Ad Hoc Open - Ended Expert Group on Marine Litter and Microplastics

Preliminary position paper - Greece

1. Name of the organization:

Special Secretariat for Water, Ministry of Environment and Energy

2. Your view on major barriers to combatting marine litter and micro plastics:

Marine litter poses a complex and multi-dimensional challenge with significant implications for the marine and coastal environment and human livelihoods all over the world. Marine litter affects vital economic sectors such as fisheries, aquaculture, navigation, energy and tourism, while it threatens habitats and species. Marine litter represents a pervasive, persistent and growing problem that parallels the overall solid waste increase and expands beyond borders far away from the source of origin.

The major barriers in combating marine litter (including macro-, micro- and nano-litter) in Greece include:

Knowledge related barriers: There is a rather limited and fragmented understanding of the problem due to the lack of accurate, coherent, reliable and comparable scientific data. Despite variations in marine litter monitoring methodologies and discrepancies on specific results, it is widely accepted that both the levels of marine litter and the rate of input into the coasts and seas are rising overtime; thus making imperative the need for immediate prevention and mitigation actions.

Technological related barriers: There have been significant technological advances that have the potential to catalyse an effective transition towards more sustainable ways of production and consumption. However, orchestrating and accelerating the implementation of these different technological solutions is not an easy task. Selecting the appropriate technology which combines efficiency, reliability and cost effectiveness and ensures uninhibited, reliable and continuous service is very challenging. In addition, there are misconceptions and misunderstandings related to possible technological solutions, i.e. the case of bio-degradable or bio-based plastics that are designed for landfilling, or end-of-pipe technological innovations focusing on cleanups.

Institutional and legislative related barriers: A problem often encountered in Greece (and other Mediterranean countries) inhibiting effective solid waste and marine litter management is that the institutional framework and the relevant competences are fragmented. The responsibilities are broken down to many different agencies of different ministries and administrative structures. The roles/functions of these agencies are often not clearly defined and in addition cooperation among them is weak. Apart for the high bureaucracy, weak enforcement of existing legislation is another limiting factor foe an effective prevention and mitigation of marine litter due to a wide range of reasons ranging from inadequate staffing to lack of expertise. Last but not least, despite the fact that in addition to the Marine Directive there is a number of other EU policy frameworks and legislations (i.e. Waste Framework Directive, Packaging and Packaging Waste Directive, Landfill Directive, Port Reception Facilities Directive, Water Framework Directive, Industrial Emissions Directive, Cosmetic Products Regulation, etc.), with varying potential on tackling marine litter, these are not coordinated and coherent. Last but not least, despite the recently implemented plastic bag levy, there is a reluctance of the competent Greek authorities to put in place legislation and economic or market-based policy instruments such as bans of certain products, taxes and tariffs, liability instruments, payment for ecosystem services, subsidies, deposit refund schemes, etc.

Financial related barriers: Marine litter and waste management are to a large extent guided by economic considerations. Apart from the very cost intensive waste collection services and operational expenses of the different facilities, the current economic crisis has also affected the entire waste management market.

Operational related barriers: One of the major problems encountered in the operation and effectiveness of a waste management scheme is the inadequate and fragmented regulatory framework for waste management. This is further exacerbated by weak control and monitoring mechanisms of waste management implementation. In addition, some factors that hamper the effective implementation of a waste management scheme include: the very long coastline of Greece; the high number of isolated beaches and scattered rocky isles, difficult to reach; the strong sea currents that transfer and deposit marine litter in remote sites; the many sensitive coastal environments throughout the country which are subject to intensive tourism; the heavy maritime transport and the large number of ports, not all equipped with integrated solid waste management facilities; the many illegal, uncontrolled landfills that still operate, some very close to the coasts; the ineffective waste collection facilities in several coastal areas.

Environmental awareness and communication related barriers: One of the major problems linked with the issue of marine litter is the low level of sensitisation and responsibility of all stakeholders in dealing with environmental issues. The prevailing production and consumption patterns need to change. Encouragement of educational and awareness raising programmes on marine litter at all levels of formal, non-formal and informal education, as well as supporting civil society organisations which promote actions towards preventing, reducing, monitoring and managing marine litter, are key towards addressing the issue effectively.

3. Your view on potential national, regional and international response options and associated environmental, social and economic costs

In order to address the issue of marine litter effectively there is a need for concrete and comprehensive actions at national, regional and international level. All responses should be based on the following principles: the Precautionary Principle; the Polluter Pays Principle; and the Prevention at Source Principle.

The potential response options should include:

Measures focusing on policy and regulatory frameworks:

- Improvement of the marine litter policy and regulatory framework by systematically exploiting the full potential of relevant EU Directives (such as the Waste Framework Directive, the Packaging and Packaging Waste Directive, the Landfill Directive, the Port Reception Facilities Directive, etc.) and by ensuring their full coherence and appropriate synergy with the Marine Strategy.
- Adoption by the countries of ambitious targets to reduce marine litter at all relevant levels, giving priority to “lower hanging fruits” but also to sources of marine litter with the strongest impact, such as for example microbeads or plastic bags.
- Establishment and/or effective implementation of Regional Action Plans on marine litter in all European Seas.
- Fostering collaboration with global, regional and sub-regional organizations, to address the transboundary aspects of marine litter and enhance the effectiveness of multilateral initiatives aimed at preventing, reducing and managing marine litter.

- Promotion of the green/circular economy through increased resource efficiency facilitating sustainable consumption and production patterns, including cradle-to-cradle life cycle design, high quality recycling and sustainable packaging, encouraging extended producer responsibility and environmentally responsible fishing and maritime transport practices.

Measures addressing knowledge needs related to marine litter:

- Establishment of joint and/or coordinated monitoring programmes at sea-basin or subsea-basin level to address shortcomings and gaps related to marine litter. Full exploitation of synergies with Regional Conventions on monitoring programmes and sharing of results.
- Capacity building/sharing of experiences and good practices of countries and stakeholders on marine litter monitoring.
- Improvement of scientific knowledge on sources, amounts, pathways, distribution, trends, nature and impacts of macro-, micro- and nano-litter, including the effects of micro-plastics and their additives and absorbed substances on marine biodiversity and human health. Better utilization of relevant research results to enhance marine litter data.
- Encouragement of participatory science initiatives.

Measures addressing improvement of attitudes and behavior:

- Encouragement of educational and awareness raising programmes on marine litter at all levels of formal, non-formal and informal education. Supporting of civil society organizations and facilitating initiatives preventing waste from entering the marine environment.
- Facilitating participation of stakeholders in networks committed to take action to prevent, reduce, monitor and manage marine litter.

4. Your view on the feasibility and effectiveness of different response options:

All afore mentioned response options are feasible and effective however they need to the following enabling conditions in order to deliver the foreseen results:

- Political willingness to implement ambitious strategies against marine litter;
- Investment of resources in actions that address the whole management cycle of marine litter, from monitoring and surveillance to prevention and mitigation.
- Strengthened and reinforced science-policy interface to support the integration of sound science into policy and decision making in effectively tackling marine litter;
- Joint, coordinated and/or complementary schemes to manage human activities generating litter at national, regional and international level;
- Full exploitation of the potential that marine litter initiatives and projects render for capitalization, replication and collective learning.

5. Any other inputs

List of relevant studies:

- Vlachogianni, Th., Fortibuoni, T., Ronchi, F., Zeri, Ch., Mazziotti, C., Tutman, P., Varezić, D.B., Palatinus, A., Trdan, S., Peterlin, M., Mandić, M., Markovic, O., Prvan, M., Kaberi, H., Prevenios, M., Kolitari, J., Kroqi, G., Fusco, M., Kalampokis, E., Scoullos, M., 2018. Marine litter on the beaches of the Adriatic and Ionian Seas: An

assessment of their abundance, composition and sources. Marine Pollution Bulletin (in press).
- Vlachogianni, Th., Zeri, Ch., Ronchi, F., Fortibuoni, T., Anastasopoulou, A., 2017. Marine Litter Assessment in the Adriatic and Ionian Seas. IPA-Adriatic DeFishGear Project, MIO-ECSDE, HCMR and ISPRA. pp. 180 (ISBN: 978-960-6793-25-7).
- Vlachogianni, Th., 2017. Understanding the socio-economic implications of marine litter in the Adriatic-Ionian macroregion. IPA-Adriatic DeFishGear project and MIO-ECSDE. pp.70 (ISBN: 978-960-6793-26-4)
- Veiga, J.M., Fleet, D., Kinsey, S., Nilsson, P., Vlachogianni, Th., Werner, S., Galgani, F., Thompson, R.C., Dagevos, J., Gago, J., Sobral, P., Cronin, R., 2016. Identifying sources of marine litter. MSFD GES Technical Subgroup on Marine Litter (TSG-ML). Thematic Report, JRC Technical Report.
- Werner, S., Franeker, J.V., Galgani, F., Maes, T., Matiddi, M., Nilson, P., Oosterbaan, L., Priestland, E., Thompson, R., Veiga, J.M., Vlachogianni, Th., 2016. Harm caused by marine litter. MSFD GES Technical Subgroup on Marine Litter (TSG-ML). Thematic Report, JRC Technical Report.
- Veiga, J.M., Vlachogianni, Th., Pahl, S.,·Thompson, R.C., Kopke, K.,·Doyle, T.K., Hartley, B.L., Maes,·T., Orthodoxou, D.L., Loizidou, X.I., Alampei, I., 2016. Enhancing public awareness and promoting co-responsibility for marine litter in Europe: The challenge of MARLISCO. Marine Pollution Bulletin, 102(2).

List of relevant projects:

- Interreg Med PlasticBusters MPAs (2018-2022). Read more at: www.mio-ecsde.org/project/plasticbusters-mpas
- Interreg Med ACT4LITTER project (2017-2018). Read more at: https://act4litter.interreg-med.eu
- IPA-Adriatic 'Derelict Fishing Gear Management System in the Adriatic Sea (DeFishGear) (2013-2016). Read more at: www.defishgear.net
- FP7 project MARine Litter in Europe Seas: Social AwarenesS and CO-Responsibility (MARLISCO) (2012-2015). Read more at: www.marlisco.eu