



Harmonization and Networking for contaminant
assessment in the Ionian and Adriatic Seas

Methodological proposal for transnational harmonization of Environmental Impact Assessment (EIA) of Produced Formation Water (PFW) discharge Deliverable T1.2.2

Work Package T1 - Sharing best practices for transnational harmonization for EQSD implementation and link with UNEP/MAP MEDPOL Program and Offshore Protocol of Barcelona Convention

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Introduction

The deliverable T1.2.2 requires to share a methodological proposal for transnational harmonization of Environmental Impact Assessment (EIA) procedures in case of produced formation water (PFW) discharged from offshore platforms.

Briefly, an analysis of EIA legislation and its procedure for offshore platform PFW discharge was done at ADRION level, describing communalities and dissimilarities between six countries (Albania, Croatia, Greece, Italy, Montenegro and Slovenia).

Gaps and needs are discussed for the PFW discharge EIA procedure at ADRION level.

- **Questionnaire**

- **Structure of the Questionnaire**

A questionnaire was sent in March 7th to national institutes involved in the project with the following remarks for compilation:

- Provide general EIA legislation at national, regional or local level.
- Provide specific EIA legislation in case of offshore platform PFW discharge.
- Describe EIA procedure or other legislative procedure in case of PFW discharge.
- Use the last column "Comments" for any additional information

- **Analysis of results**

The institutions that replied to the questionnaire were:

- Agriculture University of Tirana (AUT), Albania
- Rudjer Boskovic Institute (RBI) and Institute of Oceanography and Fisheries (IOF), Croatia
- Hellenic Centre for Marine Research (HCMR) and Region of Western Greece (RWG), Greece
- Italian National Institute for Environmental Protection and Research (ISPRA) and National Institute of Oceanography and Applied Geophysics (OGS), Italy
- University of Montenegro - Institute of Marine Biology (UoM-IMB) and Environmental Protection Agency (EPA), Montenegro
- Slovenian Environment Agency (ARSO) and National Institute of Biology (NIB), Slovenia

The Questionnaires received from six countries (represented by eleven Institutes) involved in the project HarmonIA have been compared. The comparative analysis of the questionnaires highlighted the results described below.

All European countries own a general national EIA legislation, transposing specific European Directives, in particular the last Directive 2014/52/UE. Although not part of the European Union, Montenegro has an EIA law in line with the Directive 2014/52/UE and Albania has EIA system that transposes some previous UE directives.

Regarding International Convention or regional agreement regulating environmental impact of the offshore oil and gas platforms, the Barcelona Convention and UNCLOS have been ratified by all countries. Only Croatia and Albania have ratified the Offshore Protocol of the Barcelona Convention.

Specific national legislation concerning the discharge of PFW is in place in Italy, Croatia, Montenegro and Albania but not in Greece. In Slovenia, according to Mining Act, offshore oil and gas exploration and exploitation is prohibited. As there is no EU legislation which specifically addresses PFW, such laws aren't transposition of EU Directives.

PFW discharge can be subject to EIA procedure in Croatia, Montenegro and Greece, although not specifically mentioned in the national legislation. In Croatia, EIA is mandatory for the exploitation of the hydrocarbons and PFW treatment is included in EIA procedure, as part of the exploitation process. In Montenegro, EIA is obligatory for drilling of wells and PFW can also be addressed by such EIA procedure. Also in Greece PFW treatment is included in EIA procedure, as part of the exploitation process. EIA is not mandatory in the rest of the countries as Albania and Italy. In particular, Albania has specific legislation concerning PFW discharge. In Italy, the project developer can choose to pursue EIA procedure or be compliant to PFW discharge procedures under specific national Decree.

The authority in charge for PFW discharge management is the Ministry/Agency of Environment, except for Montenegrin authority which is the Ministry competent for maritime affairs.

Croatian procedure requires that EIA Decision includes measures and monitoring with hydrocarbon threshold in PFW discharge. In particular, the Italian and Albanian demands of PFW discharge authorization include: a) Information about the installation (marine district, type of production, geographic position etc.); b) Information about the discharge (geometry of the pipe discharge, expected volumes of PFW discharge, physical-chemical and ecotoxicological characterization of PFW and of potential chemicals used); c) Information about the marine environmental conditions (local meteorological and oceanographic conditions; description of the biocenoses; presence of marine protected areas, mariculture activities or other sensible areas); d) Specific Monitoring Plan aimed to verify the absence of hazard for marine ecosystems. For Montenegro, the authorization shall include: time, quantity and reasons for the discharge of substances, antifouling systems against shipwreck if they contain biocidal organic compounds of tin and deliberate immersion, burning and burial on the seabed of waste or other matter.

All partners didn't declare to own a national legislation for the environmental monitoring of possible impacts of PFW discharge into the sea, except Italy. And there exist guidelines only in Italy for monitoring potential impacts of PFW discharge into the sea.

Three of these nations (Italy, Croatia and Albania) establish an oil concentration limit in PFW discharge: 40 ppm in Italy and Croatia. But, a Croatian more restrictive threshold (15 mg/l) is also established for hydrocarbons in water. In Italian authorization decrees, a concentration limit (3500 ppm) is also usually established for diethylene glycol.

Conclusion

On the basis of the outcomes of the questionnaires, similar approach emerges for authorization procedure of PFW discharge. All European countries have implemented EIA European Directive (2014/52/UE). But it is not mandatory to include the authorization of PFW discharge in EIA procedure, except for Croatia and Montenegro. The other countries, except Greece, have specific national legislation for PFW discharge. In Slovenia, according to Mining Act, offshore oil and gas exploration and exploitation is prohibited.

The following **gaps** have been found:

- Some incomplete answers
- Scarce feedback of some competent authorities
- Absence of Offshore Protocol ratification in most of the countries (except for Croatia and Albania)
- No EIA procedure obligation and no specific national legislation concerning the discharge of PFW in Greece.
- No guideline for monitoring potential impacts of PFW discharge into the sea (except for Italy).

The following **needs** emerge at ADRION level:

- To have major feedback by competent authorities
- To ratify the Offshore Protocol of the Barcelona Convention in all ADRION countries
- To propose a task force of experts belonging to each ADRION nation to share best practices and normative evolutions on the EIA topic in case of PFW discharge.
- To propose harmonized guidelines for environmental monitoring of possible impacts of PFW discharge
- To recommend common concentration limits of particular pollutants (as oil) in PFW discharge

These last two aspects will be addressed in the Deliverable T.1.3.1 and may be main targets for harmonization of EIA and monitoring procedures of PFW discharge.

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