (like graffiti, fly tipping, broken paving slabs, or street lighting)

The software provided by mysociety.org – they develop online technologies to help the public get easier engaged with their government and communities.

IV. Background information about Aarhus Convention and the Protocol on PRTRs

The Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (Aarhus Convention) was adopted on 25 June 1998 in the Danish city of Aarhus and entered into force on 30 October 2001. It has one Protocol on Pollutant Release and Transfer Registers (PRTRs), which entered into force on 8 October 2009

Origin

The Convention is based on the Principle 10 of the Rio Declaration on Environment and Development and along with its Protocol are the only global international legal instrument putting Principle 10 into effect (Escazu Agreement is open for accession by ECLAC Member States only).

The principles enshrined in the Convention are universally accepted and beneficial for all countries; this is why it did not become an exclusive agreement of "rich countries". On the contrary, the Convention presently has 47 Parties, including countries all along the economic spectrum, from some of the world's wealthiest economies to countries with some of the world's lowest gross domestic products. All the other Central Asian States, namely, Kazakhstan, Kyrgyzstan, Tajikistan and Turkmenistan, are Parties to the Convention. Thus, there are no political or economic background requirements for accession to the Convention. The Convention is also recognized to bring value to all its Parties, wherever they stand on the political or economic spectrum.

Becoming a Party

The Convention is open for accession by any UN member State. Article 19(2) of the Aarhus Convention addresses accession by ECE member States. There are no conditions on their accession; ECE countries may accede immediately if they decide to do so. Article 19(3) addresses accession of UN member States outside the ECE region and provides that such States may accede to the Convention upon approval by the Meeting of the Parties. The Protocol is open for accession by any UN member State. The Protocol is an independent legal instrument. There is no requirement to accede to the Protocol if a country accedes to the Convention and vice versa.

Achievements

In the more than twenty years since the adoption of the Convention countries have seen a number of important achievements. Laws and practices have been revised to bring them in line with the Convention for providing effective public access to information, participation in decision-making and access to justice in environmental matters. Members of the public are learning how to engage effectively in decision-making. There is also a growing body of jurisprudence based on the Convention and the legislation that implements it.

An amendment to the Convention adopted in 2005 underpins the rights of the public to participate in decision-making on genetically modified organisms. The Almaty Guidelines on Promoting the Application of the Principles of the Aarhus Convention

in International Forums,¹ adopted in the same year, reflect a growing recognition that where the environment is concerned, public involvement is important not only at the national and local levels but also at the international level.

The entering into force of the Kyiv Protocol on Pollutant Release and Transfer Registers (PRTRs) in 2009 established a new legally binding international benchmark for reporting on emissions of pollutants from a wide range of potentially harmful activities. The Protocol is regarded as a cross-cutting tool for addressing climate change, heavy metals and eco-toxic chemicals management, as well as for facilitating the development of compatible PRTR systems in different countries.

The Convention's innovative compliance and reporting mechanisms, both of which provide a role for the public, have yielded valuable information on the extent and nature of the challenges and the way forward in implementation. They serve as an important reminder that the value of an international treaty lies not only in the quality of its text, but also in how well it is implemented.

The Aarhus Clearinghouse for Environmental Democracy² and PRTR.net³ have emerged as leading global repositories of information on activities relevant to the Convention, the Protocol and Principle 10 of the Rio Declaration. A number of practical guidelines and recommendations have been developed under the treaties to assist Parties and stakeholders to implement them effectively.

Global relevance

The universal environmental rights that are enshrined in the Convention and its Protocol are essential elements of sustainable development and are relevant to a wide range of global concerns, such as climate change, water management, greening the economy, health and the eradication of poverty. The treaties thereby provides a solid and comprehensive framework for Governments to engage the public effectively in implementing the 2030 Agenda for Sustainable Development, in particular Goal 16 (Strong Institutions) and a number of other Goals related to environmental, economic and social matters. Implementation of the Convention and its Protocol will also support a countries' efforts in implementing many other multilateral environmental agreements, including the United Nations Framework Convention on Climate Change (UNFCCC) and Convention on Biological Diversity (CBD), and processes under the Human Rights Council.

Content of the Convention and of the Protocol

The Convention is not only an environmental agreement, it also addresses government accountability, transparency and responsiveness. The Convention is set upon three main interconnected pillars: access to information, public participation in decision-making and access to justice in environmental matters. It provides procedures and standards with regard to these pillars that can be applied to a wide range of environment-related matters. This is why its implementation across sectors supports the efforts of Governments to pursue numerous other commitments.

In general, the Convention is characterized by the following features:

¹ <http://www.unece.org/fileadmin/DAM/env/documents/2005/pp/ece/ece.mp.pp.2005.2.add.5.e.pdf>

² <http://aarhusclearinghouse.unece.org/>

³ <http://www.prtr.net/>

- Its objective is to protect the right of every person of present and future generations to live in an environment adequate to health and well-being;
- It requires Parties to guarantee rights to information, public participation in decision-making and access to justice in environmental matters;
- It requires that Parties take the necessary legislative, regulatory and other measures, as well as proper enforcement measures, to establish and maintain a clear, transparent and consistent framework to implement the Convention;
- It imposes clear obligations on public authorities, which are broadly defined so as to cover governmental bodies from all sectors and at all levels and bodies performing public administrative functions. Bodies acting in a judicial or legislative capacity are excluded;
- It encourages project developers and operators to identify the public concerned and enter into discussions at the early stage of the project development and to keep the public informed regularly of the environmental impact of their activities and products, where appropriate within the framework of voluntary eco-labelling or eco-auditing schemes or by other means;
- It establishes minimum standards to be achieved but does not prevent any Party from adopting measures which go further in the direction of providing access to information, public participation or access to justice;
- It requires that Parties promote the application of its principles within the framework of international bodies and processes in matters relating to the environment. The Almaty Guidelines on Promoting the Application of the Principles of the Aarhus Convention in International Forums are instrumental in this regard;
- It prohibits discrimination on the basis of citizenship, nationality or domicile against persons seeking to exercise their rights under the Convention.

The right to information

First, the right to information: the Aarhus Convention seeks to promote greater public access to information by laying down a set of procedures whereby environmental information held by public authorities must be made available to any member of the public upon request.

‘Environmental information’ is defined broadly so as to include “the state of elements of the environment, such as air and atmosphere, soil, land, landscape and natural sites, biological diversity and its components, including genetically modified organisms, and the interaction among these elements.” So information on soil contamination and land degradation clearly falls within the definition.

The definition also covers information on “factors [..], activities or measures [..] affecting or likely to affect the elements of the environment”. This would include information on projects, plans, programmes, policies or legislation that affect or are likely to affect levels of soil contamination or the extent of land degradation.

Finally, the definition covers “the state of human health and safety, conditions of human life, cultural sites and built structures,” inasmuch as they are or may be affected by the state of elements of the environment or by the aforementioned factors, activities or measures.

The fact that information falls within the Convention's definition of environmental information does not automatically mean that it must be disclosed to the public. There are a number of exemptions, e.g. related to national defence, public security, commercial confidentiality, personal data and so on. However, these exemptions are to be interpreted in a restrictive manner and taking account of the public interest in disclosure. Furthermore, and crucially, there must be an appeals procedure in place allowing a person to challenge a failure to comply with his or her request for information.

The Convention also imposes various obligations on public authorities requiring them to gather, manage and disseminate information in a transparent way. These include an obligation on Parties to ensure that in the event of any imminent threat to human health or the environment, all information which could enable the public to take measures to prevent or mitigate harm arising from the threat and is held by a public authority is disseminated immediately to members of the public who may be affected.

One of the 'active' information obligations under the Convention, the obligation on Parties to progressively establish pollution inventories, has been separately elaborated and developed into a Protocol to the Convention.

The Protocol on Pollutant Release and Transfer Registers requires its Parties to establish national registers containing information on releases (emissions) to air, water and soil of certain major pollutants from certain types of potentially polluting activity. The registers will be maintained through mandatory annual reporting by the relevant facilities and must be publicly accessible through the Internet free of charge. While the registers are not required to contain information on soil contamination or land degradation per se, the information on releases and transfers of pollutants that they do contain can be relevant to identifying potential causes of such contamination or degradation. For example, the obligation to report on transfers of hazardous waste should make it less easy for large quantities of waste to simply disappear out of the system and end up contaminating the environment.⁴

The right to participate

The second 'pillar' of the Convention concerns the right to participate. Guaranteeing this right involves creating structured procedures whereby information and opinions put forward by the public can be taken into account in the decision-making process. It does not (or not normally) mean that the public becomes the decision-maker; it certainly does not imply a usurping of the authority of parliaments or the executive branch of government. But it does imply an active and responsive consultation process.

The Convention sets out relatively detailed public participation procedures to be applied in the case of decision-making on specific activities (projects) – detailed, at least, for an international treaty. These include a requirement to notify the public concerned with a minimum set of information about the proposed project; opportunities for the public to participate at an early stage, and with reasonable

⁴ The Bishkek preparatory conference was told that the general prosecutor in Ukraine was investigating 4,000 cases of dumping hazardous waste.

timeframes; a right for members of the public to submit comments and a corresponding duty of the public authority to take those comments into account; and prompt public notification of the decision and the reasons and considerations on which it is based.

The types of activity to which the entire set of public participation procedures apply, set out in annex I of the Convention, include several which may result in soil contamination or land degradation, such as mining activities, chemical storage and processing and waste management.

Provisions also apply to decision-making on plans, programmes, policies and legislation. While the provisions are less prescriptive, they are nonetheless significant and the scope is broader, covering any plans, programmes or policies “relating to the environment” and legislation “that may have a significant effect on the environment”. Thus, public participation opportunities should be provided in the preparation of plans, programmes, policies and legislation on human settlements planning, agriculture, mining, forestry or water management.

The right of access to justice

Finally, there is the right of access to justice. This involves, as a minimum, the right of members of the public to lodge an appeal in situations where their rights to information and participation are violated. The Convention requires its Parties to establish administrative and/or judicial review procedures to this end. But access to justice in a fuller sense means more than this; it means the right of members of the public to challenge violations of environmental law in general, whether these violations are by public authorities or by private enterprises. The Convention also provides for such a right, though it gives some discretion to Parties to establish criteria for standing which may in practice limit the range of individuals or organizations having access to the review procedures.

Where they have such access, individuals and NGOs can support the enforcement of the law either by directly taking a case against a polluting company or by taking a case against a public authority that is failing to enforce the law (where that failure itself constitutes a violation of national law). Sometimes a State agency fails in its enforcement duties because it simply does not have the resources to monitor every breach of an environmental law. Or it may happen because of collusion between the polluting company and the enforcement agency (the poacher befriending the gamekeeper). Either way, while it is the courts that will decide on the interpretation of the law, the public can help to bring about better enforcement.

Benefits

The Aarhus Convention and its Protocol offer a unique legal framework for promoting public rights in the field of the environment across the globe. It will drive the development of national legislation and practice, bringing about positive changes that would otherwise not occur. Being a Party to this agreement will ensure universal implementation of Principle 10 and the Agenda 2030 to the common standards. The Convention and its Protocol provide an essential framework for governments to effectively engage the public and different stakeholders in decision-making, thereby offering solutions to truly sustainable governance.

From an economic perspective, there is a growing recognition that it is cheaper and resource efficient to engage the public in decision-making from the outset rather than to pay to remedy the effects of unsustainable decisions. Effective public participation in decisions relating to the environment helps ensure that the final outcome of a project or development will be more acceptable, more sustainable and less harmful to the environment. It also means that hidden or unexpected aspects of a proposed activity can be uncovered early, helping to avoid costly mistakes and public unrest.

Progressive governments increasingly recognize and understand that decisions will only be sustainable if reached through a transparent, participatory and accountable process. In addition, the common standards of environmental democracy will provide a basis for fairer business competition, also across borders. Hence, the implementation of the Convention and its Protocol helps to create an attractive investment climate for sustainable projects and support government policies to tackle poverty and inequality by ensuring that all persons, including the poorest segments of society and rural communities, have access to reliable information and are able to participate in decisions that impact on their lives.

Institutional and financial arrangements

An important strength of the Convention and its Protocol lies in their governing structures, this is the multilateral institutional framework, based on the Meetings of the Parties (MOP), its subsidiary bodies as well as the permanent secretariat. They have played a pivotal role in ensuring the continued implementation and enforcement of the obligations under the treaties.

Implementation of the treaties ultimately remains the responsibility of each individual Party. Parties also promote multilateral activities through adopted four-year work programmes. A range of international, non-governmental and regional organizations, as well as members of civil society and other stakeholders also play an important role in supporting the implementation of the Convention and its Protocol.

Decisions related to the Convention are taken by the Meeting of the Parties which gathers for an ordinary session every four years. During the intersessional period, the work at the international level is undertaken by the Working Groups of the Parties (comprised of Parties), three thematic Task Forces dedicated to each of the Convention's three pillars (on access to information, public participation in decision-making and access to justice in environmental matters) and the Compliance Committees. At the national level the work is undertaken by Parties, stakeholders and capacity-building partner organizations.

Parties keep under the review the necessary legislative, regulatory and other measures to implement the provisions of the Convention and report regularly (currently every 4 years) to the Meeting of the Parties to the Convention. Next sessions of the Meetings of the Parties will be held in October 2021. Georgia is considering hosting them in Tbilisi.
