

# Five Years Since the 2013 HELCOM Ministerial Declaration



Marta Ruiz and Monika Stankiewicz

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**Abstract** HELCOM (Baltic Marine Environment Protection Commission – Helsinki Commission) is the governing body of the Convention on the Protection of the Marine Environment of the Baltic Sea Area, the Helsinki Convention. Contracting Parties to the Convention are Denmark, Estonia, the European Union, Finland, Germany, Latvia, Lithuania, Poland, Russia and Sweden. They all gathered more than 40 years ago to achieve a common goal: to protect the marine environment of the Baltic Sea from all sources of pollution through intergovernmental cooperation. Time has passed, and new pressures threaten to jeopardise the achievement of such a goal, among which marine litter is an issue of concern. HELCOM official starting point on this topic dates back to 2013 when countries committed to significantly reduce marine litter by 2025, compared to 2015, and to prevent harm to the coastal and marine environment as part of the 2013 HELCOM Ministerial Declaration. This chapter aims at analysing what has happened in these almost 5 years with a focus not only on plastic but on marine litter as a whole: are there appropriate monitoring programmes in place for the different aquatic compartments? Do we have enough monitoring data to evaluate trends? Do we know which the main sources of marine litter to the Baltic Sea are? Are there regional actions in the

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M. Ruiz (✉) and M. Stankiewicz

Baltic Marine Environment Protection Commission, Helsinki, Finland

e-mail: [marta.ruiz@helcom.fi](mailto:marta.ruiz@helcom.fi)

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HELCOM Regional Action Plan on Marine Litter (2015) addressing these sources? Things can always be done better, but it is important to recognise steps taken forward as well.

**Keywords** HELCOM, Marine litter, Plastics, Regional cooperation

## 1 HELCOM Commitments on Marine Litter

The Baltic Sea is nearly a landlocked sea, only connected to the greater ocean by narrow straits. Other unique feature is its salinity: being a brackish environment limits the number of species present. Also, compared to an open ocean, the Baltic Sea is a rather small sea, almost like a big lake. Due to these natural characteristics, input of pollution will affect the Baltic Sea and become visible much faster than, for example, in the Pacific Ocean. A particular concern for the Baltic Sea is the wide and increasing distribution of areas with poor oxygen conditions. Restoring the marine environment of the Baltic Sea is therefore particularly challenging. Many other semi-enclosed seas and coastal areas in the world face a similar challenge.

All areas in the Baltic Sea fall within national jurisdiction. There are nine coastal countries (Denmark, Estonia, Finland, Germany, Latvia, Lithuania, Poland, Russia and Sweden) around the Baltic Sea, and some 85 million people are living in its drainage area. Within HELCOM – a Regional Sea Convention involving these nine coastal countries and the European Union – coordinated environmental management across national borders has already been taking place since 1974. This cooperation is based on a regional treaty – the Convention on the Protection of the Marine Environment of the Baltic Sea (Helsinki Convention of 1974, amended in 1992) [1]. Even though the recommendations are not legally binding as such, the fact that they are adopted unanimously, and that countries are required to report on their national implementation, diminishes concerns about their lacking legal nature.

While the Convention does not specifically mention plastics, its provisions are applicable to all types of pollution, *de facto* relating to marine litter – including plastics. According to Article 3 of the Convention, “the Contracting Parties shall individually or jointly take all appropriate legislative, administrative or other relevant measures to prevent and eliminate pollution in order to promote the ecological restoration of the Baltic Sea Area and the preservation of its ecological balance”. Furthermore, according to Article 6, “the Contracting Parties [shall] undertake to prevent and eliminate pollution of the Baltic Sea Area from land-based sources [...] in the catchment area of the Baltic Sea”.

Shipping as a source of pollution has been specifically regulated by the Convention, in line with the requirements of the International Maritime Organization (IMO). Thus, the longest record of HELCOM actions and measures to address discharge of waste – and implicitly, plastics – to the sea is related to shipping. There is a general prohibition of dumping to the Baltic Sea Area (Article 11). “Dumping” means any deliberate disposal at sea or into the seabed of wastes or other matter from ships,

other man-made structures at sea or aircraft and any deliberate disposal at sea of ships, other man-made structures at sea or aircraft. The exception is disposal of dredged material, if the criteria specified in Annex V of the Helsinki Convention are met, as well as under specific circumstances when dumping is the only way to ensure safety of human life. Already in 1973, the Baltic Sea was designated as a special area for discharge of garbage from ships under the International Convention for the Prevention of Pollution from Ships (MARPOL) Annex V (in effect from 1 October 1989). Based on this status, the discharge of Annex V waste – which includes plastics – from a ship into the Baltic Sea area is more restrictive than the general provisions of MARPOL Annex V. The only allowed discharges, if resulting from normal operation and discharged outside 12 NM (nautical mile), are the following: ground or comminuted food waste, cargo residues and cleaning agents in cargo hold wash waters as well as deck cleaning agents in deck wash waters (Maritime Assessment, 2018 [2], p. 88). It is also mandatory for ships operating in the Baltic Sea to discharge all ship-generated wastes to a port reception facility before leaving the port (Regulation 6 of Annex V of the Convention).

The HELCOM No Special Fee Recommendation (HELCOM Recommendation 28E/10 [3]) is the first HELCOM recommendation specifically addressing marine litter. It applies to garbage as well as litter caught in fishing nets (based on the amendment from 2007), in addition to other types of waste. According to the “no-special-fee” system, a fee covering the cost of reception, handling and final disposal of ship-generated wastes is levied on the ship, irrespective of whether ship-generated wastes are actually offloaded or not.

The Baltic Sea Action Plan [4], a comprehensive programme devised to achieve good environmental status of the Baltic Sea and adopted by the Baltic Sea countries and the EU in 2007, also addresses marine litter, even if only concisely. The Contracting Parties committed to encourage projects by local governments and local communities to remove litter from the coastal and marine environment, such as beach clean-up operations, “Fishing for litter” initiatives and local litter campaigns, noting the leading role of the voluntary sector in such activities.

Recommendation 29/2 “Marine litter in the Baltic Sea” adopted in 2008 was the first HELCOM Recommendation entirely devoted to marine litter and largely focusing on sampling and reporting of marine litter found on beaches [5].

The 2010 Moscow HELCOM Ministerial Meeting [6] includes a commitment of the Contracting Parties to “take further steps to be able to carry out national and coordinated monitoring of marine litter and identify sources of litter”. The current HELCOM monitoring guidelines for marine litter on beaches [7] de facto supersede this Recommendation, even though a related formal process in HELCOM is yet to be finalised.

But it was only at the Copenhagen HELCOM Ministerial Meeting in 2013 [8] that marine litter was recognised as a topic that requires a comprehensive response. HELCOM countries committed to significantly reduce marine litter by 2025, compared to 2015, and to prevent harm to the coastal and marine environment. Furthermore, HELCOM countries decided to develop a regional action plan by 2015 at the latest with the aim of achieving such ambitious objective. The process to develop the

action plan started in 2014. Two regional expert workshops and one meeting at an intergovernmental level were conducted to develop the Action Plan. In 2015, a brand new HELCOM Regional Action Plan on Marine Litter was adopted by Contracting Parties as HELCOM Recommendation 36/1 [9], containing concrete regional actions and voluntary national actions to reduce the input and presence of marine litter in the Baltic Sea.

The Action Plan focuses on concrete measures for preventing and reducing marine litter from its main sources. Furthermore, it has required that common regional indicators and associated definition of good environmental status (GES) related to marine litter are developed and coordinated monitoring programmes for those indicators are established. And, last but not least, the Action Plan calls for cooperation with stakeholders, from civil society groups to business and industry, to promote the removal of litter from the marine environment in a practical, feasible and environmentally sound manner and the development of best available techniques (BAT) and best environmental practice (BEP) for that purpose. The need to continued cooperation with other relevant regional and global organisations and initiatives to combat marine litter is another component of the plan.

In the Ministerial Meeting [10] held on 2018, HELCOM countries reiterated their commitment of achieving a significant quantitative reduction of marine litter by 2025. In addition to developing baselines, quantitative targets and harmonised monitoring methods for marine litter, the HELCOM Ministers expressed their support to measures aimed at preventing plastics – including microplastics – from contaminating the marine and coastal environment. Such measures should address the entire life cycle of products and examine efficient and cost-effective options to reduce plastic and microplastic releases from products and processes into the marine environment. The Contracting Parties have also decided to develop appropriate measures to address microplastics in riverine inputs, urban wastewater effluents as well as storm water based on an increased knowledge on the scale of the problem.

## 2 Marine Litter Monitoring

Knowing what is out there, in the beaches of our region, in our seabed and in the water where we swim is key to efficiently implement the actions needed to reduce the presence of marine litter in all these compartments. At the time of the Action Plan adoption, back in 2015, there was no Baltic Sea wide knowledge on amounts of marine litter. However, this did not prevent HELCOM countries from initiating a challenging and ambitious action plan drawing from experiences in other European seas such as in the Mediterranean and in the North-East Atlantic areas. Improving the knowledge on the status of the Baltic Sea in relation to marine litter, including based on monitoring data, was an obvious need.

There is currently no regionally coordinated monitoring of marine litter in the Baltic Sea. However, work is ongoing to develop two subprogrammes, on “Macrolitter characteristics and abundance/volume” [11] and on “Microlitter particle

abundance and characteristics” [12]. HELCOM countries have, to varying degrees, developed national monitoring programmes concerning macroscopic litter on the beaches, water surface, seafloor and in biota and microlitter in the surface water and sediments. The information on the status of the monitoring programmes is regularly updated to HELCOM.

In terms of indicators, work is ongoing to develop three HELCOM indicators on litter: HELCOM pre-core indicators on beach litter and litter on the seafloor and HELCOM candidate indicator on microlitter in the water column. In HELCOM, indicators have three levels of development, candidate, pre-core and core indicators, the latter one representing the fully developed indicator.

A core indicator describes a scientifically sound phenomenon and is based on measurements, observations or validated models. Whenever ecologically relevant, core indicators are Baltic-wide. The area of applicability is expressed through HELCOM assessment units defined in the HELCOM Monitoring and Assessment Strategy [13]. They are commonly agreed among HELCOM countries based on commonly adopted quantitative threshold values or environmental targets. State core indicators evaluate the status against a quantitative threshold value, whereas pressure core indicators measure the progress towards an environmental target. The threshold value or environmental target, the indicator assessment protocol and the general indicator concept are described in detail in the core indicator report. A core indicator measures the progress towards reaching a Baltic Sea Action Plan (BSAP) objective. For those Contracting Parties that are also EU Member States, the core indicators can also be used to assess criteria under the EU Marine Strategy Framework Directive (MSFD).

Criteria for fully operational HELCOM core indicators are as follows:

- (a) The scientific concept/design of the indicator:
  - Detailed description of the concept developed
  - Scientific background for the concept described and the type of data is supporting the concept
  - Referenced and reviewed
  - Connection to anthropogenic pressures qualitatively or quantitatively clarified as appropriate for the indicator
  - Policy relevance and links to legislative targets clearly described
  - Ecologically relevant areas (HELCOM assessment units) where the indicator is applicable are described
- (b) Assessment protocol: described in sufficient detail for any expert to process monitoring data (e.g. statistical processing) and compare the outcome to the threshold value/environmental target
- (c) Threshold value/environmental target:
  - Threshold value/environmental target adopted.
  - Quantitative value clearly presented, where relevant as assessment unit specific values.
  - Underlying concept described and relevant supporting references given.

- Trend-based threshold values/environmental targets are provisional and are considered to require further development work and a review in 5 years' time with the aim of determining a quantitative value.
- Confidence of the appropriateness of the threshold values is to be given.
- Applicability of the threshold value should be demonstrated for a selected area.

(d) Coordinated monitoring and methodology:

- Technical guidelines described, joint HELCOM monitoring described through the HELCOM Monitoring Manual, guidelines to be detailed and accessible for all users
- Optimal monitoring (frequency and sampling strategy) that provides a high-confidence indicator evaluation described, identifying possible gaps in the current monitoring
- Appropriate quality assurance in place

(e) Data management arrangements:

- Description of data flow (sampling, analysing, hosting).
- Quality assurance routines in place for data.
- Snapshot datasets of the underlying data to each indicator evaluation made available.

Pre-core indicators have been identified as necessary by the HELCOM Contracting Parties for BSAP and MSFD purposes. The indicator, usually under development, has not yet been agreed upon as a core indicator, typically because some aspect of the indicator is underdeveloped, i.e. all criteria of a fully operational core indicator are not met and/or agreement on the indicator among the Contracting Parties of HELCOM may not have reached a full consensus. Contracting Parties of HELCOM should aim to monitor the parameters relevant for the pre-core indicator, with the understanding that the pre-core indicators can be based on compilations of data from sources other than coordinated HELCOM monitoring data. When a pre-core indicator has been further developed so that it meets the criteria of a core indicator, it can be proposed to be shifted to a core indicator status by a HELCOM working group. Agreement on core indicators and adoption of threshold values or environmental targets are made by HELCOM or HELCOM Heads of Delegation.

Candidate indicators are indicators on which there is not yet sufficient understanding of the concept but where a need for an indicator has been identified to cover gaps in the requirements of the BSAP or the MSFD. The stage of development of the content of the indicator is completely or severely lacking, and/or there is no common agreement on the indicator among the Contracting Parties. New indicators are first proposed as candidate indicators by HELCOM expert groups or projects. After subsequent development and testing of the indicator, it can be proposed to be shifted to a pre-core indicator status by a HELCOM working group if it fulfils the requirements of a pre-core indicator. The candidate indicator list is a living document and should be considered as expert level proposals for new core indicators.

Work on indicators is taken forward through the “lead country approach”. Poland is the lead country developing the beach litter indicator, with Denmark and Sweden as colead countries. For the indicator on litter on the seafloor, there is no lead country but two colead countries, Denmark and Sweden. On microlitter in the water column, the indicator is led by Finland, with Denmark and Sweden as colead countries.

The status of development of these indicators can be consulted in their respective indicator reports [14–16]. As a summary, it can be said that for beach litter, the indicator concept is the trend of the number of litter items per category group (artificial polymer/materials, rubber, cloth/textile, paper/cardboard, processed/worked wood, metal, glass/ceramics and others) per 100 m beach segment, an interim definition of GES is proposed, and data and information available in the Baltic Sea area are compiled. However, the status is not assessed due to lack of agreement on GES.

The indicator on litter on the seafloor is at a similar level of development, where the indicator concept is the amounts of litter (items per km<sup>2</sup> seafloor) in different categories of litter items (plastic, glass/ceramics, metals, natural products, rubber and miscellaneous), distributed in different subbasins. The data stems from marine litter collected in trawls during fish stock surveys, which is only an indication of the actual amount of litter on the seafloor. An interim definition of GES is proposed, and data and information available in the Baltic Sea area has been compiled, but the status is not assessed due to lack of agreement on GES.

The development of monitoring guidelines for marine litter on beaches [7] which are now adopted at HELCOM level contributes to the further development of the beach litter indicator.

As already indicated, the indicator on microlitter is the less developed indicator. This is partly due to the difficulties of harmonising sampling and analysing methodologies for microlitter, which also applies to microplastics. Moreover, there is a discussion at the expert level on the adequacy of studying the sediment compartment rather than the water column to achieve a better understanding of the status of the marine environment in relation to this criterion. It is also essential to formulate a common reporting format which includes metadata (i.e. matrices, sampling stations categories, equipment, etc.) and data on monitored parameters (e.g. size and particle shape categories, information on materials and concentrations), which will eventually enable the development of a regional database on microlitter and microplastics. These were the main conclusions extracted from the work conducted in 2017, as part of the EU co-funded project SPICE (“Implementation and development of key components for the assessment of Status, Pressures and Impacts, and Social and Economic evaluation in the Baltic Sea marine region”), to compile and analyse data on microlitter in the region, which also mapped spatial coverage of research and pilot monitoring for water surface, water column and sediment [17].

Recently, HELCOM countries in their Ministerial Declaration 2018 committed “to strengthening regional research and developing harmonised monitoring methods on the sources, distribution, amounts and impacts of marine litter including microplastics, in coherence with similar work undertaken by Contracting Parties in other relevant fora, and to improving assessment of the effectiveness of measures”. Thus,

the need to continue working on monitoring marine litter with a regional perspective is recognised.

### 3 Assessment of Marine Litter in the Baltic Sea

The “Second HELCOM Holistic Assessment of Ecosystem Health in the Baltic Sea” that was carried out by HELCOM through the HELCOM HOLAS II project [18] reflects the environmental situation in the Baltic Sea for the period 2011–2016. The assessment covers the whole Baltic Sea marine region and provides information on the overall environmental status of and pressures on the Baltic Sea as well as social and economic aspects that are linked to the status of the Sea and the human activities impacting upon it. In June 2017 the assessment was published under the title “State of the Baltic Sea report, June 2017”, containing, for the first time in a regional assessment, a descriptive section on marine litter (since there are no core indicators on marine litter). The section on marine litter was updated as part of the update of the report concluded in June 2018 (“State of the Baltic Sea – Second HELCOM holistic assessment 2011–2016” [19]); thus the final version includes information on (1) litter items found on beaches, per subbasin, grouped by material (plastics, metal, glass/ceramics, paper/cardboard, processed/worded wood, rubber, cloth/textile and unclassified); (2) litter items found on different types of beaches, categorised into urban, peri-urban and rural beaches, again grouped by material; (3) the 10 most frequent litter items at Baltic Sea level at the different types of beaches; and (4) the proportion of marine litter material categories in bottom trawl hauls for subbasins covered by the Baltic International Trawl Survey coordinated by the International Council for the Exploration of the Sea (ICES).

What we know now, after this huge exercise of compilation and analysis of data, is that among the different categories of material considered, plastics are the main component of the litter items found on our beaches (Table 1). Furthermore, it seems that we left behind a lot of items when visiting our beaches for recreational purposes, since the most frequently occurring ones are attributed to eating, drinking or smoking activities, such as food wrappings, bottles or lids, as well as plastic pieces of different sizes. These items are common in all parts of the Baltic Sea, together with items related to industrial packaging, such as sheeting, strapping bands and masking tape (based on data from 15 subbasins). Derelict fishing gear is among the 20 most common items in the Eastern Gotland Basin, Gdansk Basin and Kiel Bay. It is noteworthy that balloons or balloon-related items are found among the top 10 items in 9 of the 15 subbasins (see Fig. 1).

When it comes to seafloor litter, attention is to be paid to the fact that since data available comes from fish trawling surveys, there is no data from those areas where these surveys do not take place, e.g. shallow water areas or complex substrates and the Gulf of Bothnia. From the available data, it can be stated that items made from natural materials, such as wood, natural fibres and paper, and plastic items dominate in most subbasins. Slightly over half (58%) of the 1,599 hauls reported in



**Table 1** Ten most frequent litter items at Baltic Sea level at different types of beaches, categorised into urban, peri-urban and rural beaches

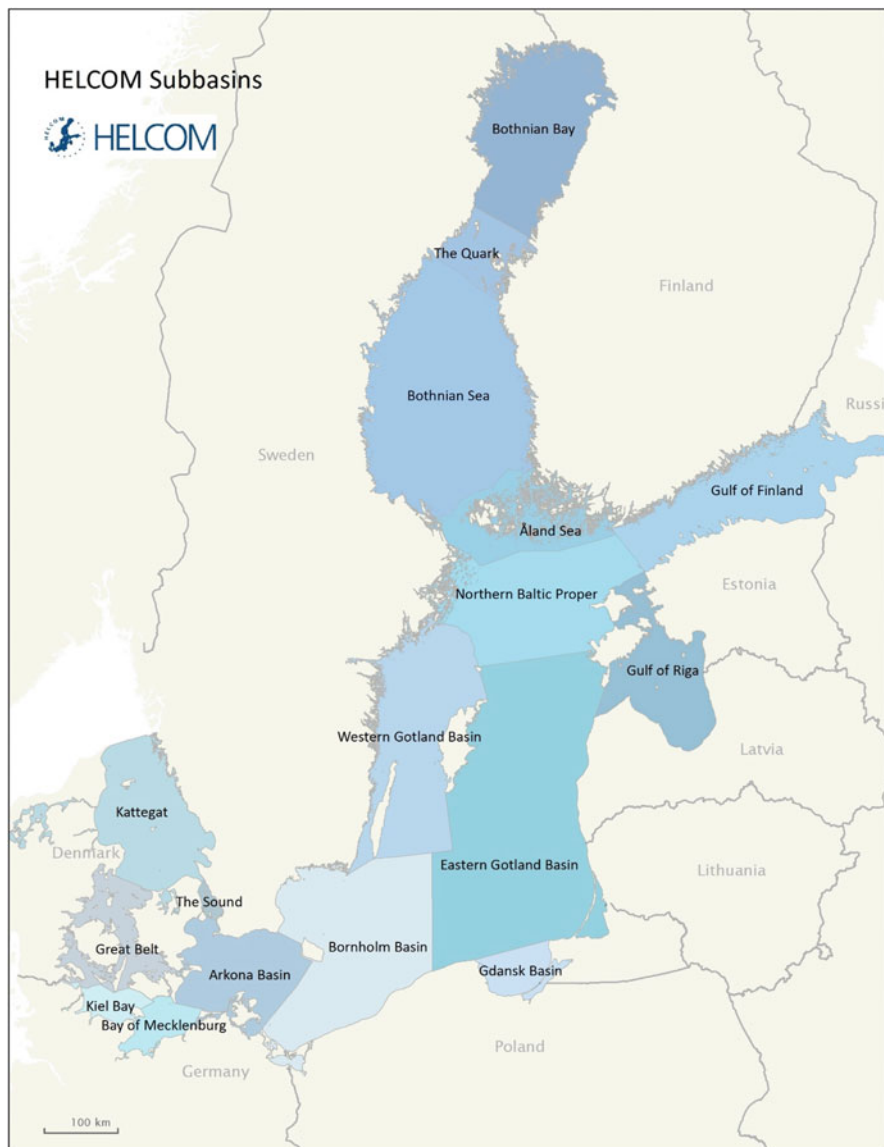
Rank	Urban beach	Peri-urban	Rural beach
1	Drinking related items such as cups, caps, lids (plastic)	Plastic and polystyrene pieces	Plastic and polystyrene pieces
2	Plastic and polystyrene pieces	Food related items such as wrappers, packets (plastic)	Food related items such as wrappers, packets (plastic)
3	Cigarette butts and remains.	Cigarette butts	Drinking related items such as cups, caps, lids (plastic)
4	Food related items such as wrappers, packets (plastic)	Drinking related items such as cups, caps, lids (plastic)	Plastic bags
5	Paper and cardboard items	Plastic bags	Bottles and containers (plastic)
6	Drinking related items such as bottle caps, pull tabs (metal)	Single-use cutlery and straws	String and ropes (plastic)
7	Plastic bags	Drinking related items such as bottle caps, pull tabs (metal)	Cigarette butts
8	Single-use cutlery and straws	Glass and ceramic fragments	Glass and ceramic fragments
9	Bottles and containers (plastic)	Foil wrappers and pieces of metal	Industrial packaging
10	Drinking related cans (metal)	String and ropes (plastic)	Processed wood and pieces of processed wood

The colours identify items categorised as plastics (artificial polymer materials; grey), paper or cardboard (purple), metals (orange), glass or ceramics (green) and processed wood (blue). The results are based on data from Denmark, Estonia, Finland, Germany, Lithuania, Poland and Sweden. Data for reference beaches in Denmark are included under rural beaches. For each survey, the 20 most frequently sampled items were listed, and scores were given to each item. After this, the results for different surveys were merged to provide a regional list of top 10 items. Only data from seasonally monitored sites are included, to prevent from overestimating occasional events [20]

2012–2016 contained marine litter items [21]. Plastic was the most common litter material category at the Baltic Sea scale, constituting on average around 30% of the number of items and 16% of the weight. A weak but statistically significant increase in seafloor litter representing non-natural materials was seen over the studied period.

## 4 Implementing the Regional Action Plan on Marine Litter

The regional implementation of the Action Plan is led within HELCOM by the Pressure Group (Working Group on Reduction of Pressures from the Baltic Sea Catchment Area), who also coordinates it with relevant subsidiary bodies to enable their substantial contribution. The status of implementation of the Plan is regularly considered during Pressure meetings, which are held twice a year. To enable a deeper discussion on the actions within the Plan, workshops on its implementation are organised back-to-back to Pressure meetings, where the feedback from the workshops is considered and appropriate decisions on further work are made,



**Fig. 1** Map of the HELCOM subbasins 2018. Division of the Baltic Sea into 17 subbasins as in the HELCOM Monitoring and Assessment Strategy

which will eventually be agreed at meetings of the Heads of Delegation. A summary of the latest status of the implementation of the Action Plan is available in the HELCOM website [22] and regularly updated.

Crucial is the role of the nationally nominated experts on marine litter on the implementation of the Action Plan. All HELCOM countries are part of the network

established in 2015, which is also open to HELCOM Observers. On this occasion, these Observers are Coalition Clean Baltic (CCB), European Federation of National Associations of Water Services (EurEau), Municipalities for Sustainable Seas (KIMO International), European Association for Plastics Manufacturers (PlasticsEurope) and Polish Association for Plastics Manufacturers (PlasticsEurope Polska), World Wide Fund for Nature Finland (WWF Finland), World Wide Fund for Nature Poland (WWF Poland) and Waste Free Oceans (WFO).

The follow-up of the implementation of the Action Plan concerns those actions agreed to be implemented regionally (R), the so-called collective actions. They are a total of 30 actions (Table 2), 15 of which aim at addressing land-based sources of marine litter (RL), 12 sea-based sources (RS) and 3 education and outreach on marine litter (RE).

As it happens with the indicators' work, individual actions in the Action Plan are conducted thanks to the lead of a country with the support of the whole network of experts. The figure below represents the status of leadership of the regional actions (Fig. 2). From the 30 actions in the Action Plan, 11 of them do not have a lead. Please note that there are cases when an action can have both a lead and a colead, or more than one lead, and so on. This may explain the difference in progress made depending on the actions: work is ongoing on 19 actions, whereas it has not been initiated for 11 of them. Of course, this is an ongoing process, and work on three actions has been initiated since the last Pressure meeting.

Coming to the details of the progress done so far in the implementation of the Action Plan since its adoption in 2015, actions have advanced mainly through three different approaches: (1) questionnaires among HELCOM countries to compile national available information and subsequent analysis of the feedback received; (2) national reports and projects contributing the different actions in the Action Plan; and (3) organisation of specific events.

Eight questionnaires have been used as mechanism to compile available data as well as information on national practices. One questionnaire was circulated to compile background information for drafting HELCOM guidelines on best practice on waste management to prevent waste turn into marine litter (action RL3) alongside with addressing cleaning and collection systems to prevent litter from land entering the aquatic environment (action RL2) and marine litter references in waste management plans (action RL1). Countries are currently providing their input to the questionnaire, and it is envisaged that in the upcoming months, a report summarising the feedback received will be available.

Another questionnaire was also used to prepare a study addressing the illegal discharge of onboard generated waste conducted in 2016 (actions RS2 and RS3). On this occasion the questionnaire was distributed to both HELCOM and OSPAR countries to collect knowledge regarding the regime of control and inspections of MARPOL Annex V infringements in the respective countries. This was accompanied by a review of the existing legal framework as well as relevant literature. A supporting report "Analysis of penalties and fines issued by OSPAR and HELCOM Contracting Parties for waste disposal offences at sea" was the result of such work [23].

**Table 2** List of regional actions as contained in the HELCOM Action Plan on marine litter

CODE OF ACTION	REGIONAL ACTION	FURTHER SPECIFICATION
RL1	Prepare and agree on HELCOM guidelines on marine litter references to be included in national and local waste prevention and waste management plans, i.a. an element highlighting the impacts of marine litter.	Guidelines by 2017
RL2	Provide HELCOM guidelines on best practice routines with regard to cleaning and collection systems to prevent litter from land entering the aquatic environment.	Guidelines by 2017
RL3	Share best practice on waste management in order to identify and address loopholes that makes waste turn into marine litter, including the issue of landfills, regulations and enforcement.	–
RL4	Improvement of stormwater management in order to prevent litter, including microlitter, to enter the marine environment from heavy weather events.	By 2018 at the latest HELCOM has compiled information to give guidance on improvements of stormwater management on a local level to prevent and reduce stormwater related waste (including micro litter) entering the marine environment, taking into consideration similar action within OSPAR. If appropriate according to findings of the activity and other relevant information, amend HELCOM Recommendation 28E/5 on municipal wastewater treatment.
RL5	Establish a dialogue and negotiate on solutions with business and industry to (i) develop design improvements that reduce the negative impacts of products entering the marine environment, and (ii) reduce over- packaging and promote wise packaging	Initiatives taken by the private sector.
RL6	Establish an overview of the importance of the different sources of primary and secondary microplastics. Evaluate products and processes that include both primary and secondary micro plastics, such as fibres from clothing, assess if they are covered or not by legislation, and act, if appropriate, to influence the legal framework, or identify other necessary measures.	By 2017 an overview on what products and processes contribute to the input of micro plastics to the Baltic Sea, taking into account similar action within OSPAR. By 2018 existing legislation is assessed and necessary measures identified together with relevant stakeholders.
RL7	Compilation of available techniques as well as research and develop additional techniques in waste water treatment plants to prevent micro particles entering the marine environment.	By 2018 HELCOM has compiled information and prepared a report on micro particles removal in waste water treatment plants taking into account similar action within OSPAR. If appropriate according to findings of the search and other relevant information, amend HELCOM Recommendation 28E/5 on municipal wastewater treatment.
RL8	Assess the importance of the contribution of upstream waste flows to the marine environment and, if needed, identify suitable actions.	By 2017 an assessment of the importance of sewage related waste coming from the upstream waste flow is produced. By 2018 share assessment with River and River Basin Commissions and identify measures including the implementation of related regulations; missing elements are identified and guidelines for improvement are presented.
RL9	Compile information on the prevalence and sources of expanded polystyrene (EPS) in the marine environment and engage with industry to make proposals for alternative solutions (e.g. use of other materials, establishment of deposits, return and restoration systems, overpackaging reduction).	By 2017 an overview of the most significant sources of EPS ending up in the marine environment is produced, in cooperation with OSPAR. Make recommendations to the Contracting Parties on voluntary agreements with the industry on changes in product design and applying best practices when handling EPS by 2019.

(continued)

**Table 2** (continued)

RL10	Define and implement appropriate instruments and incentives to reduce the use of plastic bags, including the illustration of the associated costs and environmental impacts (e.g. establishment of levies, deposit fees, taxes or bans on plastic bags). Support regional coordination in the Baltic Sea of the implementation of the future revised Directive 94/62/EC on packaging and packaging waste to reduce the consumption of lightweight plastic carrier bags, for HELCOM Contracting Parties being EU members.	By 2018 HELCOM Contracting Parties start to coordinate and inform each other about consumption of plastic bags on an annual basis. By 2019 establish a reduction target of plastic bags, taking into account the measures which are implemented nationally.
RL11	Cooperate on the establishment and/or further development of deposit refund systems for bottles, containers and cans (e.g. glass, plastics and aluminium) in the HELCOM Contracting Parties in accordance with national law as appropriate. Investigate and strive for bilateral and multilateral solutions between the countries for establishment of such systems in relation to passenger ships.	CPs informing in 2017 on the status/plans regarding the deposit refund systems, including on possible solutions regarding passenger ships.
RL12	Encourage, based on existing labels such as the EU Ecolabel and the Nordic Ecolabel, exchange with international environmental certification schemes for information and inclusion of the management and prevention of marine litter in their lists of criteria.	By 2016 initiate an activity on what certification schemes could be addressed, which existing criteria could be promoted for potential inclusion in international certification systems together with ways and means how to help improving those.
RL13	HELCOM Contracting Parties to seek cooperation with the River and River Basin Commissions, as appropriate, in order to include impacts of litter on the marine environment from riverine inputs, taking into account activities in the context of the implementation of the Water Framework Directive (WFD) and the Bathing Water Directive, and beyond, when applicable. This cooperation should include the exchange of experience on best practice to prevent litter entering into water systems, in line with action RL8.	HELCOM Contracting Parties will continue cooperation with River and River basin Commissions, as appropriate, in order to integrate measures addressing the reduction of littering in river basins followed up by appropriate information exchange on the implementation of measures.
RL14	Address landfills or dumpsites including historic ones which may eventually pose a risk to the marine environment due to factors such as coastal erosion and vicinity to rivers.	By 2020 a regional-wide map on landfills and dumpsites including historic ones which may eventually pose a risk to the marine environment is produced.
RL15	Establish an exchange platform for spreading experiences on good cleaning practices in beaches, including cleaning beaches actions by local communities, riverbanks, pelagic and surface sea areas, ports, marinas and inland waterways, in cooperation with relevant fora. Develop best practice on environmentally friendly technologies and methods for cleaning.	Coordinate with other RSCs in order to set up an exchange platform for spreading experiences on good cleaning practices in the different marine compartments and rivers.
RS1	Development of best practice on the disposal of old pleasure boats (i.e. intentional disposal of the boats at the ending of their lifetime in the sea and on shore).	Best practice developed by 2018
RS2	Develop best practice in relation to inspections for MARPOL Annex V, including harmonized management of data. Support regional coordination of IMO regulations in accordance with EU requirements for those HELCOM countries which are EU members.	Best practice developed in cooperation with Paris MoU by 2017

(continued)

Table 2 (continued)

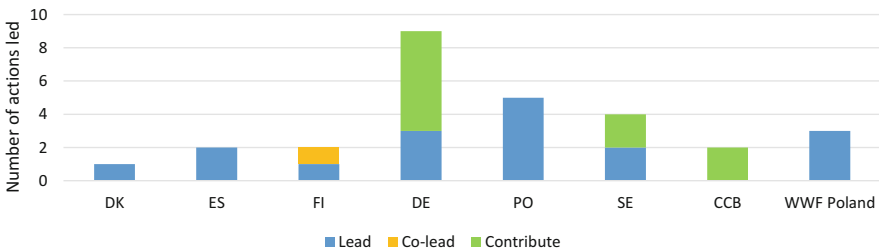
RS3	Further work on implementation and harmonization of the no-special-fee system in ports of the Baltic Sea countries, addressing: * gaps in existing regulations, * enforcement and practices concerning shipping, * port reception facilities auditing to assess adequacy of garbage collection, * fair waste burden sharing between ports.	Evaluate the implementation of HELCOM Recommendation (28E-10), starting 2016
RS4	Implementation of the ISO standard (ISO 201070:2013) in relation to port reception facilities. Differentiate according to the size of the port. Promote the development of regional statistics on waste collected in ports based on existing information as far as possible.	Assess how many ports are operating according to ISO standards and to propose action as appropriate by 2017.
RS5	Promote and disseminate best practice in relation to all relevant aspects of waste management within the fishing sector (including e.g. waste management on board, waste management at harbors and operational losses/net cuttings).	By 2018, based on the OSPAR outcome, select best practices to be disseminated in the Baltic Sea.
RS6	Through a multinational project, such as the MARELITT Baltic project, together with the fishing industry and other stakeholders, develop and promote best practice in relation to ALDFG and derelict fishing gear and their removal.	Best Practice developed by 2017, the issues is promoted within HELCOM- EUSBSR cooperation
RS7	Compile information and elaborate guidelines on best practices to reduce the input of ALDFG from commercial and recreational fishing to the Baltic Sea taking into account geographical particularities; utilize UNEP RSC report and FAO on ALDFG as a starting point and focus on regional specifics	Guidelines developed by 2017 taking into account geographical particularities.
RS8	Identify the options to address key waste items from the fishing and aquaculture industry, which could contribute to marine litter, including deposit schemes and extended producer responsibility.	Late 2016 assess the use of OSPAR document and in consultation with the Baltic Sea Advisory Council consider and agree on the way forward to address key waste items from the fishing and aquaculture industries.
RS9	Investigate the use and prevalence of dolly ropes (bunches of polyethylene threads used to protect the cod end of demersal trawl nets from abrasions; synthetic fibre) in the areas of the Baltic Sea where they are used and consider the need to act.	Consider the outcome of the study on the impact of dolly ropes currently under development by the Netherlands. Baltic Sea Advisory Council is to be invited to be involved in this activity.
RS10	Mapping of snagging sites or historic dumping grounds and a risk assessment for identifying where accumulation of ghost nets pose a threat to the environment and should be removed.	As part of the assessment to be developed by HELCOM SUBMERGED by 2016. Mapping by 2017. Risk assessment
RS11	Based on the risk assessment conducted in RS10 and identification of accumulation areas, initiate removal of ghost nets and their safe management on land.	The aim is to increase the removal and disposal of the nets, and that statistics are available to confirm the increasing trend.
RS12	Enter into the partnership with international and regional organizations (e.g. KIMO, NABU, OSPAR Commission) as well as port authorities, to encourage implementation of passive Fishing for Litter schemes, to collect litter caught in fishing nets during normal fishing activities.	Increasing trends in the number of vessels from the fishing sector involved in the schemes.

(continued)

**Table 2** (continued)

RE1	To prepare information sheets to assist Contracting Parties in developing material for education programs, especially for professional seafarers including fishermen, highlighting the marine litter problem and including codes of practice in cooperation with relevant organisations including IMO.	Information sheets to be prepared by 2016
RE2	HELCOM website to be updated periodically based on the input from Contracting Parties on marine litter management activities.	2015 initial information uploaded (simplified BSAP follow up system)
RE3	Develop a communication strategy for this Regional Action Plan linked in a coherent way with national initiatives/actions. This will include linking the HELCOM website to relevant projects and initiatives.	2016

Actions addressing land-based sources are in green, sea-based sources in blue and education and outreach measures in yellow



**Fig. 2** Status of leadership of actions in the Action Plan by countries and observers

An “Analysis of the degree of the marine environment pollution by wastes flowing down the rivers to the sea, including sanitary waste” is the result of the feedback provided by countries through another questionnaire on the management of their sanitary waste (action RL8). It is envisaged to share the report with River and River Basin Commissions in the upcoming months.

One questionnaire was also used to gather knowledge on the prevalence and sources of expanded polystyrene (EPS) and XPS (extruded polystyrene) in the Baltic Sea and to suggest possible measures to reduce the environmental load of EPS and XPS in the Baltic Sea. The study which is currently being finalised will form the knowledge and decision-making basis for further work associated with action RL9 in the Action Plan.

To cooperate on the establishment and/or further development of deposit refund systems for bottles, containers and cans (e.g. glass, plastics and aluminium) in the HELCOM countries in accordance with national law as appropriate (action RL11), a survey was conducted. Its result indicated that currently functioning deposit refund systems for bottles, containers and cans are in place in Denmark, Estonia, Finland, Germany, Lithuania and Sweden. In Latvia, Poland and Russia, the system is not in place at that moment. The survey also indicated that there is no action regarding

bilateral and multilateral solutions between the countries for establishment of such systems in relation to passenger ships, which would affect, for example, passenger ships making the route Tallinn (Estonia)-Helsinki (Finland).

Again, one questionnaire was used to gather knowledge on whether landfills or dumpsites including historic ones may eventually pose a risk to the marine environment due to factors such as coastal erosion and vicinity to rivers (action RL14). The survey conducted in 2016, which was replied by all HELCOM countries except Germany, Lithuania and Russia, indicated that all landfills are under control in the region and cannot be considered as sources of marine litter.

The action aiming at producing a best practice model on disposal of end-of-life pleasure boats (ELBs) (action RS1) is currently being implemented. Most of the ELBs are made of fibre-reinforced plastic (FRP). FRP, when clean, can be reused and/or recycled to some level, but the material coming from ELBs is dirty and therefore challenging to reuse and/or recycle. Adding to the problem, most of the ELBs are treated with antifouling paints, which today contain copper and zinc. Many boats which are in the need of dismantling are old (from 1970s and onwards) and have been treated with organotin compounds, such as tributyltin (TBT), as the use of those was allowed in leisure boats until 1991, when it was banned in boats under the length of 25 m on the European level. As part of the best practice model development, information on the situation as it is now is being compiled through a questionnaire; the results of this exercise are to be available in the upcoming months.

The last questionnaire to mention is in relation to abandoned, lost and otherwise discarded fishing gear (ALDFG). Recently conducted, it had enabled the compilation of information on national activities on ALDFG thanks to the contribution of all HELCOM countries [24]. Based on this overview, a preliminary list of actions to serve the discussion on further regional actions on ALDFG in HELCOM has been drafted:

- To improve the management of the ALDFG once recovered from the sea. One country has a national regulation where marked gear is transferred to the owner if identified, whereas unmarked but suitable for further use gear is intended for sale and auctioned; all the remaining equipment is stored in the harbour areas. This could be explored to apply regionally.
- To consider the need to further work on the follow-up on the implementation of HELCOM Recommendation 28E/10 [3], on the application of the no-special-fee system to ship-generated wastes and marine litter caught in fishing nets in the Baltic Sea area.
- To further improve the reporting system on lost fishing gear (LFG) data, so that more knowledge of the amount of annual LFG in national waters is available.
- To gather more data on the amount of fishing gear lost and recovered in most of HELCOM countries. There are high expectations on the results of the MARELITT Baltic project – reducing the impact of marine litter in the form of derelict fishing gear in the Baltic Sea.
- To use the conclusions on a survey conducted in 50 Baltic fishing harbours on the adequacy of ports to receive, separately collect and sort the derelict fishing gear



collected from the sea as well as end-of-life fishing to improve the collection and sorting of fishing gear (FG) at ports [25]:

- More than half of the harbours surveyed organised waste management services at a reasonably good level.
  - Fishing harbours in Germany and Poland have somewhat better general ability to organise waste management than those in Sweden<sup>1</sup> and Estonia.
  - Almost half of the harbours do not have enough containers suitable for the separate collection of waste.
  - FG is not separately collected in almost half of the fishing harbours but placed in the same container as other municipal wastes.
  - In most cases, the harbour personnel are unaware of what happens next to separately collected FG.
  - There are deficiencies in the provision of information to the harbour users, i.e. fishermen do not always know where and when end-of-life FG must be collected.
  - No attention has been given to information and communications technology (ICT) opportunities for introducing the waste management rules and organisation of work at harbours (e.g. the harbour's website does not provide enough information).
- Other possible measures to improve the collection and sorting of FG at ports: end-of-life fishing gear collection organised and financed by fisheries associations and establishment of fishing for litter schemes in ports (based on national experience).
  - To compile available information on recycling methods for retrieved fishing gear (MARELITT final) report envisaged in March 2019, as well as national experiences including the establishment of extended producer responsibility (EPR) schemes.
  - There is knowledge available on best practices to reduce the amount of ALDFG, which may be analysed and further elaborated to implement action RS7 of the RAP on marine litter (ML), on the development of guidelines on best practices to reduce the input of ALDFG from commercial and recreational fishing to the Baltic Sea.
  - To use available information to initiate the drafting process of the development of a report on best practices in relation to ALDFG and derelict fishing gear and their removal in fulfilment of action RS6 of the RAP on ML.
  - In relation to the possibility of establish an EPR scheme for FG, it is important to follow up the EU process on the proposal for the European Directive on the reduction of the impact of certain plastic products on the environment [26]<sup>2</sup> and on the revision of the EU Port Reception Facilities Directive [27], together with

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<sup>1</sup>Please note that the survey does not cover the west coast of Sweden.

<sup>2</sup>The European Parliament and the Council of the European Union reached a provisional political agreement on the proposal on 19 December 2018.

national experiences on the topic that may contribute to advance on this issue in the region.

- To increase efforts to further advance on the mapping of snagging sites or historic dumping grounds and a risk assessment for identifying where accumulation of ghost nets poses a threat to the environment and should be removed as required by action RS10 in the RAP ML.
- Further work is needed to advance on removal of ghost nets where they have been identified as posing a threat to the environment which may only be possible to conduct once hotspots are identified.

Discussion on the further steps to approach the complex issue of ALDFG is to continue, but now we have a clearer picture of the situation in the Baltic Sea area.

It is not the purpose of this chapter to go through all the national reports contributing to the actions in the Action Plan, but it is worth mentioning that countries have informed about over 16 reports, projects or initiatives<sup>3</sup> which serve the purpose of specific actions in the Plan. Moreover, most of these projects target microplastics, from the identification of the importance of different sources of primary and secondary microplastics (action RL6) to possible techniques in wastewater treatment plants to prevent microparticles from entering the marine environment (action RL7). In addition, these actions will highly benefit from the outputs of the EU INTERREG Baltic Sea Region project FanPLESStic-sea – initiatives to remove microplastics before they enter the sea [28]. This project, which HELCOM is involved in, will produce (1) a model to map, understand and visualise microplastic pathways that will be applied to the partners' cities and/or regions; (2) piloting of new technology (a) for filtering out microplastics; (b) sustainable drainage solutions as means for removal of microplastics; and (c) to remove microplastics from storm water; (3) defining innovative governance frameworks and engaging a large range of players for the implementation of coordinated and cost-efficient measures resulting in locally adapted investment proposals/plans for each partner's region; and (4) dissemination of project results, including reports on barriers and ways forward, to increase institutional capacity on upstream and problem-targeted methods to remove microplastics. The FanPLESStic-sea project will run for 30 months (January 2019–June 2021).

The following two events can be pointed out as drivers of actions in the Plan: the HELCOM-INTERREG-Workshop on Marine Litter and Ecodesign held on 15 June 2018 (action RL5) and a German seminar on the prevention of and sanctions on illegal waste disposal from ships at sea (actions RS2 and RS3) held on 29–30 November 2018, both held in Berlin (Germany).

The aim of the workshop was to engage in a dialogue and enhance cooperation with and among designers, representatives of industry, research institutions, civil society organisations, national authorities and other stakeholders. It discussed how ecodesign principles, methods, tools, approaches and circular systems can be

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<sup>3</sup>Additional information can be found as part of the follow-up process of the implementation of the Action Plan [22].

specified and applied to contribute to the reduction of marine litter in the Baltic Sea Area and which measures and framework conditions can support it. From the workshop evolved the “Principles for design reducing/preventing marine litter” [29] which were welcomed in the HELCOM framework and are to be further elaborated into HELCOM guidelines.

The German seminar was a follow-up of the German study addressing the illegal discharge of onboard generated waste conducted in 2016. The seminar provided the floor to discuss and exchange information on existing and best practices about the enforcement of international, regional and national law as well as better coordination of the involved bodies and actors.

Finally, there are some other actions which work has been conducted through other pathways than questionnaires or events, such as the action aiming at improving the storm water management to prevent litter, including microlitter, from entering the marine environment from heavy weather events (action RL4). On this occasion, discussion has been initiated on the need to amend HELCOM Recommendations on wastewater management to integrate provisions aimed at preventing the release of microlitter from wastewater treatment plants and urban and other storm waters into the marine environment. These are the four HELCOM Recommendations referred to:

- HELCOM Recommendation 18/4 on managing wetlands and freshwater ecosystems for retention of nutrients (1997) [30]
- HELCOM Recommendation 23/5 on reduction of discharges from urban areas by the proper management of storm water systems (2002) [31]
- HELCOM Recommendation 28E/5 on municipal wastewater treatment (2007) [32]
- HELCOM Recommendation 28E/6 on on-site wastewater treatment of single family homes, small businesses and settlements up to 300 person equivalents (P.E.) (2007) [33]

It is foreseen that this discussion continues once additional knowledge is available.

The action aiming at establishing an exchange platform for spreading experiences on good cleaning practices in beaches, including cleaning beaches actions by local communities, riverbanks, pelagic and surface sea areas, ports, marinas and inland waterways (action RL15), may be considered addressed by the international environmental campaign “Clean Beach” – 2018. This campaign is carried out in the frame of cooperation between Saint Petersburg (Russia) and cities of the Baltic region such as Tallinn (Estonia), Helsinki and Turku (Finland) with the aim of developing youth cooperation in the field of environmental protection, improving the ecological culture of citizens and developing environmental volunteer movement.

One important image to keep in mind would be the one from the Marine Litter Stakeholder Workshop [34] held in Helsinki in 2016, where over 90 representatives of governments, industry, municipalities, researchers, financing instruments, nongovernmental organisations and consumers gathered for summarising their



**Fig. 3** Participants to the Marine Litter Stakeholder Workshop (Helsinki, 2016)

views with regard to the Baltic situation, for finding better solutions through common discussions and for ensuring leadership for combating litter (Fig. 3). The spirit is still alive and is guiding our work on further implementation of the Action Plan.

## **5 HELCOM's Role Outside the Baltic Sea Region**

### **5.1 *United Nations***

HELCOM is following with attention and actively contributing to the work on marine litter conducted in the frame of the United Nations (UN): participating in relevant meetings, providing input to reports [35, 36] and spreading the word of UN campaigns, such as the most recent one, “Beat Plastic Pollution”. Proving its commitment on marine litter issues at the international level, HELCOM recently joined a collective statement by the Regional Seas Conventions and Programmes to the second meeting of the UN Ad Hoc Open-Ended Expert Group on Marine Litter and Microplastics [37].

It is also worth recalling that the United Nations Environment Assembly (UNEA) of the United Nations Environment Programme (UNEP), Resolution on Marine litter and Microplastics (UNEP/EA.3/Res.7) [38] and the HELCOM Action Plan share the same objective of “by 2025, prevent and significantly reduce marine pollution of all

kinds, in particular from land-based activities, including marine debris and nutrient pollution”.

## ***5.2 European Regional Seas Conventions***

There is an ongoing informal cooperation between OSPAR Commission (Oslo and Paris Conventions – Protecting and conserving the North-East Atlantic and its resources), United Nations Environmental Programme for the Assessment and Control of Marine and Coastal Pollution in the Mediterranean Region (UNEP-MEDPOL), HELCOM and countries belonging to both Conventions which meet annually since 2014 aiming at identifying possibilities for cooperation within the implementation process of the respective Action Plans on Marine Litter. The idea of these informal meetings is to avoid duplication of efforts, exchange of information and share outputs that can be useful for all. As part of this process, the following common actions in the three Action Plans have been catalogued as priority actions for cooperation:

- Implementation of MARPOL Annex V/waste management in ports
- Waste prevention and management: (1) general perspective, (2) single-use plastic bags, (3) primary microplastics and (4) other key waste items
- Passive fishing for litter activities
- Accumulation areas/hotspots of marine litter (including ghost nets)
- Clean-up campaigns (national, international)
- Public awareness and education activities/citizen science and data

In the last 2 years, representatives from the European Commission also attended these meetings, providing also the link to the EU perspective.

## ***5.3 European Union***

In relation to HELCOM contribution to ongoing EU processes, HELCOM work on marine litter is regularly shared with the MSFD Technical Group on Marine Litter (TG Marine Litter), not only through the participation in their meetings and provision of input to the reports TG Marine Litter produces but also ensuring that HELCOM processes are aligned with the EU ones. In this regard, the case of the EU Strategy for Plastics [39] is to be pointed out. The Strategy adopted in January 2018, among other issues, envisages reduction options for single-use plastic items. Specifically, Annex II of the Strategy contains “List of measures recommended to national authorities and industry” where key measures encouraged for regional authorities to conduct are also listed. The measures which national and regional authorities are encouraged to conduct are grouped into four categories:

- Key measures to improve the economics and quality of plastics recycling
- Key measures to curb plastic waste and littering
- Key measures to drive investments and innovation towards circular solutions
- Key measures to harness global action

An analysis of the linkages between the actions in the Action Plan and additional HELCOM activities and these encouraged actions to regional authorities was made [40]. The analysis went further and analysed the proposal for a Directive on the reduction of the impact of certain plastic products on the environment [41] (together with the explanatory memorandum of the proposal) which once in force<sup>4</sup> shall apply to single-use plastic (SUP) products listed in the Annex [42] to the proposal and to fishing gear containing plastic. The analysis conducted indicated that EU and HELCOM streams of work are aligned.

## 6 Next Critical Date: 2021

2021 is a very important date in the HELCOM calendar, with the Baltic Sea Action Plan (BSAP) to be updated then. Why is that important? The BSAP signed in 2007 has guided all HELCOM work towards the ambitious goal of achieving a good environmental status of the Baltic Sea by 2021. It is time for an update to adjust actions based on the newest scientific knowledge so that HELCOM's strategic goals and ecological objectives can be reached and relevant marine and water targets of 2030 Agenda for Sustainable Development can be met in the Baltic Sea. The updated BSAP will include the existing commitments that may not be fulfilled by 2021 and also address new issues on the basis of the commitments made in the 2018 Ministerial Declaration and further deliberations during the BSAP update process.

Proposals on new HELCOM actions for the updated BSAP will primarily build on results of the analysis of sufficiency of existing measures that will be carried out through a similar approach across topics and coordinated through the Platform on Sufficiency of Measures (SOM Platform) and the HELCOM-led and EU co-funded ACTION project. It is envisaged that one of these topics is marine litter. The planned work will require, among others, collection of information on existing measures to reduce marine litter in the Baltic Sea region. Information on the effectiveness of existing measures and syntheses on the potential effect of new measures will also be prepared to support the analyses. The syntheses are aimed at being ready by the end of 2019 and the analyses of sufficiency of measures by mid-2020.

In 2020 HELCOM workshops are planned to be arranged to discuss the outcome of the analysis and use it as a basis for identifying the need to strengthen existing

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<sup>4</sup>The proposal was adopted by the European Parliament in October 2018. The envisaged process now is that the Parliament enters into negotiations with Council when EU ministers will have set their own position on the report containing the proposal.

HELCOM actions or to agree on new HELCOM actions to be included in the updated BSAP.

All these processes will be extremely linked to the revision of the Action Plan which is envisaged to be conducted also in 2021.

Despite plastic pollution only being addressed more recently with full attention, HELCOM can draw from over 40 years of experience in tackling pollution in general. The way for the Baltic Sea free from litter and plastics has been durably set.

## References

1. HELCOM (1992) Convention on the protection of the marine environment of the Baltic Sea area, 1992 (Helsinki Convention). [http://www.helcom.fi/Documents/About%20us/Convention%20and%20commitments/Helsinki%20Convention/Helsinki%20Convention\\_July%202014.pdf](http://www.helcom.fi/Documents/About%20us/Convention%20and%20commitments/Helsinki%20Convention/Helsinki%20Convention_July%202014.pdf). Accessed 27 Feb 2019
2. HELCOM (2018) HELCOM assessment on maritime activities in the Baltic Sea 2018. Baltic Sea environment proceedings no. 152. Helsinki Commission, Helsinki. 253 p. <http://www.helcom.fi/Lists/Publications/BSEP152.pdf>. Accessed 27 Feb 2019
3. HELCOM (2007) HELCOM recommendation 28E/10, application of the no-special-fee system to ship-generated wastes and marine litter caught in fishing nets in the Baltic Sea area. <http://www.helcom.fi/Recommendations/Rec%2028E-10.pdf>. Accessed 27 Feb 2019
4. HELCOM (2007) Baltic Sea Action Plan. Adopted at HELCOM ministerial meeting in Krakow, Poland on 15 November 2007. [http://www.helcom.fi/Documents/Baltic%20sea%20action%20plan/BSAP\\_Final.pdf](http://www.helcom.fi/Documents/Baltic%20sea%20action%20plan/BSAP_Final.pdf). Accessed 27 Feb 2019
5. HELCOM (2008) HELCOM recommendation 29/2, marine litter within the Baltic Sea region. <http://www.helcom.fi/Recommendations/Rec%2029-2.pdf>. Accessed 27 Feb 2019
6. HELCOM (2010) HELCOM ministerial declaration on the implementation of the HELCOM Baltic Sea Action Plan. 20 May 2010, Moscow. <http://www.helcom.fi/Documents/About%20us/Convention%20and%20commitments/Ministerial%20declarations/HELCOM%20Moscow%20Ministerial%20Declaration%20FINAL.pdf>. Accessed 27 Feb 2019
7. HELCOM (2018) HELCOM guidelines for monitoring beach litter. <http://www.helcom.fi/Documents/Action%20areas/Monitoring%20and%20assessment/Manuals%20and%20Guidelines/Guidelines%20for%20monitoring%20beach%20litter.pdf>. Accessed 27 Feb 2019
8. HELCOM (2013) HELCOM Copenhagen ministerial declaration: taking further action to implement the Baltic Sea Action Plan – reaching good environmental status for a healthy Baltic Sea. 3 October 2013, Copenhagen, Denmark. <http://www.helcom.fi/Documents/Ministerial2013/Ministerial%20declaration/2013%20Copenhagen%20Ministerial%20Declaration%20%20cover.pdf>. Accessed 27 Feb 2019
9. HELCOM (2015) HELCOM recommendation 36/1, regional action plan on marine litter (RAP ML). <http://www.helcom.fi/Recommendations/Rec%2036-1.pdf>. Accessed 27 Feb 2019
10. HELCOM (2018) Declaration of the Ministers of the environment of the Baltic coastal countries and the EU Environment Commissioner, HELCOM Brussels Declaration 2018. <http://www.helcom.fi/Documents/HELCOM%20at%20work/HELCOM%20Brussels%20Ministerial%20Declaration.pdf>. Accessed 27 Feb 2019
11. HELCOM (2015) Sub-programme: macrolitter characteristics and abundance/volume. <http://www.helcom.fi/action-areas/monitoring-and-assessment/monitoring-manual/litter/macrolitter-characteristics-and-abundance-volume>. Accessed 27 Feb 2019
12. HELCOM (2015) Sub-programme: microlitter particle abundance and characteristics. <http://www.helcom.fi/action-areas/monitoring-and-assessment/monitoring-manual/litter/litter-microparticle-abundance-volume>. Accessed 27 Feb 2019



13. HELCOM (2013) HELCOM monitoring and assessment strategy. [http://www.helcom.fi/Documents/Ministerial2013/Ministerial%20declaration/Adopted\\_endorsed%20documents/Monitoring%20and%20assessment%20strategy.pdf](http://www.helcom.fi/Documents/Ministerial2013/Ministerial%20declaration/Adopted_endorsed%20documents/Monitoring%20and%20assessment%20strategy.pdf). Accessed 27 Feb 2019
14. HELCOM (2016) HELCOM pre-core indicator on 'Beach litter', document 4J-27 to STATE & CONSERVATION 5–2016. <https://portal.helcom.fi/meetings/STATE%20-%20CONSERVATION%205-2016-363/MeetingDocuments/4J-27%20Pre-core%20indicator%20on%20E2%80%98Beach%20litter%20E2%80%99%20-%20proposed%20shift%20in%20status%20to%20core%20indicator.pdf> and [https://portal.helcom.fi/meetings/STATE%20-%20CONSERVATION%205-2016-363/MeetingDocuments/4J-27%20Annex\\_HELCOM%20pre-core%20indicator%20on%20Beach%20litter.xlsx?Web=1](https://portal.helcom.fi/meetings/STATE%20-%20CONSERVATION%205-2016-363/MeetingDocuments/4J-27%20Annex_HELCOM%20pre-core%20indicator%20on%20Beach%20litter.xlsx?Web=1) (Annex to the report). Accessed 27 Feb 2019
15. HELCOM (2016) HELCOM candidate indicator on 'Litter on the seafloor', document 4J-3 to STATE & CONSERVATION 5–2016. <https://portal.helcom.fi/meetings/STATE%20-%20CONSERVATION%205-2016-363/MeetingDocuments/4J-3%20Endorsement%20of%20HELCOM%20candidate%20indicator%20on%20E2%80%98Litter%20on%20the%20seafloor%20E2%80%99%20and%20proposed%20shift%20in%20status.pdf>. Accessed 27 Feb 2019
16. HELCOM (2016) HELCOM candidate indicator on 'Microlitter in the water column', document 4J-44 to STATE & CONSERVATION 5–2016. <https://portal.helcom.fi/meetings/STATE%20-%20CONSERVATION%205-2016-363/MeetingDocuments/4J-44%20Microlitter%20in%20the%20water%20column%20-%20progress%20report.pdf>. Accessed 27 Feb 2019
17. HELCOM (2018) SPICE report: Task 2.1.3 development of baselines of marine litter – report on the analysis of compiled data on microlitter in the Baltic Sea. [http://www.helcom.fi/Documents/HELCOM%20at%20work/Projects/Completed%20projects/SPICE/Theme%202\\_Deliverable%202.1.3.pdf](http://www.helcom.fi/Documents/HELCOM%20at%20work/Projects/Completed%20projects/SPICE/Theme%202_Deliverable%202.1.3.pdf). Accessed 27 Feb 2019
18. HELCOM (2018) HOLAS II project. <http://www.helcom.fi/helcom-at-work/projects/completed-projects/holas-ii/>. Accessed 27 Feb 2019
19. HELCOM (2018) State of the Baltic Sea – second HELCOM holistic assessment 2011–2016. Baltic Sea environment proceedings no. 155. <http://stateofthebalticsea.helcom.fi/>. Accessed 27 Feb 2019
20. HELCOM (2018) SPICE report: Task 2.1.1 development of baselines of marine litter – identification of top litter items in the Baltic Sea region. [http://www.helcom.fi/Documents/HELCOM%20at%20work/Projects/Completed%20projects/SPICE/Theme%202\\_Deliverable%202.1.1.b.pdf](http://www.helcom.fi/Documents/HELCOM%20at%20work/Projects/Completed%20projects/SPICE/Theme%202_Deliverable%202.1.1.b.pdf). Accessed 27 Feb 2019
21. HELCOM (2018) SPICE report: Task 2.1.2 development of baselines of marine litter – litter on the seafloor in the HELCOM area- analyses of data from BITS trawling hauls 2012-2016. [http://www.helcom.fi/Documents/HELCOM%20at%20work/Projects/Completed%20projects/SPICE/Theme%202\\_Deliverable%202.1.2.pdf](http://www.helcom.fi/Documents/HELCOM%20at%20work/Projects/Completed%20projects/SPICE/Theme%202_Deliverable%202.1.2.pdf). Accessed 27 Feb 2019
22. HELCOM (2019) Follow-up of the implementation of the Regional Action Plan on Marine Litter. <http://www.helcom.fi/Documents/Action%20areas/Marine%20litter%20and%20noise/Implementing%20the%20Regional%20Action%20Plan.xlsx>. Accessed 27 Feb 2019
23. HELCOM (2017) Sanctions, penalties and fines issued by OSPAR and HELCOM contracting parties for waste disposal offences at sea, document 6-3 to MARITIME 17-2017. <https://portal.helcom.fi/meetings/MARITIME%2017-2017-409/MeetingDocuments/6-3%20Sanctions%20%20penalties%20and%20fines%20issued%20by%20OSPAR%20and%20HELCOM%20Contracting%20Parties%20for%20waste%20disposal%20offences%20at%20sea.pdf>. Accessed 27 Feb 2019
24. HELCOM (2019) Outcome of the regional questionnaire to compile information on national activities with regard to ALDFG, document 8-1 to FISH 9-2019. <https://portal.helcom.fi/meetings/FISH%209-2019-590/MeetingDocuments/8-1%20Outcome%20of%20the%20regional%20questionnaire%20to%20compile%20information%20on%20national%20activities%20with%20regard%20to%20ALDFG.pdf>. Accessed 27 Feb 2019
25. MARELITT Baltic (2017) Survey on Harbour reception facilities at selected Baltic Sea fishing harbours. [https://static1.squarespace.com/static/58525fe86a4963931b99a5d1/t/5b3caee9f950b77f5173a458/1530703611675/Harbour+Survey\\_final.pdf](https://static1.squarespace.com/static/58525fe86a4963931b99a5d1/t/5b3caee9f950b77f5173a458/1530703611675/Harbour+Survey_final.pdf). Accessed 27 Feb 2019



26. EC (2018) Proposal for a Directive of the European Parliament and of the Council on the reduction of the impact of certain plastic products on the environment COM/2018/340 final – 2018/0172 (COD). <https://eur-lex.europa.eu/legal-content/en/TXT/?uri=CELEX:52018PC0340>. Accessed 27 Feb 2019
27. EC (2018) Proposal for a Directive of the European Parliament and of the Council on port reception facilities for the delivery of waste from ships, repealing Directive 2000/59/EC and amending Directive 2009/16/EC and Directive 2010/65/EU. [https://ec.europa.eu/info/law/better-regulation/initiatives/com-2018-33\\_en](https://ec.europa.eu/info/law/better-regulation/initiatives/com-2018-33_en). Accessed 27 Feb 2019
28. HELCOM (2019) FanPLESStic-sea project. <http://www.helcom.fi/helcom-at-work/projects/fanPLESStic-sea>. Accessed 27 Feb 2019
29. HELCOM (2018) Principles for design reducing/preventing marine litter, document 4-5 to PRES-SURE 9-2018. [https://portal.helcom.fi/meetings/PRESSURE%209-2018-548/MeetingDocuments/4-5%20Principles%20for%20design%20reducing\\_preventing%20marine%20litter.pdf](https://portal.helcom.fi/meetings/PRESSURE%209-2018-548/MeetingDocuments/4-5%20Principles%20for%20design%20reducing_preventing%20marine%20litter.pdf). Accessed 27 Feb 2019
30. HELCOM (1997) HELCOM recommendation 18/4, managing wetlands and freshwater ecosystems for retention of nutrients. <http://www.helcom.fi/Recommendations/Rec%2018-4.pdf>. Accessed 27 Feb 2019
31. HELCOM (2002) HELCOM recommendation 23/5, reduction of discharges from urban areas by the proper management of storm water systems. <http://www.helcom.fi/Recommendations/Rec%2023-5.pdf>. Accessed 27 Feb 2019
32. HELCOM (2007) HELCOM recommendation 28E/5, municipal wastewater treatment. <http://www.helcom.fi/Recommendations/Rec%2028E-5.pdf>. Accessed 27 Feb 2019
33. HELCOM (2007) HELCOM recommendation 28E/6, on-site wastewater treatment of single family homes, small businesses and settlements up to 300 person equivalents (P.E.). <http://www.helcom.fi/Recommendations/Rec%2028E-6.pdf>. Accessed 27 Feb 2019
34. HELCOM (2016) HELCOM stakeholder conference on marine litter. <http://www.helcom.fi/helcom-at-work/events/events-2016/marine-litter-stakeholder-conference>. Accessed 27 Feb 2019
35. UNEP (2016) Marine plastic debris and microplastics – global lessons and research to inspire action and guide policy change. United Nations Environment Programme, Nairobi. [https://papersmart.unon.org/resolution/uploads/unep\\_aheg\\_2018\\_1\\_inf\\_4\\_unea2\\_edited.pdf](https://papersmart.unon.org/resolution/uploads/unep_aheg_2018_1_inf_4_unea2_edited.pdf). Accessed 27 Feb 2019
36. UN Environment (2017) Combating marine plastic litter and microplastics: an assessment of the effectiveness of relevant international, regional and subregional governance strategies and approaches. [https://papersmart.unon.org/resolution/uploads/unep\\_aheg\\_2018\\_inf3\\_full\\_assessment\\_en.pdf](https://papersmart.unon.org/resolution/uploads/unep_aheg_2018_inf3_full_assessment_en.pdf). Accessed 27 Feb 2019
37. HELCOM (2019) Joint statement from the conventions and Action Plans of the Regional Seas Programme. [https://papersmart.unon.org/resolution/uploads/joint\\_statement\\_from\\_the\\_conventions\\_and\\_action\\_plans\\_of\\_the\\_regional\\_seas\\_programme\\_including\\_supporting\\_rscaps\\_ad\\_hoc\\_open-ended\\_expert\\_group\\_meeting\\_-\\_copy.pdf](https://papersmart.unon.org/resolution/uploads/joint_statement_from_the_conventions_and_action_plans_of_the_regional_seas_programme_including_supporting_rscaps_ad_hoc_open-ended_expert_group_meeting_-_copy.pdf). Accessed 27 Feb 2019
38. UNEP (2017) UNEA Resolution 3/7 Marine litter and microplastics. <https://papersmart.unon.org/resolution/uploads/k1800210.english.pdf>. Accessed 27 Feb 2019
39. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions – a European strategy for plastics in a circular economy. [https://eur-lex.europa.eu/resource.html?uri=cellar:2df5d1d2-fac7-11e7-b8f5-01aa75ed71a1.0001.02/DOC\\_1&format=PDF](https://eur-lex.europa.eu/resource.html?uri=cellar:2df5d1d2-fac7-11e7-b8f5-01aa75ed71a1.0001.02/DOC_1&format=PDF). Accessed 27 Feb 2019
40. HELCOM (2018) Analysis of the linkages between the RAP on ML and the EU Plastic Strategy, document 1-4 to WS RAP ML 3-2018. <https://portal.helcom.fi/meetings/WS%20RAP%20ML%203-2018-560/MeetingDocuments/1-4%20Analysis%20of%20the%20linkages%20between%20the%20RAP%20on%20ML%20and%20the%20EU%20Plastic%20Strategy.pdf>. Accessed 27 Feb 2019

41. EC (2018) Proposal for a Directive of the European Parliament and of the Council on the reduction of the impact of certain plastic products on the environment COM(2018) 340 final. [http://ec.europa.eu/environment/circular-economy/pdf/single-use\\_plastics\\_proposal.pdf](http://ec.europa.eu/environment/circular-economy/pdf/single-use_plastics_proposal.pdf). Accessed 27 Feb 2019
42. EC (2018) Annex to the proposal for a Directive of the European Parliament and of the Council on the reduction of the impact of certain plastic products on the environment COM(2018) 340 final. [https://ec.europa.eu/info/law/better-regulation/initiative/1502/publication/238661/attachment/090166e5bafdc41a\\_en](https://ec.europa.eu/info/law/better-regulation/initiative/1502/publication/238661/attachment/090166e5bafdc41a_en). Accessed 27 Feb 2019