

IMPEL Water Crimes Workshop

24th October 2018



in the framework of the Conference
“Protecting habitats and endangered species in Europe
through tackling Environmental crime”

Heraklion – Crete (Gr)

22th - 24th October, 2018



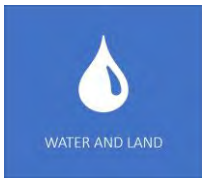
Introduction

The environment provides the very foundation of sustainable development, health, food security and economies. Ecosystems provide clean water supply, clean air and secure food and ultimately both physical and mental wellbeing. Natural resources also provide livelihoods, jobs and revenues to governments that can be used for education, health care, development and sustainable business models (UNEP/INTERPOL, 2016).

Particularly, water, the "blue gold" (BARLOW, 2001) – called for the first time in this way by the National Post in 1999 - is a basic essential of life and a strategic resource for the future of everyone, especially the poorest. Not only is it a vital need for human survival, groundwater has many roles in regulating the structure and functioning of healthy freshwater ecosystems (YOUNGER, 2007) and to flora and fauna. It constitutes the lifeblood of many industries, from tourism to mining, from agriculture to aquaculture.

Although more than 70 % of the Earth is covered in water, 97 % is held in the oceans. Of the remaining "not salty" water (3 %), only the 2 % is freshwater locked in snow and ice (e.g. glaciers), leaving less than 1 % accessible for human requirements (US Geological Survey, 2015). Moreover, freshwater is not evenly distributed: only 9 countries share 60 % of the total amount of freshwater, and Amazonia has 15 % of the total resources but only 0.3 % of the world's population (TOMINI, 2008). While 873 million people lack access to safe drinking water (UN, 2012), some predict that by the year 2025, 1.8 billion people will live in places and under conditions in which water is scarce" (see e.g. JOHNS, 2010; ARSENAULT, 2012; CIAMPI, 2013). Fresh water is renewable only by rainfall, at the rate of 40,000 to 50,000 km³ per year and global consumption of water is doubling every 20 years, more than twice the rate of human population growth: it means that the assumption concerning an infinite supply of water for the planet is false.

Moreover, within the next three decades, demand for water from agriculture could increase by 50 percent, and for urban uses by between 50 % and 70 %; by 2035, the energy sector is projected to consume 85 % more water (WORLD BANK, 2014). These increased strains will create unprecedented



IMPEL Water Crimes Workshop

24th October, 2018

Heraklion – Crete (Gr)
22th - 24th October, 2018



conflicts between different water uses, and inter-connected risks between them (WORLD BANK, 2016).

Activities and events threatening the quantity and quality of freshwater will have major consequences for health, business success and security; the harms and risks to water supply are associated with multiple causes that include industrial pollution and water theft through to global warming. So, the reduced availability of freshwater, the tensions in trans-boundary basins, the human pressure on limited water resources, state -corporate level overconsumption and unequal distribution are among the causes that have made water a hot product exposed to criminals (CLARKE, 1999), highly exposed to illicit interests of individuals, companies, terrorists and organized crime.

Nevertheless, only recently there has been a criminological interest in water crime issues (WHITE, 2003, BRICKNELL, 2010; JOHNSON et al., 2015; BRISMAN et al., 2016). But, crimes against water remain difficult to assess, detect and prosecute, especially because water often crosses nation-state boundaries, cooperation is difficult, and data at national level are recorded under different categories of offences, and legislations and policies on freshwater vary from Country to Country. Furthermore, both physical and logical water management infrastructures are exposed to cyber and traditional terrorist threat (EUROPOL, 2014; ENISA, 2014), but intelligence and research are still scarce in this field.

The Council Conclusions on countering environmental crime - Council conclusions (8 December 2016) has recognised the role of IMPEL in countering environmental Crimes, but a common definition of "water crimes" is a challenging task. Furthermore, water-related crimes are often recoded under other offences – like fraud, corruption, trafficking, falsification of documents, terrorism – for the absence of a systematic analytical approach. The nature and extent of these kinds of activities is still relatively unknown.

Based on this background, IMPEL aims at increasing knowledge on water crimes, engaging IMPEL Community in a project aimed at collecting and sharing information about the topic, its presence, its perception and management at competent authorities.

The Workshop, in the framework of the Conference “Protecting habitats and endangered species in Europe through tackling environmental crime”, organized in cooperation among ENPE, Themis, Reason for Hope Life+ Project and IMPEL, take stock of the current situation and level of knowledge of Water Crimes, on the basis of the experience available in IMPEL Network.

The workshop lays the groundwork for further study with the aim of supporting the definition of the best tools to combat this type of crime.



IMPEL Water Crimes Workshop

24th October, 2018

Heraklion – Crete (Gr)
22th - 24th October, 2018



Program of the Workshop

1st part - NHMC classroom 1.

1	09.00 – 09.15	Presentation of the IMPEL Water Crimes project <i>Claudia Carpino</i> (IT), Project Manager, Chair of the Workshop
2	09.15 – 09.45	Results from the IMPEL Water Crimes Survey <i>Lorenzo Segato</i> (IT)
3	09.45 – 10.30	3 Case studies: <ul style="list-style-type: none">- Greece - <i>Thalia Statha</i>- Slovenia - <i>Darija Stanic-Racman</i>- Romania - <i>Hirean Mircea</i>

2nd part - NHMC classroom 1.

4	11.30 – 11:45	ENPE experience on prosecution on water crimes <i>Tom Ledden</i> (UK)
5	11:45 – 12:05	Water crimes and Environmental Compliance Assurance Initiative <i>Chris Dijkens</i> (NL), IMPEL Chair
6	12:05 – 12:25	Methodology for Threat and Risk assessment <i>Giuseppe Sgorbati</i> (IT), Water and Land Expert Team Leader
7	12:25 – 12:35	Roundtable/discussion on EU Water Security Strategy – What next?

Participants

Name	Organization	E-Mail
Fernando Simoes	IGAMAOT – Portugal	fsimoes@igamaot.gov.pt
Ruth Ciarlo	ERA – Malta	ruth.ciarlo@era.org.mt
Hirean Florin Mircea	NEG -Romania	hirean @yahoo.com, cjbrasov@ gnm.ro
Dasa Sulekova	SIZP - Slovakia	dasa.sulekova@sizp.sk
Harvey Bradshaw	EPA England - UK	harvey.bradshaw@environment-agency.gov.uk
Paul Hickey	EPA England - UK	paul.hickey@environment-agency.gov.uk
Tom Ledden	EPA England - UK	Tom.Ledden@environment-agency.gov.uk
Chris Dijkens	IMPEL	chris.dijkens@impel.eu
Slavica Cikotic	Ministry of Environment and Energy - Croatia	slavica.cikotic@mzoe.hr



IMPEL Water Crimes Workshop

24th October, 2018

Heraklion – Crete (Gr)
22th - 24th October, 2018



Brigitte Mrvelj Cecatka	Ministry of Environment and Energy - Croatia	brigitte.mrvljcecatka@mzoe.hr
Daria Stanic-Racman	Ministry of environment and spatial planning - Slovenia	Darja.Stanic-Racman@gov.si
Thalia Statha	Ministry of Environment & Energy - Greece	e.statha@prv.ypeka.gr
Claudia Carpino	Ministry for the Environment - Italy	Carpino.Claudia@minambiente.it
Alessandro Peru	Ministry for the Environment - Italy	Peru Alessandro Peru.alessandro@minambiente.it
Lorenzo Segato	Water Crimes project (RISSC) - Italy	lorenzo.segato@rissc.it
Fabio Carella	ARPA Lombardia - Italy	f.carella@arpalombardia.it
Marco Falconi	ISPRA - Italy	marco.falconi@isprambiente.it
Giuseppe Sgorbati	ARPA Lombardia - Italy	g.sgorbati@arpalombardia.it

Attach:

N. 7 presentations

WATER CRIMES



INTRODUCING WATER CRIMES

WATER CRIMES ARE NOT LISTED AS
“CRIMES THAT HAVE A SERIOUS IMPACT ON ENVIRONMENT”

TRADITIONAL SECTORS (UNEP)

ILLEGAL LOGGING AND TIMBER TRADE

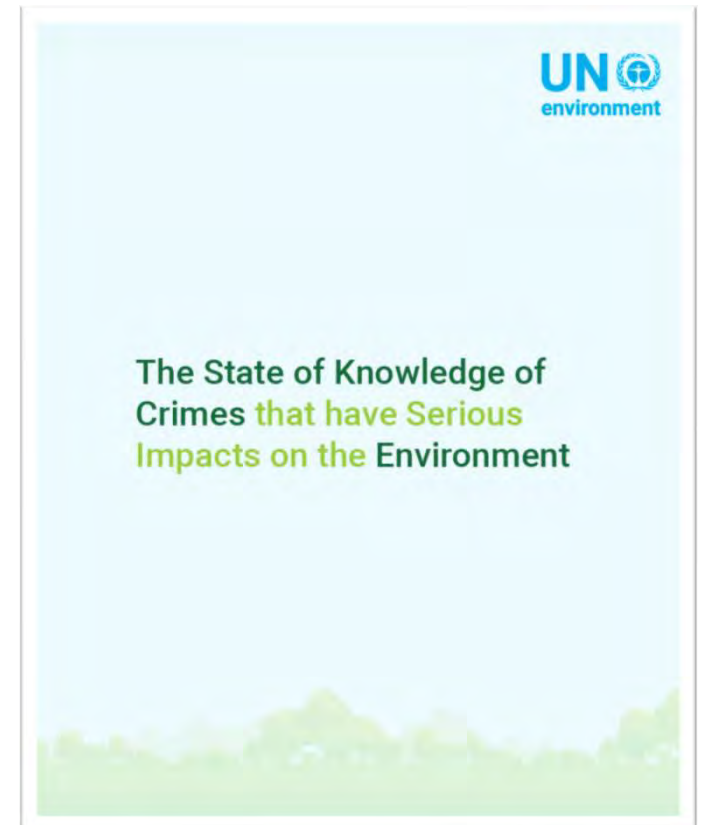
ILLEGAL FISHING

ILLEGAL TRADE AND POACHING WILDLIFE

ILLEGAL DUMPING/DISPOSAL OF WASTE AND CHEMICALS

POLLUTION CRIME

MINERALS



INTRODUCING WATER CRIMES

THERE ARE SOME POSSIBLE EXPLANATIONS...

- X SCARCE REMUNERATION FROM WATER CRIMES
 - BUT WHAT ABOUT CORRUPTION IN LARGE INVESTMENT PROJECTS?
- X LITTLE TRANSNATIONAL RELEVANCE
 - EXCEPT WATER POLLUTION
- X NO TRANSNATIONAL TRAFFICKING/SMUGGLING
- X SCARCE RELEVANCE FOR LARGER CRIMINAL ORGANISATIONS

LEGAL FRAMEWORK

DIRECTIVE 2008/99/E

Member States shall ensure that the following conduct constitutes a criminal offence, when unlawful and committed intentionally or with at least serious negligence

- **CRIMINAL CONDUCTS INVOLVING RADIATIONS, WASTE, DANGEROUS ACTIVITIES OR SUBSTANCES, NUCLEAR MATERIALS RELEASED INTO THE WATER CAUSING OR LIKELY TO CAUSE SUBSTANTIAL DAMAGE TO THE QUALITY OF WATER**
- **ANY CONDUCT WHICH CAUSES THE SIGNIFICANT DETERIORATION OF A HABITAT WITHIN A PROTECTED SITE**

DEFINING WATER CRIMES

WATER CRIMES

are any illegal activity harming the WATER BODY and aimed at benefiting individuals or groups or companies from the exploitation of, damage to, trade or theft of water, including, but not limited to serious crimes and transnational organized crime.

TENTATIVE CLASSIFICATION

WE HAVE IDENTIFIED SEVEN MAIN TYPES OF OFFENCES



WATER CORRUPTION



WATER THEFT



WATER FRAUD



WATER POLLUTION



WATER ORGANISED CRIME



WATER TERRORISM



WATER CYBERCRIME

WATER POLLUTION

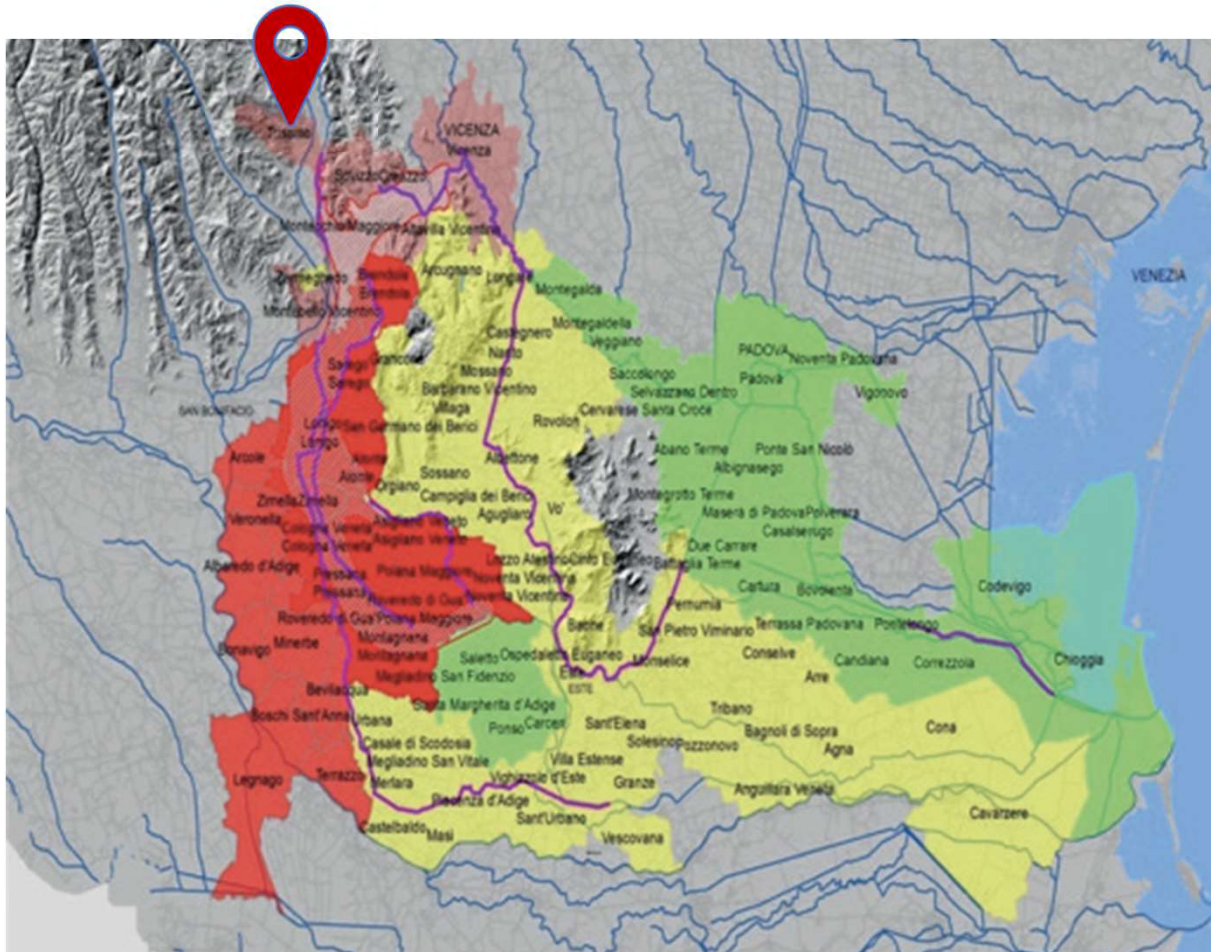


24/10/2018

LORENZO SEGATO

12

WATER POLLUTION



PFAS POLLUTION

DISCOVERED IN 2013

120.000 INHABITANTS

21 MUNICIPALITIES

An aerial photograph of a vast agricultural landscape, characterized by a dense grid of circular and rectangular plots. The colors range from vibrant green to golden-brown, indicating different stages of crop growth or types of vegetation. A prominent red horizontal bar is overlaid across the upper portion of the image, containing the title text. The overall composition is highly geometric and repetitive.

WATER THEFT

24/10/2018

LORENZO SEGATO

15

WATER FRAUD



Polizia di Stato

10/24/2018

LORENZO SEGATO

17

WATER CORRUPTION



24/10/2018

LORENZO SEGATO

19

WATER CYBER-ATTAKS



ATLANTA CITY

WATER DEP.

2018 ATTACK

1.2 MILLION CUSTOMERS

17 MILLION \$ DAMAGE

WATER TERRORISM



WATER ORGANISED CRIME



24/10/2018

LORENZO SEGATO

26



KARACHI CITY

16 MILLION INHABITANTS

NO RUNNING WATER IN
LARGE NEIGHBORHOODS

WATER TANKER MAFIA
DELIVERS CLEAN WATER

\$150 FOR A MONTH'S
SUPPLY OF PUBLIC WATER
(THE CLEANEST)

1/3 OF CITY WATER IS
SIPHONED AND SOLD BY
MAFIA

THE IMPEL PROJECT

THE IMPEL PROJECT

AIM increasing knowledge on water crimes, engaging IMPEL Community in a project aimed at collecting and sharing information about the topic, its presence, its perception and management at competent LEA level

ACTIONS survey between IMPEL members, data analysis, report, presentation

PERIOD March – December 2018

STATUS

29 COUNTRIES INVITED

8 COUNTRIES PARTICIPATING

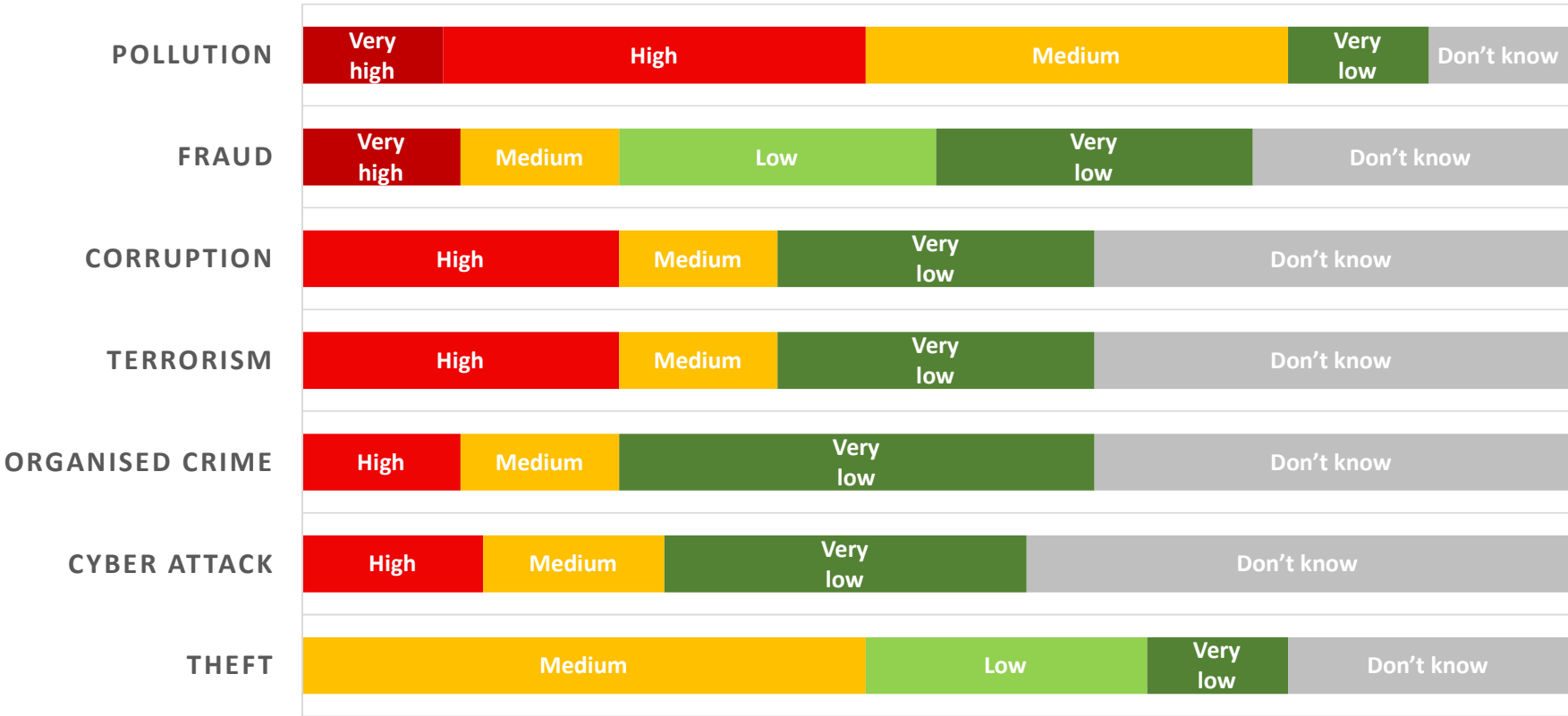
12 SURVEYS COLLECTED

6 CASE STUDIES FROM 4 COUNTRIES

THE SURVEY

ENVIRONMENTAL IMPACT OF THE OFFENCES IN THE WATER SECTOR:

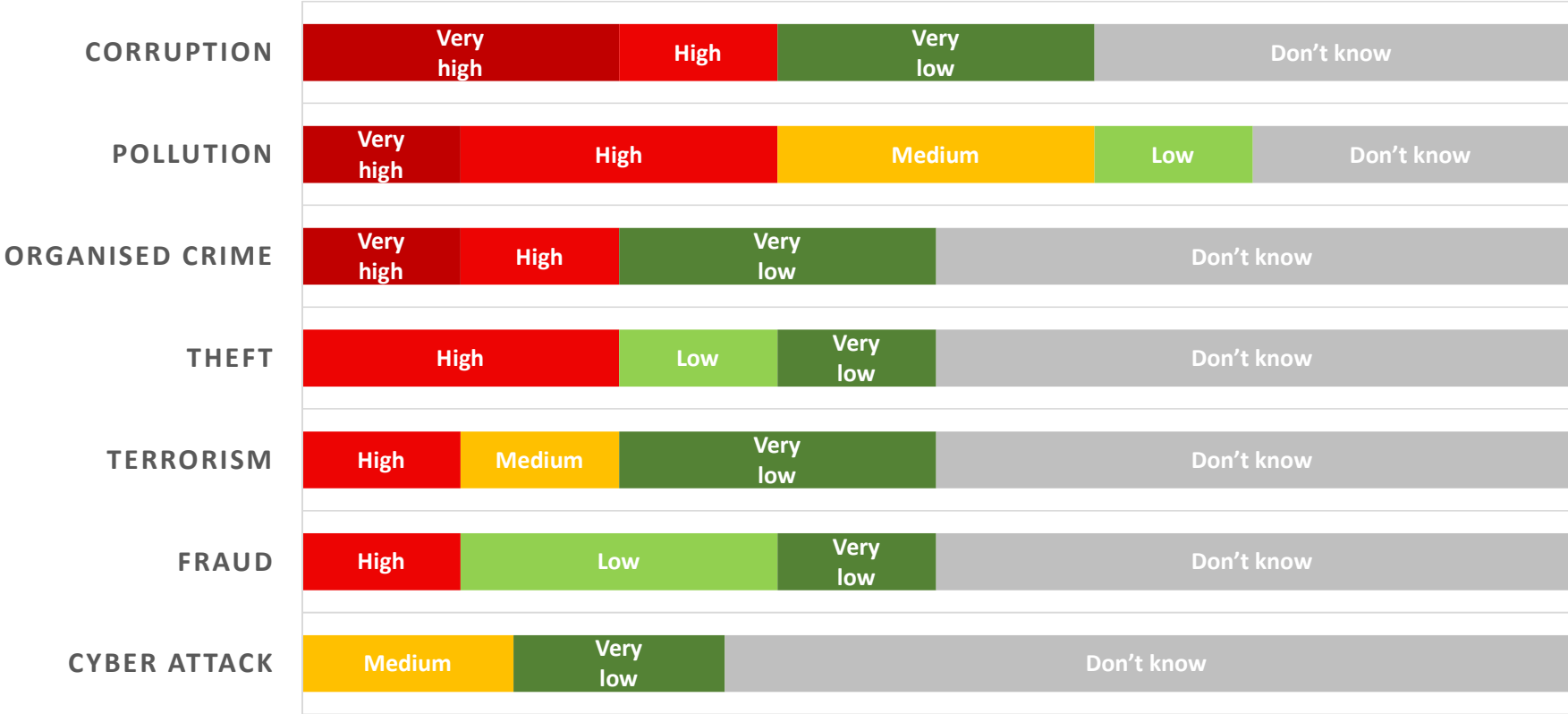
✓ IMPACT



THE SURVEY

ECONOMIC IMPACT OF THE OFFENCES IN THE WATER SECTOR:

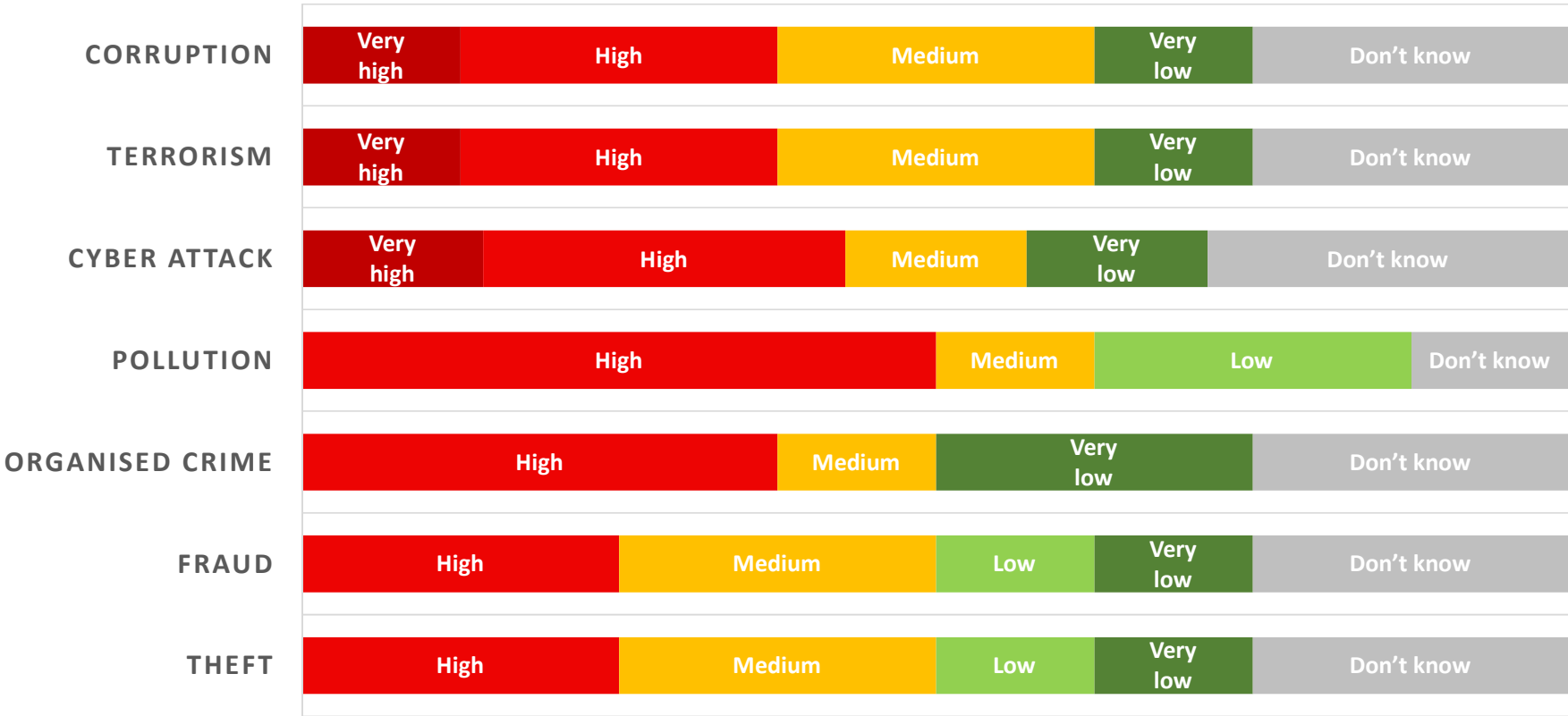
✓ IMPACT



THE SURVEY

SOCIAL IMPACT OF THE OFFENCES IN THE WATER SECTOR:

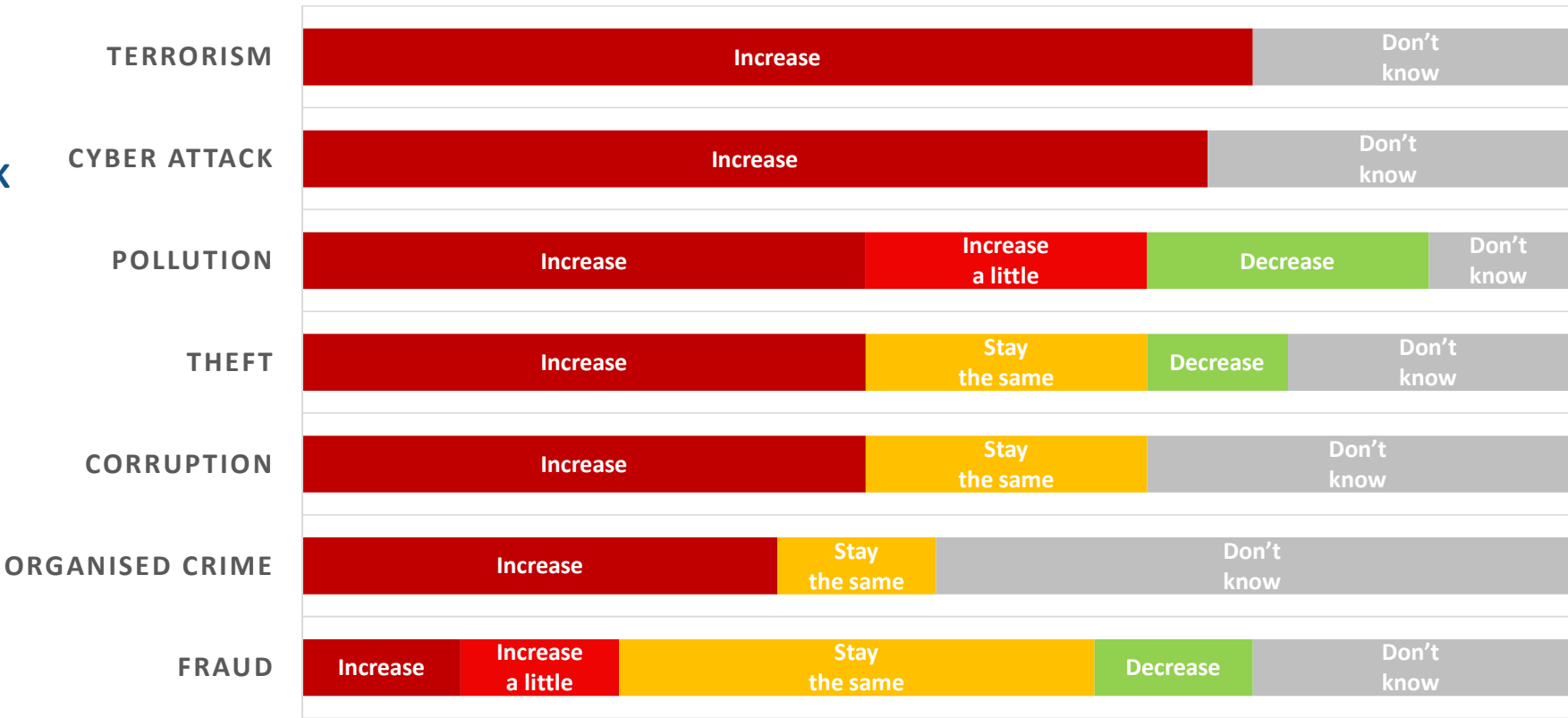
✓ IMPACT



THE SURVEY

EVOLUTION OF THE OFFENCES IN THE NEXT 5 YEARS

✓ **OUTLOOK**



CONCLUSIONS

OPEN ISSUES

WATER CRIMES OPEN ISSUES

- ✓ LACK OF KNOWLEDGE AND DATA ON EXTENT, IMPACT, PERPETRATORS, MODI OPERANDI
- ✓ CROSS BORDER RELEVANCE, CORRUPTION AND CYBERCRIME CONVERGENCE ON WATER
- ✓ NO ROUTINELY DATA COLLECTION AND NO STANDARDISED CLASSIFICATION SYSTEM
- ✓ LACK OF LEGAL DEFINITION
- ✓ LACK OF AWARENESS AND COOPERATION AMONG LAW ENFORCEMENT, PPOs, WATER COMPANIES...
- ✓ EMERGING CRIME, NO WATER SECURITY AGENDA AT EU LEVEL, CHALLENGE TO BE ADDRESSED

OPEN ISSUES

THE WATER CRIMES PROJECT CAN BE OPPORTUNITY TO BUILD KNOWLEDGE, COOPERATION, INNOVATIVE METHODOLOGIES TO DESIGN A WATER SECURITY AGENDA:

- ✓ **Experts/agencies sharing information and case studies on crimes in the water sector**
- ✓ **Developing impact assessment (social, economic, environmental) for water crimes**
- ✓ **Sharing investigation techniques and the role of technologies**
- ✓ **Identifying priorities to allocate limited resources for water security in the next years**
- ✓ **Setting up cooperation agreements outside Europe**

Dr. Lorenzo Segato – lorenzo.segato@risc.it





ENPE Conference - IMPEL Water Crimes workshop

24th October 2018

Water Pollution in Greece

The Case of Asopos River: a general overview

THALIA STATHA

IMPEL NATIONAL REPRESENTATIVE

MEE / SPECIAL SECRETARIAT OF INSPECTORATE

The River Asopos



The River Asopos

- Situated approx. 60km north of Athens in Boeotia & northern Attica
- Part of Water District (GR07) of East Sterea Ellada; River basin of Asopos (GR25): 1,362km²
- Total length of 57km; mean annual flow: 70hm³
- Flows through Asopia, the plain of Thiva, Oinofyta, Schimatari, Sykamino and Oropos & into the South Euboean Gulf
- Approx. 70,500 residents in surrounding area
- Runs through agricultural land (intense farming) & the largest industrial area in Greece

Brief History

- The 1960s see the establishment of large industrial installations in the broader area of Oinofyta.
- Formalized by a 1969 Decree, without specifying their modus operandi or setting limits for their operation; Asopos is officially designated for receiving industrial wastewater discharges.
- In 1979 the disposal of treated industrial effluents & waste is allowed on more specified terms.

Brief History

- This led to the operation of well over 1,000 industrial and craft activities in the area (including metalwork & aluminium industries, tanneries, dyeing & fabric finishing units, installations for the manufacture of food products etc.)
- An *'informal'* and partially unregulated industrial park was thus created, lacking in proper infrastructure; untreated industrial effluents & wastes are disposed of in Asopos & its tributaries and directly into the groundwater through wells & boreholes.
- In August 2007 the situation exploded when hexavalent chromium [Cr(VI)] was detected, amongst other pollutants, in groundwater samples from the area.

Environmental Crisis

What needed to be done:

- **Assuring Public Health**
 - Direct access of local population to clean drinking water
 - Ascertain the state of health of local population & take preventative measures

Environmental Crisis

- **Reduction & Prevention of Further Pollution**
 - Repeal of outdated & anachronistic Decrees and other legal acts
 - Defining strict water quality thresholds for Asopos and relative emission limits for industry
 - Updating legal provisions concerning public health on which environmental permits for industries in the area had been based, especially terms for the treatment and disposal of industrial wastewater discharges
 - Preparation of an integrated management plan for the river basin of Asopos in accordance to Dir. 2000/60/EU for the Eastern Sterea Ellada River Basin District (GR07)

Environmental Crisis

- **Reduction & Prevention of Further Pollution**
 - Updating environmental permits for industrial installations in the greater area –particularly those already expired– bringing them up to date with national & EU legislation concerning hazardous waste and the requirements of Dir. 2000/60/EU
 - Mandatory periodic reporting by industry of their hazardous waste production and concurrent inspections of reported waste movements
 - Systematic and rigorous inspections of industrial installations by the Environmental Inspectorate
 - Imperative review of legislation for drinking water and the adoption of distinct limits for Cr(VI) as accepted values for total Cr could not necessarily guarantee the protection of public health.

Environmental Crisis

- **Land Planning for the Industrial Area**
 - The organization of the unregulated industrial area around Oinofyta (approx. 39,000 acres) in accordance to the Special Land-Use Plan for Industry
 - Examination of the possibility to construct a common installation for the treatment of industrial pre-treated wastewaters
 - The demarcation, clean-up, promotion and protection of Asopos River
 - Remediation of contaminated land by the gradual restoration of the environmental damage to surface waters and soils, as well as the examination of the potential restoration of contaminated groundwaters

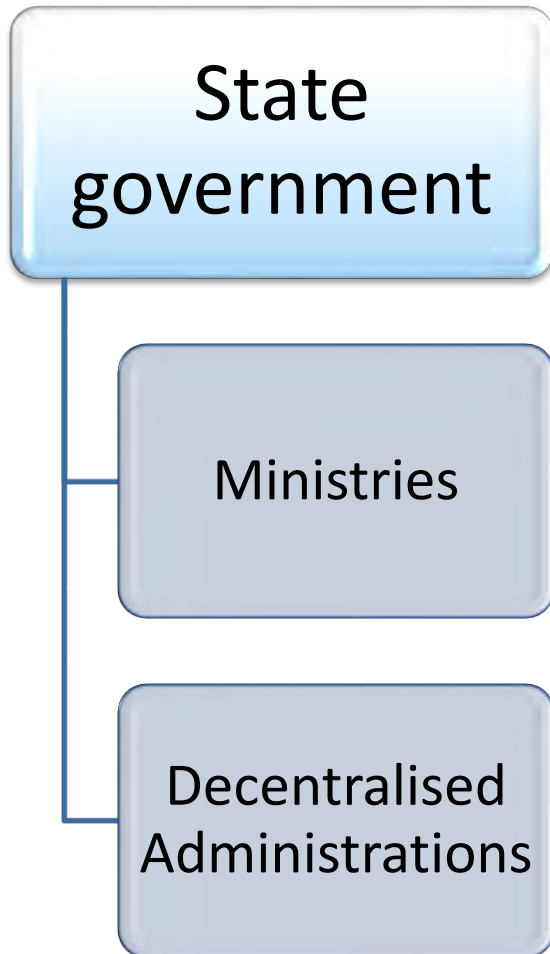
Crisis Management

What was actually done:

- Safe water supply to local population was assured
- In 2010 a Joint Ministerial Decision (JMD) was issued for Quality Environmental Standards for Asopos River & Emission Limit Values for industrial wastewaters for Asopos' River Basin; complementary explanatory circulars followed and the Management Plan for the Eastern Sterea Ellada River Basin District has been approved
- Another JMD was issued that characterized Asopos' River Basin as vulnerable to pollution caused by nitrates from agricultural sources, that also foresees both a monitoring and action programme
- From 2004 onwards approx. 250 installations and activities in the greater area of Asopos River Basin have been inspected by the Environmental Inspectorate

	Έλεγχοι	Επανελέγχοι	Πράξεις Βεβαίωσης Παράβασης	Ύψος εισηγούμενων προστίμων
2004	13	-	10	207.500 €
2005	4	-	3	71.100 €
2006	19	1	14	332.480 €
2007	52	10	49	2.374.000 €
2008	43	19	41	1.151.415 €
2009	32	6	12	124.450 €
2010	31	-	17	906.300 €
2011	14	4	7	156.000 €
2012	6	2	6	276.600 €
2013	10	1	2	115.650 €
2014	4	1	3	184.400 €
2015	5	-	3	193.950 €
ΣΥΝΟΛΟ	233	44	167	6.093.245 €

State Administrations



Central administrations of the State:

- general powers &
- general guidance, coordination and review of the legality of acts by regional administrations

Regional administrations of the State:

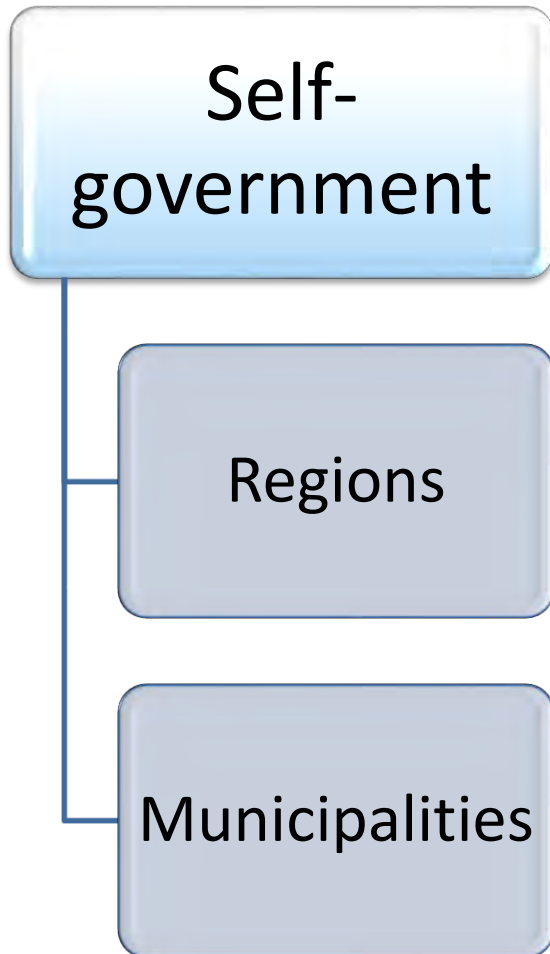
- exercise devolved state powers
- general decisive authority on matters of their district
- enjoy both administrative & financial autonomy

Hellenic Ministries

1. Ministry of Interior
2. Ministry of Economy & Development
3. Ministry of Digital Policy, Telecommunications & Media
4. Ministry of National Defense
5. Ministry of Education, Research & Religious Affairs
6. Ministry of Labour, Social Insurance & Social Solidarity
7. Ministry of Foreign Affairs
8. Ministry of Justice, Transparency & Human Rights
9. Ministry of Finance
10. Ministry of Health
11. Ministry of Administrative Reconstruction
12. Ministry of Culture & Sports
13. **Ministry of Environment & Energy**
14. Ministry of Infrastructure & Transport
15. Ministry for Migration Policy
16. Ministry of Mercantile Marine & Island Policy
17. Ministry of Rural Development & Food
18. Ministry of Tourism

Decentralised Administration Authorities

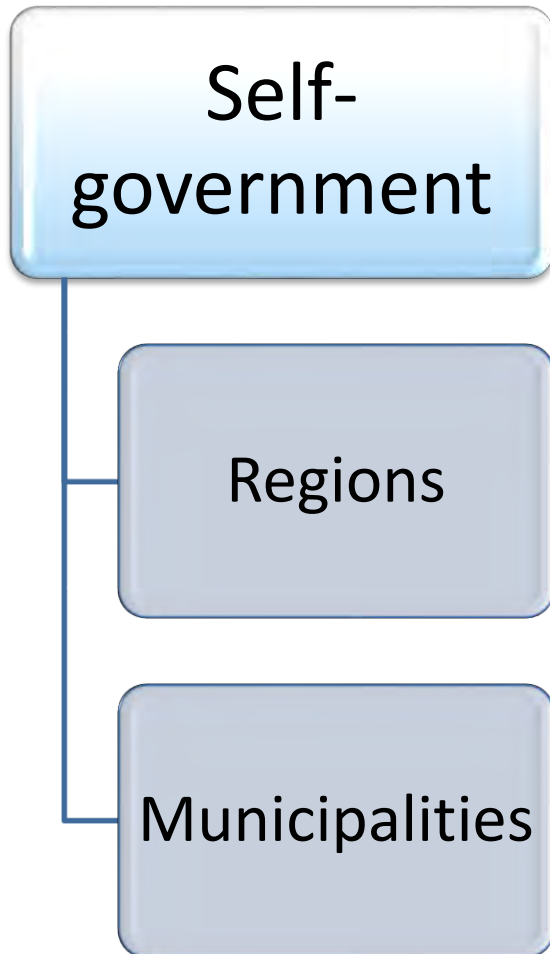
1. Attica
2. Thessaly – Central Greece
3. Epirus – Western Macedonia
4. Peloponnese, Western Greece & Ionian
5. Aegean
6. Crete
7. Macedonia – Thrace



1st & 2nd level Local Government:

- self-governing territorial entities
- responsible for administration of local & regional affairs
- enjoy both administrative & financial independence
- no hierarchical relationship & control between them

Local Authorities



Municipalities:

- manage and regulate all local matters

Regions:

- shape, plan and implement policies at regional level

State:

- reviews the legality of actions by local government

Regions

1. East Macedonia & Thrace
2. Central Macedonia
3. West Macedonia
4. Epirus
5. Thessaly
6. Ionian Islands
7. Western Greece
8. Central Greece
9. Attica
10. Peloponnese
11. Northern Aegean
12. Southern Aegean
13. Crete



Division of Powers

Competencies of local, regional and decentralised administration authorities

Function – Responsibilities	Competent Authority			Type of Competence	
	State	Regions	Municipalities	Exclusive	Shared
Security, Police	•		•		•
Fire Service	•	•	•		•
Civil Defense	•	•	•		•
Justice	•			•	
Statistical Service	•			•	
Urban Planning	•	•	•		•
Parks, Recreational Areas	•	•	•		•
Cemeteries			•	•	
Water Supply	•	•	•		•
Waste Collection		•	•		•
Protection of the Environment	•	•	•		•

GENERAL SECRETARIAT

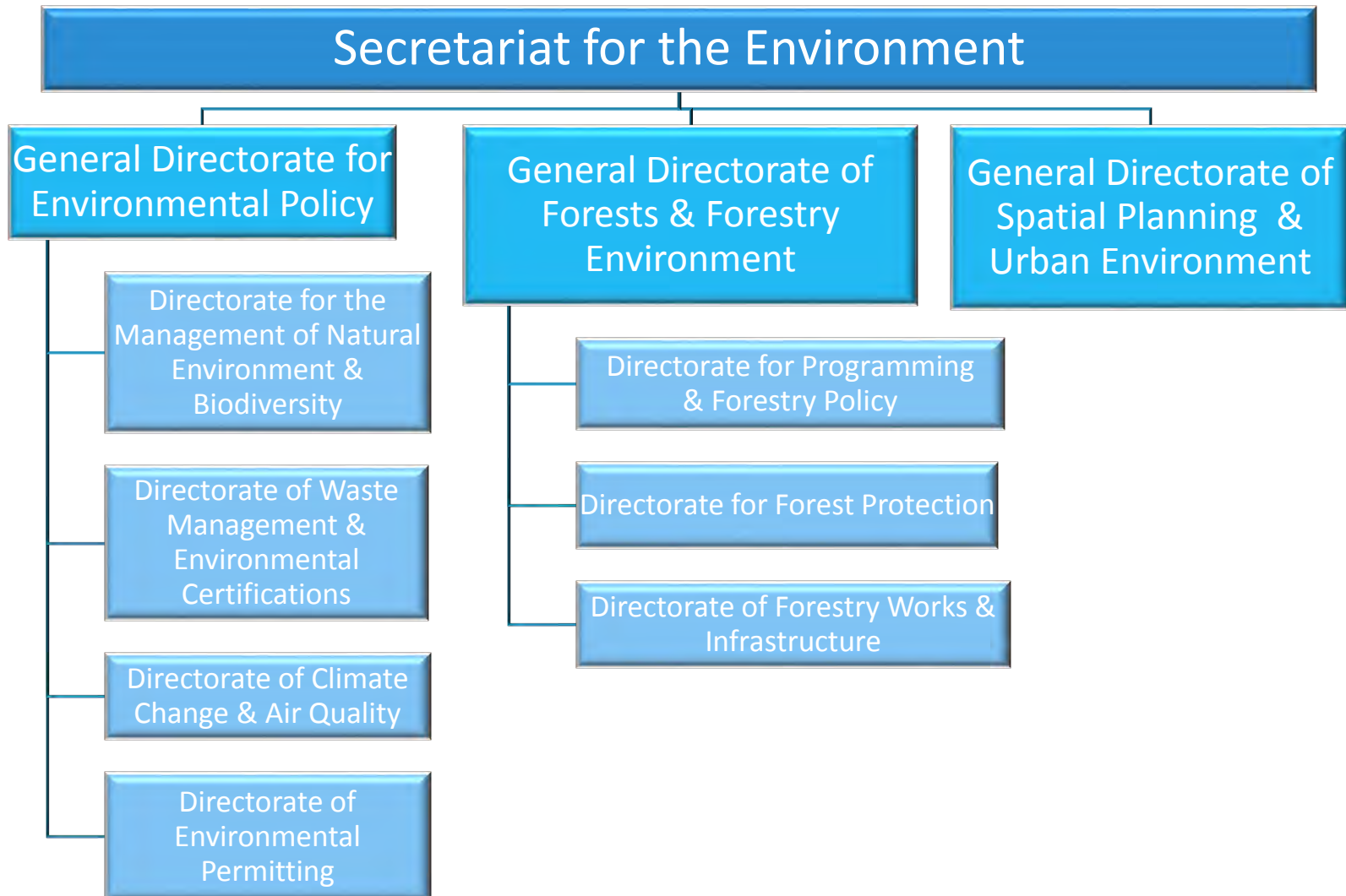
GENERAL SECRETARIAT FOR ENVIRONMENT

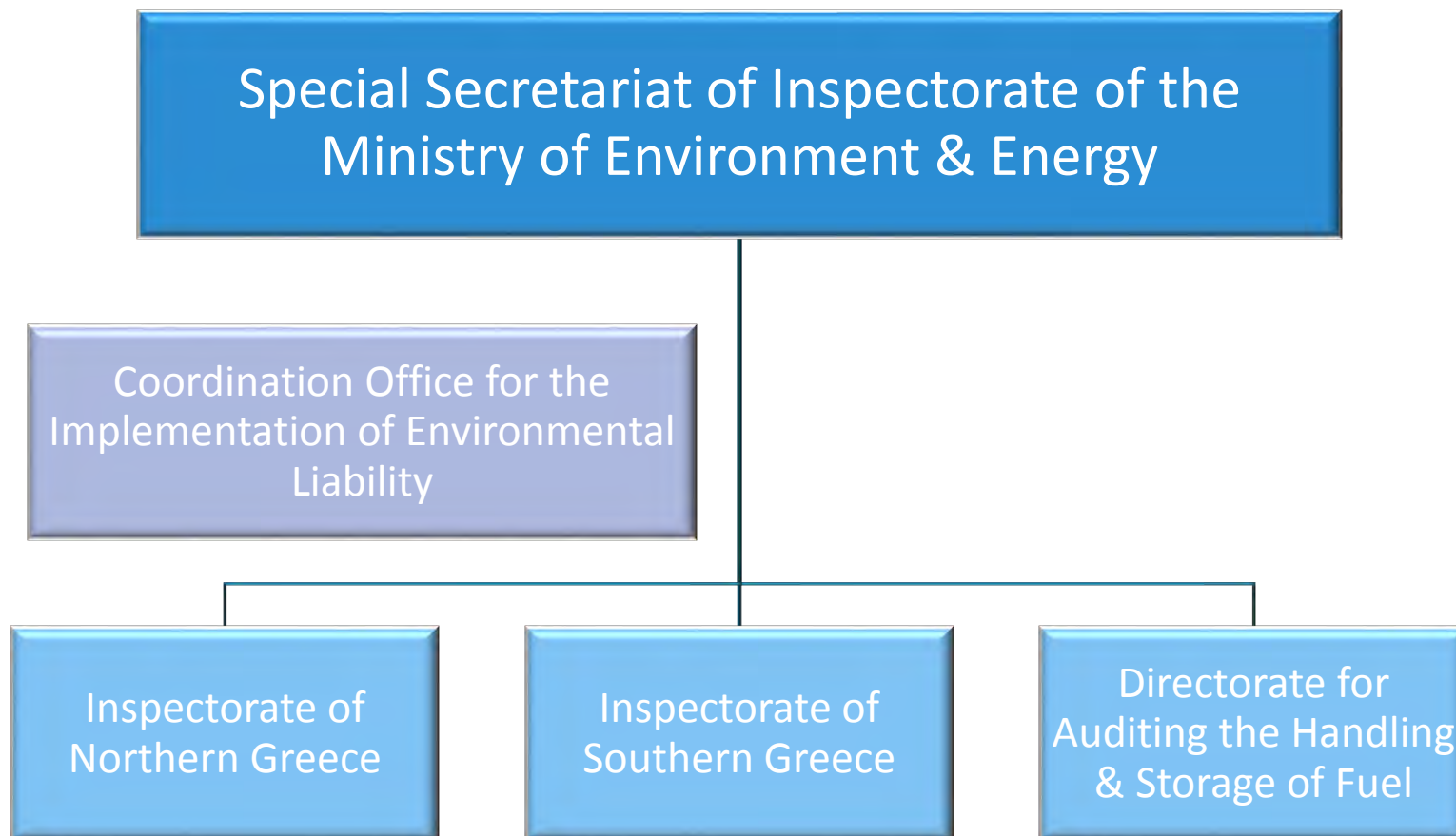
GENERAL SECRETARIAT FOR REGIONAL PLANNING & URBAN
DEVELOPMENT

GENERAL SECRETARIAT FOR ENERGY & MINERAL RESOURCES

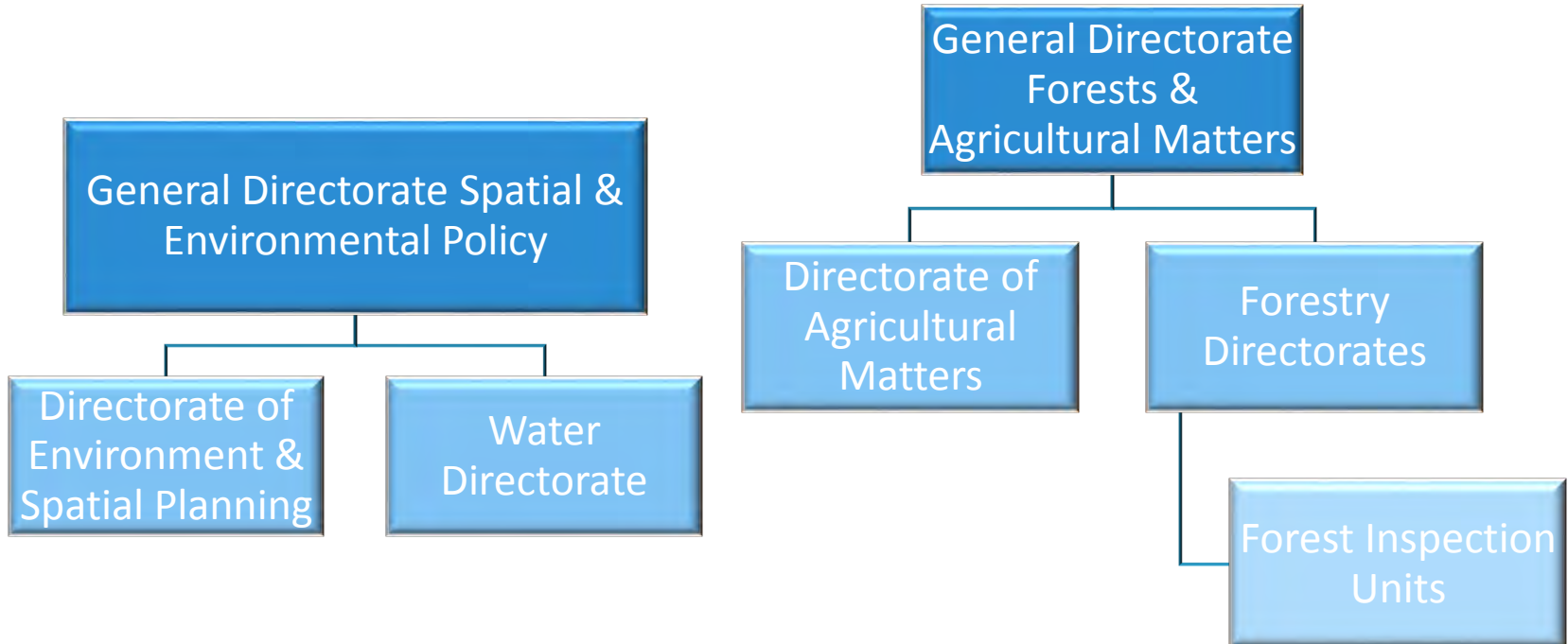
SPECIAL SECRETARIAT FOR WATER

SPECIAL SECRETARIAT OF INSPECTORATE OF THE MINISTRY OF
ENVIRONMENT & ENERGY

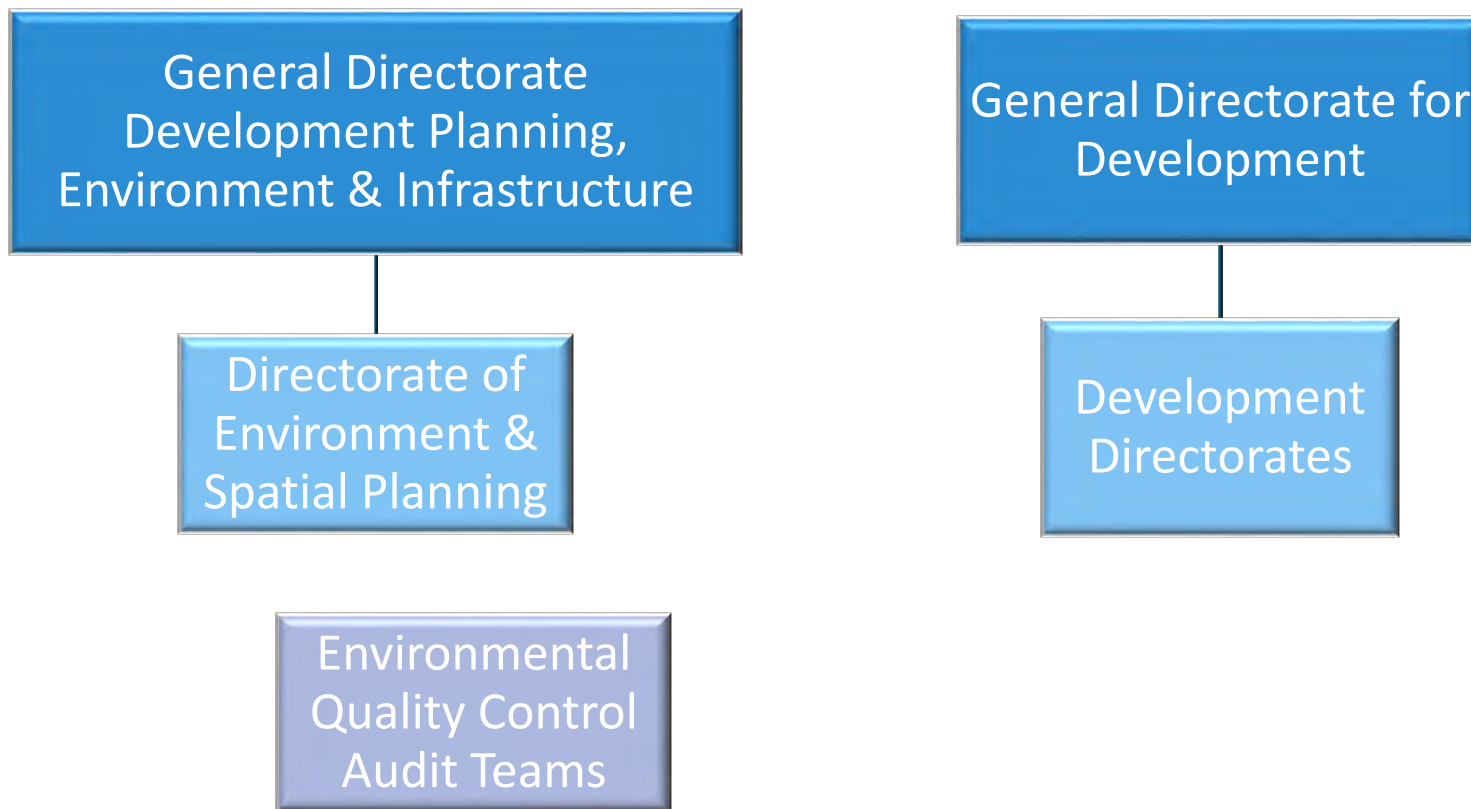




Decentralised Administration Authorities



Regional Authorities



Environmental Authorities & Institutes

Supervised Entities by the MEE

- Hellenic Recycling Agency (EOAN)
- National Center of Environment and Sustainable Development (NCESD)
- Management Bodies (MB) of Protected Areas (31 in total)

Environmental Authorities in / overseen by other Ministries

- Ministry of Interior (Decentralized Administrations, Regional Authorities, Environmental Quality Control Audit Teams)
- Ministry of Health (Directorate of Public Health)
- Ministry of Rural Development & Food (Directorates of Agriculture, Fishing, Decentralized Structures)
- Ministry of Marine & Island Policy (Directorate of Environment, Hellenic Coastal Guard)

Environmental Authorities & Institutes

Research Organizations & Institutes

- DIMITRA - Hellenic Agricultural Organization (former *NAGREF-National Agriculture Research Foundation*)
- HCMR - Hellenic Centre for Marine Research
- IGME - Institute of Geology and Mineral Exploration (supervised by MEE)

Other Organizations & Entities

- ENPE - Association of Greek Regions
- KEDE - Central Union of Municipalities of Greece
- KSE - Hellenic Hunters Confederation
- SEV - Hellenic Federation of Enterprises
- Environmental NGOs
- Academics

IMPEL – European Union Network for the Implementation & Enforcement of Environmental Law





X-CUTTING REGULATORY SYSTEMS:

- ENVIRONMENTAL PERMITTING
- ENVIRONMENTAL INSPECTIONS

Projects & Activities:

Category A

- Proper EIA process
- Single procedure for assessment under EIA, IED, Habitat's & Bird's Directives
- *Decision of Approval of Environmental Terms*
- MEE Directorate of Environmental Permitting
- Decentralised Directorates of Environment

Category B

- Simplified environmental assessment
- *Standard Environmental Obligations*
- Regional Directorates of Environment



Plans & Programmes:

- SEA process
- *Decision of Approval of Strategic Environmental Impact Study*
- MEE: Directorate of Environmental Permitting
- Decentralised Directorates of Environment

X-CUTTING REGULATORY SYSTEMS:

- ENVIRONMENTAL PERMITTING
- ENVIRONMENTAL INSPECTIONS



X-CUTTING REGULATORY SYSTEMS:

- ENVIRONMENTAL PERMITTING
- ENVIRONMENTAL INSPECTIONS



Environmental Inspections



- Environmental Inspectorate of MEE
for all types of environmental inspections
- Permitting Authorities:
 - MEE Directorate of Environmental Permitting
 - Decentralised Directorates of Environment
 - Regional Directorates of Environment et.al.
for preemptive inspections during the environmental permitting process
- Directorates of Environment of Decentralised Administrations & Regions
for projects & activities in their spatial competence
- Environmental Quality Control Audit Teams
for projects & activities in their spatial competence
- Environmental Auditors
upon request from the aforementioned inspecting authorities



- INDUSTRIAL EMISSIONS DIRECTIVE
- SEVESO DIRECTIVE
- AIR QUALITY DIRECTIVE



IED:

- MEE Directorate of Environmental Permitting
- Directorates of Environment of Decentralised Administrations & Regions
- Regional Development Directorates
- Environmental Inspectorate of MEE
- Environmental Quality Control Audit Teams

Seveso Directive:

- MEE Directorate of Environmental Permitting
- Regional Directorates of Environment

Air Quality Directive:

- MEE Directorate of Climate Change & Air Quality



- Waste Framework Directive
- European Waste Shipment Regulation
- WEEE Directive
- Landfill Directive



Waste Framework Directive:

- Ministry of Environment & Energy
- Ministry of Interior (General Secretariat for Waste Management Coordination)
- Local Authorities

European Waste Shipment Regulation:

- MEE Directorate of Waste Management & Environmental Certifications

WEEE Directive:

- Hellenic Recycling Agency (EOAN)

Landfill Directive:

- MEE Directorate of Waste Management & Environmental Certifications
- MEE Directorate of Environmental Permitting



- Thematic Strategy on Soil Protection
- Water Framework Directive
- Nitrates Directive



Thematic Strategy on Soil Protection:

- Ministry of Environment & Energy
- Ministry of Rural Development & Food
- Institute of Geology & Mineral Exploration (IGME)

Water Framework Directive:

- MEE Special Secretariat for Water
- Decentralised Water Directorates

Nitrates Directive:

- MEE Directorate for the Protection & Management of Water Environment



- Birds Directive
- Habitats Directive
- CITES
- Timber Regulations



Habitats & Bird Directives:

- MEE Directorate for the Management of Natural Environment & Biodiversity
- 31 Management Bodies of Protected Areas
- Environmental NGOs

CITES & Timber Regulations:

- MEE Directorate for Planning & Forestry Policy

Main Challenges:

- *Addressing the main waste management problems (closure of illegal landfills, treatment of hazardous waste) as a matter of absolute priority.*
 - MEE Directorate of Waste Management & Environmental Certifications

- *Putting in place an efficient national system for the comprehensive administration and functioning of protected areas, raising awareness about Natura 2000 and creating incentives for investments promoting its benefits, improving capacity of competent authorities, ensuring effective environmental assessments at plan and project level, and improving enforcement of legislation on the ground.*
 - MEE Directorate for the Management of Natural Environment & Biodiversity

- *Completing implementation of the Urban Waste Water Treatment Directive, giving priority to those agglomerations that are subject to an infringement case.*
 - MEE Directorate of Planning & Management of Water Services

Key Challenges:

- Large combustion plants firing indigenous lignite

The Agios Dimitrios lignite power station is Greece's largest power plant with a capacity of 1,600MW. Part of the "Dirty 30" WWF power plants, together with the Kardias coal power plant in the same region. An additional highly polluting energy facility, the Megalopoli plant in Arcadia, is ranked 13th on EEA's most damaging facilities.

- Landfill/ Waste management challenges

Greece was taken to court for 78 illegal landfills and 318 still in the process of being rehabilitated in 2013 by the Commission. Closures have been delayed due to lack of alternative facilities. Fyli landfill which takes 90% of Athens waste is at max capacity. The Corfu Temploni landfill has been in breach of legislation since 2007, and the Kiato landfill which has been operating without a permit since 2002. Municipal waste generation has remained constant over the past years, and Greece landfills the majority of its municipal waste (81% compared to 31% for the EU-28 average)



Ministry of Environment and Energy & IMPEL Network



Special Secretary of Inspectorate of the Ministry of Environment and Energy

IMPEL National Coordinator

Dr. Dimitrios Dermatas

e-mail: d.dermatas@prv.ypeka.gr

Environmental Expert at the Office of the Special Secretary

IMPEL National Representative

Ms. Thalia Statha

e-mail: e.statha@prv.ypeka.gr

Expert Advisor to Special Secretary

IMPEL National Contact Point – Water & Land

Dr. Fotini Stamati

e-mail: f.stamati@prv.ypeka.gr

Thank you!



**THE GOVERNMENT OF ROMANIA
MINISTRY OF THE ENVIRONMENT
National Environmental Guard
Service of Brasov County Commissariat**



**IMPEL
WATER CRIME
22-25.10.2018
HERAKLION GREECE**

**Hirean Florin Mircea –
Commissar
NEG BRASOV - ROMANIA**

National Environmental Guard

According to the provisions of the Decision no. 1005 of 17 October 2012 on the organization and functioning of the National Environmental Guard:

- NEG is a specialized inspection and control team, and commissars are civil servants with a specific status that can take action to sanction, to suspend / to interrupt activity due to pollution and environmental damage.



National Environmental Guard

- NEG has attributions in the implementation of the Government's policy in the field of prevention, detection and sanctioning the violation of the legal provisions on environmental protection.



Responsibilities of the National Environmental Guard

Main responsibilities:

- finds facts that constitute contraventions and applies sanctions in the field of environmental protection
- notifies the competent criminal investigation teams and collaborates with them in establishing the facts which, according to the environmental legislation, constitute offenses
- controls compliance with the terms and with the legal requirements established in the regulatory documents – notifications, agreements, environmental permits / integrated environmental permits
- proposes to the institution that issued the regulatory documents the suspension and / or cancellation of these documents – depending on the situation – for not obeying the conditions and the legal requirements established by them
- verifies complaints regarding the breaking of environmental laws
- controls the measures taken by companies to prevent accidental pollution
- establishes measures and deadlines, in accordance with the legal provisions, which are mandatory for the controlled units, in order to remove the established deficiencies, and monitors how these measures and deadlines have been fulfilled or respected
- performs thematic inspections ordered by the NEG management;
- organizes actions for the population in order to promote environmental legislation and environmental protection

Responsibilities of the National Environmental Guard

- Controls the compliance of the companies and of the people with the legal requirements in the management of water quality and quantity, all around the country



Responsibilities of the National Environmental Guard

- controls the operation of wastewater treatment plants and the compliance with the quality conditions of waste water discharged into the watercourses, according to the regulations in force (city and industrial wastewater treatment plants):



Responsibilities of the National Environmental Guard

- the way in which industrial wastewater treatment plants are exploited



Responsibilities of the National Environmental Guard

Maintaining the quality of mountain waters in the field of forest exploitation



Responsibilities of the National Environmental Guard

- in the field of water and biodiversity –
- monitoring of micro-hydropower plants

construction

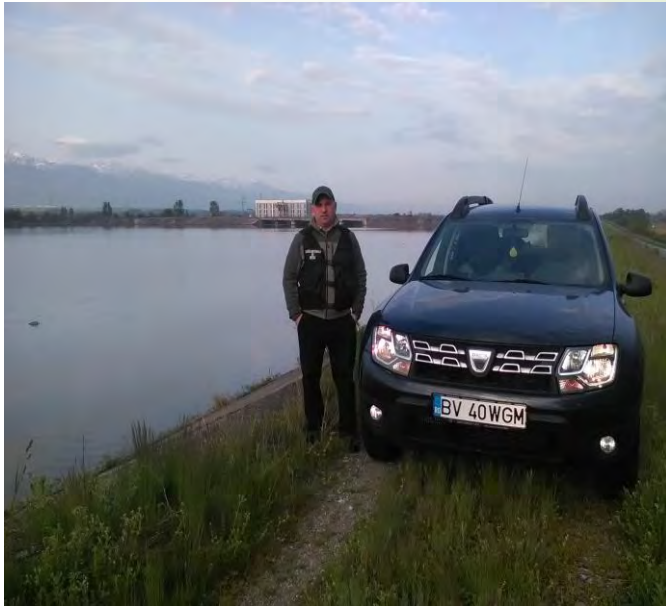


exploitation



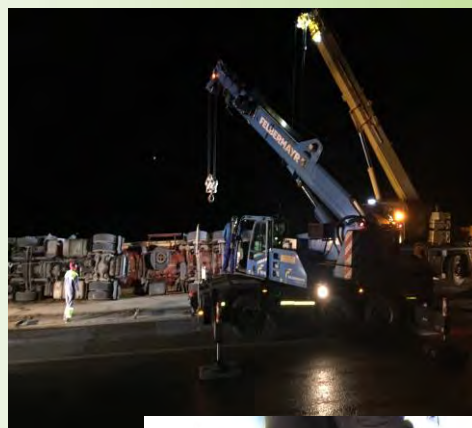
Responsibilities of the National Environmental Guard

Fighting fish poaching



Responsibilities of the National Environmental Guard

In case of accidental pollution, permanent teams act urgently to prevent / stop pollution in collaboration with other intervention agencies



Responsibilities of the National Environmental Guard

In case of mineral aggregates exploitations it controls the existence of regulatory documents for both exploitation and environmental restoration and it also controls the Compliance with the conditions imposed in those documents



Responsibilities of the National Environmental Guard



Study case in the field of water and biodiversity:

• the micro-hydropower plants (MHP) owns:

- environment authorisation and authorization for water management

- the MHP is located in a NATURA 2000 site

- Conditions in the authorization: obligation to ensure easement flow; not ensuring the necessary water flow leads to unassurance of the natural conditions of life of aquatic ecosystems and to the impossibility of downstream-upstream migration of salmonid species during reproduction

- Following the control, a penalty was applied for the deed: non-observance of the conditions established by the regulatory documents



Responsibilities of the National Environmental Guard



- Urgent measures were imposed by **NEG**: It is imperative to ensure the necessary water flow according to the regulatory documents
- NEG issued prior notification to EPA (Environmental Protection Agency) so that they suspend the environmental permit for non-compliance with the environmental permit conditions
- applied sanction was 100,000 ron (approximately 22,220 euros)
- **NEG** filed a complaint to criminal investigation structure
- the MHP administrator also filed a criminal complaint

Responsibilities of the National Environmental Guard

Organizes actions to promote to the population the environmental legislation and the environmental protection



Responsibilities of the National Environmental Guard



As a reward for winning environmental competitions, students visited **LIBEARTY** Bear Sanctuary in Zarnesti



Responsibilities of the National Environmental Guard



Responsibilities of the National Environmental Guard



Responsibilities of the National Environmental Guard

NEG has a good communication with citizens and media



Responsibilities of the National Environmental Guard



THE GOVERNMENT OF ROMANIA

MINISTRY OF THE ENVIRONMENT

National Environmental Guard

Service of Brasov County Commissariat

Caramidariei, Nr 1, Braşov, Judeţ: Braşov

Tel: +40 268 41 70 28, Fax: +40 268 41 80 47, e-mail: cjbrasov@gnm.ro, www.gnm.ro



**GARDA
DE
MEDIU**

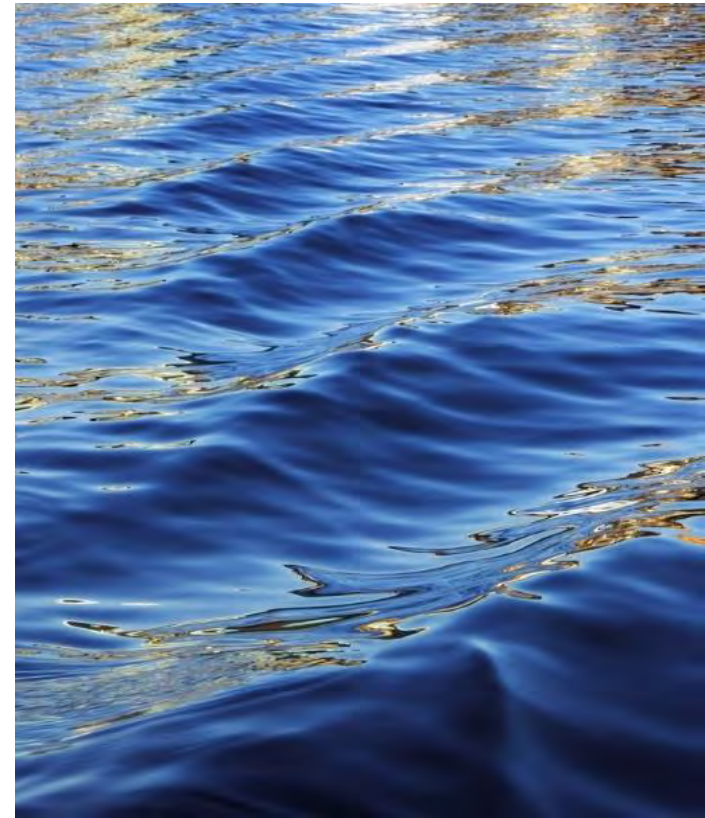
Thank you for your attention!!



Water crime - Slovenia case studies

IMPEL Water crimes workshop
Heraklion, 24.10. 2018

Darja Stanič Racman
Inspectorate for the environment and spatial planning
darja.stanic-racman@gov.si
Benjamin Franca
Ministry of the interior – Police – General police directorate



Water crimes in slovenian law

Water crimes	Criminal law	Administrative law	Experiences in Slovenia
Corruption	X	X	Low
Pollution	X	X	Medium
Theft		X	Medium
Fraud	X		Low
Organised crime	X		Very low
Terrorism	X		Very low
Cyber-attack	X		Very low

Number of water related criminal offenses per year

Criminal Act		Year					
Article	Description of offense	2012	2013	2014	2015	2016	2017
314	Causing a general danger	1	0	0	1	2	0
318	Damage or destruction of public equipment	2	1	2	0	1	0
332	Damage and destruction of the environment	4	2	0	3	3	3
336	Drinking water pollution	0	1	0	1	0	1
Sum		7	4	2	5	6	4

Causing a general danger

- (1) Anyone with fire, flooding, explosion, poison or toxic gas, ionizing radiation, motor power, electrical or other energy, or any other generally dangerous act or asset or omission which it should have done to ensure the general safety of people and of property, causes a danger to the lives of people or property of great value, shall be punished with imprisonment of up to five years.
- (3) Whoever commits an act referred to in the first paragraph to negligence shall be punished by a fine or imprisonment of up to one year.

Damage or destruction of public equipment

- (1) Anyone who destroys, damages or removes electric lines, gas pipelines, water supply, hot water, oil pipelines, telecommunication devices, submarine cables, sewerage systems and environmental protection devices or other similar public facilities, resulting in disruption to the supply of the population or the economy shall be punished with imprisonment of up to five years.
(2) If the act referred to in the preceding paragraph is committed out of negligence, the perpetrator shall be punished by a fine or imprisonment not exceeding one year.

Damage and destruction of the environment

- (1) Whoever violates the rules:
 - 1) by the discharge, emission or introduction of quantities of substances or ionizing radiation into the air, soil or water puts the life of one or more persons at risk or causes the risk of serious bodily injury or actual damage to air, soil or water or to animals or plants;
 - 2) collect, transport, process or dispose of waste in such a way as to endanger the lives of one or more persons or cause the risk of serious bodily injury or actual damage to air, soil or water or to animals or plants;
 - 3) referred to in Article (2) point 35 of Regulation on shipments of waste, sends non-negligible quantities of waste in one consignment or in several consignments that appear to be related;
- 4) manage an installation in which a hazardous activity is carried out or that dangerous substances or preparations are stored there, which could lead to the death of one or more persons or serious bodily injury or actual damage to the quality of air, soil or water or to animals or plants outside the establishment;

Damage and destruction of the environment - punishment

- (2) If the act referred to in points 1), 2), 4) or 5) results in serious bodily injury or actual damage to air, soil or water or to animals or plants, the perpetrator shall be punished with imprisonment of up to eight years.

(3) If the act referred to in point 1), 2) or 4) results in the death of one or more persons, the perpetrator shall be punished with imprisonment of one to twelve years.

(4) If the act is committed out of negligence, the perpetrator shall be punished by a fine or imprisonment of up to two years, for an act referred to in the second paragraph with imprisonment of up to three years and for an act referred to in the third paragraph with imprisonment of one to eight years.

(5) If the act referred to in the first, second or third paragraphs of this article is committed in a criminal enterprise for the execution of these acts, the perpetrator shall be punished with imprisonment of one to twelve years.

Drinking water pollution

- 1) Anyone with any harmful substance pollutes the water that people use as drinking water and thus causes a risk to human life or health, shall be punished with imprisonment of up to three years.
(2) If the act referred to in the preceding paragraph is committed out of negligence, the perpetrator shall be punished by a fine or imprisonment not exceeding three months.
(3) If the act referred to in the first or second paragraph of this Article results in serious bodily injury to one or more persons, the perpetrator shall be punished for an act referred to in the first paragraph with imprisonment of up to five years and for an act referred to in the second paragraph with imprisonment of up to three years.
(4) If the act referred to in the first or second paragraph of this Article results in the death of one or more persons, the perpetrator shall be punished for an act referred to in the first paragraph with imprisonment of one to twelve years, and for an act referred to in paragraph 2, imprisonment of one to eight years .

Animal drinking water pollution

- (5) Whoever with any harmful substance pollutes water intended for feeding animals and thus poses a threat to the life and health of animals, shall be punished by a fine or imprisonment of up to one year.
(6) If the act referred to in the fifth paragraph results in the death of an animal of a higher or higher number of animals, the perpetrator shall be punished with imprisonment not exceeding three years.

Waste facilities fires

- 15.5.2017, fire and pollution at Kemis d.o.o., Vrhnika
- 20.7.2017 fire and pollution in the company Ekosistemi d.o.o., Novo mesto
- In both facilities, waste collection and treatment activities were carried out
- Both fires were extensive with great material damage.
- As a result of the fires, severe environmental pollution was created in the immediate vicinity of both facilities.

Kemis case

- The company Kemis was the biggest collector of dangerous wastes in Slovenia
- The fire caused significant Air, Soil and Water pollution
- 1.402.162 kg of wastes on site
- 871.004 kg of waste damaged by the fire
- More than 50% were dangerous wastes

- located in a protected ecologically important area of the Ljubljansko barje, defined in the Regulation on ecologically important areas
- directly bordering the special protection area of the Natura 2000 SPA and SAC areas, established on the basis of the Regulation on Special Protection Areas
- Water stream named Tojnica runs next to the facility

Kemis case

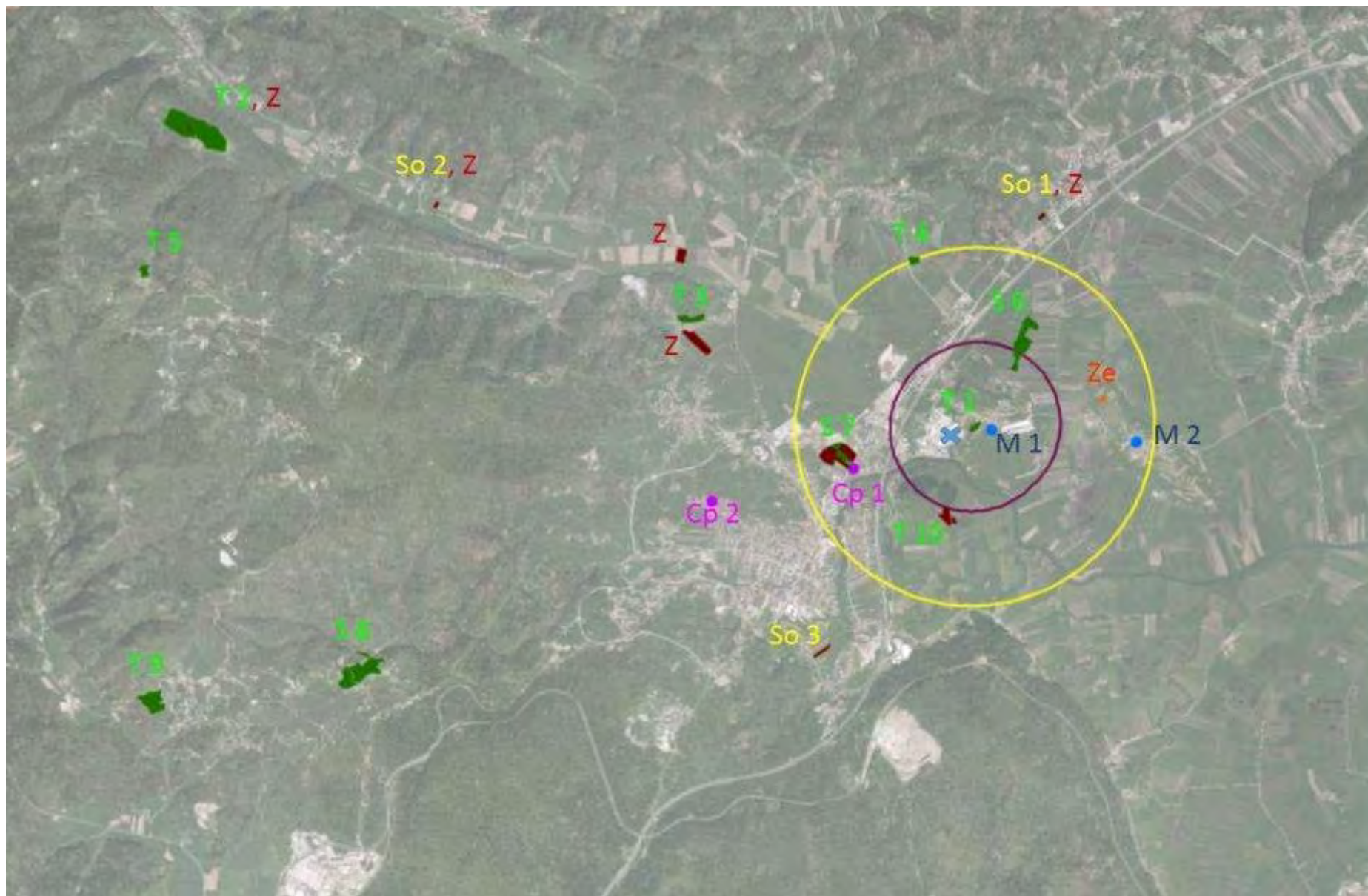




Ministry of the interior – Police – General police directorate







LEGENDA

T = TRAVA

S = SENO

So = SOJATA

Z = ZEMLJA

Cp = CVETNI
PRAH

M = MLEKO

Ze = ZELIŠČA

x KEMIS

Kemis investigation

- In the event of a fire in Kemis, the investigation was concluded with report No.2300-3205820 / 1779321/1782607/840049/2017 of 22 September 2017 to the District Public Prosecutor's Office in Ljubljana,
- there were no grounds for a criminal complaint on the basis of collected information.
- despite the insignificant pollution, the company operated in accordance with all issued permits until there was a fire and an extraordinary event

Inspection investigation

- Inspection 19.5.2017 (immediately after completion of the intervention (fire extinguishing) and criminal investigation) and 26. 5. 2017
- Inspection findings after the fire:
- a large part of the warehouse space was destroyed in the fire as well as large quantity of waste
- the plant :
 - did not provide adequate storage of liquid hazardous waste,
 - did not provide a fire safety system with automatic detectors,
 - there was no electricity at the plant, in the event of fire,
 - it did not prevent the leakage of fire lines and liquid of waste into the watercourse and
 - did not provide for the storage of documentation in order to be accessible during and after the fire.



Kemis – inspection decision

Oral inspection decision 26. 5. 2017:

- KEMIS must immediately, until the conditions from environmental protection license are met, stop the plant in which the activity of processing or disposal of waste under procedures D9, D13, R2, R12 and R13 is carried out with a production capacity of 551 tonnes per day and the activity of preliminary storage of waste with a production capacity of 1,425 tonnes.
- The ban does not interfere with Kemis obligations, to take all measures to prevent additional environmental damage or remediation of environmental damage that occurred after the fire in the plant on 15.5.2017 in accordance with the provisions of the ZVO-1.

Kemis offense procedure

- legal entity was fined 265,000 EUR
- responsible person was fined 12,500 EUR
- Violations:
 - after an environmental accident, a fire at a plant for the recovery or disposal of waste, did not inform the Ministry of the immediate threat to the occurrence of environmental damage and of all relevant facts, and in particular the actual state of the environment and the measures taken;
 - did not capture all liquid fire extinguishers and spillage hazardous substances, resulting in environmental damage on the Tojnica watercourse , and in this way acted contrary to the environmental permit
 - On the day of the inspection on 26.5.2017 did not operate in accordance with the permit because it did not stop the waste recovery or disposal plant, due to a breach of the conditions of this permit, that is a direct threat to human health or the creation of a significant adverse effect on the environment

Kemis offense procedure

- The inspectorate received a request for judicial protection against a misdemeanor decision, which was transferred to the competent district court for consideration.
- The court has not yet issued the decision.

Ekosistemi – police investigation

- The company Ekosistemi was a trader and collector of non dangerous wastes, most of them was plastic waste
- The company didn't have the relevant environmental documents and did not properly store the waste
- The Ecosystems Company is not located in the protected area, however, within the distance of 100m from the company's boundary, there is an ecologically important Temenica area, and the Natura 2000 Area









Ekosistemi investigation

- in the case of the Ekosistemi, we have filed a criminal complaint against the known perpetrator for the criminal act of causing a general danger
- the court has not yet issued the decision

Ekosistemi – inspection procedure

- After a fire in the company Ekosistemi Inspector issued an oral decision (26. 7. 2017) that Ekosistemi should:
 - stop the activity immediately, because it can no longer guarantee to act in accordance with the permit
 - take all measures to prevent additional environmental damage.
- The Ekosistemi prepared a plan for the implementation of the activities at the site with a timetable that would eliminate the consequences of the fire by the end of December 2018.

Ekosistemi – inspection procedure

- Inspection send the proposal for the withdrawal of an environmental permit to the Environmental agency
- Environmental agency issued a decision on the withdrawal of the permit with the obligation, that Ekosistemi must ensure the treatment of waste within 60 days (by 15. 2. 2018 final and enforceable)
- On 16 February 2018, the Inspectorate submitted a proposal for the deletion of Ekosistemi d.o.o. from the records of collectors of waste.

Ekosistemi – inspection procedure

- Ekosistemi did not carry out an agency decision
- Upon receipt of the notification of the finalization and enforceability of the decision of the ARSO, the Inspectorate issued a decision on the enforcement of the decision of 18 July 2017, and threatened Ekosistemi with a fine if it fails to fulfill its obligations within 45 days
- Ekosistemi did not carry out an inspection decision
- the inspection is now in the process of selecting contractor for enforcement by another person on the basis of a public procurement procedure

Fines

- The inspector also imposed three fines, namely:
- one of EUR 75 000 for breach of the permit and
- two 10 000 each due to non-enforcement of an inspection decision.

All three are being challenged in court.

Corruption in the water sector

Commission for the Prevention of Corruption

- The work of a member of the municipal council, who is the chairman of the Committee for Ecology, Municipal and Road Economy of the Municipality and at the same time (through the business entity, whose representative and owner is), is also a coordinator and consultant in the preparation of an intermodal project in the field of regulating the discharge and treatment of urban waste water and protection of water resources on the Drava River Basin represents a conflict of interests.
- Handling of responsible persons of the municipality, public economic institute and municipal administration that carry out a public procurement procedure, in which they fully neglect the provisions of the law regulating this field, thus granting the tenderer the opportunity to obtain an undue advantage by awarding the contract, corresponds to the definition of corruption (the inland waterway services)
- Director of the public service company as an official person, by virtue of the fact that in the years 2015 and 2016, the supply of water meters and related equipment for the needs of the public utility service of drinking water supply in the Municipality of Bled and the Municipality of Gorje JORDAN sells and service water meters doo without the implementation of an appropriate procurement procedure

Questions?

Thank you!

WATER CRIME

Case Study – Mr F

Nitrate pollution and the abstraction of water

Tom Ledden

Enforcement & Prosecutions Lawyer

24 October 2018

The Law



- Water Resources Act 1991
 - Regulates private boreholes to protect water resources
 - How?
 - A licence is required to lawfully abstract more than 20m³ (20,000 litres) of water per day
 - It is a criminal offence to abstract more than 20m³ per day without a licence
- The Water Resources (Control of Pollution) (Sludge, Slurry and Agricultural Fuel Oil) Regulations 2010 (“The SSAFO Regulations“)
 - Regulate the storage of slurry to prevent nitrate pollution
 - How?
 - Require that the base and walls of slurry reception pits are impermeable
 - It is a criminal offence to store slurry in a permeable reception pit

The Law



- Nitrate Pollution Prevention Regulations 2015 (“The NVZ Regulations”)
 - Implemented the Nitrates Directive (91/676/EEC)
 - Aims to reduce water pollution caused by nitrate from agricultural sources
 - How?
 - Limits application of organic and inorganic fertilizer
 - Seasonal restrictions on the application of slurry, manure and sludge
 - Requires maintenance of farm records (cropping, livestock numbers, fertiliser management)

Case Study – Mr F



Facts:

- Mr F owned and ran a dairy and beef farm within a NVZ
- Numerous failures in planning and record-keeping
- Slurry stored in permeable reception pit
- Excessive abstraction of water

Aggravating features

- Attempted to retrospectively alter NVZ records
- Abstraction licence not available
- Abstraction increased despite warnings
- Risk to health of tenants
- Abstracted water contained elevated nitrate levels and was provided to tenants



Case Study – Mr F

Public interest

- Decision to prosecute based on the following factors:
 - Intent
 - Attitude of the offender
 - Nature of offences
 - Environmental effect
 - Financial implications

Charges

- Charged with 10 offences
- 8 offences contrary to the Nitrate Pollution Prevention Regulations
- 1 offence contrary to the Water Resources Act
- 1 offence contrary to the Water Resources (Control of Pollution) (Silage, Slurry and Agricultural Fuel Oil) Regulations 2010

Case Study – Mr F



Outcome

- Mr F pleaded guilty to 9 offences
- Environment Agency decided not to proceed with SSAFO offence on evidential / public interest grounds
- Court found that:
 - Abstraction offence was deliberate
 - NVZ Regulations offences were as a result of Mr F's negligence
- Sentence:
 - Fined £16,000:
 - Abstraction offence – fine £8,000
 - NVZ offences – fine £8,000
 - Ordered to pay Prosecution costs
- Mr F was reported to the Rural Payments Agency – resulted in 28% reduction in Single Farm Payment

Challenges

- Establishing evidence of guilt
 - NVZ offences
 - Slurry reception pits
 - Water abstraction
- Showing the significance of the offending:
 - Interpretation of the evidence – expert
 - Establishing evidence of harm
- Multi-agency regulation
 - The Environment Agency / Local government

Any questions?

tom.ledden@environment-agency.gov.uk



European Union Network for the Implementation
and Enforcement of Environmental Law

Water crimes and Environmental Compliance Assurance Initiative (ECA)

IMPEL Water Crimes workshop

Heraklion, 24 October, 2018

Chris Dijkens

Chair of IMPEL



Content presentation

- Introduction
- Types of behaviour and responses (1)
- Confession
- Types of behaviour and responses (2)
- Types of Water Crimes
- Environmental Compliance Assurance (ECA)
- 9-point Action Plan
- Conclusion

Types of behaviour and responses



REWARD



ENGAGE



ENABLE/FUND



EDUCATE



INSPECT/CHECK



ENFORCE



Confession



'polluter pays principle'

$$veO = Q/1000 * (CZV + 4,57 * KjN)/54,8 = Q * (CZV + 4,57 * KjN)/54.800$$

=

pollution units x € =

€€€€€€

Types of behaviour and responses



REWARD



ENGAGE



ENABLE/FUND



EDUCATE



INSPECT/CHECK



ENFORCE

WELL, IF I KNEW
WHAT I WAS DOING, DO
YOU THINK I WOULD APPLY
TO THE POLICE?





Types of Water Crimes

- Surface water (river and marine) pollution
- Illegal waste discharges
- Manipulation of sampling, analysis and data
- Fraudulent water quality reporting, falsification of documents and data
- Criminal threats to water management infrastructure (e.g. terrorism and/or cyber threats)
- Corruption
- Unauthorized abstraction and water consumption



Observations water crimes

- Economical 'gain' is important driver
- Organised and 'enterprise' crime
- Institutional and regulatory failures, such as:
 - Fail to implement adequate laws
 - Fail to assign sufficient resources
 - Poorly trained staff
 - Not being aware of the problem and setting other priorities
 - Penalties are often inadequate and are not a serious deterrent
 - Costs of investigation are out of balance with 'punishment'
 - Lack of awareness and cooperation between key players in the compliance and enforcement chain may lead to loss of cases
- Evidence gathering is highly technical and complicated
- Prosecution and court proceedings require specialisms
- Often other legislation than environmental legislation is used to punish the offender harder

Call to do more:



Underlying factors:

- Environmental crimes are amongst the most serious forms of non-compliance
- Need for strategic assessment of risk and strategic coordination within and across Member States and sharing of intelligence
- To take into account non-EU countries. Ensure international links!
- (Organised) crime is a particular problem in areas of waste and wildlife - but not exclusive!
- Connections with non-environmental crimes, such as fraud, corruption, money-laundering and tax evasion
- Besides application of criminal law, also administrative law and rules on remediation need to be taken into account
- Detecting illegal activities is highly technical and complex and requires special techniques and powers

Environmental Compliance Assurance



COMPLIANCE



COMPLIANCE
PROMOTION



INSPECTIONS
& CHECKS



ENFORCEMENT



Environmental Compliance Assurance

Covers the range of interventions used by public authorities to ensure compliance by duty-holders with environmental rules on activities

Three broad classes of compliance assurance interventions:

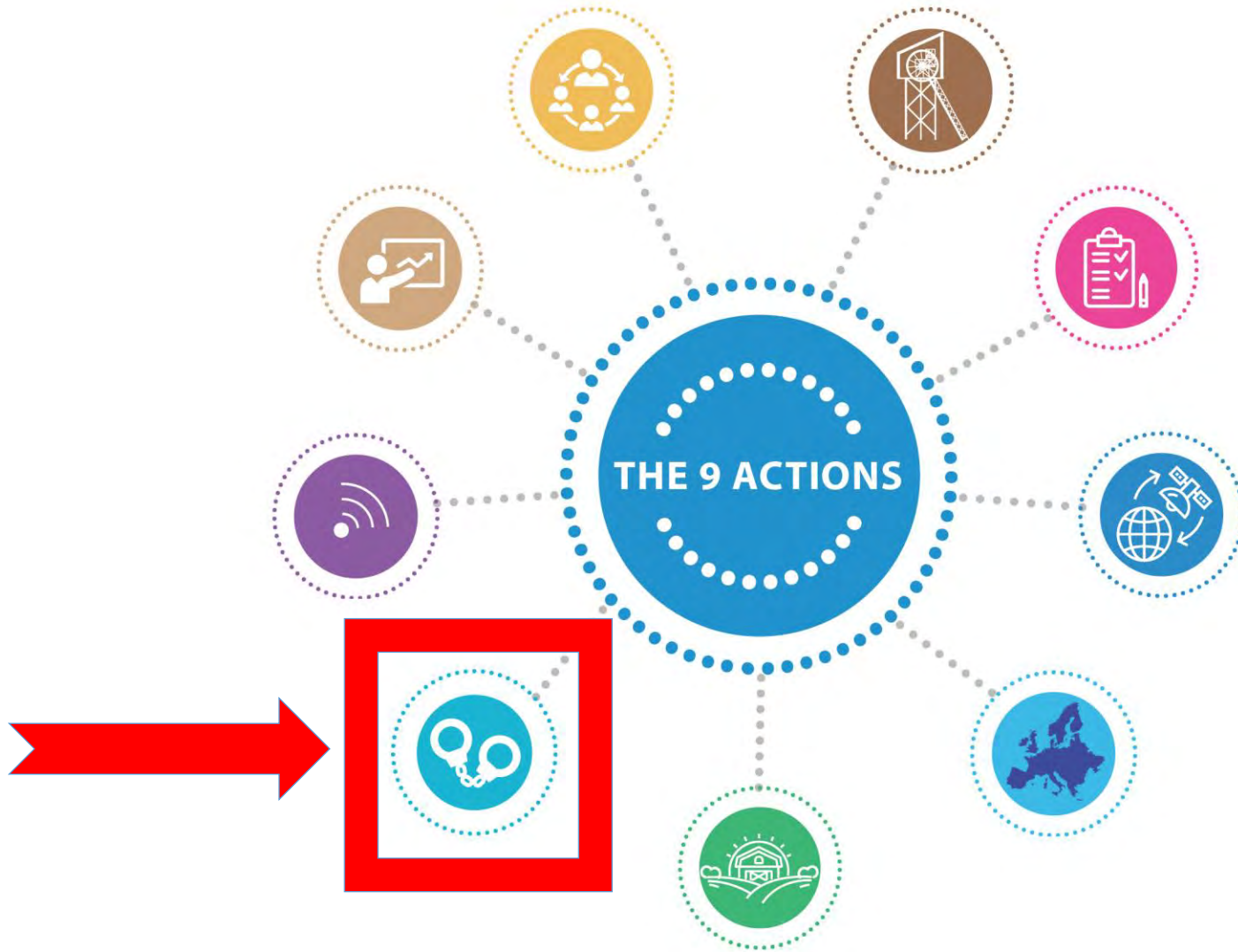
- Compliance promotion
 - *helps duty-holders to comply through means such as guidance, 'frequently asked questions' and help-desks*
- Compliance monitoring
 - *identifies and characterises duty-holder conduct and detects and assesses any non-compliance, using environmental inspections and other checks*
- Follow-up and enforcement
 - *draw on administrative, criminal and civil law to stop, deter, sanction and obtain redress for non-compliant conduct and encourage compliance*



Commission Action Plan with 9 actions



No	Action	Timing
1	Improve deployment of environmental compliance assurance expertise across the EU by means of peer reviews, joint enforcement actions, compliance assurance visits and use of the TAIEX-EIR Peer2Peer tool ⁶⁸	2019
2	Identify necessary professional skill-sets and training needs for environmental inspectors and improve cooperation with practitioner- and other bodies promoting excellence and providing training for compliance assurance professionals at national and European level	2018
3	Facilitate the sharing of good practices, background and reference material, promote funding opportunities for environmental compliance assurance, and explore the setting up of a wider environmental implementation portal	2019
4	Prepare a good practice guidance document on strategies for combating environmental crimes and other related breaches , with a particular focus on waste and wildlife	2019
5	Prepare guidance document(s) on good practices in environmental compliance assurance in rural areas (in relation to land and water)	2019
6	Prepare technical guidelines for inspections of extractive waste facilities	2018
7	Prepare documentation on good practices in the handling of environmental complaints and citizen engagement at Member State level , including through citizen science and work with Member States to share good practices on effective national complaint-handling mechanisms concerning EU environmental law	2019
8	Build up the capacity and use of geospatial intelligence for compliance assurance and promote good practice projects (e.g. using Copernicus data)	2019
9	Assess national environmental compliance assurance systems as part of a wider governance assessment framework and regularly present feedback to Member States, also as part of the Environmental Implementation Review	2019



Commission Action Plan with 9 actions



No	Action	Timing
1	Improve deployment of environmental compliance assurance expertise across the EU by means of peer reviews, joint enforcement actions, compliance assurance visits and use of the TAIEX-EIR Peer2Peer tool ⁶⁸	2019
2	Identify necessary professional skill-sets and training needs for environmental inspectors and improve cooperation with practitioner- and other bodies promoting excellence and providing training for compliance assurance professionals at national and European level	2018
3	Facilitate the sharing of good practices, background and reference material, promote funding opportunities for environmental compliance assurance, and explore the setting up of a wider environmental implementation portal	2019
4	Prepare a good practice guidance document on strategies for combating environmental crimes and other related breaches , with a particular focus on waste and wildlife	2019
5	Prepare guidance document(s) on good practices in environmental compliance assurance in rural areas (in relation to land and water)	2019
6	Prepare technical guidelines for inspections of extractive waste facilities	2018
7	Prepare documentation on good practices in the handling of environmental complaints and citizen engagement at Member State level , including through citizen science and work with Member States to share good practices on effective national complaint-handling mechanisms concerning EU environmental law	2019
8	Build up the capacity and use of geospatial intelligence for compliance assurance and promote good practice projects (e.g. using Copernicus data)	2019
9	Assess national environmental compliance assurance systems as part of a wider governance assessment framework and regularly present feedback to Member States, also as part of the Environmental Implementation Review	2019



Action 4:

Good practice guidance document on strategies for combating environmental crimes

Aim:

‘Ensure a minimum level of coherence across EU Member States on how to tackle environmental crimes and other related breaches’

- The action will help the relevant Member State authorities to develop strategic approaches at national level, by providing guidance that they can adapt and refine
- Networks as IMPEL, EnviCrimeNet, ENPE and EUFJE work together in developing guidance and through joint activities and projects

Commission Action Plan with 9 actions



No	Action	Timing
1	Improve deployment of environmental compliance assurance expertise across the EU by means of peer reviews, joint enforcement actions, compliance assurance visits and use of the TAIEX-EIR Peer2Peer tool ⁶⁸	2019
2	Identify necessary professional skill-sets and training needs for environmental inspectors and improve cooperation with practitioner- and other bodies promoting excellence and providing training for compliance assurance professionals at national and European level	2018
3	Facilitate the sharing of good practices, background and reference material, promote funding opportunities for environmental compliance assurance, and explore the setting up of a wider environmental implementation portal	2019
4	Prepare a good practice guidance document on strategies for combating environmental crimes and other related breaches , with a particular focus on waste and wildlife	2019
5	Prepare guidance document(s) on good practices in environmental compliance assurance in rural areas (in relation to land and water)	2019
6	Prepare technical guidelines for inspections of extractive waste facilities	2018
7	Prepare documentation on good practices in the handling of environmental complaints and citizen engagement at Member State level , including through citizen science and work with Member States to share good practices on effective national complaint-handling mechanisms concerning EU environmental law	2019
8	Build up the capacity and use of geospatial intelligence for compliance assurance and promote good practice projects (e.g. using Copernicus data)	2019
9	Assess national environmental compliance assurance systems as part of a wider governance assessment framework and regularly present feedback to Member States, also as part of the Environmental Implementation Review	2019



Opportunities for improvement

(a snapshot)

- A clear national compliance and enforcement strategy
- Strategies to encourage compliance
- ‘to know’ (and to understand) the behaviour of flagrant violators
- Balanced approach of punitive and administrative sanctioning
- Capacity building and training
- Enhancing cooperation between key players in combatting environmental crimes and sharing intelligence
- Developing and using next generation methods and technology
 - Risk analysis and profiling
 - Gathering intelligence
 - Monitoring and observation,
 - Forensic science, (chemical) tracers and ‘fingerprints’,



To conclude

- Tackling environmental crimes is a priority and IMPEL does contribute to Action 4 of the ECA Action Plan
- Through the project on Water Crimes, IMPEL aims at increasing knowledge by engaging the IMPEL members in collecting and sharing of information
- The project will also contribute to the development of an EU Water Crimes Threat Assessment and a Water Security Strategy in Europe
- IMPEL cooperates with key players in the compliance and enforcement chain in joint projects and activities where appropriate, such as:
 - Developing Guidance,
 - Enforcement Actions,
 - Peer Review and
 - Capacity building and training
 - Sharing good practices
 - Exchange of inspectors

IMPEL films



- General Introductory video - <https://vimeo.com/168229226>
- Industry & Air - <http://www.impel.eu/topics/industry-air/>
- Waste & TFS – <http://www.impel.eu/topics/waste-and-tfs/>
- Cross Cutting approaches and tools – <http://www.impel.eu/topics/cross-cutting/>
- Water & Land – <http://www.impel.eu/topics/water-land/>
- Nature Protection - <http://www.impel.eu/topics/nature-protection/>

IMPEL Conference 2018: <https://www.impel.eu/2018conference/index.html>

Sign up for IMPEL's E-newsletter [here!](#)



European Union Network for the Implementation
and Enforcement of Environmental Law

Thank you!

Email: info@impel.eu

Website: www.impel.eu

<https://vimeo.com/168229226>

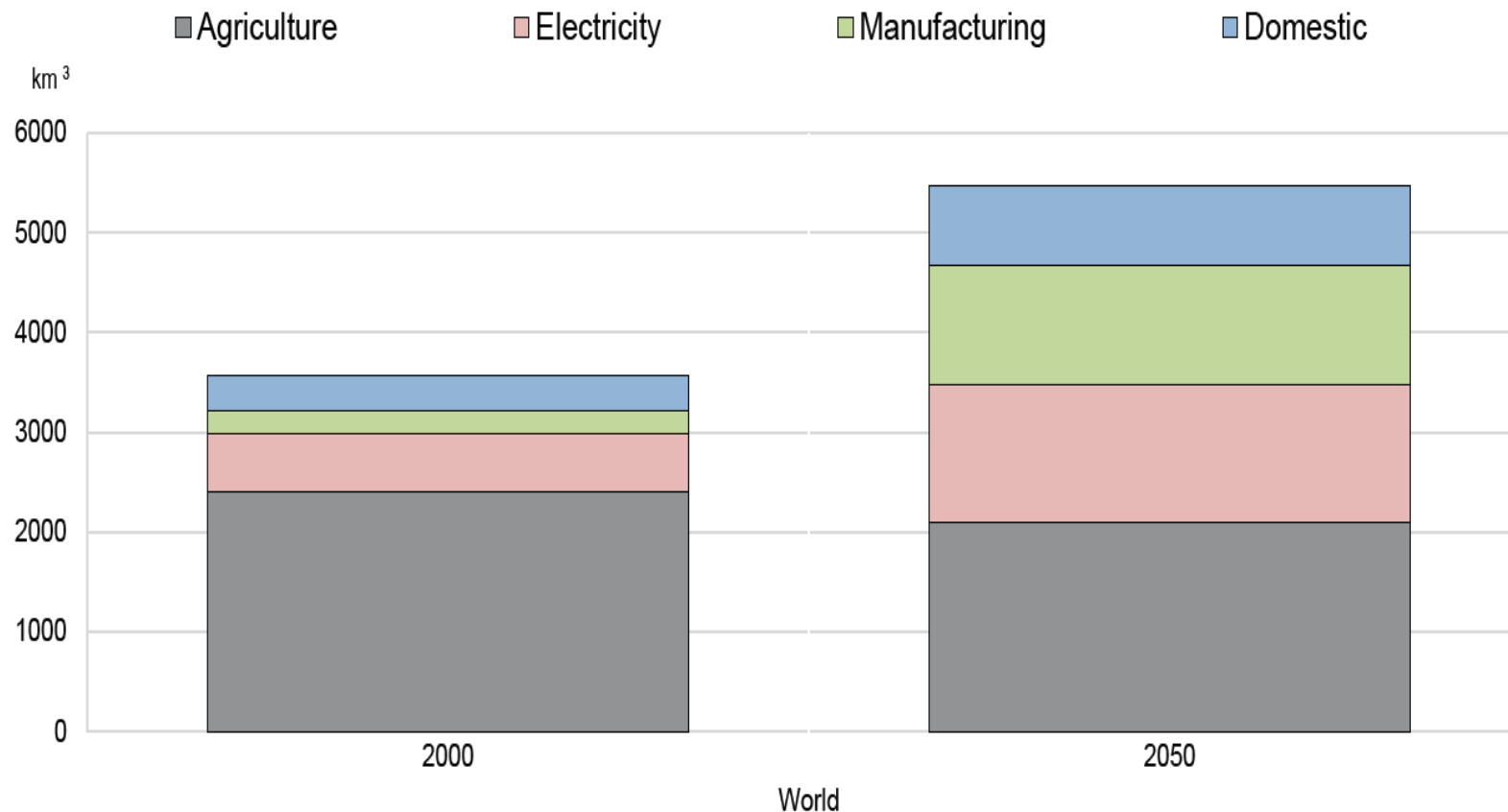


Protecting habitats and endangered species in Europe through tackling environm. crime

THREAT AND RISK ASSESSMENT

Heraklion – Crete
23 – 24 October
2018

FIGURE 1. GLOBAL WATER USE IS PROJECTED TO SUBSTANTIALLY INCREASE IN NEAR FUTURE



Protecting habitats and endangered species in Europe through tackling environm. crime

Heraklion – Crete
23 – 24 October
2018



FOREWORD

In 2016, the European Commission funded a project to analyse Water Crimes.

The project activities did not include the development of a threat and risk assessment (TRA), but the researchers collected some basic information.

The IMPEL project on Water Crimes have tried to follow the same approach with a survey among its members

Protecting habitats and endangered species in Europe through tackling environm. crime

Heraklion – Crete
23 – 24 October
2018



THREAT AND RISK ASSESSMENT

PERFORMING A THREAT AND RISK ASSESSMENT OF WATER CRIMES:

- ✓ **The water supply system must be considered in its entirety (sources, treatment, distribution)**
- ✓ **The risk levels for single components differ**
- ✓ **Cascading effects can be significant and difficult to measure**
- ✓ **There is no systematic data collection on water crimes**
- ✓ **Different drivers (of human and natural origin) can modify the risk of crime**

Protecting habitats and endangered species in Europe through tackling environm. crime

Heraklion – Crete
23 – 24 October
2018



THREAT AND RISK ASSESSMENT

STARTING FROM GENERAL CONCEPTS:

THREAT

anything that would contribute to the tampering, destruction or interruption of any service or item of value.

Threats can be split into human and nonhuman elements

RISK

the chance of harmful effects to human health or to ecological systems resulting from exposure to an environmental stressor. It is a combination of three critical parameters: the likelihood, the impact severity, and the vulnerability

Protecting habitats and endangered species in Europe through tackling environm. crime

Heraklion – Crete
23 – 24 October
2018



RISK ASSESSMENT

The **risk assessment method** started from the general concept of risk as a function of three different factors:

$$RI = L \text{ (operator)} I \text{ (operator)} V$$

Where:

“**RI**” is the **Risk Assessment Index**

“**L**” is the value of the **likelihood** of the threat

“**I**” is the value of the **impact** severity of the threat upon the asset

“**V**” is the value of the **vulnerability** of the asset towards the threat

During the water crimes project, experts provided data for likelihood and impact, not for vulnerability, as this can significantly differ from country to country and it requires an analysis almost case by case.

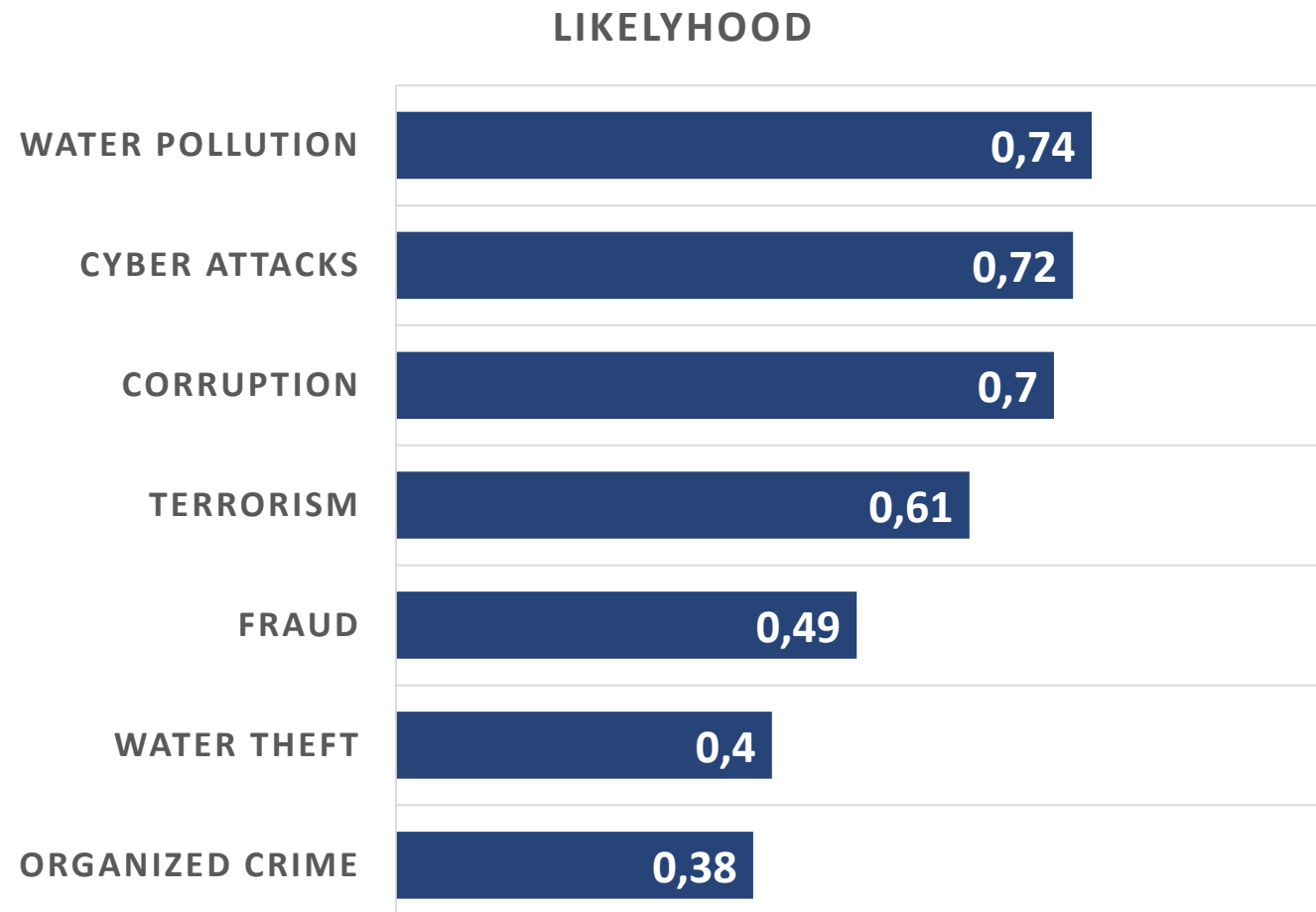
Protecting habitats and endangered species in Europe through tackling environm. crime

Heraklion – Crete
23 – 24 October
2018



RISK ASSESSMENT

MAX 1
0,74
0,72
0,7
0,61
0,49
0,4
0,38



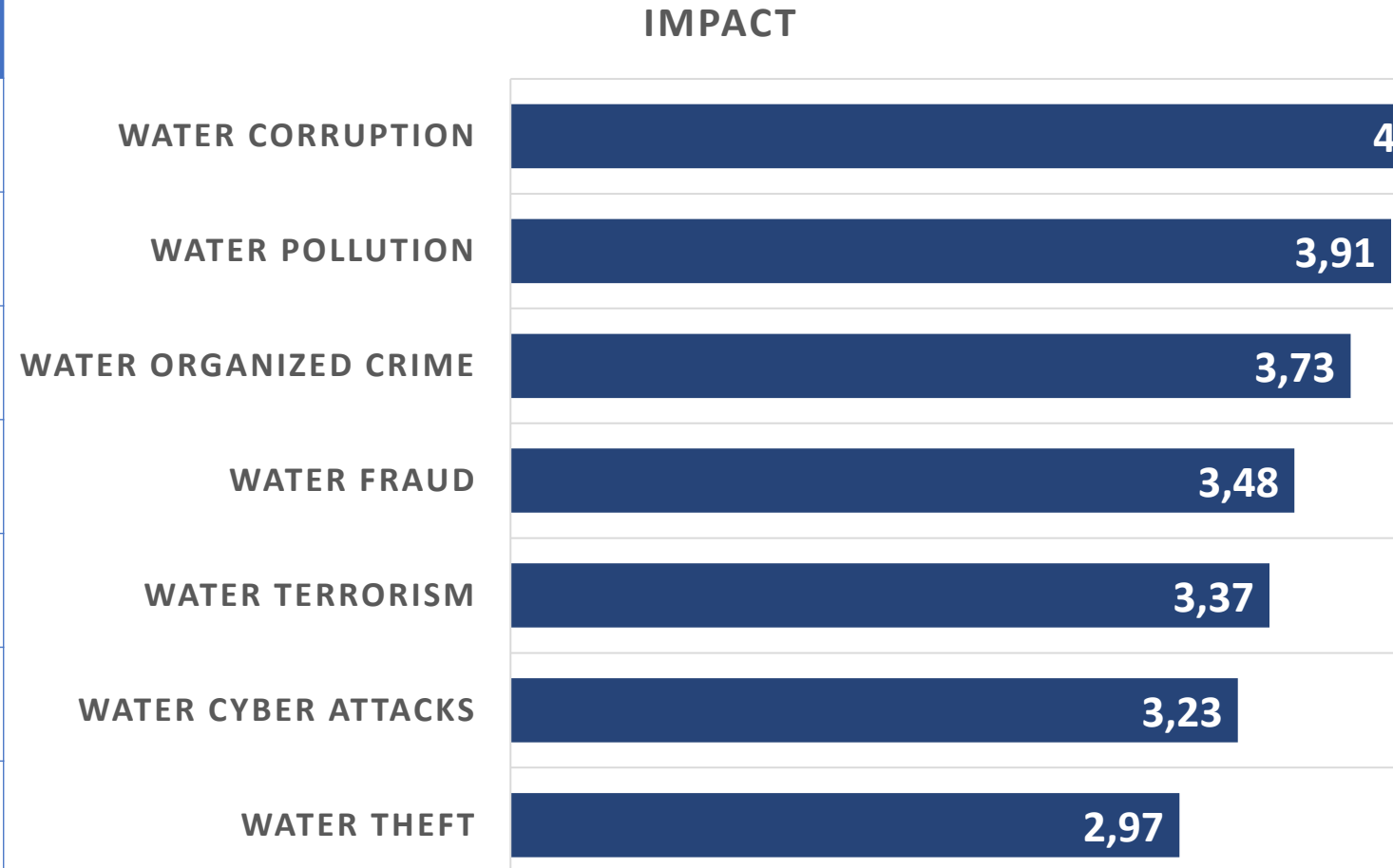
Protecting habitats and endangered species in Europe through tackling environm. crime

Heraklion – Crete
23 – 24 October
2018



RISK ASSESSMENT

ENVIRONM	ECONOMIC	SOCIAL	GLOBAL
4.00	4.00	4.00	4.00
4.36	3.73	3.64	3.91
3.91	3.55	3.73	3.73
3.18	3.36	3.91	3.48
3.09	2.91	4.10	3.37
3.09	2.91	3.70	3.23
2.73	2.64	3.55	2.97



Protecting habitats and endangered species in Europe through tackling environm. crime

Heraklion – Crete
23 – 24 October
2018



RISK ASSESSMENT

We can try to measure the **vulnerability** on the basis of:

PREPAREDNESS:

- Awareness of the problem (lower for emerging offences)
- Existing countermeasures (e.g. lower for emerging threats such as cybercrimes, higher on water theft or meter tampering...)

PROTECTION:

- Entry point for criminals (or – extension of the target for an attack) (e.g. terrorist attack in any stage of the water system, cyberattach thorough any internet access point of the intranet, while corruption e.g. Skills through staff of the procurement service)

OFFENDERS:

- and resources required (a cyberattack or a radioactive attach requires more skills/resources than pollution)
- Motivation (economic, revenge, terrorism... this can reduce effectiveness of countermeasures)

RESPONSE:

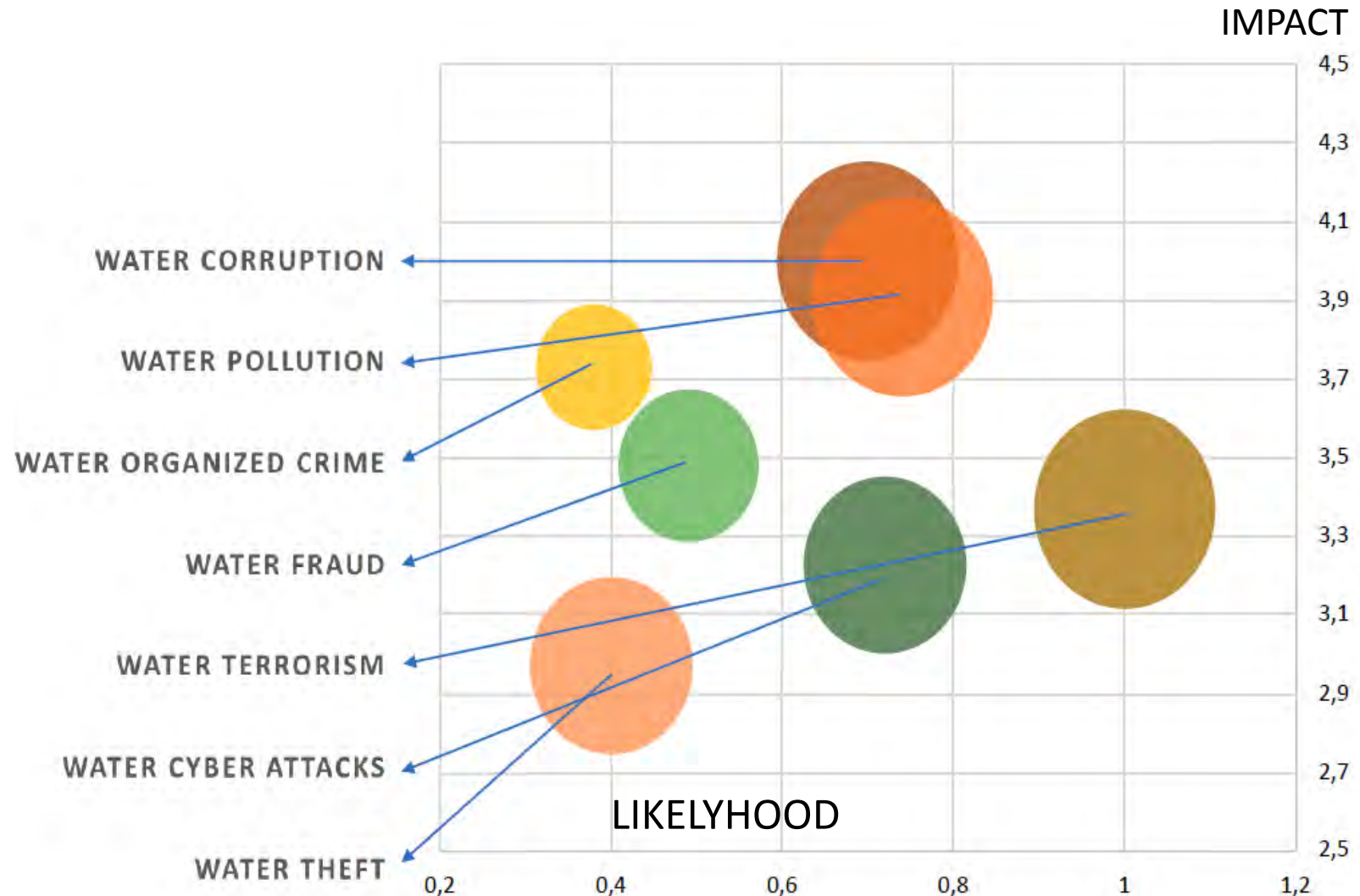
- Time to discover the attack

Protecting habitats and endangered species in Europe through tackling environm. crime

Heraklion – Crete
23 – 24 October
2018

IMPACT ASSESSMENT

LIKELIHOOD	IMPACT	VULNERABILITY
0,70	4.00	5
0,74	3.91	5
0,38	3.73	2
0,49	3.48	3
0,61	3.37	5
0,72	3.23	4
0,40	2.97	4



Protecting habitats and endangered species in Europe through tackling environm. crime

Heraklion – Crete
23 – 24 October
2018

THE IMPEL PROJECT

Looking forward....