



European Union Network for the Implementation
and Enforcement of Environmental Law

LISBON WATER AND LAND CONFERENCE

11 and 12 October 2022

Final Report

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Introduction to IMPEL

The European Union Network for the Implementation and Enforcement of Environmental Law (IMPEL), was set up in 1992 as an informal Network of European Regulators and Authorities, concerned with the implementation and enforcement of environmental law. In 2008, IMPEL was transformed into an international non-profit association of the environmental authorities of the European Union Member States, acceding and candidate countries of the European Union (EU), European Economic Area (EEA), EFTA countries, and potential candidates to join the European Community. The association is registered in Belgium and its legal seat is in Brussels. Currently, IMPEL has 56 members from 36 countries including all EU Member States, North Macedonia, Serbia, Turkey, Iceland, Kosovo*, Albania, Switzerland, and Norway.

*(*This designation is without prejudice to positions on status, and is in line with UNSCR 1244/1999 and the ICJ Opinion on the Kosovo declaration of independence.)*

The Network's objective is to create the necessary impetus in the European Community to make progress on ensuring a more effective application of environmental legislation. The core of the IMPEL activities concerns awareness raising, capacity building, and exchange of information and experiences on implementation, enforcement, and international enforcement collaboration as well as promoting and supporting the practicability and enforceability of European environmental legislation.

During the previous year's IMPEL has developed into a considerable, widely known organisation, being mentioned in several EU legislative and policy documents, e.g. the 7th Environment Action Programme and the Recommendation on Minimum Criteria for Environmental Inspections, and more recently in the General Union Environment Action Programme to 2030 and EU Action Plan: 'Towards Zero Pollution for Air, Water and Soil'.

The expertise and experience of the participants within IMPEL make the network uniquely qualified to work on both technical and regulatory aspects of EU environmental legislation.

Information on the IMPEL Network is also available through its website at: www.impel.eu



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Executive Summary

Under the umbrella of the European Union Network for the Implementation and Enforcement of Environmental Law (IMPEL), the Water & Land Conference 2022 took place on the 11th and 12th of October, in Lisbon, and also online, organized together by IGAMAOT (Portugal), ISPRA (Italy) and NEG (Romania).

Participants

The Water and Land Conference 2022 was attended by over 150 representatives from 35 countries, and the agenda included presentations from the Chairs of the European Network of Prosecutors for the Environment (ENPE) and the Police Authorities on the fight against Environmental Crime (EnviCrimeNet), and Representatives from the European Commission, European Union Forum of Judges for the Environment (EUFJE), from international organisations such as Food and Agriculture Organization (FAO), United Nations Environment Programme (UNEP), and authorities as the Portuguese Environmental Protection Agency, the Italian National Institute for Environmental Protection and Research, the National Environmental Guard and Romanian Space Agency, the Scottish Environmental Protection Agency, and the French Biodiversity Agency.

Disclaimer

This report is the result of a project within the IMPEL network. The content does not necessarily represent the view of the national administrations or the European Commission.



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1. INTRODUCTION

The main focus of the Water and Land Conference 2022 is to address three important topics, the Zero Pollution Action Plan, the proposal for a New Environmental Crime Directive, and the Assessment of Environmental Damage under the Environmental Liability Directive, but also the use of GEOspatial INTelligence for environmental compliance assurance, namely possible links, experiences, and case studies to a further and deeper comprehension of the directions and solutions that can be achieved for more effective implementation of the environmental law.

The [Zero pollution action plan](#) is an initiative adopted on 21 May 2021 by the European Commission, under the main objectives of The [European Green Deal](#), that announced headline actions on zero pollution, namely: A chemical strategy for sustainability, to better protect citizens and the environment against hazardous chemicals; Revising measures to address pollution from large industrial installations, to ensure they are consistent with climate, energy, and circular economy policies; and [Zero pollution action plan for water, air, and soil](#), to better prevent, remedy, monitor and report on pollution. The Commission, in cooperation with the Committee of the Regions, set up a [Zero Pollution Stakeholder Platform](#) to achieve the zero pollution ambition and to effectively mainstream the zero pollution agenda.

The Commission proposed a [new Directive on environmental crime in 2021](#), due to the real need to strengthen the protection of the environment through criminal law, because current rules do not tackle the seriously damaging effects of environmental crimes, effectively enough, causing significant damage to the environment, citizens' health and the economy within and beyond the European Union (EU). As the European Commission points out¹, *According to Interpol and the United Nations Environment Programme², "environmental crime is the fourth largest criminal activity in the world after drug trafficking, human trafficking, and counterfeiting, growing at a rate between 5%-7% per year, two to three times the pace of global economic growth.*

The current proposal is part of the wider package of initiatives under the European Green Deal and aims the improvement how the EU defines criminal offences related to pollution, waste, and threatening biodiversity and other natural resources, giving more legal certainty and effectiveness to the EU's legal framework on environmental crime."

The [Environmental Liability Directive](#) (ELD) entered into force in 2007, and established a comprehensive EU-wide liability regime for environmental damage based on the 'polluter-pays' principle, and provided a strong incentive to avoid damage occurring and support other EU environmental laws that are designed to protect the environment, namely Wild Birds Directive, Habitats Directive, Industrial Emissions Directive, Marine Strategy Framework, and **Water Framework Directive**. The ELD defines environmental damage as damage to protected species and natural habitats, to water and soil, and in March 2021, the Commission

¹ [European Commission, Revised EU Directive on environmental crime](#)

² [Report on Eurojust's Casework on Environmental Crime](#), 2021, p. 20.



adopted [guidelines](#) that clarify the scope of the term 'environmental damage' in the ELD, based on the established [case law](#).

This Water and Land Conference will intend to explore the three mentioned points, possible links, experiences, and case studies to a further and deeper comprehension of the directions and solutions that can be achieved.



2. WATER AND LAND CONFERENCE

Under the umbrella of the European Union Network IMPEL, the Water & Land Conference 2022 took place on the 11th and 12th of October, (Agenda in Annex I), in Lisbon, and also online, in a hybrid event, in a joint organisation by IGAMAOT - Portugal, ISPRA - Italy, and the Romania NEG.

The Minister for the Environment and Climate Action from Portugal opened this Conference together with the Inspector General of IGAMAOT and the Head of the Unit Environmental Rule of Law and Governance from the European Commission (EC).

The Water and Land Conference 2022, was attended by over 150 representatives from 35 countries, and the agenda included presentations from the Chairs of the European Network of Prosecutors for the Environment (ENPE) and the Police Authorities on the fight against Environmental Crime (EnviCrimeNet), and Representatives from the European Commission, including from Joint Research Centre (JRC), European Union Forum of Judges for the Environment (EUFJE), from international organisations such as Food and Agriculture Organization (FAO), United Nations Environment Programme (UNEP), and authorities as the Portuguese Environmental Protection Agency (APA), ISPRA, NEG and Romanian Space Agency, the Scottish Environmental Protection Agency (SEPA) and the French Biodiversity Agency (OFB).

In the following sections, there is a summary reference of the content presentations from the Water and Land Conference 2022, including slides from each presentation.



11 October

Session 1: ZERO POLLUTION ACTION PLAN (EU GREEN DEAL)

Moderator: Mihaela Monica Crisan (IMPEL - Water and Land Expert Team Deputy Leader)

Marianthi Podimata, from de EC, carried out the presentation concerning the Zero Pollution Action Plan and Update on Commission`s initiatives concerning Water.

The focus of the intervention was the Green Deal a legal framework for the zero pollution ambition in several areas, as mentioned in figure 1.1., namely, energy, agriculture/fishery, industry, consumption/products, and mining. With the 2050 objective in mind, the intention is a recovery operated at local, regional, and national levels, with key actions drivers referred to in the Zero Pollution Action Plan, paying particular attention to the social-economics aspects, how clean technology can create business opportunities and how to protect the more vulnerable. For the goals to be achieved, society as a whole has to be involved, and for that, a Zero Pollution Stakeholder Platform was created, bringing together stakeholders and experts from different policy areas, mainstreaming the zero pollutions agenda, creating co-ownership, promoting collaboration, synergies, and fostering integrated solutions.



Figure 1.1. – The European Green Deal

The nine Flagships – integrated initiatives are:

1. Reducing health inequalities through zero pollution
2. Supporting urban zero pollution action
3. Promoting zero pollution across regions
4. Facilitating zero pollution choices
5. Enforcing zero pollution together
6. Showcasing zero pollution solutions for buildings
7. Living Labs for green digital solutions and smart zero pollution
8. Minimising the EU's external pollution footprint
9. Consolidating the EU's Knowledge Centres for zero pollution



Flagship 5 key actions, concerning networks, were emphasized, as figure 1.2. shows:



Flagship 5.
Enforcing zero pollution together

Key actions

- promote enhanced collaboration between national authorities and develop new joint actions across the compliance chain
- bring together environmental and other enforcement authorities to exchange best practices and devise cross-sectorial compliance actions
- improve the horizontal legal framework by strengthening the Environmental Crime Directive
- evaluate Environmental Liability Directive
- consider developing standardised provisions on compliance assurance for new legislative proposals
- monitor the proportionate and dissuasive application of penalty clauses in force
- encourage the application of existing inspections and other compliance checks and penalty clauses
- promote the use of cutting-edge technologies to boost national capacities for monitoring and compliance verification.

Figure 1.2. – Flagship 5 Key Actions

The importance of the legal water framework was stressed, with a strong presence in a transversal way in the European Green Deal, and having a constant process of consultation and cross-cutting involvement of all relevant environmental directives, as shown in Figure 1.3.



Figure 1.3 – Water Framework directive

The revision of the list of several pieces of information was announced, namely, substances covered in the groundwater Directive and the Environmental Quality Standards Directive; legislation in the Industrial Emissions Directive; the revision of legislation in the Urban Wastewater Treatment Directive, and the revision of the Marine Strategy Framework Directive.

Piotr Wojda, from the JRC, of the EC, carried out the presentation concerning European Union (EU) Soil Observatory and Soil Pollution, the EUSO Project, which intends to be the principal provider of reference data and knowledge at EU-level, for all matters relating to the soil, as represented in figure 1.4.



Launched on December 2020, the project, under the umbrella of the European Green Deal, aligned with key EU strategies on biodiversity, agriculture, and the Zero Pollution Action Plan, pretends to gather and generate data and knowledge for baseline and trend analysis that assess the condition of soil and associates ecosystem functions, together with the extent and impact of pressures such as degradation, desertification, chemical pollution or loss of soil biodiversity.



Figure 1.4 – EU Soil Observatory

The project's ambitions were explained within the EU SOIL Strategy and in the Zero Pollution framework, acknowledging the definition of healthy soil and the medium and long-term objectives, including progress towards policy targets, taking into account the interactions of soil with other elements (air/water/soil) and contaminants, in an integrated modeling framework, and an integrated monitoring and reporting system on soil health, committed to achieve land degradation neutrality by 2030 and to support the implementation of Horizon Europe's Soil Mission, anticipating the prospects of reaching 2030 and 2050 objectives.

Within the Clean Soil Outlook, was highlighted, among others, the need for better quantifications through agreed methodologies, the need for a common EU framework and definitions, the recognition of an existing knowledge gap regarding soil pollution, a currently missing holistic EU-wide legislative approach to protect and sustainably manage soils.

Natalia Rodriguez Eugenio, from the FAO, carried out a presentation concerning the project, Soil, Land and Water, and Digital Information Systems for Informed Decisions.

The background presented revealed the number of persons facing hunger and acute food insecurity in the world increased, and the more vulnerable are affected by agricultural losses related to natural resources increasing strain (due to climate-related disasters, conflicts, climate change extreme events, economic downturns, pandemics, pollution, population growth and expansion, and degradation), which creates an urgency to increase agricultural production to meet local food demand, leading to the adoption of intensive agriculture and unsustainable practices creating irreversible soil, biodiversity, and water degradation.

The project Soil, Land and Water, and Digital Information Systems for Informed Decisions intends to collect data and information for decision-making, considering that data is essential to predict global challenges and making possible national and regional data-driven policy-making and guiding field operations (e.g. to optimize fertilizer and pesticide applications, irrigation plans, crop). However, it stressed the lack of harmonization and



updated data and fragmented among and within institutions, which lead to project “FAO in action” with other stakeholders and finding mechanisms to fill those gaps.

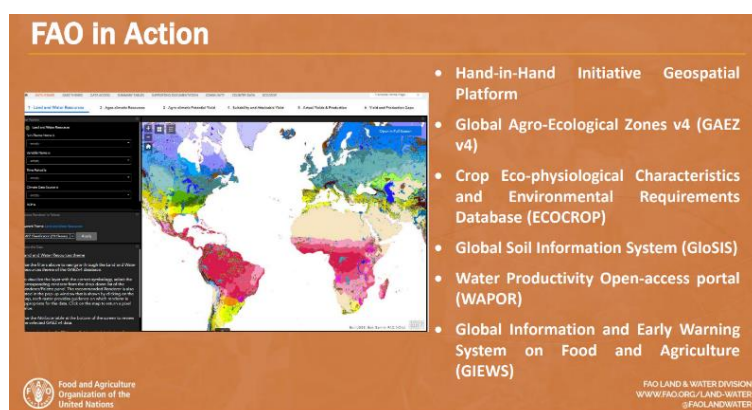


Figure 1.5. – Overview of FAO in Action

Other FAO projects were presented, as shown in picture 1.5., namely:

- Hand-in-Hand Initiative Geospatial Platform;
- Global Agro-Ecological Zones v4 (GAEZ v4);
- Crop Eco-physiological Characteristics and Environmental Requirements Database (ECOCROP);

- Global Soil Information System (GloSIS): with GloSIS data hub online; a System of Systems (regional, national); Federated and populated by country-driven global data products, national soil information systems; and GloSIS Discovery Hub –One-stop-Shop for soil information and data converging National/Regional Systems;
- The Water Productivity Open-access portal (WAPOR);
- The Global Information and Early Warning System on Food and Agriculture (GIEWS);
- The International Network on Soil Pollution (INSOP), focuses on six main areas of work each of which various tasks will be carried out to achieve the overall goal of Zero Pollution. It will work on improving knowledge on the full cycle of soil pollution, from assessment to remediation, as well as on the effect on environmental and human health the provision of soil ecosystem functions and services and capacity building, awareness raising, and knowledge and technology transfer is the key pillars;
- The GSOCseq – Global Soil Organic Carbon Sequestration Potential Map;
- The GSASmap – Global Salt Affected Soils Map; and
- The SoLaWiSe platform

Pieter Beck, from JRC, EC, **Ion Nedelcu**, from Romanian Space Agency, and **Federico Filippini** from ISPRA, carried out the presentation concerning Geospatial Intelligence for Environmental Compliance assurance (ECA).

The Framework Partnership Agreement on Copernicus User Uptake (FPCUP) action, supports the investigation of both public authorities and private entities' information needs, related to illegal activities affecting the different environmental areas, that relates to the Commission Communication on “EU actions to improve environmental compliance and governance” and related green deal acts, activities developed by the Environmental Compliance and Governance Forum, intended to address Non-compliance events reported by governmental and EU organisations on waste crime, forest crimes illegal building, air quality, illegal fertilisation, water pollution, by a better, open and free geospatial data and advance in processing and analysis technology supporting the production of actionable intelligence for decision making – the GEOINT framework, and mentioned the systematically assessing compliance with GEOINT, as figure 1.6. presents.

Systematically assessing compliance with GEOINT

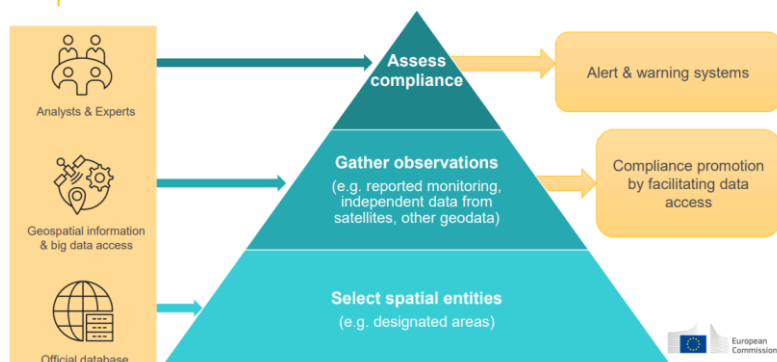


Figure 1.6. Triangular diagram

Table I - briefly describes some case studies and an invitation was addressed to search for more information at <https://www.copernicus-user-uptake.eu/>

Table I - Case Studies Examples x

Problem:	Needs:
AIR: Emissions in the air due to burned waste or burned vegetation, accidental emissions from industrial sources; point sources, mobile sources, and surface sources.	Permanent records of measurements allow the production of air quality maps and further modeling toward the identification of sources.
Water: illegal dumping, oil spills, marine litter, etc. which result in pollution of the coastal areas; sink and threaten benthic organisms; negative impact on sectors such as fishing and tourism; marine fauna; the influence of fresh waters also need to be assessed.	Provide records of all the possible pollutants (marine litter, plastic litter, oil spills); localization of sources (hotspot areas where much litter originates from) to identify main polluter countries; localization of (temporal) sinks (accumulation zones such as ocean fronts, eddies, gyres); size and direction of dispersion; spatial and temporal statistics (weekly, monthly, seasonal, yearly statistics);
Construction: Illegal buildings (or relevant expansion of existing buildings) on unsealed soil (i.e. natural, semi-natural, or agricultural land) without the required permissions, or on land where construction is not allowed.	Location of the possible illegal constructions and an estimate of the extent of the construction area; early detection is desired;
Forest: forest ecosystems becoming threatened by illegal logging and illegal trade in timber products; forest crime can vary substantially: from subsistence-based activities to operations on an industrial scale -taking timber from outside authorised forest concessions or exceeding assigned timber quotas; clearing forest stands for other land uses;	Weekly to monthly monitoring, detection, and measurement of not only man-made but also deforestation due to natural factors like wind, fire, or specific diseases affecting the forest vegetation in close correlation with the workflows legally established at a national level for forest exploitation; min 1-5 Ha.
Manure: common agricultural practice aimed at benefiting the content of nitrogen in the soil to improve plant growth; if the	Monitoring and controlling activities during the no-spanning period as required by laws and supporting



<p>applied amount of manure exceeds the nitrogen that the crop can absorb, the phenomenon of nitrate pollution occurs - contamination of surface and groundwater for washout the soil.</p>	<p>authorities with a database platform to collect and homogeneously manage the information on manure-spreading activities; in areas where farms are present and focusing on arable land</p>
<p>Waste: Unmanaged or illegal dump sites can vary in size and shape, originate from different sources (e.g. construction waste, household waste, e-waste), and consist of different materials (e.g. plastic, car tires, metal, bricks, concrete); range from small wild dump sites, which can often be found along roads or rivers to “mountains” of plastic waste;</p>	<p>Detection of illegal landfills, dump sites, and illegal waste storage facilities including interim ones; monitor correct use (type and quantity) of legal landfills including the closed ones; monitor emissions and impact on the environment.</p>

Mark Dowell, from the JRC EC, presented the COM Knowledge Center on Earth Observation (KCEO), with two main pillars: Policy Uptake and Coherence, which you can realise by looking at figure 1.7., and Mainstreaming research and innovation, with the basis of Inclusiveness and Transparency: Dialogue with external partners, international organisation, and society.

The legislative incentive to KCEO was given by the space strategy for Europe COM (2016)705, Space strategy for Europe COM(2016) 705 that mandates the Commission to encourage the uptake of the use of Earth Observation Overview of EU Policy needs.

Currently, the core activity consists of the definition and implementation of the Policy/User Requirement Database, regarding different policy areas, and concerning Environmental Compliance Assurance and Deep Dive steps to achieve it in 2023 is and for that KCEO Deep Dive steps are: - interviews, workshops; Value chain assessment; Translation of needs into quantitative requirements; Assessment of fitness-for-purpose concerning existing products/services/infrastructure; Gap Analysis & Recommendations for evolution.

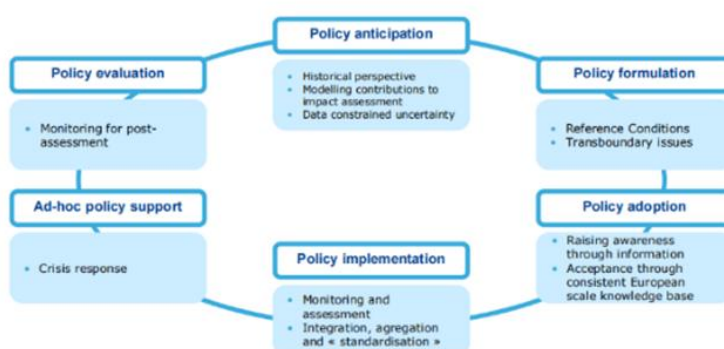


Figure 1.7 – Uptake throughout the policy cycle

- The [website](https://knowledge4policy.ec.europa.eu/earthobservation), with the net events to follow and featured content is available at <https://knowledge4policy.ec.europa.eu/earthobservation>.



Session 2: New Environmental Crime Directive (ECD) – Application to water resources

Moderator: Faustino Gudín (Member of EUFJE)

Miroslav Angelov, from EC, carried out a presentation concerning the proposal for a new Environmental Crime Directive (ECD), adopted on 15 December 2021 by the Commission, and its relevance for tackling water offences. The policies context for this proposal was the European Green Deal, the Biodiversity Strategy, the Zero Pollution Action Plan, and the Chemicals Strategy, which calls for better enforcement and more stringent sanctions, and was due to the need to address the rise of environmental crime, considering the existing directive from 2008 is outdated and too weak, and the need for precision of crime definitions, provisions on types and levels of sanctions, coordination, and cooperation, enforcement chain.

The main novelties of ECD were presented, including the legal basis and technique for scope definition, the definition of offences (refined definition and new offences), as shown in pictures 2.1., water offences, sanctions provisions, recognising the role of civil society, and strengthening the enforcement chain, and facilitate a more effective investigation and prosecution of environmental crime. Proposed requirements aim at ensuring:

- ❖ Sufficient human and financial resources
- ❖ Efficient cooperation and coordination
- ❖ Appropriate training for judges, prosecutors, police, inspectors
- ❖ Availability of effective investigative tools
- ❖ Adoption of a national strategy for combating environmental crime.



Figure 2.1. – Illustration of the new Offences of ECD

The need to increase the ability to monitor applications in practice with

- Obligations of the Member States, includes:

- collect and regularly publish statistical data on the scale of environmental crime and efforts to combat it;
- annually transmit to the Commission the relevant statistical data.

- Obligations of the Commission to:

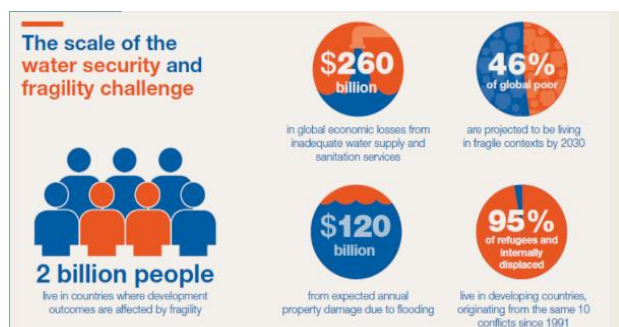
- regularly publish a report based on the statistical data transmitted by the Member States;
- adopt implementing acts establishing the standards format for data transmission.

As the strategic EC support, working under the Action Plan on Environmental Compliance and Governance and supporting cooperation with European networks of environmental enforcement practitioners (IMPEL, ENPE, ECN, EUFJE).



Marianna Bolshakova, from UNEP, focused on the global trends in environmental crime, including water crime, that puts into a stake the global freshwater increased use for agriculture, industry, and domestic uses and the impacts of water scarcity on gross domestic products.

The water-related crimes include illegal water abstraction, pollution, illegal discharges from ships, organized



crime, corruption, terrorism, cybercrime, and water-related violence, and the exponential growth of these crimes, is related to the low penalties, and difficulty in monitoring, investigating, and prosecuting, which leads to limit situations in some geographical areas where environmental defenders are being killed. All these scenarios of the scale of water security and fragility, are shown in figure 2.2.

Figure 2.2. – Scale of the water security and fragility challenge

Some of the challenges in addressing water-related crime were addressed, such as No single definition; Very varied national legislation; Lack of statistics and water offences being recorded under other offence categories; Reluctance to prosecute, and lack of knowledge and culture of enforcement; Addressing most offences under administrative law; Lack of monitoring and enforcement capacity; De-prioritization due to collectivity and anonymity of victims; Difficulties in establishing causation links; Complex “significance” tests, Insufficiently deterring penalties.

The challenges and some cooperation and networks that work in this area, namely:

Specialized: IMPEL; European Network of Prosecutors for the Environment (ENPE); Network of Prosecutors on Environmental Crimes (Baltics); International Network for Environmental Compliance and Enforcement (INECE) and the informal Global Network of Environmental Prosecutors

General: European Judicial Network; COE Committee of Experts on the Operation of European Conventions on co-Operation in Criminal Matters; Camden Assets Recovery Interagency Network; OECD Anti-Corruption Network for Eastern Europe and Central Asia.

Regional: South-East European Prosecutors Advisory Group; Commonwealth Network of Contact Persons (CNCPP) (MLA); The Great Lakes Judicial Cooperation Network; South East Asia Justice Network; Hemispheric Information Exchange Network for MLA; Judicial Cooperation network for CA and South Caucasus; West Africa Network of Central Authorities and Prosecutors against Organized Crime.

Organizations / arrangements: Interpol; Europol; EUROJUST; Financial Action Task Force (FATF); UNODC
UNEP

Anabela Rebelo, from APA, Portugal carried a presentation concerning a guide to establishing Criteria for Substantial Damage to Water Resources, explaining the need for investigating and understanding the various

effects, step by step, between the occurrence episode to the damage itself, developed by APA (coordination), together with IGAMAOT, the Public Prosecution Service (PGR), and Portuguese Criminal Police (PJ).

The methodology is thoroughly explained, with technical-scientific concepts, legal concepts, technical and scientific methodology supported by risk assessment, multiple types of hazardous occurrences/events and impacts on surface water and/or groundwater, and evidence collection and evaluation and the definition of deterioration of water quality was underlined. The Technical-Scientific Index of illicit water resources (Itc) has on its basis an equation taking into account factors such as the Occurrence potential, the Negative effect (the

type of occurrence and the severity), and the Potential for water resources being affected (surface and groundwater), as shown in figure 2.3

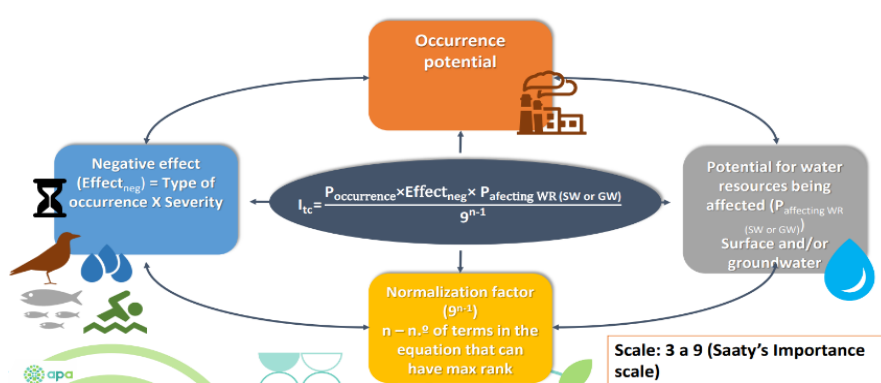


Figure 2.3 - Technical-Scientific Index of illicit water resources (Itc)

A GIS geo viewer was developed by APA, to support national authorities investigating an environmental crime on the gathering of relevant information in concrete cases, such as water uses and resources in a specific area.

Presented a geographic information system viewer (GIS) geoviewer was developed by APA, to support national authorities investigating an environmental crime on the gathering of relevant information in concrete cases, such as water uses and resources in a specific area.

As a tool to help analyse all the data, an excel tool was developed to integrate all the data obtained for automatic calculation.

The working group also produced support documents such as a checklist to help with the evidence collection and assessment, for inspectors, and prosecutors, using national and international standards, Interpol guidelines, legal diplomas, and jurisprudence, in a holistic approach. The guide is currently under testing by IGAMAOT (administrative and criminal body in the environment), for validation in concrete cases. The next steps will include the promotion of training sessions with inspectors and working with inspectors and prosecutors in the application to real situations.

Anne Brosnan, president of ENPE made a presentation concerning the "Prosecution of Water Offences relating to the Revised Environmental Crime Directive, (ECD)".



The objectives to be achieved on surface water, groundwater, coastal waters, and the sea, under the risk assessment needed to licensing regimes for water, permitting process, applications, consultations, and technical assessment. Referred to water resources offences (illegal abstraction, unlawful impoundment, and breach of license or permit), water quality offences (illegal discharge, and breach of licence or permit conditions), and underlined the evidence in water resources cases and water quality cases, as shown in figure 2.4., underlining its similarity.



Figure 2.4. – Evidence in water resources cases

Concerning the revision of the ECD, the new offences were mentioned and explained the unlawful act and intent, within the water resource offending now included, in article 3, paragraph 1, and that behavior must be criminalised were committed with serious negligence. Concerning article 3, paragraphs 1, and 2, the phrase, “causes or is likely to cause death or serious injury to any person or substantial damage to air, water or soil quality...”, having the unlawful act, and the intent or serious negligence, and actual/likelihood of substantial damage. The directive gives the meaning of “substantial”, adding a list of factors or elements to be taken into account, and gives more new concepts, “likely to cause”, and “Negligible or non-negligible quantities”, that were also explained. The presentation was concluded with further evidence which may now be needed, and the necessary involvement of environmental experts, having in mind that the enforceable will happen through domestic legislation, which is fundamental, and the increased penalties and sanctions.

Massimiliano Corsano, from Italian Carabinieri, and **Jose Manuel Quintana Souza**, from Spanish Guardia Civil, both from EnviCrimeNet, presented, concerning crimes of pollution and environmental disaster, Italian and Spain's experience with environmental pollution, and the legal context, and emphasized the need for a strong legal framework. There was an explanation and discussion of topics such as the definition of “abusiveness” of the conduct, “impairment or deterioration”, “significant and measurable”, the felony’s subjective element, pollution evidence and forms of criminality, investigation connected to environmental crimes, environmental organized crimes, and money laundering crimes associated.

The precautionary principle and caution measure and the concept of environmental disaster were approached with a description of two real cases, a Per-and Polyfluorinated Substances (PFAS) contamination in the Veneto Region (Italy), namely the difficulties of estimating environmental damage, the ambiguous concepts defined in law, and the need, from environmental authorities, for highly technical and complex reports. Also identified the difficulties of the investigation to provide evidence to the court and ensure an effective prosecution and the lack of jurisprudential judgments in this area.

The cases described referred to a Spanish environmental disaster (the ecological disaster of the Mar Menor), and the difficulty of naming one responsible, with insights on the contaminant sources, the consequences for the environment, and the irreversibility of that type of pollution, as well as the legal personality of the area of Mar Menor as a step taken for a possible resolution.

Faustino Gudín, from EUFJE, carried out the presentation of EUFJE, explaining the correspondence of the penalties and sanctions, within the civil, administrative, and criminal judges. Environmental crimes were



referred to as many times invisible, apparently victimless, and very difficult to investigate, promoting a climate of impunity. The investigation is held by the environmental administration and law enforcement agencies, and in certain cases, with close involvement of the prosecutor's office, with very complex and technical procedures. Emphasizing the required specialization of judges, already existing in some countries, to understand the cases and impose fines and criminal convictions, when applicable, to protect the environment, considering justice as one of the pillars of the Aarhus Convention. Environmental crimes were framed on a global scale, referring to the importance of the proposal from the European Commission on the new ECD, part of the package initiatives under the Green Deal, namely e.g. data collection, investigative techniques, international cooperation, freeze and confiscation, training, and national strategy on combating environmental criminal offences.

International cooperation held with other professional associations, as stated in figure 2.5., namely European Administrative Judges (AEAJ), ENPE, IMPEL, and EnviCrimeNet, with EUJFE, was mentioned as an institutional pillar that plays a very important role in the effectiveness of the judicial chain. For example the participation in common projects such as BIOVAL, the joint position paper concerning the proposal for new ECD, and the Conference from the 4 Networks (IMPEL, ENPE, EnvicrimeNet, and EUJFE),



Figure 2.5. – 4 Networks Conference 2021

BIOVAL was presented as an example of a joint project of EUJFE, IMPEL, and ENPE, that intends to create a non-binding, practical instrument to value ecological (biodiversity) damages in court.

12 October

Session 3: Environmental Damage in Environmental Liability Directive (ELD) - Application to water resources

Moderator: Anne Brosnan (President of ENPE)

Francesco Andreotti from ISPRA, and deputy leader of Cross-Cutting ET, carried out the first presentation of the third session, concerning Environmental Damage to the Ground Water. Framed various definitions within the Environmental Liability Directive (ELD), the Water Framework Directive (WFD), and Ground Water Directive (GWD), delivered the groundwater chemical status classification (WFD), and presented a case study of groundwater damage diffusion of perchloroethylene in a groundwater body from an industrial site, explaining the different investigation phases, specifying the cause of the event, source of impact, type of



contamination, the magnitude of the contamination, natural resources involved, effects on natural resources, and the effects on services provided by resources. Went through the relevant characteristics of tetrachlorethylene or perchloroethylene (PCE), drinking water limits, and threshold values for the good chemical status of the groundwater body. Referred to the current operational containment measures criticals, and the recent soil risk analysis conclusions.

Explained the assessment of the damage, the imminent threat to the groundwater body, and the reparation of current water damage, as well as to prevention of the threat of environmental damage, and finished with the major conclusions, the lessons learned, mentioned in figure 3.1., and the possible solutions.

LESSONS LEARNED

- ✓ *Severity of groundwater damage is mainly due to long-lasting and hidden pollutions, intrinsic environmental hazardousness, persistence, mobility and complicated removal of the substances, vulnerability and use of the aquifer for drinking purposes*
- ✓ *Too much time is needed to investigate and assess groundwater damage, and primary remediation can be too complicated or unfeasible*
- ✓ *To enforce ELD effectively, there is need of coordination of different technical experts (and sometimes competent authorities) for WFD, GWD, IED enforcement, police officers, prosecutors and judges playing a role in the related criminal proceedings*

POSSIBLE SOLUTIONS

- ✓ *Prevention of groundwater damage by reducing the risk of the damaging occurrence to happen plays a fundamental role for the success of groundwater protection*
- ✓ *Risk based assessments of potential groundwater damage must be put in place as obligations for ELD Annex III activities and preventive measures must be established and controls periodically foreseen*

Figure 3.1. – Lessons Learned

Kim Bradley, from Scottish Environment Protection Agency (SEPA), United Kingdom, carried out the presentation concerning case studies on Environmental Liability in Scotland referring to the areas of the subject to protection, as shown in figure 3.2., and the legal framework. Real cases were presented, namely an accidental discharge of agricultural fertiliser to a stream, and a 20,000L aviation fuel spilled near houses.

The challenges, and solutions to establishing baseline water damage and expected recovery, and the primary and compensatory remediation were. Established the evaluation and research strategy, and mentioned the assessment and remediating of land damage, and the prevention of environmental damage.



Figure 3.2. – Areas of protection

Ludovic le Maresquier and **Alix Meslin**, from the French Biodiversity Agency (OFB), France, carried out the presentation concerning Environmental Damage to Water and Land resources and police response. Presented the new structure of OFB, created in January 2020 with a new public establishment, merging several national



agencies and offices, with the environmental police as the main mission. Referred to the legal framework and context of environmental police and justice in France, underlining the specialised environmental justice and the training programs for magistrates. Delivered real examples of illegal works on a stream, water pollution, and pesticides, that are recent water, and land offences (2020), providing the police response, the prosecution, and the judgment of those cases.

Session 4: IMPEL Projects

Moderator: Marco Falconi (IMPEL ET Leader)

Marco Falconi, water and land IMPEL ET leader presented the Water & Land expert team Projects and referred to the organization and the importance of this conference, still and gave the floor to Anabela Rebelo, Thomas Ormond, and David Seccombe. Concluded by inviting all to join and participate in the [Water and Land projects](#).

The projects presented were: Sustainable Landspreading; Management of Mining Waste; National Peer Review Initiative; Wastewater in Natural Environment (wine); Trend Reversal in Groundwater Pollution; Europe MTT-Europe Marine Transborder Transect for the Monitoring of Macrofauna and Anthropogenic Pressure; TIGA: Tackling Illegal Groundwater Drilling and Abstractions; Water and Land Conference; and Water and Land Remediation.

Anabela Rebelo from APA, Portugal, explained the wastewater in a natural environment (wine) project, which started in 2017. Explained the Circularity Index, to installations and products and referred to a case study, and the links between water, energy, and ecosystems, as shown in figure 4.1., to extend to more products, important to the local economy (wine, rum in Madeira island), and in the future food (production of vegetables with reusable water), and a product of a big installation. The possibility of having a label (zero pollution, less carbon emission, energy, etc), was referred to as a good practice for the future. Concluded by inviting all to join and participate in this project.



Figure 4.1. – ReUse Water

Thomas Ormond, RP Darmstadt, Germany, presented the trend reversal in the groundwater pollution project, considering the pollution is mostly from agricultural sources, nitrates, fertilisation, pesticides, and ammonia. The different approaches to the pollution problem were framed in different countries, and the development of the guideline is in process and be finalised in 2023. Concluded by inviting all to join and participate in this project.

David Seccombe of the United Kingdom, presented the tackling of illegal groundwater drilling and abstractions, referring to the questionnaires launched, the discussion, and the kick-off made to the guidance documents. On a recent visit to Portugal there were demonstrations by IGAMAOT, Portugal on the use of



drones for inspection, an onsite visit to demonstrate drone flight modes, and safety explanation, illegal abstraction inspection and Illegal borehole, on underwater abstraction with Portuguese “Guarda Nacional Republicana, GNR). A site visit will take place in Malta in 2023. Concluded by inviting all to join and participate in this project.

Jaakko Vesivalo, IMPEL ET Leader, presented an Overview of Work in the Industry and the Air Expert Team. Two projects: Supporting IED Implementation and Lessons Learnt from Industrial Accidents.

Under the umbrella of the IED Implementation Project, the following sub-groups were presented: Prevention and inspection; IED and the circular economy; Public nuisance issues; Various aspects of BAT conclusions and permits; Operator self-monitoring; Poultry and pigs IRPP BAT; Risk assessment and Planning IRAM II; Learning from the BREF cycle; Improving air quality; and, Waste incineration.

The Lessons learned from the Industrial Accidents project has the aim of sharing views and practices on recent industrial accidents to contribute to protecting the environment by promoting effective risk prevention methods and the next Seminar will be in 2023 in Marseille, as shown in figure 4.2. Concluded by inviting all to join and participate in this project.



Figure 4.2. - Seminar

Other activities such as biannual meetings with DG ENV (European Commission); Cooperation with Organisation for Economic Co-operation and Development (OECD), and Cooperation with the European Integrated Pollution Prevention and Control (EIPPC) Bureau were also described. Concluded by inviting all to join and participate in this project.

Alfred Dreijer, IMPEL ET Leader, presented the Nature Protection Expert Team Projects, and explained the current projects, namely:

- EU Plan Wildlife Trafficking, with a Guidance book on inspection of wildlife trafficking already approved by the IMPEL General Assembly, referring to the need for adjusting and expansion of this guidance and informed that in 2022, realized one workshop and two joint inspections under this project, coordinated by Instituto da Conservação da Natureza e das Florestas (ICNF), Portugal;
- Planning Tool Inspection Natura Sites, with the development of an Inspection planning tool for nature-protected sites (NIRAM tool), already tested and subject to a training session in 2022;
- Tackling Illegal Hunting Tourism, informed that was realized two onsite inspections, a core team meeting for the draft report, and the final report will occur in ET-meeting in 2023, underlining the need of exchanging information on hunter infractions;
- Implementation of the Birds and Habitat Directives at European Aerodromes referred to the on-site inspections in 2 airfields; and,



- IMPEL-ESIX, which is a web application for sharing information between inspectors and between inspectors and Non-governmental organizations (NGOs), to be integrated into the IMPEL-website.

Concluded by inviting all to join and participate in this project.

Martine Blondeel, IMPEL ET Leader, presented the [Cross-Cutting Tools and Approaches Expert Team Projects](#), explaining in detail each of them. Concluded by inviting all to join the projects and participate.



Annex – Water and Land Conference Agenda



European Union Network for the Implementation
and Enforcement of Environmental Law



Lisbon Water & Land Conference

(11-12 October 2022)

Ministry of Environment and Climate Action, The General Inspection of Agriculture, Sea, Environment and Spatial
Planning (IGAMAOT), Rua de "O Século", nº 63, Lisbon – Room "O Século"
virtual meeting (via ZOOM)

11 October

9h00 Opening and Welcome

online José Brito e Silva - Inspector-General – IGAMAOT, Portugal
Vita Jukné – Head of Unit Environmental Rule of Law and Governance - European Commission (EC)
Duarte Cordeiro, Minister of Environment and Climate Action

9h30 Water and Land Conference – introduction

Ana Garcia (Chair of IMPEL) and Marco

Falconi – IMPEL Water & Land ET Leader

9h40 Session 1: Zero Pollution Action Plan (EU Green Deal)

Moderator: Mihaela Monica Crisan (IMPEL Deputy Leader)

9h45 Zero Pollution action Plan and Update on Commission initiatives in relation to Water

online Marianthi Podimata - EC

10h05 European Soil Observatory (EUSO)

online Piotr Wojda – Joint Research Centre (JRC), EC

10h25 Global Soil Land and Water Information Systems to inform decision making processes

Natalia Rodriguez Eugenio, Food and Agriculture Organisation (FAO)

10h45 Coffee / tea break

11h10 The use of GEOspatial INTElligence for Environmental Compliance Assurance

online Pieter Beck – JRC EC

11h25 Geospatial Intelligence for Environment Protection against illegal activities

online Federico Filippini – Italian National Institute for Environmental Protection and Research (ISPRA), Italy

Ion Nedelcu – Romanian Space Agency

11h40 The Knowledge Center on Earth

Observationonline Mark Dowell – JRC EC

11h55 PLENARY DISCUSSION

12h30 Lunch

14h30 Session 2: New Environmental Crime Directive (ECD) – Application to water resources

Moderator: Faustino Gudín (Member of EUFJE- European Union Forum of Judges for the Environment)

14h35 ECD proposal and its relevance for tackling water offenses

Miroslav Angelov, EC

14h55 UNEP Presentation

online Marianna Bolshakova – United Nations Environment Programme (UNEP)

15h15 Establishing criteria for substantial damage for water resources



Anabela Rebelo – Portuguese Environmental Agency (APA), Portugal

15h35 Coffee / tea break

15h50 Prosecuting Offences relating to Water Resources and Water Quality

Anne Brosnan - European Network of Prosecutors for the Environment (ENPE)

16h10 Crimes of pollution and environmental disaster

Jose Manuel Quintana and Massimiliano Corsano – EnviCrimeNet

16h30 EUFJE Presentation

Faustino Gudin –

EUFJE

16h45 PLENARY DISCUSSION

17h30 Closing day 1

Ana Garcia - IMPEL

19h30 - Social Dinner (invitation by IMPEL)



European Union Network for the Implementation
and Enforcement of Environmental Law



Lisbon Water & Land Conference (11-12 October 2022)

12 October

9h00 Opening, agenda Day 2 and wrap-up of Day 1
Ana Garcia

9h10 Session 3: Environmental Damage in Environmental Liability Directive (ELD) - Application to waterresources

Moderator: **Anne Brosnan** (President of ENPE)

9h15 Environmental Damage to Ground
Water

Francesco Andreotti - ISPRA, Italy

9h35 Environmental Damage to Water

online **Kim Bradley** - Scottish Environment Protection Agency (SEPA), United Kingdom

9h55 Environmental Damage to Water Resources and Police Response

Ludovic le Maresquier and Alix Meslin -The French Biodiversity Agency (OFB), France

10h15 PLENARY DISCUSSION

10h45 Coffee / tea break

11h10 Session 4: IMPEL Projects

Moderator: **Marco Falconi** (IMPEL)

11h15 Water & Land Expert Team Projects

Marco Falconi / Mihaela Monica Crisan - IMPEL ET Leader / Deputy Leader

11h45 Industry & Air Expert Team Projects

online **Jaakko Vesivalo** - IMPEL ET Leader

12h15 Waste &TFS Expert Team Projects

online **Helge Ziolkowski** - IMPEL ET
Leader

12h45 Lunch

14h30 Nature Protection Expert Team Projects

Alfred Dreijer - IMPEL ET Leader

15h00 Cross-Cutting Tools and Approaches Expert Team Projects

Martine Blondeel / Francesco Andreotti - IMPEL Leader / Deputy Leader

15h30 PLENARY DISCUSSION

16h00 Conclusions and closing of the Conference

Ana Garcia & Marco Falconi

16h15 Coffee / tea break

16h40 Social Walking for anyone who have interest, we would like to invite to join us in a tour (about 2h) of downtown Lisbon (several churches, viewpoints and squares) with an amazing sunset in the late afternoon.

