

Minutes

WP 3 CAPACITY BUILDING THROUGH STAFF TRAINING AND EQUIPMENT PURCHASE. THE AIM OF WP2 IS TO ENHANCE CAPACITIES RELATED TO FIELD OF MEP&M AND E-LEARNING.

DEV 3.4.1: KNOW-HOW TRANSFER RELATED TO THE LATEST TOPICS ON MARINE AND COASTAL POLLUTION AND EMISSION OF GHG FROM SHIPPING, NAUTICAL TOURISM, COASTAL TOURISM AND OFF-SHORE ACTIVITIES



**Development of Regional Joint Master Program in Maritime Environmental
Protection and Management – MEP&M**

Project no. 619239-EPP-1-2020-1-ME-EPPKA2-CBHE-JP

Online Training

**DEV 3.4.1: Know-how transfer related to the latest topics on marine and coastal
pollution and emission of GHG from shipping, nautical tourism, coastal tourism and
off-shore activities**

27 September, 2021

Organized by: University of Cadiz (Spain)

List of Participants

Wednesday, 27th Sep 2021

1. Klarida Prendi, Aleksander Moisiu University Durrës
2. Maja Škurić, University of Montenegro
3. Danilo Nikolic, University of Montenegro
4. Kristofor Lapa, University of Vlora
5. Alketa Hyso, University of Vlora
6. Osman Metalla, Aleksander Moisiu University of Durrës
7. Radmila Gagic, University of Montenegro
8. Aurora Bakaj, University of Vlore
9. María de Andrés García, University of Cadiz
10. Javier Moreno Andrés, University of Cadiz

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Link for the meeting:

Agenda

Wednesday 27th September 2021. University of Cádiz (UCA-S)

| | |
|---------------------|--|
| 9:15- 9:30 | Entry and welcome |
| 9:30 – 10:25 | Javier Moreno Andrés, PhD Topic: Land and shipping-based effluents as sources of marine pollution: Technologies for his minimization (Part 1) |
| 10:25-10:35 | Break |
| 10:35- 11:30 | Javier Moreno Andrés, PhD Topic: Land and shipping-based effluents as sources of marine pollution: Technologies for his minimization (Part 2) |
| 11:30-12:00 | Discussion and questions |

Summary of the training

Topic: Land and shipping-based effluents as sources of marine pollution: Technologies for his minimization

Recording link:

https://drive.google.com/file/d/1o63QZKGStw_1RHug9tkqXNYcz3csSLSB/view?usp=sharing

Presentation link: <https://meet.google.com/aza-dsbt-sss>

Trainer: Javier Moreno Andrés

Summary and objective:

In this training session, the main goal was to identify potential sources of marine pollution, derived either from land-based activities or shipping-based activities.

Land-based activities were deeply analysed in terms of wastewater effluents (both urban and industrial ones). Key parameters based on non-persistent organic & inorganic pollution, microbial pollution, or household chemicals & Contaminants of Emerging Concern were explained. An update of different policies and legal requirements in these activities were also summarized. Finally, some technologies to remove these contaminants were explained.

Regarding maritime transport, a similar outlook was exposed by further developing topics such as sewage (cruise tourism), ballast waters (cargo vessels) or scrubber waters (cargo & cruise vessels). A general overview of the impacts of these effluents and remediation technologies were presented.

Aquaculture activities were also analysed as potential sources of pathogenic microorganisms and contaminants of emerging concern, including the water treatment systems that could minimize this type of pollutants.

Contents taught:

In part 1 the following topics were discussed: Sustainable Development Goals and Ocean Decade: Goals, targets, and actions. Wastewater effluents and one of the main sources of marine pollution. Organic and inorganic pollution, microbial pollution, and Contaminants of emerging concern.

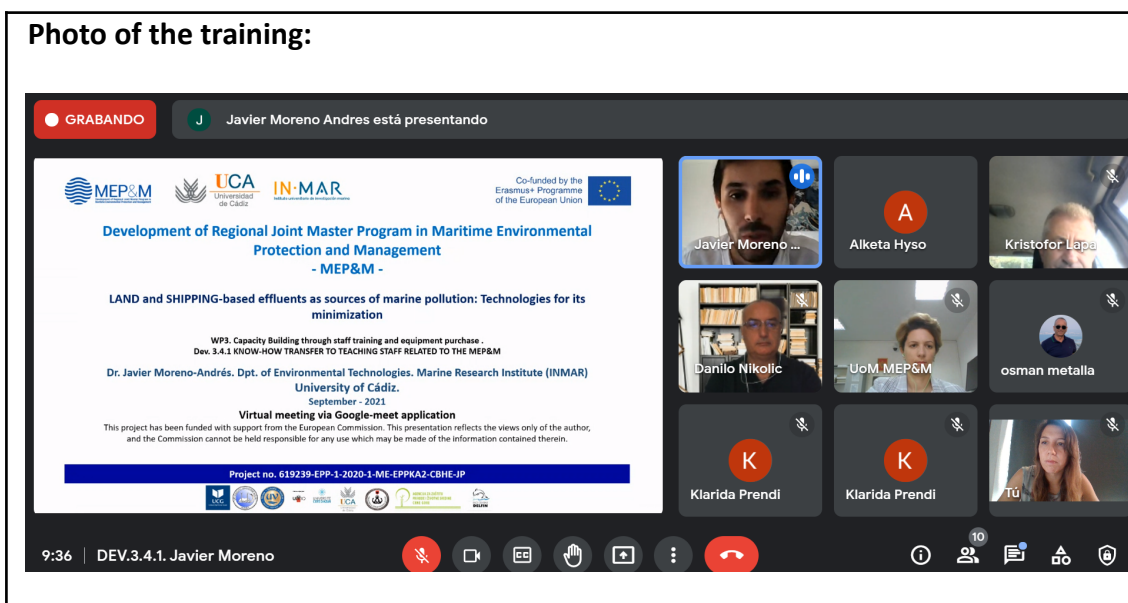
In part 2 (after a 10-minute break) the following topics were discussed: Maritime transport as source of diverse effluents that can cause impacts on marine environments. Sewage from cruise industry, as well as effluents with particular features such as ballast water discharges and exhaust gas cleaning systems. Water treatment in aquaculture facilities was also briefly discussed.

The main conclusions of the session were that a movement forward to minimize marine pollution is currently being developed. Policies such as Sustainable Development Goals or the Ocean Decade are currently going on. These types of policies are the basis for the development of legal requirements. In fact, European Directives and different IMO Conventions are recently launched, e.g., Watch List of priority substances, ballast water management convention, etc. To meet these legal requirements, technologies for water remediation are also needed. In the case of seawater scenario, strategies and technological development should be implemented to minimize marine pollutants at the source.

Discussion and questions:

In the discussion and question part, the participants asked about the pollutants of aquaculture. Specifically, the differences between freshwater and seawater aquaculture. Javier comments that in terms of regulation, there is no difference between freshwater and seawater aquaculture, but the restrictions are in terms of the concentration of pollutants. In seawater, everything is more complicated in terms of pollutant control technologies, for example. Discussion lasted a total of 15 minutes.

Photo of the training:





GRABANDO | J Javier Moreno Andres está presentando

WASTEWATER

MARITIME TRANSPORT

AQUACULTURE FACILITIES

9:53 | DEV.3.4.1. Javier Moreno