Implementation of the HELCOM Baltic Sea Action Plan (BSAP) in Germany

Harbour on the island Hiddensee source: www.pixelio.com

Seagulls on a Baltic Sea Beach Source: www.pixelio.de

German Status Report March 2011

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1. Introduction

This report provides an account of the implementation status of the HELCOM Baltic Sea Action Plan (BSAP) goals. The BSAP was adopted at the Extraordinary Ministerial Meeting of the Helsinki Commission in Krakow, Poland, on 15th of November 2007. Recognising that the Baltic Sea is a unique marine ecosystem with exceptional hydrographical and ecological characteristics and that major threats still persist which are hindering restoration, protection and sustainable utilisation of the marine goods and services provided by the Baltic Sea HELCOM Contracting Parties agreed on a number of actions to achieve "a Baltic Sea in good environmental status by 2021". The BSAP expects all Contracting Parties to draw up national action plans by 2010.

The BSAP addresses the four strategic goals that reflect the major environmental problems in the Baltic Sea. Those goals are:

- a "**Baltic Sea unaffected by eutrophication**",
- a "**Baltic Sea with life undisturbed by hazardous substances**",
- "**Maritime activities carried out in an environmentally friendly way**"

all of which lead to a "**Favourable conservation status of Baltic Sea biodiversity**".

Consequently, the BSAP addresses these goals in separate segments (eutrophication, hazardous substances, biodiversity and nature conservation and maritime activities). It finally contains as a fifth segment a section on awareness raising and capacity building. Actions implemented or planned by Germany are addressed in this report for each of the five segments mentioned above.
As regards the distribution of responsibilities it has to be stated that Germany's federal and state governments are working together to maintain a healthy marine environment. The states are responsible for their particular section of Germany's territorial waters, whereas the federal government is responsible for the EEZ. This federal structure has to be taken into account when it comes to concrete implementation.

In 2013 the HELCOM Ministerial Meeting will evaluate the effectiveness of the national implementation programmes of HELCOM Contracting parties and will review the progress towards the ecological objectives describing a Baltic Sea in good ecological status.

The goals set in the BSAP are supported by measures taken under the EC Water Framework Directive (WFD; Directive 2000/60/EC). The WFD entered into force on

22 December 2000[1]. It marked the beginning of a new dimension in European water conservation policy by a change in paradigm. Water bodies are to be managed across national and regional borders, by means of a coordinated approach within river basins including coastal areas. The central objective of the WFD is to achieve a "good status" of all water bodies, rivers, lakes, transitional waters and coastal waters as well as groundwater. The basic thinking behind “good status” is that surface waters may be impaired or changed by human use, but only insofar as the ecological functions of the water body with its typical biotic communities are not significantly impaired. The requirements for good ecological water quality are defined in detail for the various surface water categories. Additionally, EU-wide chemical environmental quality standards are defined for 33 priority substances[2]. Other key points of the Directive include the combined approach of emission and immission-related measures to reduce pollutants. The material provisions of the WFD are embedded in a comprehensive concept of river basin planning that is based on the natural classification of river catchment areas and which therefore extends beyond the boundaries of the Federal *Länder* and the Member States. In order to implement these planning requirements, there is a need to develop greater cooperation between the administrative bodies and different countries. By the end of 2009, River Basin Management Plans for each river basin district were completed accompanied by programmes of measures to be implemented by 2012. In 2015, “good status” of all water bodies should be achieved.

Extending the goals and the philosophy of the WFD into the marine realm the Marine Strategy Framework Directive (MSFD; Directive 2008/56/EC)[3] entered into force on 15 July 2008. The overarching objective of the Directive is, similar to the WFD, to achieve or maintain “good environmental status” throughout all European seas by 2020[4]. This is to be achieved on the basis of the ecosystem approach, i.e. all the principal ecological elements of marine ecosystems including physic-chemical characteristics are to be evaluated and protected in their entirety and interactions. Important steps in the implementation process are an initial assessment including the establishment of environmental targets and the determination of “good status” by 2012 and of programs of measures by 2015 (Fig. 1). The

[1] Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy, OJ L 327, p. 1 ff.

[2] Directive of the European Parliament and of the Council of 16 December 2008 on environmental quality standards in the field of water policy, amending and subsequently repealing Council Directives 82/176/EEC, 83/513/EEC, 84/156/EEC, 84/491/EEC, 86/280/EEC and amending Directive 2000/60/EC of the European and of the Council, OJ L 348, p. 84 ff.

[3] Directive 2008/56/EC of the European Parliament and of the Council of 17 June 2008 establishing a framework for Community action in the field of marine environmental policy, OJ L 164, page 19 ff.

[4] Irmer, U.; Werner, S.; Claussen, U.; Leujak, W.; Ringeltaube, P.; Arle, A. (2010): Protection of marine and inland waters – similarities and differences. Meeresschutz und Schutz der Binnengewässer – Gemeinsamkeiten und Unterschiede. Wasserwirtschaft, No.7-8, pages 33-37.

BSAP can be regarded as instrumental to the successful implementation of the MSFD and has also been heralded as a pilot project for European seas in the context of the MSFD:

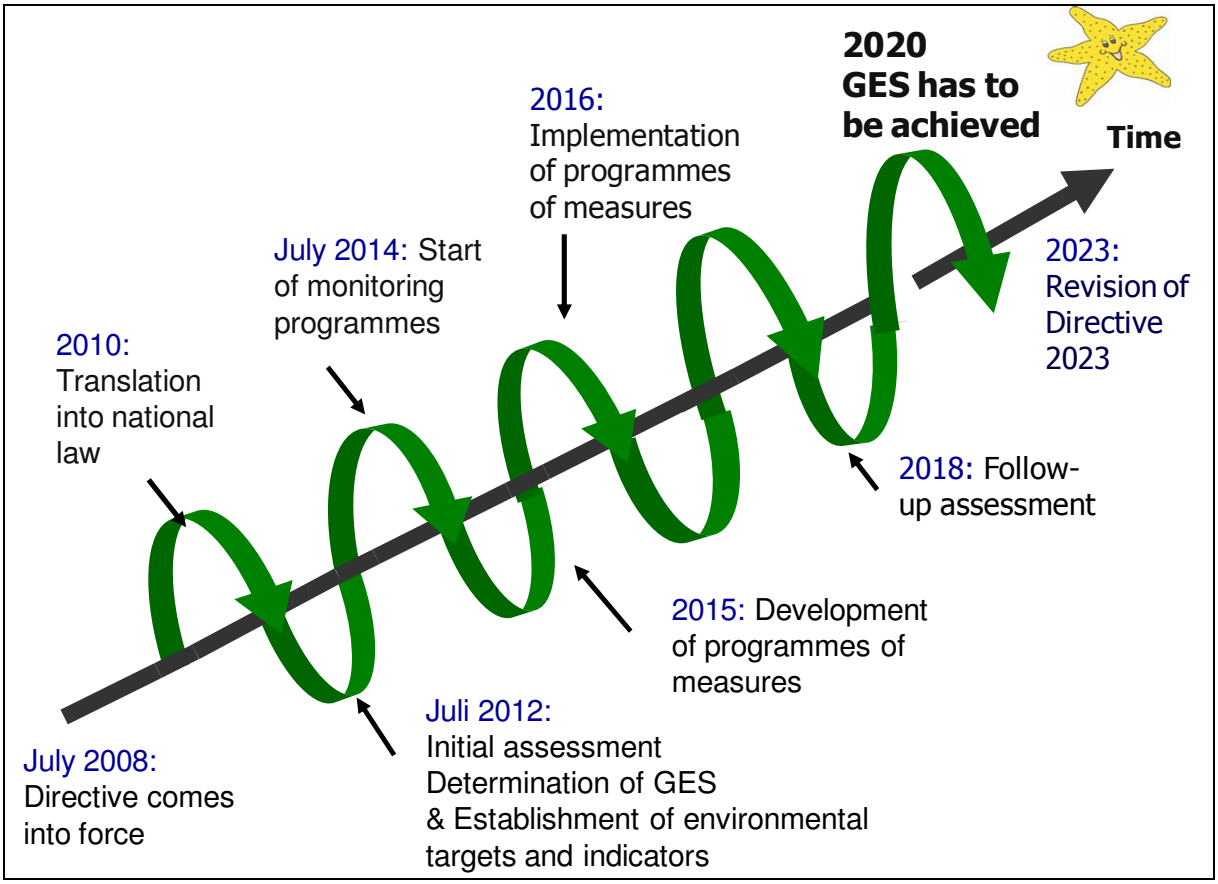


Fig. 1 Milestones for implementing the MSFD.

2. Segment I: EUTROPHICATION

2.1. Introduction

The HELCOM Initial Holistic Assessment (HELCOM 2010)[5] has identified the waterborne transport, discharges, losses and airborne emissions of excessive amounts of nutrients still as one of the key threats to the well-being of the Baltic Sea ecosystem. The greatest source of eutrophication-causing nutrients are land-based inputs into the Baltic Sea, most notably by agriculture and municipal wastewater. For nitrogen, airborne emissions from agriculture, industry and shipping also play an important role. Consequently, the recommendations for measures in the eutrophication segment address these sources.

Eutrophication-related HELCOM ecological objectives

[5] HELCOM (2010): Ecosystem Health of the Baltic Sea 2003 – 2007: HELCOM initial Holistic Assessment. Baltic Sea Environment Proceedings No. 122. http://www.helcom.fi/stc/files/Publications/Proceedings/bsep122.pdf.

HELCOM has adopted the following ecological objectives to describe the characterisation of a Baltic Sea which is unaffected by eutrophication:

- Concentrations of nutrient close to natural levels;
- Clear waters;
- Natural level of algal blooms;
- Natural distribution and occurrence of plants and animals;
- Natural oxygen levels.

German goals and reduction efforts

According to HELCOM PLC 2010 [6] for Germany the total measured loads of nitrogen and phosphorus to the Baltic Sea were 16,900 t and 490 t, respectively in 2006. Germany thereby contributed 2.6% of the total nitrogen load to the Baltic Sea and 1.7% of the total phosphorus load. In order to reach the goal of a Baltic Sea unaffected by eutrophication Germany has agreed to the BSAP national reduction goals i.e. to reduce the input of phosphorus by 240 t and the input of nitrogen by 5,620 t no later than 2016. Germany thus has to lower its N-inputs into the Baltic Sea by ca. 33 % and its P-inputs by ca. 50 % respectively. Germany was during the last 20 years very successful in reducing nutrient discharges from point sources mainly by improvements in municipal and industrial wastewater treatment systems and the introduction of phosphate free laundry detergents. Nutrient discharges from diffuse sources and here mainly agriculture are also declining. In the EC NEC-Directive[7] Germany has inter alia to comply with a maximum (limit value) of 550 kt/a for ammonia (NH3) emissions and 1051 kt/a for NOx emissions (national emission ceilings). Germany is also striving to reduce airborne nitrogen emissions that are contributing to eutrophication. Nevertheless, the emissions of reactive nitrogen into the atmosphere and its subsequent deposition to both terrestrial and aquatic ecosystems continue to be a serious environmental problem in Europe. In order to tackle this problem the EU passed the NEC Directive which sets upper limits to the emission of different pollutants including nitrogen oxides and ammonia to be met by 2010 and thereafter.

An overview of all actions under the HELCOM recommendations for eutrophication is provided in Annex I.

2.2. National programmes

E-5: Actions to reduce nutrient loads shall be undertaken

E-9: Development of the national programme and assessment of its effectiveness

[6] HELCOM PLC (2010): Extended summary of the main results of the Fifth Pollution Load Compilation. Integral part of the HELCOM Ministerial Declaration. 79 pages.

[7] Directive 2001/81/EC of the European Parliament and of the Council of 23 October 2001 on national emission ceilings for certain atmospheric pollutants.

Nitrogen

In Germany a Nitrogen Reduction Programme[8] has been passed already in 1996 by the conference of environment ministers of the Federal States to reduce nitrogen inputs into the North Sea. Currently a second draft for a national nitrogen reduction programme is being prepared by the Federal Environment Agency. Main components will be based on the measures/activities, originating from the already started implementing process of relevant European regulations, such as the Urban Wastewater Treatment Directive (UWWT-D), Nitrates Directive (ND), Ground Water Directive (GWD) and the Water Framework Directive (WFD). Basic instruments in this context are the Fertilisation Ordinance (Düngeverordnung, see: www.gesetze-im-internet.de/bundesrecht/d_v/gesamt.pdf; English version not yet available), which is the National Action Programme according to Art. 3 (5) of the ND, and the River Basin Management Plans under the WFD (summary: http://www.uba.de/uba-info-medien-e/4021.html). The above mentioned Directives describe environmental goals by quality targets and threshold values. For nitrate the environmental quality standard for groundwater in Germany as well as in whole Europe is 50 mg/l. For ammonium a groundwater threshold value of 0.5 mg/l was set in the Groundwater Ordinance. Both threshold values were primarily derived considering human health aspects rather than environmental impacts. If necessary for the protection of sensitive aquatic and terrestrial ecosystems more stringent threshold values can be set for selected groundwater bodies or groups of bodies. For surface waters type-dependent threshold values of 0.1 – 0.15 mg/l for phosphorus and 0.1 – 0.3 mg/l for ammonium are foreseen. To protect the coastal waters threshold values of 0,15 mg/l for total phosphorus are recommended (www.blmp-online.de/.../Eutrophierung_in_den_deutschen_Kuestengewaessern.pdf).

For coastal waters type-dependent background and target values are proposed for phosphate (winter values) and total phosphorus (annual mean) (LAWA 2007)[9].

Phosphorus

Phosphorus usage in agriculture is regulated since 1996 in the Fertilisation Ordinance and application of mineral phosphorus has been lowered considerably during the last 20 years. Phosphorus emissions from urban wastewater treatment (UWWT) were considerably reduced during implementation of the EU-UWWT-Directive.

[8] Eichler, F.; Schulz, D. (1998): The nitrogen reduction programme in the Federal Republic of Germany. Environmental Pollution No.102, S1, Pages 609-617.

[9] Rahmenkonzeption Monitoring, Bewertungsgrundlagen und Methodenbeschreibungen; Arbeitspapier II: Hintergrund- und Orientierungswerte für physikalisch-chemische Komponenten.

Code of Good Farming Practice (GFP) and measures under the Nitrate Action Programme: In Germany the ND has been implemented into national law by the fertiliser law (Düngegesetz) and the Federal Fertilisation Ordinance (Düngeverordnung), which set detailed and precise legal requirements for GFP as regards the application of fertiliser. In addition, measures under the Nitrate Action Programme are set out in detail and made compulsory in the States' ordinances on the storage of slurry, liquid manure, farmyard manure and silage effluent (JGS-Anlagenverordnungen). The Fertilisation Ordinance has been revised in 2007 and now sets every year stricter limit values on farm level for tolerable nitrogen surpluses (90/80/70/60 kg/ha, surface balance up to 2012) and also for phosphorus surpluses (20 kg/ha).

Whole Germany is regarded as a vulnerable zone, thus GFP is compulsory on the whole territory and the GFP rules are largely identical to the measures of the nitrate action programme. Furthermore, one of the basic ideas of the Fertilisation legislation is that animal excrements are not waste but valuable fertiliser that can replace mineral fertiliser, thus minimizing environmental impacts and saving energy and greenhouse gas emissions. The Fertilisation Ordinance makes provisions on the calculation of plants nutrient demand and a compulsory nutrient balance on farm level, manure application, application rates of nutrients including application in autumn dependent on winter crop cover, water protection measures and nutrient reduction areas and measures to reduce ammonia emissions during the application of manure as required by the 'NEC Directive. So far the Ordinance therefore only demands "the generally accepted rules of technology". Nevertheless, obsolete techniques are listed in an annex to the Fertilisation Ordinance, and these techniques of spreading are forbidden. The annex is under permanent development. It offers transition periods (until 2010) for farmers to adjust their technology to modern demands.

Compliance of farmers with GFP is also controlled under Cross Compliance. Non-compliance will result in cut-downs of direct payments up to 20%. For the storage of manure and silage effluent federal regulations are currently under way (up to now such regulations were within the responsibilities of the Federal States). Because of rare but large accidents with single storage devices manure is regarded as substance hazardous to water.

Federal States measures

At Federal States level, there are also voluntary measures such as agri-environmental programmes as part of EU co-financed Rural Development Programmes (second pillar of the Common Agricultural Policy CAP). WFD-measures going beyond GFP will be compensated within these programmes. Furthermore, there exist co-operative approaches in designated

areas for drinking water and investment aid for slurry storage capacity or improved machinery (slurry application technology, seeding machines for reduced tillage systems). However, due to the fairly aggregated monitoring and reporting of such measures and the federal structure of support through the German Federal States there is no comprehensive overview available on support measures focusing on water protection. However, the Federal States of Schleswig-Holstein and Mecklenburg-Vorpommern have both established programmes for wetland restoration, which will improve the nutrient retention potential of these sites. These measures contribute to a lowering of the nutrient loads from the land to the Baltic Sea.

In implementing the WFD the Federal States established by the end of 2009 programmes of measures (PoM) for each river basin district. The landlocked Federal States Saxony and Brandenburg in cooperation with Mecklenburg-Vorpommern created a PoM for the German part of the river Oder basin comprising basic measures as the implementation of the Agricultural Fertiliser Ordinance as a consequence of the Nitrates Directive as well as supplementary measures like voluntary activities in regard of good practice.

E-4, 6 ,7 ,8: Periodical review and revision of maximum allowable inputs and nutrient reduction requirements using harmonised approach and updated info

Germany is participating in the HELCOM TARGREV project for the review of the eutrophication targets of the BSAP (http://www.helcom.fi/projects/on_going/en_GB/targrev/?u4.highlight=TARGREV). The kick-off meeting for the project took place in June 2010. The project aims at strengthening the scientific basis of the ecological targets for eutrophication by e.g. statistical analyses of trends and pressure-response relationships and simulation studies using mechanistic models. The results of the project, i.e. the preliminary eutrophication targets, will be submitted to the decision making process of the HELCOM Contracting Parties in 2011.

E-10: Identification and inclusion of required and appropriate measures into River Basin Management Plans of the EC Water Framework Directive

River Basin Management Plans (RBMPs) under the WFD were finished by the end of 2009. At this time about 38% of the ground water bodies and 90% of the surface water bodies in Germany didn't achieve a good status. To meet the WFD-objectives the Federal States established programmes of measures (PoMs) for all of these water bodies, also until the end of 2009. The RBMPs and the PoMs include, among others, numerous measures to reduce the nutrient load in agriculture (summary: http://www.uba.de/uba-info-medien-e/4021.html).

In Germany there are three river basins districts that discharge into the Baltic Sea – Schlei/Trave, Warnow/Peene and Oder. The Oder district is shared with Poland. For the Schlei/Trave district a 13% reduction in nitrogen discharges and a 23% reduction in phosphorus discharges are envisioned until 2015 in the river basin management plans (http://www.wasserblick.net/servlet/is/102612/). Measures will focus on diffuse sources and will include for instance: measures to reduce nutrient losses from fertilisation and cultivation, increase in extensive agriculture, riparian buffer strips, re-irrigation of former wetland ecosystems and increase of the retention capacity of streams through measures that improve the hydromorphological components (e.g. shape of banks and river bed). The RBMPs of the rivers Warnow/Peene and Oder didn't set up a concrete reduction target for nutrients. Nevertheless they encompass almost the same measures to contribute to meet a good environmental status in coastal waters.

In the Federal State of Mecklenburg-Vorpommern a fine-scale project on "Regional Nutrient Loads Into Surface Waters of Mecklenburg" (completed 2009) aims at identifying "hot spots" Another project focuses on a comparison of results on hot nutrient spots with agricultural land use and practice, lessons for agricultural practice and education (2009-2010).
In the Federal State of Schleswig-Holstein several projects have recently been initiated for identifying hot spots of nutrient emissions to surface waters. For the coastal water body Schlei, a special report with suggestions for further nutrient management option was prepared in 2009. The study will be completed in 2011. Additionally, several water boards have initiated river and wetland rehabilitation projects which contribute to lowering nutrient emissions to the Baltic Sea.

2.3. Achieved reductions in nutrient loads

The pollutant loads of phosphorus and nitrogen compounds from German inflows into the Baltic Sea have been declining for many years (Fig. 2). However, as a result of variations in flow rate, there are some very sharp annual fluctuations. In 2007, around 29,000 tonnes of nitrogen and around 800 tonnes of phosphorus were discharged into the Baltic Sea.

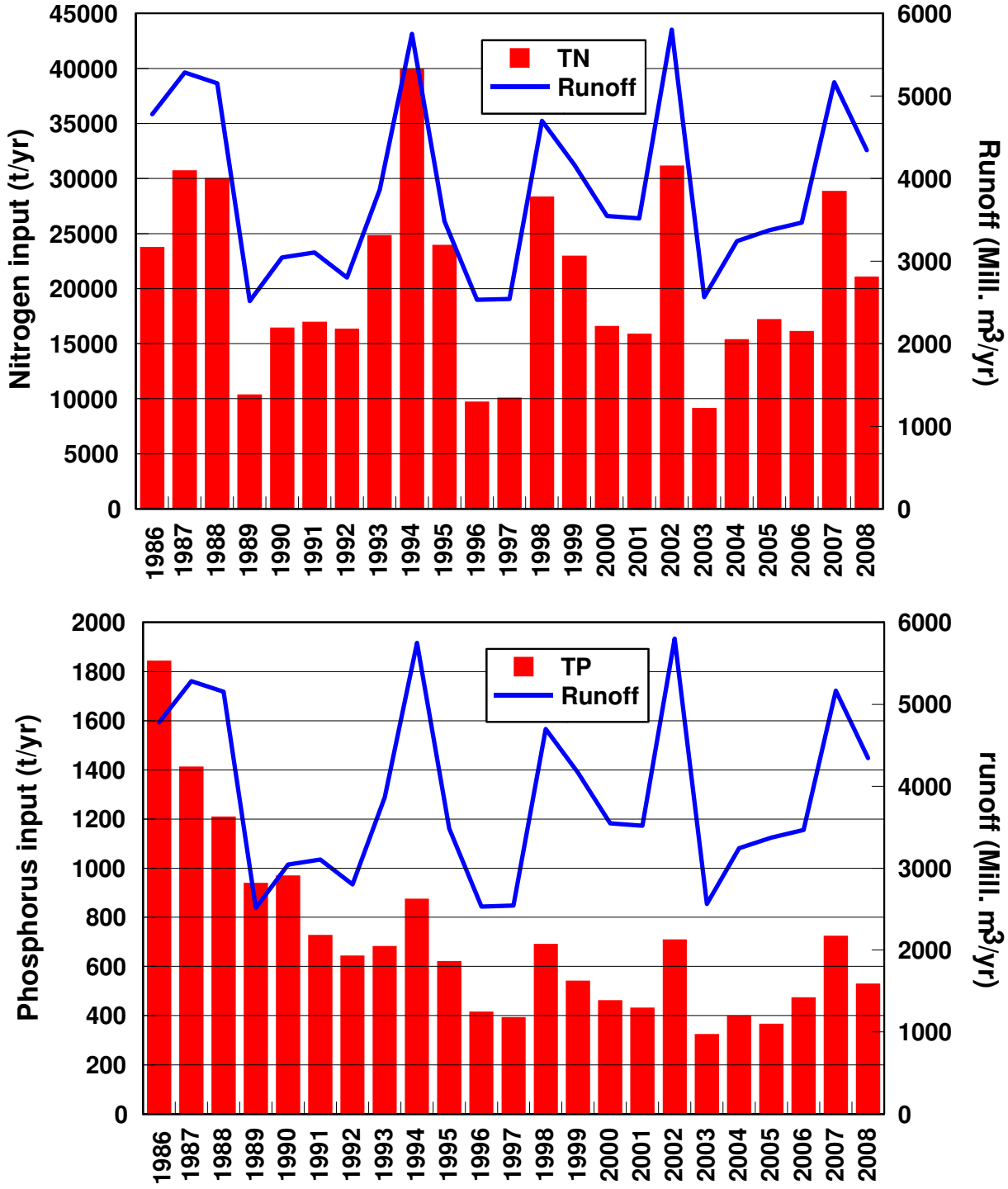


Fig. 2 Development of nutrient discharges via German rivers into the Baltic Sea and annual runoff for the period 1986 to 2008. Source: Nausch, G.; Bachor, A.; Petenati, T.; Voss, J.; von Weber, M. (2011 in print): Nährstoffe in den deutschen Küstengewässern und der angrenzenden Ostsee. ARGE BLMP Indicator Report 2011/1.

Between 1985 and 2005, discharges into surface waters in the German Baltic Sea catchment area were reduced from 63,018 t/a to 31,414 t/a of nitrogen and from 3,645 t/a to 865 t/a of phosphorus. This means that in 2005, nitrogen and phosphorus discharges had been reduced by 50 % (nitrogen) and 76 % (phosphorus) compared with 1985 (Fig. 3 & 4). The 50 % reduction in nitrogen discharges was primarily attributable to the sharp reduction in nitrogen discharges from point sources by 85 % (Fig. 3). The proportion of total nitrogen discharges from point sources was reduced from 25 % to 9 % during the period under review. At the same time, the importance of diffuse sources increased, with discharges via agriculture playing a decisive role, at 82 %. Overall, nitrogen discharges from diffuse sources were reduced by around 39 %. The dominant diffuse discharge routes were drainage, at 48 % of total discharges, and groundwater, at 27 %.

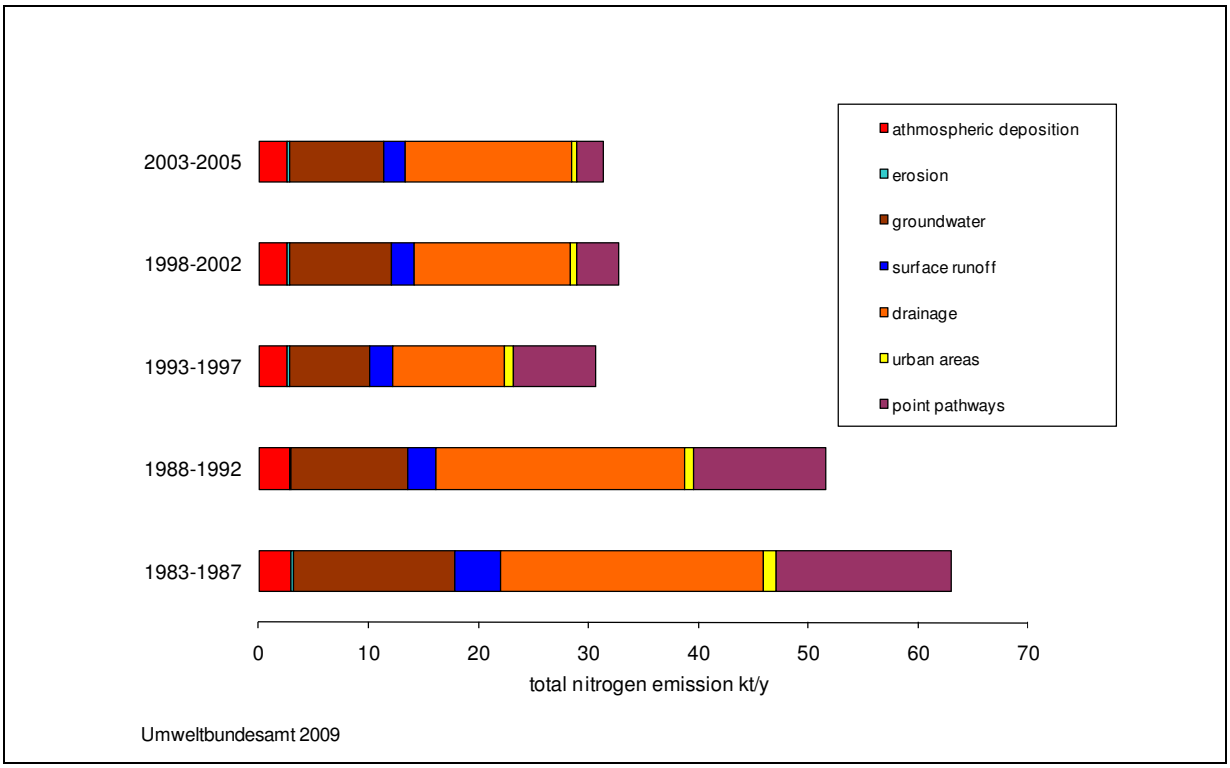


Fig. 3 Nitrogen discharges into surface waters in the German catchment area of the Baltic Sea
Source: Federal Environment Agency 2009 (MONERIS)

The 76 % reduction in phosphorus emissions is likewise primarily attributable to the 93 % reduction in discharges from point sources (Fig. 4). Given the sharp reduction in phosphorus discharges from point sources, in 2005 point sources no longer represented the dominant discharge route (21 %) compared with 1985 (72 %). In 2005, phosphorus discharges from diffuse sources accounted for 79 % of total phosphorus discharges, with agriculture accounting for around 63 % of total discharges. Overall, phosphorus discharges from diffuse

sources decreased by 33 % during the period under review, primarily due to the reduction in phosphorus discharges from run-off from sealed surfaces (58 %) and groundwater (46 %). The discharge routes erosion, groundwater and drainage show an increase in discharges during the period 1995 and 2000. By 2005, however, discharges had been reduced again to below the level of the reference year 1985. At the same time, there was a significant rise in discharges from elutriation from mainly agricultural land, which despite a reduction in discharges, still exceeded 1985 levels by 31 % in 2005. In relation to total discharges, groundwater (29 %) and erosion (19 %) accounted for the highest discharges.

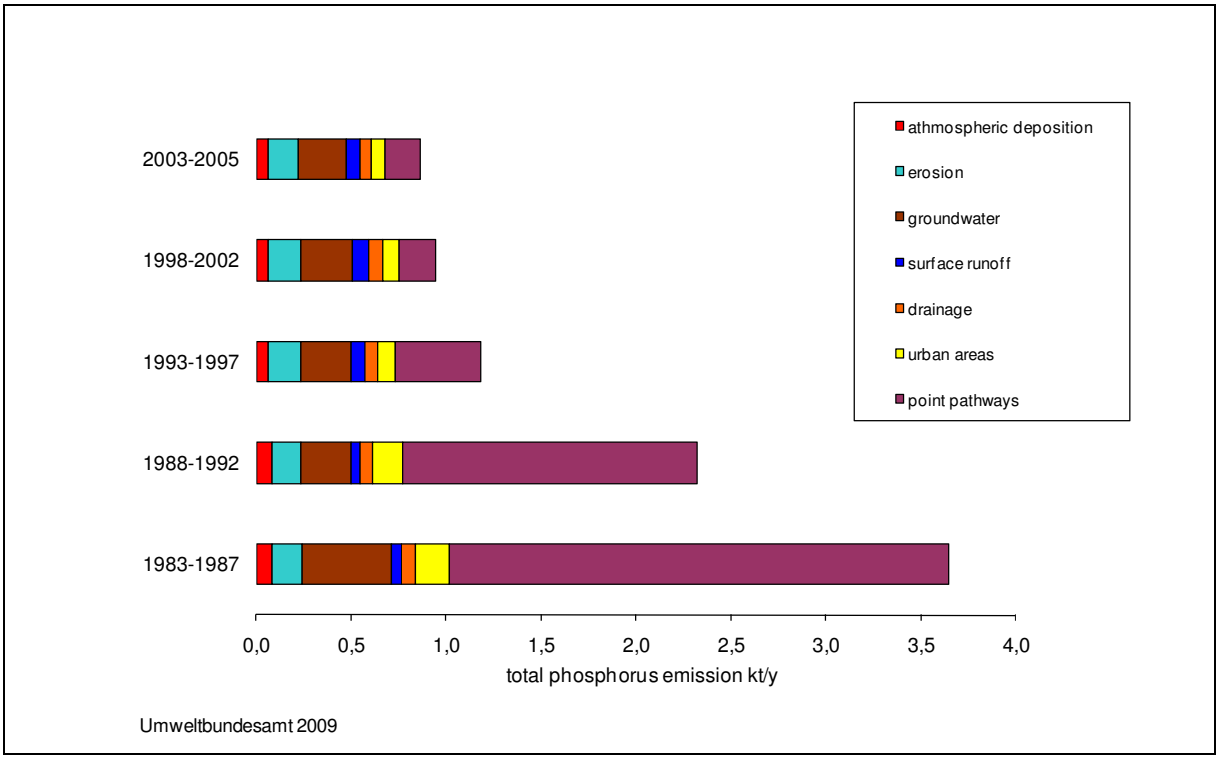


Fig. 4 Phosphorus discharges into surface waters in the German catchment area of the Baltic Sea
Source: Federal Environment Agency 2009 (MONERIS)

2.4. Reduction of nutrient loads from waste water treatment plants

E-11, 12: Advances municipal wastewater treatment HELCOM recommendations 28E/5

Due to the high connection rate to public sewer systems and highest technical standards in wastewater treatment as such, as well as due to very strict obligations for private waste water treatment there is hardly any room for further improvement in this field. The Federal state of Mecklenburg-Vorpommern, for instance, reports that the EU-standards on waste water treatment have already been surpassed and no further action is planned. In 2008 87.3 % of the 4218 German sewage treatment plants had tertiary treatment (table 1). Of

these 93.3 % had N-elimination (81 % of N is eliminated) and 84.5 % had P-elimination (90 % of P eliminated).

Actual information about municipal waste water treatment from the implementation of the EC WWT Directive will probably be available from the EU Commission on WISE (Water Information System for Europe) by January 2011 (http://water.europa.eu). The current data reviews the progress in the implementation of the Urban Waste Water Directive by data status 2007/2008. Data on the agglomeration level will be reported for all agglomerations >2000 p.e. (population equivalents).

Table 1 Sewage treatment systems for agglomerations >2000 p.e in 2005 and 2008. Source: Data from the UWWT Directive reporting of the Federal States reporting round 2009/2010.

Treatment	**2005**	**2008**
Secondary treatment (%)	15.5	12.5
Tertiary treatment (%)	83.9	87.3
Of these:		
With N-elimination	95.3	93.3
With P-elimination	84.4	84.5
Other (%)	0.6	0.2

Sewage treatment plant Bitterfeld-Wolfen. Source: Sewage treatment plant Bitterfeld-Wolfen GmbH

E-11, 12:HELCOM 28E/6 On-site wastewater treatment of single family homes, small businesses and scattered settlements

In Germany in 2007 96% of the total population was connected to public urban sewer systems (4% were not connected but served by individual on-site treatment systems). In comparison to the total load the load produced by the population that is not connected is negligible. Because of the great number of on-site treatment systems the data acquisition effort will be in no relation to the benefit of information.

E-13: HELCOM Recommendation 28E/7 – Measures aimed at the substitution of polyphosphates in laundry detergents

The use of P-free laundry detergents is established in Germany since the 1986. Germany has used a combination of legislative (restriction of use of phosphates in textile detergents since 1 October 1981 through the Ordinance on Maximum Amounts of Phosphates in Washing and Cleansing Agents (Phosphathöchstmengenverordnung) and voluntary measures with the full co-operation of the detergent industry and involvement of the public.

E-13: HELCOM Recommendation 28E/7 – Measures aimed at the substitution of polyphosphates in dishwasher detergents

In Germany phosphate-free and phosphate-containing automatic dishwasher detergents are on the market. The Federal Environment Agency (UBA) is promoting the use of phosphate-free detergents for instance by press information campaigns. On its website UBA informs the public about the properties of such detergents and encourages households to make use of such detergents to protect the environment (http://www.umweltbundesamt.de/chemikalien/waschmittel/geschirrspueltabs.htm). In May 2011 UBA is participating in an action day on environmentally sustainable washing and dishwashing (http://www.forum-waschen.de/sustainable-washing.html) that will provide advice to the general public.

2.5. Reduction of nutrient loads from agriculture

E-16: Designation of relevant parts of agricultural land as zones vulnerable to nitrogen

Germany is regarded as a vulnerable zone in the sense of the Nitrates Directive, i. e. the measures of the nitrate action programme described under 2.2 above are mandatory in the whole German Baltic Sea catchment area. The main reason for this strict interpretation of the Nitrates Directive are not nutrient inputs into the Baltic Sea but into the Wadden Sea in the North Sea, which is a world natural heritage site and very sensitive to nutrient overloads. To

provide equal rights and to avoid market distortions regulations meant to protect the Wadden Sea have been extended over Germany.

E-17: HELCOM Recommendation 28E/4 Amended Annex III of the Convention concerning agriculture: permit systems for major and small animal farms

In general the requirements of the Environmental Impact Assessment (EIA) Directive[10] and other relevant EU legislation are fulfilled in Germany. A detailed check with regard to 28/E is ongoing. The Federal State of Mecklenburg-Vorpommern reports full implementation.

(a) Under the IPPC-Directive and its implementation into German law by the Federal Immission Control Act (BImSchG) and the 4th Ordinance under the BImSchG (4th BImSchV) permits are inter alia compulsory for pig farms (>1500 pigs, > 560 sows including < 30-kg-piglets) and poultry farms (> 15 000 places). For cattle farms > 600 livestock units (except suckling cows with more than 6 months outside) a permit not necessitating public participation is compulsory, if a carried-out screening allows the conclusion that no Environmental Impact Assessment is required.

(b) Under the EIA Directive and its implementation into German law (Act on Environmental Impact Assessment, UVPG) permits are compulsory for pig farms (> 3 000 pigs, > 900 sows including < 30-kg-piglets) and poultry farms (> 60 000 places). For cattle farms > 600 livestock units (except suckling cows with more than 6 months outside) a permit not necessitating public participation is compulsory, if a carried-out screening allows the conclusion that no Environmental Impact Assessment is required.

E-19: Establishment of hot spots list concerning animal farms for extensive rearing of cattle, poultry and pigs

In Germany large pig and poultry farms have to be in accordance with the Integrated Pollution Prevention and Control Directive (IPPC-Directive) since October 2007 and thus there are no hot spots designated in Germany. This Directive requires industrial and agricultural activities with a high pollution potential to have a permit. This permit can only be issued if certain environmental conditions are met, so that the companies themselves bear responsibility for preventing and reducing any pollution they may cause. Farms with more than 10 000 kg ammonia emissions are listed in the German Pollution Release and Transfer Register (PRTR) (www.prtr.de).

[10] Council Directive of 27 June 1985 on the assessment of the effects of certain public and private projects on the environment. 85/337/EEC. Reference: Official Journal NO. L 175 , 05/07/1985 P. 0040 – 0048.

ploughing of fields. Source: www.pixelio.de

E-20: Joint input on EU CAP Health Check

The CAP Health check has meanwhile been completed. The ongoing next round of reforms in the CAP hopefully will provide a platform to further integrate environmental aspects into agricultural everyday practice by strengthening the motto „public money for public goods“ in respect of both direct payments and rural development measures. Therefore, HELCOM should instead consider a common input to the next round of CAP-reforms (“CAP 2020”).

Other activities

The Federal Ministry for the Environment, Nature Conservation and Nuclear Safety is funding a project conducted by the registered association Grüne Liga e.V. that aims at organising a conference on the use of wetlands for the reduction of nutrient runoff from agriculture. The conference, entitled “Wetlands for Clear Water” will take place in March / April 2011 and will evaluate the experiences made with wetlands for combating eutrophication in the Baltic Sea. Its ultimate goal is to increase the knowledge basis of relevant actors and enable them to use wetlands as one of the measures in the implementation process of the WFD and MSFD.

2.6. Reduction of nutrient loads from airborne inputs

E-25: Application of assessments of the inputs and effects of airborne nitrogen to the Baltic Sea in the revision of the emission targets for nitrogen under CLRTAP

The national emission ceilings for air pollutants (NO_x, NH_3) contributing to eutrophication under the Gothenburg Protocol are currently under revision. Stricter emission ceilings to be attained in 2020 will probably be defined for reduced and oxidized nitrogen substances. In its 2009 letter to the executive body of the UNECE-CLRTAP, HELCOM expressed its strong interest in improved information exchange and enhanced coordination of activities in order to reduce the airborne N-input into the Baltic Sea. Germany strongly supported this request and will do so in the future. However, as the ongoing revision process is currently dominated by technical questions of different mitigation options, definite action towards deepening the

cooperation between HELCOM and CLRTAP has not been taken so far. Concepts for the enhanced cooperation between HELCOM and CLRTAP should also be discussed within different bodies of the CLRTAP (such as the Task Force on Reactive Nitrogen). An exchange about adequate indicators and quality objectives might be useful. The current work plan for 2011 of the Working Group on Strategies and Review (WGSR) for *The Implementation of the Convention* underpins cooperation of the Task Forces and Centres (e.g. Meteorological Synthesizing Centre-West) with HELCOM experts.

E-26: Joint input to strengthen the emission targets for nitrogen under the EC NEC Directive

The aim of this Directive is to limit emissions of pollutants causing acidification and eutrophication and ozone precursors in order to improve the protection in the EU of the environment and human health against risks of adverse effects from acidification, soil eutrophication and ground-level ozone (Article 1). Eutrophication of marine ecosystems is, however, not directly addressed. It is foreseen that the National Emission ceilings of the NEC Directive will be negotiated and revised in 2013. Stricter emission ceilings will probably be defined for reduced and oxidized nitrogen substances. Emissions from international shipping are taken into account for baseline scenario modelling. Mitigation options for emissions from international shipping are not considered within cost analyses, as the directive does not cover emissions from international maritime traffic (Article 2).

E-27: Joint input to strengthen the emission targets for nitrogen under the Gothenburg protocol under CLRTAP

The objective of the Gothenburg Protocol is inter alia to control and reduce emissions of nitrogen oxides and ammonia (that are likely to cause adverse effects on natural ecosystems due to eutrophication), and to ensure in the long term that the critical loads of nitrogen for terrestrial and freshwater ecosystems are not exceeded. The national emission ceilings for air pollutants (NO_X, NH_3) contributing to eutrophication under the Gothenburg Protocol are currently under revision. Stricter emission ceilings to be attained in 2020 will probably be defined for reduced and oxidized nitrogen substances. The revision will be based upon integrated assessment of emission scenarios, effect analyses and cost curves. The analysis of effects so far refers only to terrestrial and freshwater ecosystems. Emissions from international shipping are taken into account for baseline scenario modelling. Mitigation options for emissions from international shipping are, however, currently not considered within cost analyses. The Meteorological Synthesizing Centre-West (MSC-West) models deposition over the Baltic Sea resulting from international shipping as well as from

neighbouring and transboundary stationary sources on annual basis. Germany is participating in these efforts. An analysis of effects based on the results of the modelling is performed regularly within HELCOM.

3. Segment II: HAZARDOUS SUBSTANCES

3.1. Introduction

The overall HELCOM goal for Hazardous Substances is to achieve a Baltic Sea with life undisturbed by these substances. In the BSAP, actions have been agreed which address different pathways of hazardous substances to the Baltic Sea, they also stress that international efforts are essential. The 11 hazardous substances or substances groups of specific concern to the Baltic Sea are centre of various actions.
In Germany the actions of the Hazardous Substances Segment are carried out in the framework of relevant existing international, European or national regulations and policies. As most of the 11 selected hazardous substances are priority substances under the Water Framework Directive, source screening has been conducted and reduction measures have been elaborated.

An overview of all actions under the HELCOM recommendations for hazardous substances is provided in Annex II.

3.2. Reduction of emissions of hazardous substances

The following actions focus on the emission of hazardous substances from industrial processes. The requirements of the HELCOM Recommendations are in Germany implemented by national or European legislation. In the following, the actions are dealt with one by one describing the legal acts and pointing out specific details.

H-1, H-2: HELCOM Recommendation 28E/8 "Reduction of dioxins and other hazardous substances from small-scale combustion"

This recommendation proposes two sets of measures: the introduction of an increasing amount of low-emission appliances on one hand and public awareness programmes on the other. Although not tackling dioxins and other hazardous substances directly, it can be assumed that these measures will also lead to emission reductions in this field .Hence the two aspects will be closer examined:

Increase of low-emission appliances

The German ordinance on small and medium size combustion installations (Verordnung über kleine und mittlere Feuerungsanlagen vom 26. Januar 2010, BGBl. I p. 38; short: 1.

BImSchV, http://www.bmu.de/luftreinhaltung/downloads/doc/39616.php, explanations http://www.umweltdaten.de/publikationen/fpdf-l/3776.pdf) was amended in 2010 with the main objective to reduce emissions from solid fuel small combustion installations. The new ordinance includes direct and indirect measures enhancing the introduction of low-emission appliances:

- Limit values in form of Product standards for dust, CO and efficiency for roomheaters; in order to give industry time for new developments the limit values enter into force in two steps, the second of which in 2015 (for most appliances CO: 1,25 g/m³, dust 0,04 g/m³);
- Emission limit values for dust and CO for all boilers > 4 kW_{th} with regular measurements in households and SME by chimney sweepers;
- Generally a buffer tank is to be used with boilers (exceptions for automatic boilers with very low emissions);
- As a large part of the emissions are caused by old appliances, these are tackled as well: after transition periods that end between 2015 and 2025 installations not complying with new emission limit values will have to be exchanged or retrofitted;

Measures outside the regulation enhancing the introduction of low-emission appliances:

- Market incentive program for renewable energies: low emission wood pellet boilers and pellet stoves are eligible for subsidies
- Labelling of low emission pellet boilers and stoves (blue angel).

Enhance public awareness

1. BImSchV also encompasses measures for awareness raising:

- Individual Consultation by chimney sweepers for every household using a small combustion installation for solid fuels;
- Requirements for fuels – the ordinance includes a list of permitted fuels, in the case of wood only dry natural wood and wood briquettes/pellets complying with quality standards may be used; the fuel storage in households and SME will be checked regularily;

Other relevant measures for awareness raising are:

- The Federal Environment Agency as well as several ministries of the Federal States (Länder) have issued brochures concerning the use small wood combustion installations. An example issued by the Federal Environment Agency is available under http://www.umweltdaten.de/publikationen/fpdf-l/3151.pdf

– HELCOM Recommendation 28/E/8 mentions regular inspection and cleaning of chimneys as a measure under “enhancing public awareness”. In Germany a legal requirement for a regular cleaning of chimneys exists:
Kehr- und Überprüfungsordnung vom 16. Juni 2009 (BGBl. I S. 1292)

H-3: Update of HELCOM requirements concerning proper handling of waste/landfilling (Recommendation 24/5)

This Recommendation is fully implemented by the German Landfill Ordinance from 27. April 2009. All existing landfills not fulfilling the criteria of proper landfilling practices as required in Landfill Direction 1999/31/EU are closed. All landfills in operation are in line with the requirements of European and national legislation with regard to location, design, construction, operation, closure and aftercare and are granted by a permit by competent authorities. Pollution prevention measures are implemented at already closed landfills and at landfills in operation. There is no illegal waste dumping in Germany. The implementation of waste separation and recycling of produced waste and pre-treatment of the residual waste minimizes the amount of waste to be landfilled and decreases its hazard level to the environment and human health.

H-3: Update of HELCOM requirements for iron/steel industry (Recommendation 24/4)

The recommendation is generally implemented by the German Waste Water Ordinance (WWO), Annex 29 (current version from 17 June 2004) and the TA Luft (Technical Instructions on Air Quality Control from 24 July 2002), which also cover other processes in the iron and steel industry.
While the requirements for air emissions according to TA Luft are always equal or more stringent than those of the HELCOM Recommendation, some requirements of the WWO are different in terms of the definition of the limit values. E.g. the WWO does not regulate the content of suspendable solids, but it is regulated indirectly via several other parameters. Instead of regulating the specific load of oil, a concentration-based limit value for total hydrocarbons is used, which leads to much stricter requirement at low waste water flows. The German limit values for CN_{vol} seem to be higher than in the recommendation, but as they refer to a qualified sample or a 2 h mixed sample, they can be regarded as equal to the 24 h average values in the Recommendation.
Based on the revised EU Iron and Steel BREF (the final Draft will probably be accepted by the IEF in Jan 2011), this HELCOM Recommendation should be updated, e.g. regarding additional ELVs for heavy metals (air and water emissions), PM10 and dioxins. On the other

hand, most of the present values in the Recommendation are already equal or even stricter than the BAT-AELs of the revised BREF.

H-4: Evaluation of need to develop further requirements for reduction of heavy metal and other hazardous substances emissions from energy production and industrial combustion plants

Reduction of mercury emissions into the air from new and existing coal fired large combustion plants (LCP) is urgent and should be based on the UNEP activities (where the EU is involved) to create a global Hg-instrument; LCPs in Germany have already to comply with Hg emission limit value (0,03 mg/m^3 referred to daily average, 6% O_2 (13/17 BImSchV)), further reduction is under consideration. There are ongoing activities to test mercury-specific abatement measures in Germany and in other countries. Furthermore the new EU-Legislation under the IE-Directive (Directive 2010/75/EU dated 24th, November 2010), Directive of the European Parliament and The Council on industrial emissions,) prescribes mercury emission to be measured at least once per year for coal and lignite fired large combustion plants.

Further reduction of dust emissions into the air from new and existing LCP -coal, heavy fuel oil, biomass- is although necessary, to further reduce heavy metal emissions other than mercury, e.g. As, Cd, Pb, Ni, Va. These further emission reductions will be implemented in EU-MS by the new IE-Directive; LCPs in Germany already apply to these requirements.

H-9: Introduction of Whole Effluent Approach (WEA)

In Germany, the assessment of wastewater with bioassays has been put into routine regulatory practice since 1976 by introducing the acute fish toxicity test with *Leuciscus idus* which has been replaced by the fish egg assay with *Danio rerio* in 2004 for animal protection reasons. Later on other ecotoxicity tests with bacteria (*Vibrio fischeri*), daphnids (*Daphnia magna*) and algae (*Desmodesmus subspicatus*) as well as the umu-assay with *Salmonella typhimurium* TA1535/pSK1002 for determining genotoxicity have been considered in the Wastewater Ordinance. The Zahn-Wellens test is routinely used for determining treatability of indirectly discharged effluents. The focus is clearly hazard based that means that discharge permits are only granted if the waste load is kept at least on the current BAT level according to IPPC. For several industrial sectors limit values for selected bioassays have been established according to the Wastewater Ordinance (Ordinance on Requirements for the Discharge of Wastewater into Waters). The results are indicated as Lowest Ineffective Dilution (LID) according to ISO 5667-16: 1998, Annex A.

3.3. Substances and substance groups of specific concern to the Baltic Sea

The compilation of actions regarding the 11 hazardous substances or substances groups of specific concern to the Baltic Sea shows that most of the substances already are heavily regulated. Some of them are POPs under the Stockholm Convention and LRTAP Protocol. Germany actively takes part in the HELCOM COHIBA project identifying sources and inputs of the target substances and developing reduction measures. Moreover the Federal Environment Agency (UBA) is lead of work package 5 seeking for cost effective management options to reduce discharges, emissions and losses of hazardous substances.

H-7: Screening of occurrence of selected of hazardous substances

Institutes and agencies of the Federal States of Schleswig-Holstein (Landesamt für Landwirtschaft, Umwelt und ländliche Räume, LLUR) and Mecklenburg-Vorpommern (Landesamt für Umwelt, Naturschutz und Geologie, LUNG) as well as the Federal Government through its Federal Maritime and Hydrographic Agency (BSH), Institute of Fisheries Ecology (FOE) of the Johann Heinrich von Thünen Institute (vTI), German Environmental Specimen Bank at the Federal Environment Agency (UBA-UPB) and Leibniz Institute of Baltic Sea Research (IOW) are monitoring hazardous substances in marine biota, seawater and sediments in the national frame of the Monitoring Program of the Federal Government and the Federal States (Bund/Länder-Messprogramm, BLMP), which serves to fulfill the international monitoring obligations of HELCOM Combine, the EU Water Framework Directive (WFD) and the EU Marine Strategy Framework Directive (MSFD).

H-8: Screening of sources of selected hazardous substances

In several case studies the occurrence of the selected substances has been investigated in the Federal State of Mecklenburg-Vorpommern as partner of the COHIBA-Project. The results will first be available in March 2011. The information will be available on the COHIBA website (http://www.cohiba-project.net/).

H-12: Introduction of use restrictions and substitutions if relevant assessments show the need to initiate adequate measures for medium-chain chlorinated paraffins (MCCPs), octylphenols (OP)/Octylphenol ethoxylates (OPE), perfluorooctanoic acid (PFOA), decabromodiphenyl ether (decaBDE) and hexabromocyclododecane (HBCDD)

H-14: Start work on strict restrictions of use for perfluorooctane sulfonate (PFOS), nonylphenol/nonylphenolethoxylates (NP/NPEs), short-chain chlorinated paraffins (SCCPs)

The Stockholm POP Convention, the CLRTAP Protocol on POPS, REACH and the Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment (ROHS) are relevant for the substances addressed in these actions.
HBCDD fulfils the POP criteria under the Stockholm POPs Convention and CLRTAP Protocol on POPs and thus was identified as a POP-Candidate. Whereas management options were already evaluated for HBCDD under the POP-Protocol, the evaluation of the risk management under the Stockholm Convention has just begun. In the meeting of the Executive Body of the POP-Protocol, which will be held in December 2011, the proposed inclusion of HBCDD in Annex I (ban of use and production) or II (restriction of certain uses) will be discussed and further action decided. Also a time limited exemption for the phase-out of the use of HBCDD as a flame retardant in EPS/XPS insulation boards will be discussed.

Under REACH HBCD was identified as a Substance of Very High Concern (SVHC) and thus is on the candidate list for inclusion in Annex XIV of REACH. The latest application date was set to 36 months and the sunset date to 54 months after inclusion in Annex XIV, which is expected for the beginning of 2011.

Norway submitted a harmonised classification and labelling dossier (reprotox. and cancer.) for PFOA, for which the discussion is currently in progress under REACH.

For all other substances no restriction proposal was made nor were they identified as SVHC up to now.

DecaBDE is regulated under Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment (ROHS).

H-13: Introduction of ban on the use, production and marketing of endosulfan, pentabromodiphenylether (pentaBDE) and octabromodiphenylether (octaBDE)
Ban on the use, production and marketing of pentaBDE and octaBDE is carried out in the framework of relevant existing European regulations/policy. In addition they are regulated under the Stockholm Convention by listing for elimination of use and production with a specific exemption for recycling of articles. There is an ongoing research project to evaluate the German recycling situation for pentaBDE and octaBDE in articles (the report will be available under www.uba.de).
Endosulfan is not allowed to be used as plant protection agent on the European level. Endosulfan fulfils the POP criteria under the Stockholm POPs Convention and CLRTAP Protocol on POPs and thus was identified as a POP. Its management options were already evaluated. In the meeting of the Executive Body of the POP-Protocol, which will be held in

December 2010, the proposed inclusion of Endosulfan in Annex I (ban of use and production) will be discussed and further action decided. Under the Stockholm Convention it was agreed that the POP characteristics of the chemical Endosulfan warrant global action. The Conference of the Parties (COP) in April 2011 will consider Endosulfan for listing in Annex A (ban of use and production) of the Convention.

H-15: Assessment of possibility of introduction of restrictions on cadmium content in fertilisers

The German Use of Fertilizers Ordinance (16/12/2008) is directed to "… fertilizers brought into circulation that are not labelled as EU-fertilizers …" (§ 2). According to Appendix 2, table 1 Cadmium has to be labelled at 1.0 mg/kg (tolerance 50%), threshold being 1.5 mg/kg. Fertilizers with more than 5% P2O5 (ww) have to be labelled at 20 mg Cd/kg P2O5, threshold being 50 mg Cd/kg P2O5.

The Federal Environment Agency (UBA) is supporting the considerations and recommendations of the Scientific Committee for Toxicity, Ecotoxicity and the Environment (SCTEE) which concluded as follows:

- At low Cd-concentrations in fertilisers (1...20 mg Cd/kg P2O5) only a comparatively slow enrichment of Cadmium in soil can be expected. At the best, there may be even a reduction over a period of 100 yrs. due to outbalance of removal via field crops to input via fertiliser.
- At high Cd-concentrations (≥ 60 mg Cd/kg P2O5) a comparatively high enrichment over 100 yrs. is predicted.

This results in the following recommendations of the SCTEE:

- Fertiliser with Cd-concentrations ≤ 20 mg/kg P2O5 are not likely to induce long-term accumulation if no other inputs occur.
- Fertiliser with Cd-concentrations ≥ 60 mg/kg P2O5 is very likely to induce long-term accumulation of cadmium in soils.

The Federal Environment Agency proposes a step-by-step reduction of the Cd-threshold in fertilizers of 25 or 20 mg/kg P_2O_5 (60-40-20).

H-16: Application of strict restrictions on the use of mercury in products and from processes and support the work towards further limiting and where feasible totally banning mercury in products and from processes

Regarding processes there are currently six CAK plants left in Germany that use the mercury cell process. Four of these produce regular chlorine and caustic, the other two produce specialties (alcoholates, dithionites). In total these plants account for 2115.3 metric tons of mercury, 1953.4 t in cells, 161.9 t in storage (May 2010, data provided by VCI/Evonik on request).
The industry (all of EU) signed voluntary commitments to convert the remaining regular plants to the membrane process or to close them by 2010 at the latest. This means two plants per year on average. The latest conversion have been the German Vinnolit plants. According to industry statements (Nov 2010), conversion plans for remaining regular plants already exist but no specific dates are given.
A conversion of the specialty plants is not planned. Alternative methods of production are not considered to provide advantages at the moment due to significantly higher energy consumption or lower yield (plus potential safety issues).
Average (all of EU) mercury emission by plants is currently 0.93 g/t installed chlorine production capacity with no German plant exceeding 1 g/t. Of this about 5-6% (0.05 g/t) are ending up in the products (data provided by Eurochlor e.g. http://www.eurochlor.org/news/detail/index.asp?id=337).
Further reduction would be energy intensive and would even yield a net increase of mercury emissions by way of coal fired power plants.
A discussion concerning mercury has recently started amongst the public and the media as regards the phaseout of conventional light bulbs and the mercury content of energy saving lamps. In tests with burst energy saving lamps elevated concentrations of mercury in indoor air have been found. However, given proper airing, these do not present a particular health risk.

H-23: Development of biological effects monitoring

German institutes actively contributing to the development of biological effects monitoring in the Baltic Sea are, e.g., the Institute of Fisheries Ecology (FOE) of the Johann Heinrich von Thünen Institute (vTI), the Alfred-Wegener-Institute for Polar and Marine Research (AWI) and the Leibniz Institute of Baltic Sea Research (IOW). These institutes have been involved in two major international Baltic Sea projects targeted at developing integrated measures of chemical pollution and biological effects and tools needed to detect and understand human-induced pressure on the Baltic Sea ecosystem: the EU-funded BEEP project (Biological Effects of Environmental Pollution on Coastal Marine Ecosystems, 2001-2004) and the BONUS+ BEAST project (Biological Effects of Anthropogenic Chemical Stress: Tools for the Assessment of Ecosystem Health, 2009-2011).

The same institutes are actively participating in the relevant expert groups and projects of the regional conventions HELCOM and ICES, involved in developing concepts and strategies for integrated chemical and biological effects monitoring and assessment programmes.

The vTI FOE performs a regular annual monitoring programme on diseases, parasites and histopathology in fish (flounder, dab, cod, partly herring) from open waters the Baltic Sea in the framework of HELCOM Combine since the 1980s. Quality assurance is in place through the BEQUALM programme and assessment criteria for the specific needs of the BSAP are under development in connection with activities of the ICES WGPDMO and the HELCOM CORESET project.

On behalf of the German Environmental Specimen Bank at the Federal Environment Agency monitoring on eelpouts has been investigating the prevalence of gonadal disorders, e.g. intersex and atresia. The report can be found here: http://www.umweltprobenbank.de/en/documents/publications/11946. Further studies will follow.

3.4 International work

H-19: Input to international forums to influence work on hazardous substances (e.g. revision of BREFs, REACH, plant protection and biocides regulation, etc.)

- Germany, being a Member State of the EU, attaches great importance to the implementation of relevant existing EU-regulations. Thus all actions of the "Hazardous Substances Segment" are carried out in the EU-framework. Aiming at the achievement of best possible protection of the marine environment against negative impacts from Hazardous Substances Germany is prepared to feed in marine components into current and/or future negotiations / updating / development of relevant EU regulations such as the Water Framework Directive's list of priority substances, substances to be evaluated under REACH and to the new Biocides Regulation (at the moment under discussion) where PBT and vPvB properties will be regarded as exclusion criteria that means substances with these properties will the Annex I only in exceptional circumstances and therefore, an authorisation of biocidal products containing these substances will only happen in selected cases.

H-10, H-11: Establishment of chemical product registers to be built upon e.g. the EU regulatory framework for Registration, Evaluation, Authorisation and Restriction of Chemicals, REACH (EC1907/2006)

Within the EU REACH and CLP will generate substantial substance-specific information on use and amount of chemicals used. REACH will generate a widely available cutting-edge registry of chemical substances in the EU, where CLP will provide an EU-wide classification and labelling inventory. Germany will support those processes in order to overcome the current situation and to establish chemical product registers.

H-18: Implementation the Globally Harmonised System (GHS) on classification and labelling of chemicals and to take into account guidelines for preparing safety data sheets

The GHS is being developed under the United Nations Sub-Committee of Experts on GHS, that also assists implementation in countries and regions worldwide with its scientific expertise. Germany is taking part in this Sub-Committee, supporting its work and the work of Working Groups installed.

GHS was implemented in the European Union by ordinance ((EG) Nr. 1272/2008), called CLP regulation for Classification, Labelling and Packaging. The ordinance came into force in the EU and thus, also in Germany the 20 January 2009.

The first transition phase passed on 1 December 2010 and requires classification and labeling of substances. The European Chemicals Agency (ECHA) was installed to supervise instruments of CLP and to coordinate the further development of the CLP-regulation. German experts participate in the working groups at ECHA, e.g. in developing guidance for industry on how to apply the GHS in Europe.

Germany also holds a helpdesk for GHS in order to support industry with GHS-implementation as well as different brochures (www.umweltdaten.de/publikationen/fpdf-l/3332.pdf) are available.

H-20: Promotion and support of identification and inclusion of new candidate substances to Stockholm POPs Convention and CLRTAP Aarhus Protocol

H-21: Ratification of Stockholm Convention

Germany was one of the first signatory states to ratify the Stockholm Convention and beside that the POP-Protocol of the UNECE under the CRTAP-Convention in 2004. Germany implemented its contents in a separate national statute (Act on the Stockholm Convention of 23 May 2001 on persistent organic pollutants (POPs Convention) and the Protocol of 24 June 1998 on the 1979 Convention on Long-range Transboundary Air Pollution pertaining to persistent organic pollutants (POPs Protocol) of 9 April 2002), see Federal Law Gazette II, p. 803 of 16 April 2002. In addition action is carried out in the framework of the relevant European legislation (the POP Directive Regulation (EC) No 850/2004 of the European

Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC (see L 229/5 of 29.6.2004)).

Since the production and use of the POPs listed in the POPs Protocol and the POP Convention have already been banned in Germany, national focus in future will be on identifying new POPs and how to integrate them into the two treaties. In addition, the overall national plans to implement the Stockholm Convention include national obligations to report on emissions of POPs and the creation and implementation of a national action program to further minimize these substances. The Federal Environment Agency has appointed a National Focal Point to coordinate national action for implementation of the Stockholm Convention.

H-22: Promotion of and participation in SAICM implementation process

The Federal Environment Agency is appointed as National Focal Point for national coordination of SAICM implementation. A “National conference on implementation of SAICM in Germany” was held on 6 June 2008 in Berlin. The conference involved a wide range of stakeholders responsible for chemicals management. The conference represents a first substantial step towards a comprehensive SAICM implementation process in Germany. The Federal Ministry for the Environment, Nature Conservation and Nuclear Safety takes the lead in this process assisted by the Federal Environment Agency. The conference also brought together representatives of other ministries and agencies with relevant responsibilities, for instance in agriculture, consumer health and economics and technology. The special focus of the conference was to inform stakeholders and encourage them to contribute to SAICM. A total of 130 participants from ministries, authorities, industry and non–governmental organisations presented their ongoing initiatives for a safe chemicals management in relation to the work areas of the SAICM Global Plan of Action. Thus, the conference also made a substantial contribution to summarizing all relevant and existing national instruments and measures to implement SAICM as a basis for identifying gaps and further need for action. A report on SAICM implementation is available under: Chemicals policy and pollutants, REACH - SAICM.

H-24: Continuation of HELCOM’s work with regard to radioactivity, including monitoring of discharges, emissions from nuclear power plants as well as their effects in the marine environment in order to reach the targets for radioactivity

The Federal Maritime and Hydrographic Agency is responsible for monitoring and assessment of radioactivity in water and sediments of the Baltic Sea, the Institute of Fisheries Ecology (FOE) of the Johann Heinrich von Thünen Institute (vTI) is responsible for monitoring and assessment of radioactivity in marine biota of the Baltic Sea as well as for the evaluation of all German data regarding radioactivity in fish.

4. Segment III – BIODIVERSITY

4.1 Introduction

In Germany, the implementation of the biodiversity segment of the BSAP is closely linked to the implementation of the Habitats- and Birds-Directives, the European Marine Strategy Framework Directive (MSFD), and the Strategy of the OSPAR Commission for the Protection of the Marine Environment of the North-East Atlantic 2010–2020 (OSPAR Agreement 2010-3).

This process has already started in Germany with two research & development projects on the implementation of the biodiversity parts of these obligations in 2009. Until 2012, Germany will spend nearly 600 000 € on this. Another 160 000 € were spent since 2008 in order to work towards the establishment of a coherent network of marine protected areas in order to meet the obligations arising from the joint work programme of OSPAR and HELCOM (Bremen 2003) which was reaffirmed by the BSAP.

Further, the German NIP is based on the National Strategy for the Sustainable Use and Protection of the Seas and other relevant national sector-wise strategies.

4.2 Natural marine and coastal landscapes

The German Baltic Sea area is located in a transition zone between the Belt Sea (meso-polyhalin) and the Arkona Sea (β mesohalin). An ecologically prominent border between these different water bodies is the Darss Sill. This is why the German Baltic Sea can first of all be basically separated into the “Western Baltic Sea” and the “Central Baltic Sea”.

Further sub-regions are displayed in Fig. 1: From west to east, the quite strongly marine-characterised Kiel Bight (A) accordingly differs from the Mecklenburg Bight (B). The transition region of the Darss Sill (C) is followed by the Arkona Basin (D) and the Pomeranian Bight (E).

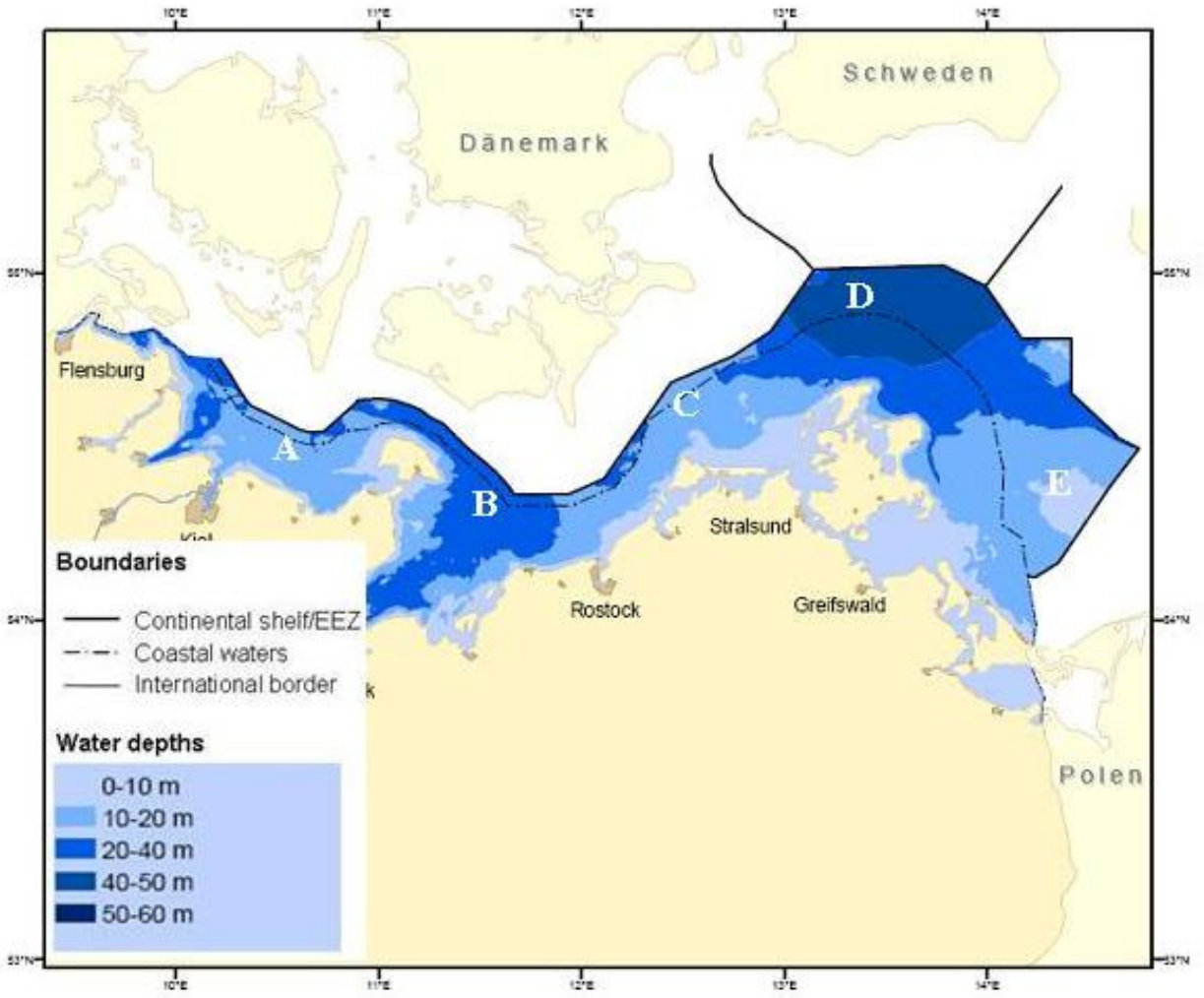


Fig. 1: Landscape classification of the German Baltic Sea

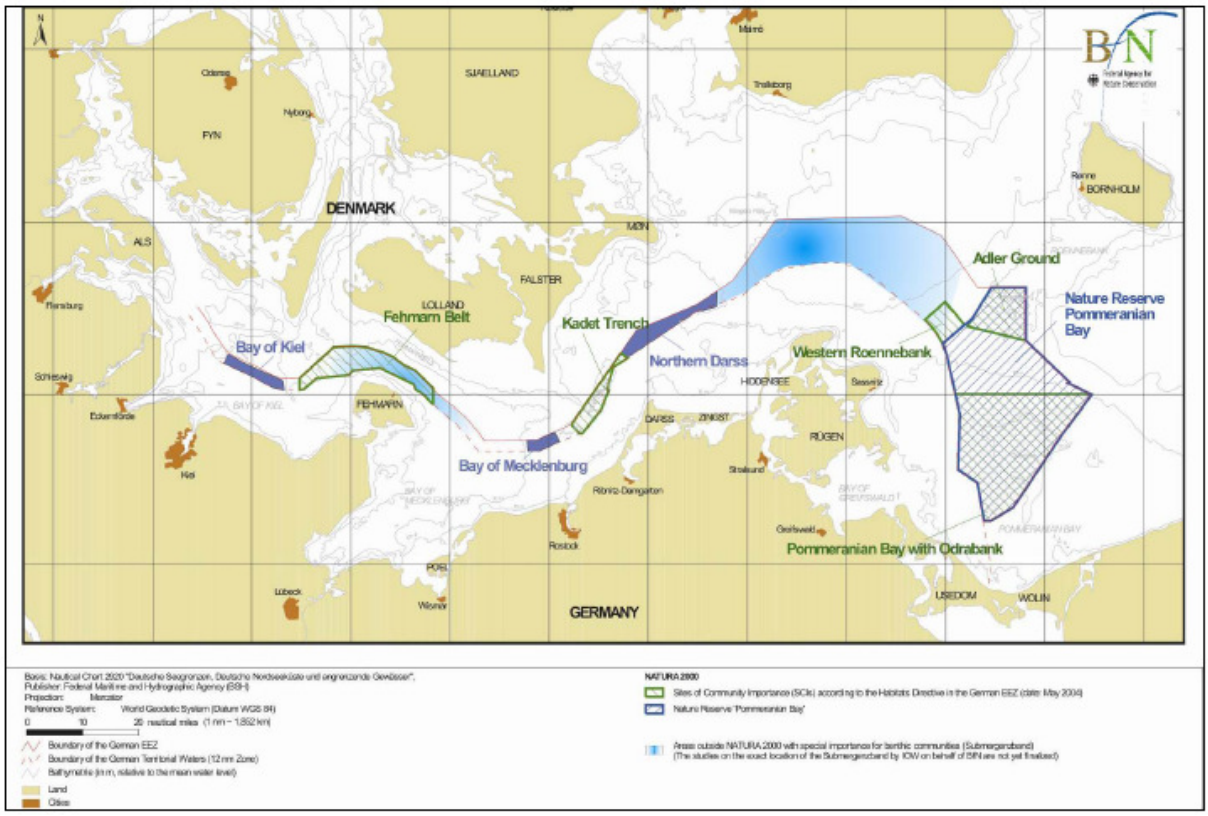
Legend: Kiel Bight (A), Mecklenburg Bight (B), Darss Sill (C), Arkona Basin (D) and the Pomeranian Bight (E)

4.2.1 Develop jointly broadscale, cross-sectoral, marine spatial planning principles based on the ecosystem approach (Item 38.1, B 1, B 2, B 3)

The Maritime Spatial Plans for the German EEZ in the North Sea and in the Baltic Sea have been set into force in 2009. The setting up of the plans was accompanied by a Strategic Environmental Impact Assessment.[11] The German Federal Agency for Nature Conservation (BfN) contributed with a nature conservation perspective. In the Federal State of Mecklenburg-Vorpommern (MV) marine spatial planning is implemented and includes the German Territorial Sea off the coast of MV and the Inner Waters. The State Development Plan adopted 2010 by the Federal State of Schleswig-Holstein (SH) includes –for the first time- marine spatial planning of the territorial sea off SH (12 nm zone) as well as –a strategic assessment report of measures relating to the regional planning policy. As all maritime spatial plans the targets defined in the above mentioned plans are legally binding for all authorities concerned and are based on sustainability principles.

[11] All documents can be downloaded: http://www.bsh.de/en/Marine_uses/Spatial_Planning_in_the_German_EEZ/index.jsp.

Fig. 2 depicts areas with pre-eminent importance for nature conservation in the Baltic EEZ – which should be secured within the scope of marine spatial planning.



The EU partially financed international BALANCE-project developed draft broadscale cross-sectoral marine spatial planning principles based on the ecosystem approach. The principles and relevant scientific knowledge produced by BALANCE[12] were recognised in the Nature Conservation Objectives and Principles of the BfN. HELCOM and VASAB have set up in 2010 a joint working group on MSP, in which Germany is represented. This group agreed upon revised common marine spatial planning principles, which are i.a. based on the ecosystem approach as an overarching principle.

4.2.2 Designation of HELCOM Baltic Sea Protected Areas (BSPA) (Item 39.2 B 4)

This commitment traces back to 2003, when at the first joint meeting of the OSPAR and HELCOM commissions in June 2003, the governments of the signatory states to the two conventions adopted a ministerial declaration[13] in which they agreed as follows: “We reaffirm our commitments to establish a network of well-managed marine protected areas. […] Working with the European Community, we shall have identified the first set of such areas by 2006, and shall then establish what gaps remain and complete by 2010 a joint network of well-managed marine protected areas that, together with the NATURA 2000 network, is ecologically coherent.” The two Commissions consequently agreed a work programme[14] to establish a joint network of marine protected areas (MPAs) in the North-East Atlantic and the

[12] www.balance-eu.org/.

[13] http://www.helcom.fi/stc/files/MinisterialDeclarations/HelcomOsparMinDecl2003.pdf.

[14] http://www.helcom.fi/stc/files/BremenDocs/Joint_MPA_Work_Programme.pdf.

Baltic Sea. HELCOM Recommendation 15/5 and OSPAR Recommendation 2003/3 set out the necessary measures and the schedule for their implementation.

By now, Germany has officially notified to the HELCOM secretariat 12 BSPAs. They range from 6.35 to 2,089.45 km² in size and add up to an overall marine area of 4,561 km² and cover 29.7 % of the German Baltic Sea area. This is a major achievement, especially since the 2012 target of the UN WSSD Johannesburg Declaration and the CBD (COP 7) are thereby accomplished for the German Baltic Sea. In recognition of this attainment, in 2007 Germany was granted the first WWF Baltic leadership award for its leadership in designating a significant portion of their Baltic Sea waters as Natura 2000 marine sites, especially in their exclusive economic zone (all of Germany's Natura 2000 sites in the EEZ of the Baltic Sea are BSPAs as well).

In fulfilment of the commitments of the BSAP, Germany designated six Natura 2000 sites in the EEZ as new BSPAs in 2008. Additional sites inside the Territorial Sea off the Federal State of Mecklenburg-Vorpommern are still under consideration.

The German BSPA suite includes most of the marine Natura 2000 sites as well as two National Parks and one large purely off-shore Nature Reserve. Insofar, Germany acts upon a HELCOM suggestion from 2005 that the designation of Natura 2000 sites as BSPAs by the EU Member states is accepted by HELCOM as an adequate implementation of HELCOM Recommendation 15/5 and the HELCOM/OSPAR Joint Work Programme on MPAs (JWP).

Fig. 3 and Tab. 1 provide information about numbers and areas of German BSPAs.

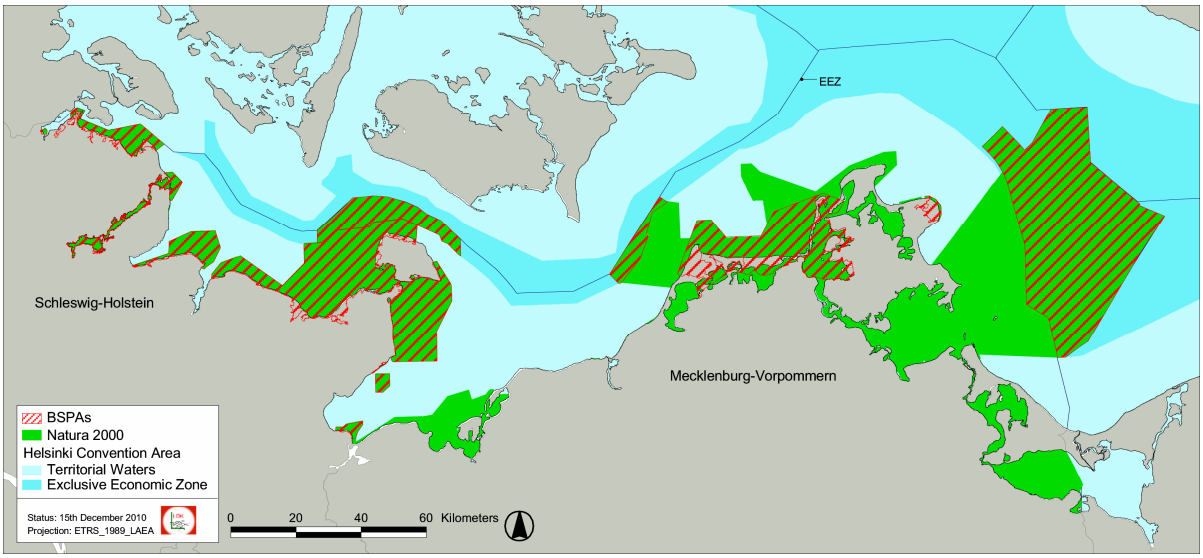


Fig. 3: Natura 2000 sites and BSPAs in the German Baltic Sea Area

Tab. 1: Number and size of designated BSPAs and the joined BSPA/N2000 network for Germany and the Baltic Sea.

	No. of BSPAs	BSPA [km²]	Protected Marine Area [km² (%)]							
			TW		EEZ		Total		BSPA + N2000*	
Germany										
2007	9	4.313	2.074	(19,2)	2.005	(44,3)	4.079	(26,6)	/	
2010	12	4.866	2.092	(19,4)	2.469	(54,5)	4.561	(29,7)	7.834	(51,1)
Baltic Sea										
2010	159	48.784	34.779	(14,7)	8044	(4,6)	42.823	(10,3)	50.972	(12,3)
July 2009	89	28.755	20.046	(8,5)	3.921	(2,2)	23.967	(5,8)	46.093	(11,1)
2007	78	26.448	19.443	(8,2)	2.678	(1,5)	22.121	(5,3)	/	
2004	78	27.020	/		/		16.022	(3,9)	/	

* including five Finnish BSPAs which are in the process of designation and three Russian Ramsar sites located in the Gulf of Finland

4.2.3 Assessment of ecological coherence of the BSPA network according to the JWP (Item 40, B 5.a)

The BSAP and the Joint HELCOM/OSPAR working programme to the 2003 Ministerial Declaration (JWP) set the target to improve the protection efficiency of the BSPA network by assessing the ecological coherence of the BSPA network together with the marine Natura 2000 sites by 2010.

German BSPAs in conjunction with Natura 2000 sites cover a total area of 7,834 km² which correspondent to more than half of the German Baltic Sea (51.1 %). Accordingly Germany contributes considerably to the coherence of the HELCOM network of MPAs as determined in 2003 at Ministerial level.

Germany, represented by BfN, together with the HELCOM secretariat took over the lead of the implementation of the JWP and the respective actions of the BSAP. Accordingly, in 2010 a report was presented to the Ministerial Meeting of HELCOM, assessing the ecological coherence status of the MPA network in the Baltic Sea based on data received by July 2009[15].

[15] HELCOM 2010. Towards an ecologically coherent network of well-managed Marine Protected Areas – Implementation report on the status and ecological coherence of the HELCOM BSPA network. Balt. Sea Environ. Proc. No. 124B. http://www.helcom.fi/.

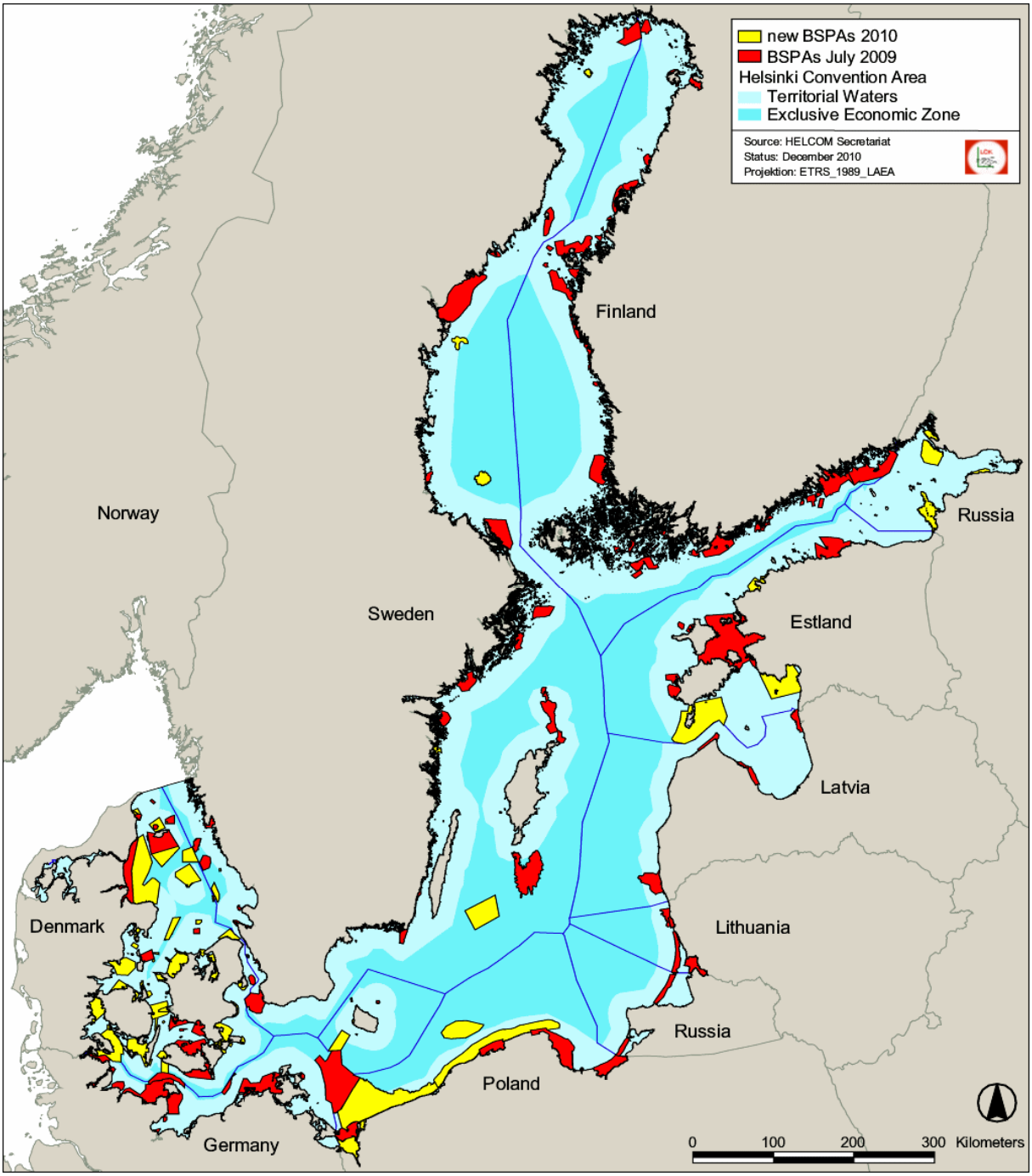


Fig. 4: BSPAs in July 2009 and the actual network (2011)

In the future Germany will follow up the agreements of the 2010 HELCOM ministerial declaration, in particular:

- where appropriate, to notify additional Natura 2000 sites in the Territorial Sea off the coast of federal state Mecklenburg-Vorpommern as BSPAs;

4.2.4 Finalisation and where possible implementation of management plans for Baltic Sea Protected Areas (Item 41 B 5.b)

In addition to improving the protection efficiency of the BSPA network by assessing the ecological coherence, the BSAP indicates that this task should be achieved by finalising and implementing management plans or at least appropriate management measures.

In the German Baltic Sea, two BSPAs (National Parks) have got management plans. In some areas voluntary agreements with stakeholders were signed. For most BSPAs, however, no management plans exist so far. For the Natura 2000-sites in the EEZ the process of designing management plans has been started.

The major part of the largest German BSPA (Pomeranian Bay), the SPA Pomeranian Bay, has been designated as nature reserve in 2005. Further management measures are under preparation in co-operation with stakeholders and when necessary with national and international Competent Authorities. The federal State of Schleswig-Holstein is currently producing an overview of existing management measures for all SH-BSPAs. The national implementation will necessitate, apart from individual legal orders for the remaining sites, the development of widely accepted and effective management plans or measures for all marine protected areas, and will require the continued cooperation of relevant institutions and stakeholders. The intention is to finalise the work by 2015.

4.2.5 Further development of detailed landscape maps (Item 42, BC 7)

In 2008, BfN commissioned an expert opinion on an approach for defining and delimiting the types of marine landscapes in the German North Sea and Baltic Sea on the basis of available large-scale data. This approach attempts to take into account both natural and existing, to some extent formal boundaries as far as practically possible. The map (Fig. 5) of the types of marine landscapes in the German Baltic Sea presented here represents for the first time a consistent and comprehensive overview of the situation regarding natural marine landscape types for the German Baltic Sea. The earlier approach of the BALANCE project was considered, but had used more general data to produce a respective map for the entire Baltic Sea area.

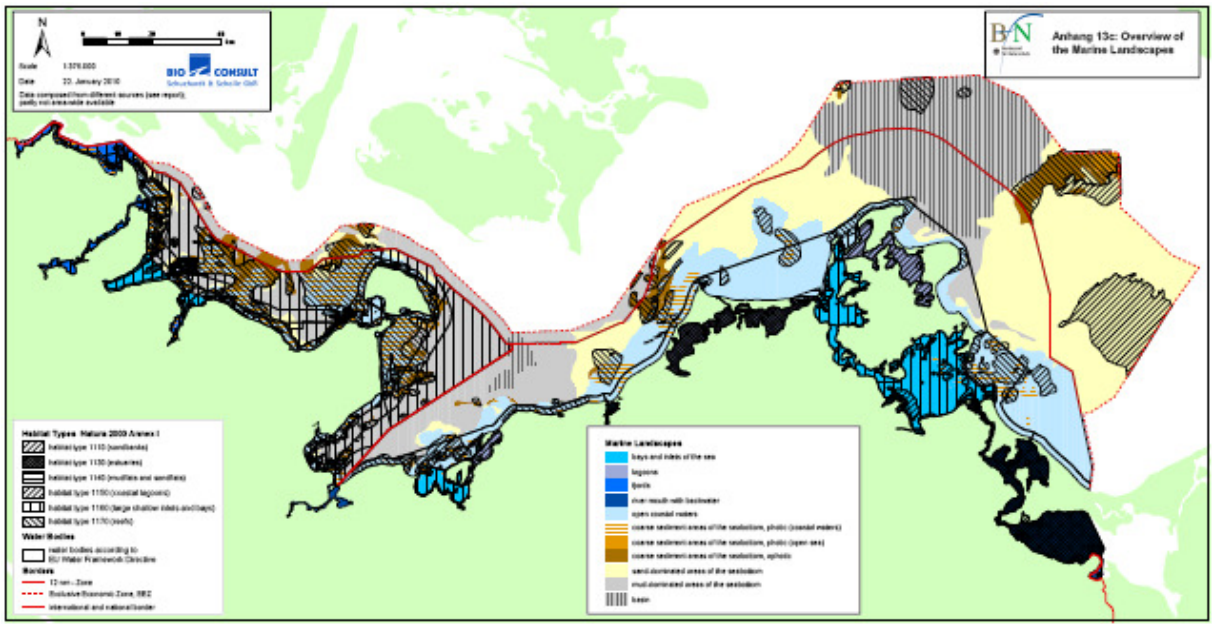


Fig. 5 Marine landscapes in the German Baltic Sea

4.3 Thriving and balanced communities of plants and animals

4.3.1 Updating of a complete classification system for Baltic Sea marine habitats/biotopes (Item 43 B 7.a)

In 2006 a red list including an updated comprehensive biotope classification system under inclusion of the German Baltic marine area was published[16]. It provides for every biotope type cross references to other classifications such as HELCOM, EUNIS and natural habitat types of Annex 1 of the Habitats Directive. An English short version is available as download[17].

The classification is very much based on the classification in the HELCOM Red List of Biotopes from 1998 (BSEP 75) and focuses mainly on nature conservation needs. In the explanation part additional information is given, such as representative species or communities for every biotope type. The classification is hierarchical and open for additional, more detailed layers, and it forms the basis for biotope mapping in Germany.

For Germany and her current and future work on biotope mapping, it is of highest priority that every new approach on HELCOM biotope classification is compatible with the classification of the German Red List and also compatible with the classification given in the HELCOM Red List in 1998 (BSEP 75).

4.3.2 Updating of HELCOM Red lists of Baltic habitats/biotopes and biotope complexes (Item 44 B 7.b)

Work on red lists for marine biotopes is based on respective biotope classifications (see 4.3.1). The German 2006 Red List of biotopes provides such a classification, and categorises for every biotope type its status of threat and informs about the causers.

In Germany, Red Lists

- serve to inform the general public about endangered species and habitats
- provide a readily available reference for spatial and environment-related planning
- highlight the need for nature conservation measures
- push nature conservation up the policy agenda
- are a source of data concerning legislative measures and international Red Lists
- serve in coordinating international nature conservation activities
- serve in checking the degree of implementation of the National Biodiversity Strategy and
- highlight the areas in which further research is necessary.

For Germany, it is of highest priority that every new approach on a HELCOM red list of biotopes is on one hand compatible with the classification of the German Red List and the threat categories, and on the other hand compatible with the classification given by HELCOM

[16] Riecken, U., Finck, P., Raths, U., Schröder, E. und Ssymank, A. (2006): Rote Liste der gefährdeten Biotoptypen Deutschlands. Zweite fortgeschriebene Fassung 2006. Naturschutz und Biologische Vielfalt Heft 34. 318 pp.

[17] http://www.bfn.de/fileadmin/MDB/documents/themen/landschaftsundbiotopschutz/Red_Data_Book_Habiatats_krz.pdf.

in 1998 (BSEP 75), and finally, takes into account the threatened and/or declining biotopes of the respective HELCOM list (BSEP 113) from 2007. The latter contains all relevant marine natural habitat types of Annex I of the Habitats Directive. Consequently, Germany has submitted her work on national and international red lists of biotopes to the HELCOM project group on Red Lists.

4.3.3 Identification and mapping of potential and actual habitats of habitat forming species (bladder wrack, eelgrass, blue mussel, stoneworts) and development of a common approach for the mitigation of negative impacts (Item 45 B 7.d)

In 2009 a project on mapping biotopes related to the 2006 German Red List of Biotopes (see chapter 4.3.1)[18] was finalised. This work is based on an assessment of existing data and current knowledge. It includes information on the spatial distribution of blue mussels and macrophyte communities.

One important result is that in many cases there is simply not enough information to map more than the highest hierarchical level of the classified biotope types. This first approach will be followed up by an approximately 12 year project on detailed biotope mapping in the German EEZ. In 2009 the Federal Land of Schleswig-Holstein has produced a report on habitats according to the Habitats-Directive based on existing data and information. Based on this report SH is continuing the mapping of habitats using different imaging technologies, e. g. sides scan sonar, echo sounder, video recording. This mapping will be continued at least for several years.

4.4 Viable population of species

4.4.1 Producing a comprehensive HELCOM Red list of Baltic Sea species (Item 46 B 7.b)

Germany has nominated experts to all subgroups of the respective HELCOM project and leads the subgroup on birds.

The Federal Agency for Nature Conservation published country wide red lists of endangered plant and animal species in 1996 and 1998 respectively. They are currently under revision and include the Baltic Sea. The most actual Red List for vertebrate species (no marine fish species) was published in 2009. Besides the Red Lists themselves, this first volume contains detailed chapters about the methodology and the analysis. The Red Lists for sea water fish as well as selected groups of invertebrates will be published in following volumes.

There exists also a regional Red list of endangered plant and animal species for the German Baltic Sea marine and coastal areas from 1996. Relevant data from these lists are fed into the HELCOM project.

[18] http://www.bfn.de/habitatmare/de/downloads/marine-biotope/Anhang_06_Biotoptypen_Ostsee.pdf.

4.4.2 Develop research on reintroduction of valuable phytobenthos species in regions of their historical occurrence (Item 47 B 7.e)

The BfN Red Lists (see 4.4.1) provide important scientific background on the status of phytobenthos species in the German Baltic Sea.

For Germany, the fulfilment of this BSAP commitment is directly connected with measures to be set up according to Article 11 of the European Water Framework Directive. Respective programmes concentrate in most cases on technical measures for the improvement of the water quality, such as waste water treatment. Due to the fact that in the Baltic Sea the occurrence and depth distribution of phytobenthic species is strongly related to good water quality and good light penetration, a significant reduction of eutrophication is the primary goal. Respective programmes include direct measures in the catchment area and inner coastal waters which deem to be appropriate for an improved distribution of phytobenthic species including threatened and or declining ones.

4.4.3 Production of an assessment of the conservation status of non-commercial fish species (Item 48 B 7.f)

The BfN Red Lists (4.4.1) provide important scientific background on the status of non-commercial fish species in the German Baltic Sea. An updated comprehensive volume on marine fish species will be published soon (see 4.4.1) and will include a new, more objective criteria system to assign species to specific threat categories.

4.4.4 Further development of a coordinated reporting system and database on harbour porpoise sightings, by-catches and strandings (Item 49 B 7.g)

The harbour porpoise was once common in the German Baltic Sea area, but the abundance and distribution has decreased since the 19th century. From a Baltic wide point of view, incidental by-catch in fishing nets is one of the most important anthropogenic threats to harbour porpoises. According to HELCOM 2009 it constitutes the most serious and lethal threat, for which reasons drift nets are already forbidden (HELCOM 2009, page 64[19]).

By- catch of porpoises in set nets along the German coast occurs regularly. Unfortunately, there is still a lack of knowledge, how many harbour porpoise are by-caught in the German Baltic Sea, because no respective reporting system is in force so far. The respective report[20] concludes that true numbers of by- caught porpoises remain unknown. However, the number of annually stranded harbour porpoises at the German Baltic Sea coast has increased significantly from 30 in 1990 to more than 150 in 2007 (HELCOM 2009, Fig 4.1.2). Conclusion on the cause of death of harbour porpoises washed ashore can be difficult due to the often advanced state of decomposition. If such conclusions are possible, the cutting of fins, openings of abdomial cavities or net marks on the skin are considered characteristic of by-caught animals. Assessing the impact of set-net fisheries on porpoises in the Baltic Sea is

[19] Biodiversity in the Baltic Sea, BSEP No. 116b.

[20] http://www.bfn.de/habitatmare/de/downloads-berichte-der-forschungsvorhaben.php.

particularly difficult. More than 70% of the set-net fishing activity is carried out by small vessels and in part-time fisheries, for which the EC Regulation on “measures concerning incidental catches of cetaceans in fisheries” (No. 812/2004) does not apply. To obtain better information about the distribution and size of the remaining harbour porpoise populations, harbour porpoise habitat use of the German Baltic Sea from Fehmarn to the Pomeranian Bay is monitored constantly with the help of self-contained submersible data logger (Porpoise detectors, T- and C-PODs), which register harbour porpoise echolocation click trains. In addition, flight surveys are carried out regularly within the German harbour porpoise monitoring programme. Results are stored as aggregated data in the GIS data base of the BfN, and are regularly published in the web[21].

In addition, GSM (Gesellschaft zum Schutz der Meeressäugetiere), a marine mammal conservation NGO) has distributed questionnaires to sailing clubs annually since 2002 with a request to report all occasional sightings. In 2005, for example, data were collected and mapped for over 800 sightings of nearly 1,500 individuals between the Kattegat and the island Rügen. The survey is repeated each year and it is hoped that support will continue to grow, because the data are a valuable aid in international conservation efforts for this small cetacean. Interactive maps on the BfN- HABITATMARE website display all reported harbour porpoise sightings including stranded individuals[22].

All German data are reported to the HELCOM harbor porpoise map service[23] that displays the Baltic Sea harbour porpoise on effort sightings (so far only from German monitoring), opportunistic sightings, strandings and by- catches covering the HELCOM marine area. The data base system originates from a German national data base which was funded by BfN and transferred to HELCOM in 2010.

Further, Biopsy data are held by German Oceanographic Museum in Stralsund (DMM Stralsund).

4.4.5 Promotion of research on developing methods for assessing and reporting on impacts of fisheries on biodiversity (Item 50 B 7.h)

In 2006, BfN had commissioned a research and development project on “Environmentally Sound Fisheries Management in Marine Protected Areas” to ICES (EMPAS-project). It was a pioneering approach in Europe, which benefited by the participation of different scientist from marine and fisheries biology, as well as stakeholders from the fishing industry and nature conservation. The project which carried out assessments on impacts of fisheries on biodiversity with respective reporting included an ICES advice in its final report[24]. The advice was on options for fisheries management that will help achieve the objectives of the German Natura 2000 sites (= BSPAs) in the EEZ. Insofar the advice is provided relative to the objectives set for Natura 2000 sites as per the EU Birds and Habitats Directives, and not the objectives of either the conservation groups or the fishing industry. The ICES advice is

[21] http://www.bfn.de/habitatmare/en/downloads/monitoring/BfN-Monitoring_MarineSaeugetiere_2009-2010.pdf.

[22] http://www.bfn.de/habitatmare/en/spezielle-projekte-schweinswalsichtungen.php.

[23] http://maps.helcom.fi/website/HarbourPorpoise/index.html.

[24] Results can be viewed at: http://www.bfn.de/habitatmare/en/publikationen-environmentally-sound-fisheries-management.php, and http://www.ices.dk/projects/empas.asp.

organized around these questions relating to each type of fisheries effect. Some of the advice is very specific for individual Natura 2000 sites while other advice is more general.

This process was designed to include stakeholders and their information.

4.4.6 Development and implementation of effective monitoring and reporting systems for by-caught birds and mammals (Item 51 B 7.i)

The BfN will in 2011 commission nine applied and analytic research, development and scientific investigation work clusters related to marine conservation in the German Exclusive Economic Zone (EEZ). These clusters include the further development and implementation of effective monitoring and reporting systems for by-caught birds and mammals. The requested complex scientific work shall assist the agency in fulfilling its obligations arising from international obligations and the German Federal Nature Conservation Act (BNatSchG).

4.4.7 Development and implementation of fisheries management measures for fisheries inside marine protected areas (Item 52 B 8)

While EMPAS ended in October 2008 with an ICES advice, BfN has commissioned a new research and development project to the Kiel Earth Institute which will run until the first half of 2012. The focus of this project is to develop appropriate fisheries management measures in order to implement the advice given by ICES inside the Natura 2000 sites (=Baltic Sea Protected Areas) of the German EEZ.

In some areas, certain fishing activities are already legally restricted by ordinance, e.g. along the coast of the federal state of Schleswig-Holstein bottom trawling is only allowed inside the 3-nm-zone in areas deeper than 20 m and set nets must not be closer than 200 m to the shoreline.

4.4.8 Finalisation and implementation of national management plans and implementation of non-lethal mitigations measures for seals-fisheries interactions (HELCOM Recommendation 27-28/2) (Item 53 B 9)

All hunting of seals is not allowed in Germany. In the German Baltic Sea there are presently no haul out sites, neither for breeding nor for moulting, whereas resting seals can be observed along the coast, particularly for grey seals in the Greifswald Lagoon and for harbour seals in Wismar Bay. Some management measures are conducted: All stranding are reported and the cause of death is determined by vets. Reported sightings are recorded. Plans for habitat restoration measures to re-install one important haul-out site that had been destroyed by gravel extraction in the early 20th century could not be implemented so far due to several reasons. Numbers of seals at this site are monitored twice a month by federal and state authorities and the numbers are gradually increasing (up to 15 animals).

In conclusion, currently there is no need for a seal management plan in the German Baltic Sea area, because in the Baltic Sea no self sustaining seal population exists and killing seals is not allowed.

4.4.9 Baltic Sea shall become a model of good management of human activities; all fisheries management be developed and implemented based on the Ecosystem Approach in order to enhance the balance between the sustainable use and protection of marine resources (Items B 10-11)

In view of the alarming situation of fish stocks both globally and notably in European marine waters, BfN has published a position paper on Ecologically Sound and Sustainable Fisheries[25]. It describes how fisheries adversely affect several commercially harvested fish stocks, other species and marine habitats. The position paper highlights where action is needed and possible ways of making fisheries ecologically sound and sustainable (see also 4.4.5 and 4.4.7).

Further, the Federal Agency for Nature Conservation conducted workshops, and commissioned several research and development projects (two are ongoing) with relevance for this BSAP-item. Further, the German Federal Ministry for the Environment is working together with the Federal Ministry for Food, Agriculture and Consumer protection, being in lead with regard to fisheries policy on the national level as well as with national competent authorities towards the fulfillment of this commitment.

Basically the EU is responsible for fisheries' management measures. In coastal wasters there are additional national competences as well.

4.4.10 Additional fisheries measures (Item 61 B 17)

a.) classification and inventory of rivers

At the University of Bremen a digital atlas of all fish species in Germany and Austria is under development[26]. Recently a book on the distribution of fish- and lamprey species in the Federal State of Mecklenburg-Vorpommern has been published[27], and for most parts of the German Baltic Sea catchment area an additional historical distribution atlas of all fish species exists[28].

b.) development of restorations plans to reinstate migratory fish species

In the catchment area of the German Baltic Sea this commitment is followed up by the national implementation of the EU Water Framework Directive and through the Natura 2000 network, which protects all important habitats for the migratory fish species of Annex 2 of the Habitats Directive. In order to reach a favorable conservation status for migratory fish species several fish ladders and passes were built during recent years.

4.4.11 Enhance restoration of lost biodiversity by supporting German/Polish action to reintroduce Baltic sturgeon (Item 63 B 18)

[25] 2009-09-01-Background-Fishrei_en-de.pdf.

[26] http://www.fischartenatlas.de.

[27] [ISBN: 978-3-9810058-5-1].

[28] Mitteilungen der Landesforschungsanstalt für Landwirtschaft und Fischerei M-V, Heft 32, 261 S. ISSN 1618-7938.

From 2008 on, the bilateral German-Polish project on remediation of Baltic sturgeon focused on a variety of work packages on Odra and Vistula Rivers and tributaries. The first experimental releases were undertaken in 2007. They were mainly associated with telemetry experiments to obtain first information on the migration patterns and habitat utilization of the released fish working with groups of up to 10 fish per release. The telemetry aspect focused on individual migration, diel rhythms, and habitat structures utilized.

On suggestion of Germany, the re-establishment of a HELCOM project on sturgeon remediation was confirmed by HELCOM in 2010. It will start as soon as respective funds are available.

The activities will include:

- evaluation of the status of regional legal prerequisites and activities concerning sturgeon protection and remediation measures,
- development of an action plan for the restoration of the Baltic sturgeon,
- initiation of habitat evaluation in interested countries,
- expansion of breeding and dissemination plans,
- development and implementation of a common strategy towards the remediation.

In 2008, Germany had sent an English version of the flyer -The sturgeon returns, but it needs your help - to all Contracting States with the request to translate it into their language. All CPs followed this request. Consequently, these flyers should be disseminated to all relevant bodies in the Baltic Sea region as start of a comprehensive information campaign within the HELCOM project.

5. Segment IV – MARITIME ACTIVITIES

5.1. TBT pollution from shipping

The AFS Convention has taken effect for Germany on 20th November 2008. Further formal implementation e.g. with regard to compliance control is under development.

Research and development of environmentally friendly TBT-free antifouling systems on ships focuses on replacing or considerably minimizing the use of biocides in antifouling products.

Namely alternatives can be non-stick coatings, coatings with micro-structure surfaces, biocide free eroding surfaces, electro-chemical methods or mechanical cleaning or the combination of those methods. Several research projects have been conducted by the German Federal environment agency (UBA).

Regarding antifouling without toxic substances an electro-chemical antifouling system has been developed.

An evaluation of silicone containing antifouling paint coatings showed that those coatings which do not exude or abrade silicone should be recommended (published as UBA-Text 15/07).
Another study concentrated on the increasing market for nanomaterials containing antifouling paints especially for pleasure crafts as alternative for coatings that contain biocides. Here an overview about antifouling products on the German market that contain nanomaterials and their environmental impact is given.
Due to the lacking evidence of efficacy and to the lack of specifications on nanomaterials a risk assessment or a profound ecotoxicological evaluation is at the moment not possible.
Generally, nanotechnology based antifouling systems cannot be regarded as alternatives to antifouling systems which are not using nanotechnology, particularly as some also contain biocides. Furthermore “co-biocides” used in nanotechnology based antifouling systems (e.g. silver or zinc) are not approved as active substances in antifouling paints under EU legislation. The study suggested certain requirements for nano-biocides that should be addressed in the ongoing amendment of the Directive 98/8/EC (biocides product directive).
Regulations for labeling and specifications for inspection and assessment of the nano formulation of a material that are in line with the regulations under REACH are necessary (published as UBA-Text 40/10).

As consumer information is an important aspect in the frame of reduction of emissions of hazardous substances a feasibility study was conducted to examine whether appropriate and valuable certification criteria for biocide-free antifouling systems can be set out. As outcome it was recommended to create an eco label to provide consumers and industry guidance on less toxic antifouling products. An eco label may even facilitate the entry to the market of new technologies. At the moment only lifting systems to facilitate mechanical out of water cleaning of pleasure crafts without using biocides as well as electro-chemical system to prevent biofouling would meet the suggested criteria for the eco-label.
Moreover an overview about existing regulations for the efficacy of antifouling products and techniques of national regulatory authorities which already established authorisation procedures was prepared (published as UBA-Text 45/04).

In general, the usage of biocide containing antifouling has to be reviewed critically.
In particular, pleasure crafts which are in the water only occasionally or which are used only seasonally in fresh water will not need antifouling coatings. In such circumstances a periodic cleaning in the water (mechanically only) or on land at appropriate cleaning facilities (wastewater disposal) is sufficient. In case antifouling coating is necessary biocide free options are recommended.

5.2. Emissions from ships

Investigate feasible and effective economic incentives for reducing emissions from ships

Concerning feasible and effective economic incentives for reducing emissions from ships, related German documents have been submitted to MEPC 59 and MEPC 60. In MEPC 59/4/25 and MEPC 59/4/26 Germany, France and Norway provided further input to the discussion on a global market based measure (MBM) and gave details of a possible worldwide Emission Trading Scheme (ETS) for shipping. ETS is currently considered as the most promising mechanism to combat maritime greenhouse gas emissions. In MEPC 60/4/43, Germany together with France, Norway and the United Kingdom submitted a document on common features of a global Emission Trading Scheme. This was important in order to highlight that even if there are different possibilities to design an ETS, the main ideas are always the same and aim at reducing CO2-emissions by a cap, making use of the most effective reduction measures. In MEPC 60/4/54, Germany submitted an impact assessment of an Emission Trading Scheme with a particular view on developing countries. In summer 2010 an expert group worked on the impacts of the MBMs which are currently on the table in MEPC. Germany had an active role in this group. The report was submitted to MEPC 61 under MEPC 61/INF 2. MEPC 61 did not finalise discussions on the market based measures and therefore will reconvene its experts on the topic in an Intersessional on GHG at the end of March 2011.
The European Commission has announced to bring forward a proposal for a regional scheme in 2012 in case no international agreement can be found in the IMO.
Germany continues to favour a worldwide market based measure.

5.3. Sewage from ships

Encourage voluntary agreements to dispose sewage to the port reception facilities

Relating to this issue the Correspondence Group on Sewage (Germany = member) is currently discussing and reviewing the proposal to IMO to designate the Baltic Sea area as a Special Area in MARPOL Annex IV and has as a member of the group supported the submission for the designation to the IMO. MEPC 62 approved the amendments in

principle but technical details are still under discussion. In this regard Germany tries to develop a definition for “adequate reception facility” in this context.

Improvements in the availability of port reception facilities for sewage

In order to encourage voluntary agreements to dispose sewage to the port reception facilities, the current status of the existing port reception facilities was identified. Therefore a Correspondence Group on Port Reception Facilities for Sewage was established. Germany had the lead of the Correspondence Group. After a national request concerning German major ports of the Baltic Sea Germany could provide useful information for the MEPC proposal to amend MARPOL Annex IV to include the possibility to establish special areas for the prevention of pollution by sewage and to designate the Baltic Sea as a special area under Annex IV of MARPOL.
The information gathering included the names of the ports where passenger ships and cruise ships call, if the reception of sewage from passengers ships in these ports is arranged as requested, and if not, in what way the reception of sewage is arranged and also if there is a special charge for the reception of sewage or if the no-special-fee system is applied. Currently the Coastal States work on meeting the infrastructural requirements. Bigger ports reception facilities are built in some ports to ensure that especially concerning cruise ships big amounts of sewage can be treated in a short amount of time. These requirements shall in some ports be met until the start of the season 2012. At the moment sewage is partly taken over by tankers.

5.4. Wastes from ships

Enhance the availability of adequate port reception facilities for ship-generated wastes and sewage and the application of the “the-no-special-fee” system

In cooperation with the Federal States Germany will consider whether and in which way revised MARPOL Annex V can be backed up by incentives.
In connection with the project "Seas without Plastics" of the Nature and Biodiversity Conservation Union (NABU), funded by Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU)/Federal Environment Agency (UBA), NABU commissioned an investigation about port reception facilities in 10 selected German

harbours, seaports and fishing ports, in order to identify regional differences in the implementation of EU-Directive 59/2000, evident shortfalls and best practice.
Fishermen approached to join the German fishing for litter initiative are called to provide information about waste management and port reception facilities for ship-generated waste and sewage in their respective ports. Short precise questionnaires will be distributed via fishery associations (in Schleswig-Holstein).
Germany is co-chairing the MSFD technical sub group on marine litter. The results of the sub group will provide baseline information on ship generated waste and propose standard methods for monitoring, indicators, objectives and targets.

5.5. Alien species

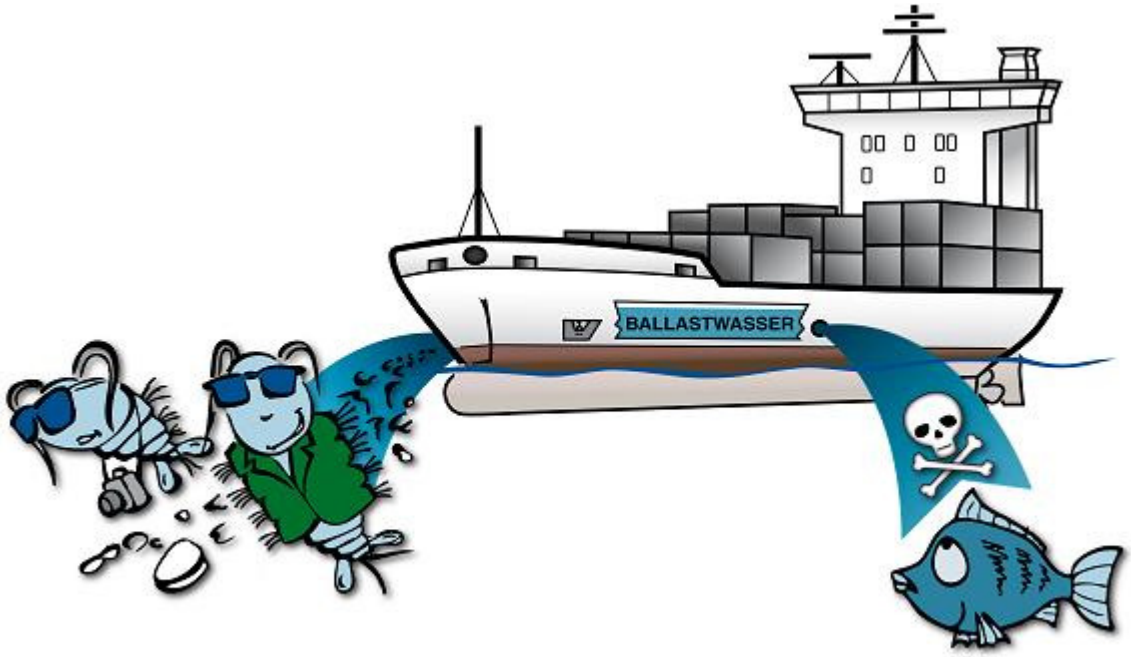
Ratification the Ballast Water Management Convention preceded with implementation of a road map

The formal national ratification process for the Ballast Water Management Convention is under development. Germany is Lead Country of the Correspondence Working Group on implementation of the HELCOM Ballast Water Road Map.
Germany has decided that the Federal Maritime and Hydrographic Agency (Bundesamt für Seeschifffahrt und Hydrographie) is the competent domestic authority for measures to prevent the distribution of alien organisms through ships including the examination, approval and control of ballast water management systems as well as for the necessary preparations and international approval processes (§ 5 Abs. 1 Nr. 4c, § 1 Nr. 16 Act on the Responsibilities of the Federal Government in the Field of Maritime Shipping / SeeAufgG). Germany is actively contributing to the international process of implementing the Ballast Water Management Convention by leading the field in type approval procedures.

Type approved ballast water management systems are a necessary condition for the ratification of the Ballast Water Management Convention. The Federal Maritime and Hydrographic Agency was the first administration to issue a Type Approval Certificate for a ballast water management system which has undergone the whole G8 (Guidelines for Approval of Ballast Water Management Systems, BWMS) and G9 (Procedure for Approval of BWMS that make use of active substances) procedure of the Ballast Water Management Convention. Type approval certificates for two systems have been issued so far. The Federal Maritime and Hydrographic Agency is currently working on over 10

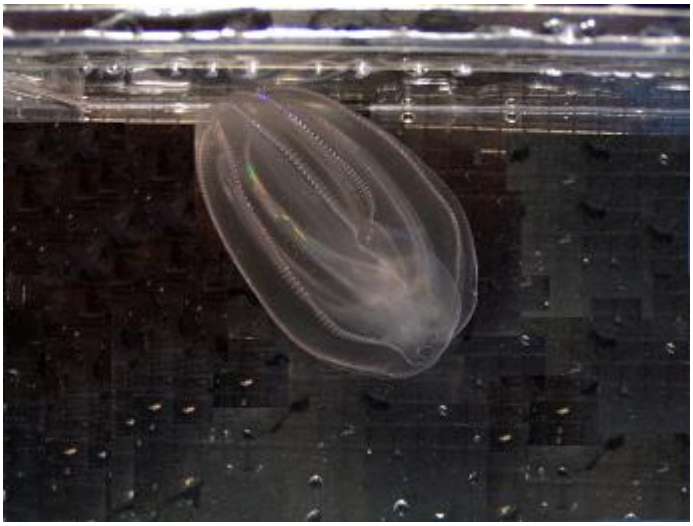
applications for approval of ballast water management systems. Relevant national authorities contribute to the process in the framework of their respective competences.

The BSH is partner in the “North Sea Ballast Water Opportunity project” within the European Union Regional Development Fund Interreg IVB Programme. The project has been introduced at MEPC 59 (MEPC 59/Inf.24 and presentation) and HELCOM MARITIME 8/2009 and updated with document 7/1/INF for HELCOM MARITIME 9/2010 to inform HELCOM member states about the key developments in the project on an ongoing basis. Within the project German authorities are working on identifying criteria for target species. The change in temperature conditions is making the North Sea and the Baltic Sea increasingly attractive for alien species that are introduced from other regions of the world through human activities. These new species can harm native ecosystems and cause considerable economic damage. The aim of listing the species that are present in the different sub-basins of the Baltic Sea is to provide indication which alien species should be taken into account when assessing the risk of alien species spreading via intra-Baltic voyages. The species lists are to be regarded as living documents and have to be updated regularly, particularly as regards their consistency with monitoring results. The revision of the two alien species lists 1) “HELCOM list of non-indigenous and cryptogenic species in the Baltic Sea” and 2) “HELCOM list of Target species that may impair or damage the environment, human health, property or resources in the Baltic Sea”, is done by the Secretariat, based on the input provided by the Contracting Parties. Germany along with other countries has been and is providing input to the species lists. The results will be made available for HELCOM processes.



Furthermore the project has established a working group on exchange and exemptions taking into consideration guidelines and recommendations issued by OSPAR and HELCOM. Germany is currently working on a unified approach on risk assessment to issue exemptions for the need of ballast water management. Risk assessments are required in order to make use of Regulation A-4 of the BWMC allowing certain ships or routes to be exempted from the requirements of ballast water management. The clarification of this question is crucial for the implementation of the Ballast Water Management Convention as a significant amount of short sea traffic would otherwise be affected by the need for Ballast water management at significant expense. Furthermore the Federal Maritime and Hydrographic Agency hosted a workshop on experiences with the implementation of the Ballast Water Management Convention where inter alia Sweden presented their experience.

The Federal Maritime and Hydrographic Agency also participated in a project funded by the European Space Agency (ESA) on realtime web information on the environmental risk of ballast water exchange. A continuation of this project is in preparation.



As part of the harmonization process the Federal Maritime and Hydrographic Agency hosted a workshop on the current status of using chlorine and chlorine dioxide as active substances in ballast water treatment systems. Because the toxicity of treatment processes is of great importance to the safety of ecosystems receiving discharged ballast, the concept of total residual oxidants (TRO) was presented and thoroughly discussed by the workshop participants. A process to evaluate and measure the impacts of certain treatment systems on the environment was initiated. This process is still ongoing today and will need further attention in the future.

The Federal Environment Agency (Umweltbundesamt) contributed to the standardisation of the certification process for ballast water management systems by funding a project on development of a ballast water emission scenario document (ESD). During the evaluation of a ballast water management system its impact on the environment is assessed. For this assessment information of the receiving harbour on the distribution of the ballast water is needed. The emission scenario provides parameters for a model to predict the concentration of the ballast water discharge. It is therefore an important tool for the assessment of the environmental impact in the type approval process of ballast water management systems.
Basis to develop a specific ballast water ESD is an overview of models calculating similar emission scenarios of substances into the aquatic environment. Further the data analysis of various harbors worldwide regarding as well as their morphology, hydrography, the climatic condition and the salinity as the ship traffic and the amount of ballast water discharged is important to compile the scenario. The project concludes that the model to calculate the distribution of antifouling substances in the aquatic environment (Marine Antifoulant Model to Predict Environmental Concentrations - MAMPEC) with some changes in general is suitable to calculate the environmental concentration of ballast water disinfectants. It has to be distinguished between an assessment of maximum- and mean exposure. A shipping lane scenario should be calculated in addition to the harbor scenario. Besides a “near-field” scenario should be calculated (substance concentration just off the hull of a ship) as well. It is considered very helpful if the computer program to calculate the environmental substance concentration incorporates a substance database, too. The Project currently is in the stage of finalization. The presentation of its results will be submitted to the MEPC 62. On basis of the outcome of this project a specific ballast water emission scenario document can be developed.

Germany has also initiated a workshop to begin the standardisation of ballast water testing facilities. This first workshop in a series of planned workshops on this topic addressed the size class of organisms greater than 50 µm. In addition the Federal Maritime and Hydrographic Agency is closely in co-operation with other authorities to develop a common approach to the certification of the ballast water treatment systems, in particular the scaling of ballast water treatment systems. Usually ballast water treatments systems are tested on land and at sea for a certain treatment rated capacity (TRC). This capacity does not meet the needs of all ships that need ballast water treatment. In order to provide efficient treatment solutions for all types and sizes of ships the original system might have to be adjusted in size. To avoid unnecessary and costly

additional tests but at the same time provide environmentally sound and efficient ballast water treatment Germany is working together with other authorities on procedures for the adjustment in size or scaling of ballast water treatment systems.

Germany is also designated lead country for the flagship project "Ballast Water" within the European Union Strategy for the Baltic Sea Region. The aim of the project is to restrict the introduction of new alien species by ships principally through the enforcement of the international Ballast Water Management Convention and by means such as onboard treatment and the installation of ballast water reception facilities in ports with important traffic flows from and towards outside the Baltic Sea. To initiate the implementation process the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety arranged a kick-off meeting on 7 October 2010 in Bonn. The flagship project "Ballast Water" was moved from priority area 2 to priority area 4 since most activities of the project are of a technical nature and are more appropriately covered by priority area 4.

Progress on implementation of the HELCOM Ballast Water Road Map has also been made. At MONAS 13/2010 Germany presented the outcomes of a first rapid assessment of neobiota in German harbours and marinas (cf. HELCOM MONAS 13/2010, document 6/4). The study provides a baseline for the occurrence and distribution of non-native species in German coastal waters, and shows that a rapid assessment programme may serve as an important tool to detect new alien species which have first settled on artificial structures. The authors of the study recommend further and regular port surveys along the German and also European coasts to provide an effective early warning system for invasive non-native species.
Germany recently established an information exchange platform on neobiota in order to cover the demands arising from different national and international regulations under e.g. the marine environmental conventions HELCOM and OSPAR, EU regulations such as the Marine Strategy Framework Directive and the Water Framework Directive as well as demands arising from the status of the Wadden Sea as a World Heritage Site and the national law for Nature Conservation. The aim of the platform is to collect all information about neobiota available from the different national sources in order to provide a basis for decision guidance.

5.6. Safety of navigation

HELCOM Recommendation 28E/11 measures to improve safety of navigation in ice conditions: trained crew

To support and encourage the building of competencies concerning HELCOM recommendation 28E/11 Germany as a contracting party of the STCW Convention does not need to take further measures for implementing the international obligations (Annex a, No. 86). The STCW Convention, especially in connection with the passed Manila amendments 2010, is considered to be sufficient for meeting the requirements of document 28E/11 when properly implemented.
In Germany there is no need to change the existing structure of education and advanced education for the qualification of navigators by additional measures. As there have been amendments concerning the STCW Convention there is no need for further amendments at the moment. Issues concerning the training, certification and secure watchkeeping of seamen should be carried to the STW subcommittee of the IMO by the HELCOM contracting parties. This also includes known or assumed grievances concerning the implementation of existing international conventions.

Support in IMO speeding up introduction of a general requirement for carriage by ships of an Electronic Chart Display and Information System

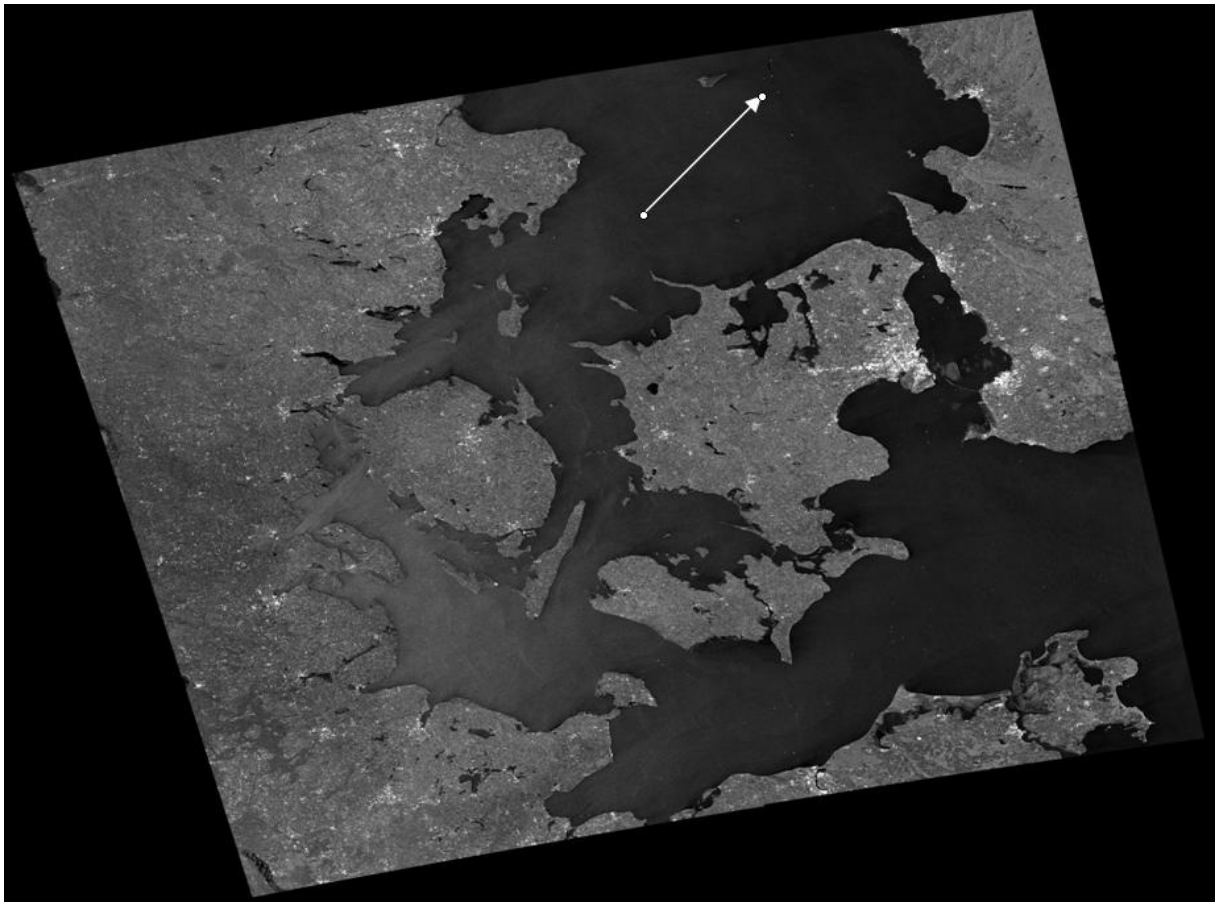
According to an IMO decision of 2009, carriage of electronic navigational systems will become mandatory for certain types of ships. The electronic navigational chart (ENC) thus ultimately replaces the paper chart. Although ENC carriage will not become mandatory before 2012, the year the phase-in begins, the conversion to paperless navigation would be profitable already now: the cost of ENC equipment and satellite-based data transmission is lower than that of providing a ship with paper chart folio. An additional benefit is better efficiency, and hence improved navigational safety. In 2009, sales of the BSH's 146 electronic navigational charts covering the German coast for the first time exceeded sales of its official paper charts.

5.7. Law enforcement

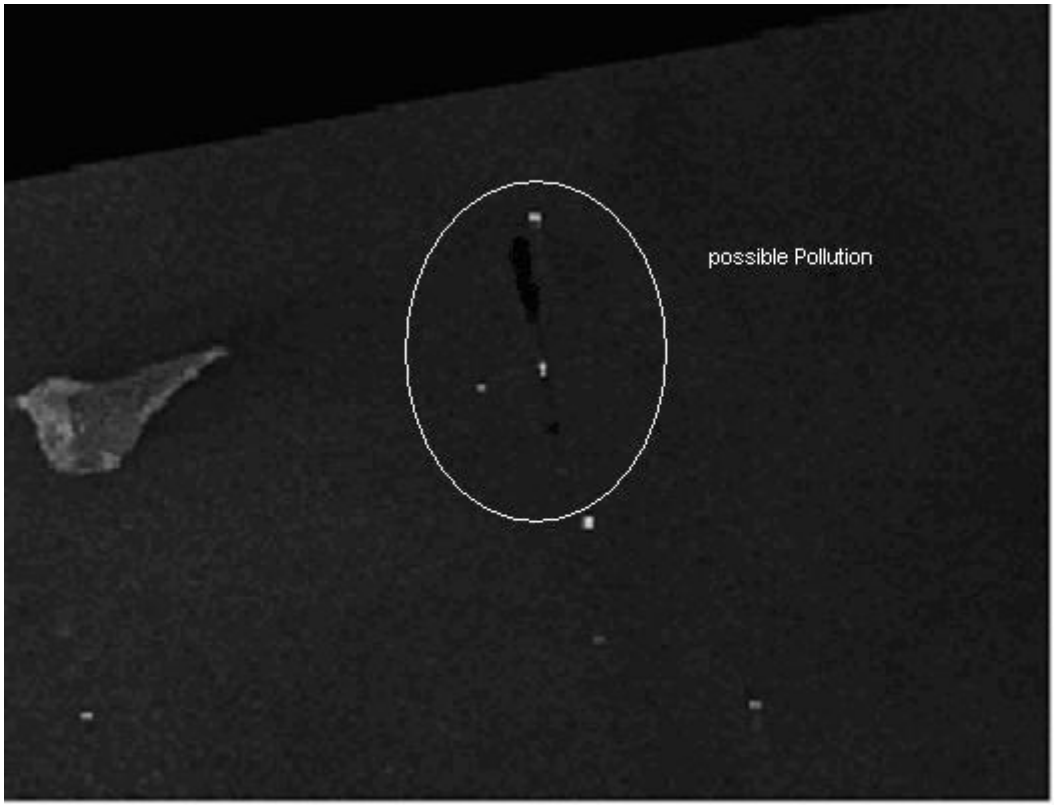
Harmonized aerial and satellite surveillance covering the whole Baltic Sea

Concerning harmonized aerial and satellite surveillance in the whole Baltic Sea it can be stated that Satellite surveillance requirements are coordinated through HELCOM IWGAS and flight plans are exchanged between neighbouring countries (DK, SWE).

Germany provides coverage for its area of responsibility in the Baltic Sea with two routes and a coverage factor of five a week. The number of flights is mainly influenced by the number of satellite passages and weather. German pollution control missions are not limited to own territorial waters due to sensor range, which provides coverage of Swedish and Danish territorial waters also.



All flights which are covering a satellite area will depart home base at latest one hour after the satellite passage to ensure a timely confirmation of the data received by the satellite.



In 2010 (till 31.12.10) Germany provided 580 on task hours subdivided into 421 on task day and 159 on task night hours.

5.8. Environmentally-friendly shipping

The Blue Angel (Blauer Engel) is a German certification of products and services that have environmentally-friendly aspects. In December 2009 the jury Umweltzeichen (group of persons from environment, industry, trade etc.) has adopted new rules for awarding this certification for environmentally-friendly ship design (RAL-UZ141) and has updated rules for awarding this certification for ship operation (RAL-UZ110). One of the requirements for ship operation is the reduction of emissions and pollutants. Others concern ship technology, equipment, on-board operation and shipping company management. Furthermore, regular training of ship personnel in safety and environmental protection is required. Environmentally-friendly ship operation includes measures to reduce air pollution, the protection of the fuel tanks (double-hull) and on-board sewage and waste treatment. The Blue Angel is awarded to cargo vessels and research vessels. Fishing, leisure and navy vessels are exempt.

6. Segment V: PUBLIC AWARENESS AND CAPACITY BUILDING segment of the BSAP

6.1 Public awareness on hazardous substances

P-2: Develop and inform about regular information campaigns on the effects of hazardous substances to human health and the environment

P-3: Carry out capacity building activities with authorities and industries on the identification and implementation of requirements concerning hazardous substances

Informing the public is one of the key mandates of many agencies in Germany. Brochures and reports about effects of hazardous substances to human health and the environment are an important way to raise public awareness. For example the homepages of the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (www.bmu.de), the Federal Environment Agency (www.uba.de) as well as the Federal Institute for Risk Assessment (www.bfr.de) provide information about these topics. For the successful implementation of e.g. new legislation or changed requirements, capacity building of authorities and industries is important. One example where efforts have been set on capacity building is the new EU chemicals legislation REACH (http://www.reach-info.de/). REACH is a European Union regulation concerning the Registration, Evaluation, Authorisation and restriction of Chemicals. It came into force on 1st June 2007 and replaced a number of European Directives and Regulations with a single system. The aim of REACH is to improve the protection of human health and the environment through the better and earlier identification of the intrinsic properties of chemical substances. The REACH Regulation places greater responsibility on industry to manage the risks from chemicals and to provide safety information on the substances. Manufacturers and importers are required to gather information on the properties of their chemical substances, which will allow their safe handling, and to register the information in a central database run by the European Chemicals Agency (ECHA) in Helsinki. This database can be accessed by the public (http://echa.europa.eu/home_en.asp).

6.2 Public awareness on maritime activities and marine litter

P-4, P-5, P-6, P-7: Develop public awareness programmes on:

a. Detection of illegal discharges from ships

b. Marine litter

The project “Seas without plastic” of the NGO NABU, founded by the Federal Ministry of the environment and the Federal Environment Agency, was launched in summer 2010. It follows a strategic approach to raise public awareness and develop practical solutions for waste management and prevention by using 2000 local groups and 460 000 members and

supporters. Several other NGOs carry out beach annual beach litter cleaning activities (e.g. “Der Mellumrat” and “Deepwave”) with participation of the public. The Federal Environment Agency recently published a background paper on marine litter in relation to the implementation of the MSRL, which can be found (http://www.umweltbundesamt.de/uba-info-medien/3900.html).

Litter on a Baltic Sea beach. Photo: Wera Leujak

c. Implementation of regulations concerning ship-generated waste

d. Promote environmentally friendly pleasure boating

Environmentally-friendly shipping

The Blue Angel (Blauer Engel) is a German certification of products and services that have environmentally-friendly aspects (see 5.8 for details). Since 2002, when the certification was introduced, it has been awarded only to five ships, indicating the high standards that are demanded. These standards concern not only technical requirements but include requirements for the crew and the ship owner. The first ship to receive the award was the Cellus. One of the features of this cargo vessel is the treatment of exhaust fumes with a special catalyst that reduces the amount of nitrous gases, soot, unburned hydrocarbons and noise.

The Blue Angel certifies environmentally-friendly cargo vessels. Source: UBA

6.3 Public awareness on agriculture

The Federal Environment Agency has published a brochure entitled “Water resource management in cooperation with agriculture” (http://www.umweltbundesamt.de/uba-info-medien/3894.html) that was released at the “International Green Week”, the world’s biggest fair for food, agriculture and horticulture, in January 2010. The brochure informs about water management laws, the contribution of agriculture to water pollution and ways to reduce this pollution. Furthermore, the Federal Environment Agency will publish a brochure entitled “Agriculture and Environment” this year.

Develop public awareness on reducing nutrient loads to the Baltic Sea through wetlands

In the framework of an advisory assistance programme for central and eastern Europe financed by the Federal Ministry for the Environment, Nature Protection and Nuclear Safety, a project on “wetlands for clear water” has been launched. The aim is to raise public awareness on the need to make wetland management operational for water and marine protection in the Baltic Sea region, particularly in Germany, Poland and the Baltic countries. Restoration and creation of wetlands including adequate management is a promising strategy for reducing diffuse pollution from agriculture. Enhancing nutrient retention in wetlands combines objectives of inland and marine water protection with aspects of nature conservation as well as climate change adaptation and mitigation.
There will be a conference “Wetlands for Clear Water” from 24-25 March in Greifswald/Germany (www.wrrl-info.de). Focus is on presentation and discussion of best-practice examples in the Baltic Sea region and an excursion to specific German wetland

projects. The conference is open to a wider public of stakeholders, competent authorities, land users, research institutions and other interested parties.

Annex I: Eutrophication segment of the HELCOM Baltic Sea Action Plan

E	I EUTROPHICATION SEGMENT			
Item No. (ref.No)	**Reference to the HELCOM Baltic Sea Action Plan**		**Deadline**	**Actions taken/planned**
E-9	**National programmes**	National programmes to achieve nutrient reductions	2010	Nitrogen: – National nitrogen reduction programme in preparation by the Federal Environment Agency – Main components based on measures / activities based on implementation of other relevant European regulations (Urban Waste Water Treatment Directive (UWWTD), Nitrates Directive (ND), Ground Water Directive, Water Framework Directive (WFD) – Basic instruments are Fertilisation Ordinance (Düngeverordnung) under the ND and River Basin Management Plans under the WFD, in particular in the WFD management plans; Phosphorus: – Phosphorus usage in agriculture is regulated since 1996 in the Fertilisation Ordinance – Application of mineral phosphorus has been lowered considerably during the last 20 years – Phosphorus emission from urban waste water were considerably reduced during implementation of the UWWTD Code of Good Farming Practice (GFP) and measures under the Nitrate Action Programme: – ND has been implemented into national law by fertilizer law (Düngegesetz) and the ordinances on fertilizer application (Düngeverordnung) – These set detailed requirements for GFP as regards the application of fertilizer – Measures under Nitrate Action programme are made compulsory in the Federal Fertilisation Ordinance and States' ordinances on the storage of slurry, liquid manure, farmyard manure and silage effluent is regulated in the laws of water protection (JGS-Anlagenverordnung) – Fertilisation Ordinance sets strict limits for tolerable nitrogen and phosphorus surpluses; makes provisions on animal density, location and design of farm animal housing, manure storage, agricultural wastewater and silage effluents, manure application, application rates of nutrients, winter crop cover, water protection measures and nutrient reduction areas and measures to reduce ammonia emissions – Whole Germany is regarded as nitrate vulnerable zone; thus GFP is compulsory on the whole territory;
E-9		Evaluation of effectiveness of national programmes	2013	
E-5		Actions to reduce nutrient load shall be undertaken	2016	

				– Compliance of farmers with GFP is also controlled under Cross Compliance Federal States measures: – Voluntary measures such as agri-environmental programmes – Co-operative approaches in designated areas for drinking water and investment aid for slurry storage capacity or improved machinery –
E-4, E-6, E-7, E-8		Periodical review and revision of maximum allowable inputs and nutrient reduction requirements using harmonised approach and updated info	2008 -->	– Germany is participating in the HELCOM TARGREV project for the review of the eutrophication targets of the BSAP.
E-10		Identification and inclusion of required and appropriate measures into national programmes / River Basin Management Plans of the EU Water Framework Directive	2008 - 2009	– River Basin Management Plans (RBMPs) and programmes of measures (PoM) under the WFD were finished by the end of 2009 – For all water bodies which are not in good status (about 38% of ground water bodies and 90% of surface water bodies) measures to meet the WFD-objectives are planned – For the Schlei/Trave river basin district a 13% reduction in nitrogen discharges and a 23% reduction in phosphorus discharges are envisioned until 2015 in the river basin management plans (http://www.wasserblick.net/servlet/is/102612/).
E-11, E-12	**Reduction of nutrient loads from waste water treatment plants**	Advanced municipal waste water treatment under HELCOM Recommendation 28E/5; > 200000 PE	2010	– Due to the high connection rate to public sewer systems and highest technical standards in wastewater treatment as such, as well as due to very strict obligations for private waste water treatment there is hardly any room for further improvement in this field. – Actual information about municipal waste water treatment from the implementation of the EC WWT Directive will probably be available from the EU Commission on WISE (Water Information System for Europe) by January 2011 (http://water.europa.eu). The current data reviews the progress in the implementation of the Urban Waste Water Directive by data status 2007/2008. Data on the agglomeration level will be reported for all agglomerations >2000 p.e. (population equivalents).
E-11, E-12		Advanced municipal waste water treatment under HELCOM Recommendation 28E/5; > 100000 PE	2012	

E-11, E-12		Advanced municipal waste water treatment under HELCOM Recommendation 28E/5; 10000-100000 PE	2015	
E-11, E-12		Advanced municipal waste water treatment under HELCOM Recommendation 28E/5; 2000-10000 PE	2018	
E-11, E-12		Advanced municipal waste water treatment under HELCOM Recommendation 28E/5; 300-2000 PE	2018	
E-11, E-12		HELCOM Recommendation 28E/6 "On site treatment for single family homes, small businesses and scattered settlements" (transitional)	2017	– In Germany in 2007 96% of the total population was connected to public urban sewer systems (4% were not connected but served by individual on-site treatment systems). – In comparison to the total load the load produced by the population that is not connected is negligible. – Because of the great number of on-site treatment systems the data acquisition effort will be in no relation to the benefit of information.
E-11, E-12		HELCOM Recommendation 28E/6 "On site treatment for single family homes, small businesses and scattered settlements" (final)	2021	

E-13		HELCOM Recommendation 28E/7 - Measures aimed at substitution of phosphorus in laundry detergents: National programmes and measures with a timetable	2010	– Use of P-free laundry detergents established since 1986 – Restriction of the use of phosphates in textile detergents since 1 October 1981 through Ordinance on Maximum Amounts of Phosphates in Washing and Cleansing Agents (Phosphathöchstmengenverordnung)
E-13		HELCOM Recommendation 28E/7 - Measures aimed at substitution of phosphorus in dishwasher detergent: for dishwasher agents to be reconsidered	2010	– In Germany phosphate-free and phosphate-containing dishwashers are on the market. – The Federal Environment Agency promotes the use of phosphate-free dishwaters in households.
E-16	**Reduction of nutrient loads from agriculture**	Designation of relevant parts of agricultural land as zones vulnerable to nitrogen	-	– Whole Germany is regarded as a vulnerable zone in the sense of the Nitrates Directive. – Measures of the nitrate action programme are mandatory.
E-17		HELCOM Recommendation 28E/4 Amended Annex III of the Convention concerning agriculture: Permit systems for major and small animal farms	2012 (2009)	– The requirements of the Environmental Impact Assessment (EIA) Directive and other relevant EU legislation are fulfilled in Germany. – Detailed check with regard to 28/E is ongoing, the Federal State of Mecklenburg-Vorpommern reports full implementation. – (a) Under the IPPC-Directive and its implementation into German law by the Federal Immission Control Act (BImSchG) and the 4th Ordinance under the BImSchG (4th BImSchV) permits are inter alia compulsory for pig farms (>1500 pigs, > 560 sows including < 30-kg-piglets) and poultry farms (> 15 000 places). For cattle farms > 600 livestock units (except suckling cows with more than 6 months outside) a permit not necessitating public participation is compulsory, if a carried-out screening allows the conclusion that no Environmental Impact Assessment is required. – (b) Under the EIA Directive and its implementation into German law (Act on Environmental Impact Assessment, UVPG) permits are compulsory for pig farms (> 3 000 pigs, > 900 sows including < 30-kg-piglets) and poultry farms (> 60 000 places). For cattle farms > 600 livestock units (except suckling cows with more than 6 months outside) a permit not necessitating public participation is compulsory, if a carried-out screening allows the conclusion that no Environmental Impact Assessment is required.

E-19		Establishment of a list of hot spots concerning animal farms for extensive rearing of cattle, poultry and pigs	2009	– cf E 17 – Farms with more than 10 000 kg ammonia emissions are listed in the German Pollution Release and Transfer register (PRTR).
E-20		Joint input on EU CAP Health Check	Within given deadline	– The CAP health check has been completed – Ongoing next round of CAP reforms will provide a platform to further integrate environmental aspects into agricultural practice
E-25	**Reduction of nutrient loads from airborne inputs**	Application of assessments of the inputs and effects of airborne nitrogen to the Baltic Sea in the revision of the emission targets for nitrogen under CLRTAP	-	– The national emission ceilings for air pollutants (NO_Y, NH_X) contributing to eutrophication under the Gothenburg Protocol are currently under revision. – Stricter emission ceilings to be attained in 2020 will probably be defined for reduced and oxidized nitrogen substances. – Germany supports the HELCOM interest in improved information exchange and enhanced coordination of activities with UNECE-CLRTAP in order to reduce the airborne N-input into the Baltic Sea. – The current work plan 2011 of the Working Group on Strategies and Review (WGSR) for *The Implementation of the Convention* underpins cooperation of the Task Forces and Centres (e.g. Meteorological Synthesizing Centre-West) with HELCOM experts.
E-26		Joint input to strengthen the emission targets for nitrogen under the EU NEC Directive	Within the review process	– National Emission ceilings of the NEC Directive will be negotiated and revised in 2013. – from international shipping are taken into account for baseline scenario modelling. Mitigation options for emissions from international shipping are not considered within cost analyses, as the directive does not cover emissions from international maritime traffic (Article 2).
E-27		Joint input to strengthen the emission targets for nitrogen under the Gothenburg protocol under CLRTAP	Within the review process	– The national emission ceilings for air pollutants (NO_X, NH_3) contributing to eutrophication under the Gothenburg Protocol are currently under revision. – The revision will be based upon integrated assessment of emission scenarios, effect analyses and cost curves. – Stricter emission ceilings to be attained in 2020 will probably be defined for reduced and oxidized nitrogen substances.

E-23	**Transboundary pollution**	Joint actions to address transboundary pollution from Belarus and Ukraine (through UNECE Convention on Transboundary Watercourses and Lakes and River Basin Management Plans under the EU WFD)	2008 - 2009	– No actions

Annex II: Hazardous substances segment of the HELCOM BSAP

H	II HAZARDOUS SUBSTANCES SEGMENT			
Item No. (ref. No)	**Reference to the HELCOM Baltic Sea Action Plan**		**Deadline**	**Actions taken/planned**
H-1, H-2	**Reduction of emissions of hazardous substances**	HELCOM Recommendation 28E/8 Reduction of dioxins and other hazardous substances from small scale combustion Development of specific ELVs and efficiency requirements	in 2008	The recommendation is implemented by 1. low-emission combustion appliances – The German ordinance on small and medium size combustion installations (1. BImSchV, amended in 2010): Product standards with limit values for dust and CO for roomheaters, emission limit values for the same substances for all boilers > 4 kW_{th} (regular measurements) in households and SME. The ordinance also includes requirements for the operation of SCIs, for fuels and for storage tanks to be used with boilers German text of the ordinance: http://www.bmu.de/luftreinhaltung/downloads/doc/39616.php – market incentive program for renewable energies (requirements for installations eligible for the program). – Labelling of low emission pellet boilers and stoves (blue angel). – Enhance public awareness – Individual Consultation by chimney sweepers for every household using a small combustion installation for solid fuels – Regular inspection of the fuel storage – Information material (brochures) – Legal requirements for regular inspection and cleaning of chimneys.
H-3		Update of requirements of HELCOM Strategy for hazardous substances (Recommendation 19/5)	-	– HELCOM Recommendation 31E/1 “Implementing HELCOM`s objective for hazardous substances” adopted 20 May 2010 supersedes HELCOM Recommendation 19/5
H-3		Update of HELCOM requirements concerning Proper	-	– The recommendation is fully implemented by the German Landfill Ordinance (current version from 27. April 2009)

		handling of waste/landfilling (Recommendation 24/5)		
H-3		Update of HELCOM requirements for iron/steel industry (Recommendation 24/4)	-	– The recommendation is generally implemented by the German Waste Water Ordinance (WWO), Annex 29 (current version from 17. June 2004) and the TA Luft (Technical Instructions on Air Quality Control from 24. July 2002), which also cover other processes in the iron and steel industry and beyond. – While the requirements for air emissions according to TA "Luft" are always equal or more stringent than those of the recommendation, some requirements of the WWO are different in terms of the definition of the limit values. E.g. – The WWO does not directly regulate the content of suspendable solids in contrast this is regulated via several other parameters. – Instead of regulating the specific load of oil, a concentration-based limit value for total hydrocarbons is used, which leads to a much stricter requirement at low waste water flows. – The German limit values for CN_{vol} seem to be higher than in the recommendation, but as they refer to a qualified sample or a 2 h mixed sample, they can be regarded as equal to the 24 h average values in the recommendation. – Based on the revised EU Iron and Steel BREF (the final Draft will probably be accepted by the IEF in Jan 2011), this recommendation should be updated, e.g. regarding additional ELVs for heavy metals (air and water emissions), PM10 and dioxins. On the other hand, most of the present values in the recommendation are already equal or even stricter than the BAT-AELs of the revised BREF.
H-4		Evaluation of need to develop further requirements for reduction of heavy metal and other hazardous substances emissions from energy production and industrial combustion plants	2008	– Reduction of mercury emissions into the air from new and existing coal fired large combustion plants (LCP) is urgent and should be based on the UNEP activities to create a global Hg-instrument (EU is involved); LCPs in Germany have to comply already with Hg emission limit value (0,03 mg/m^3 referred to daily average, 6% O_2); further reduction is under consideration; there are ongoing activities to test mercury-specific abatement measures in Germany and in other countries; furthermore the new EU-Legislation under the IE-Directive (Directive of the European Parliament and The Council on industrial emissions, approved by the Council of Ministers on November 8 in 2010) prescribes mercury emission to be measured at least once per year for coal and lignite fired large combustion plants. – Further reduction of dust emissions into the air from new and existing LCP - coal, heavy fuel oil, biomass - is although necessary, to further reduce heavy metal emissions other

				than mercury, e.g. As, Cd, Pb, Ni, Va. These further emission reduction will be implemented in EU-MS by the new IE-Directive; LCPs in Germany apply to these requirements already; – Reduction of heavy metal emissions into surface or underground water from desulphurisation equipment in coal and heavy fuel oil fired LCP by appropriate waste water treatment plants, based on the Polish survey in "HELCOM LAND 14/2009, Document 5". LCPs in Germany already apply to these requirements.
H-5, H-6		National programmes	2010 2013	– All actions of the "Hazardous Substances Segment" are carried out in the framework of relevant existing European or national regulations and policies.
H-9		Introduction of Whole Effluent Approach	2009	– The COHIBA-Project is dealing with WEA, a flyer has been published recently http://www.cohiba-project.net – In Germany, the assessment of wastewater with bioassays has been put into routine regulatory practice since 1976 by introducing the acute fish toxicity test with *Leuciscus idus* which has been replaced by the fish egg assay with *Danio rerio* in 2004 for animal protection reasons. Later on other ecotoxicity tests with bacteria (*Vibrio fischeri*), daphnids (*Daphnia magna*) and algae (*Desmodesmus subspicatus*) as well as the umu-assay with *Salmonella typhimurium* TA1535/pSK1002 for determining genotoxicity have been considered in the Wastewater Ordinance. The Zahn-Wellens test is routinely used for determining treatability of indirectly discharged effluents. The focus is clearly hazard based that means that discharge permits are only granted if the waste load is kept at least on the current BAT level according to IPPC. For several industrial sectors limit values for selected bioassays have been established according to the Wastewater Ordinance (Ordinance on Requirements for the Discharge of Wastewater into Waters). The results are indicated as Lowest Ineffective Dilution (LID) according to ISO 5667-16: 1998, Annex A.
	Substances and substance groups of specific concern to the Baltic Sea	Screening of the occurrence of selected hazardous substances	2008-2009	– The Federal State of Mecklenburg-Vorpommern is partner of the COHIBA-Project. In several case studies the occurrence of the selected substances has been investigated. The results will be available in March 2011. http://www.cohiba-project.net/.
H-9		Screening of sources of selected hazardous substances	2009	– The Federal State of Mecklenburg-Vorpommern is partner of the COHIBA-Project. In several case studies the occurrence of the selected substances has been investigated. The results will be available in March 2011. http://www.cohiba-project.net/
H-12		Introduction of use	2009	– Done for all substances in the framework of REACH.

		restrictions and substitutions if relevant assessments show the need to initiate adequate measures for medium-chain chlorinated paraffins (MCCPs), octylphenols (OP)/Octylphenol ethoxylates (OPE), perfluorooctanoic acid (PFOA), decabromodiphenyl ether (decaBDE) and hexabromocyclododecane (HBCDD)		– HBCD fulfils the POP criteria under the Stockholm POPs Convention and CLRTAP Protocol on POPs and thus was identified as a POP-Candidate. Whereas management options were already evaluated for HBCD under the POP-Protocol, the evaluation of the risk management under the Stockholm Convention has just begun. In the meeting of the Executive Body of the POP-Protocol, which will be held in December 2010, the proposed inclusion of HBCD in Annex I (ban of use and production) or II (restriction of certain uses) will be discussed and further action decided. Also a time limited exemption for the phase-out of the use of HBCD as a flame retardant in EPS/XPS insulation boards will be discussed. – Under REACH HBCD was identified as a Substance of Very High Concern (SVHC) and thus is on the candidate list for inclusion in Annex XIV of REACH. The latest application date was set to 36 months and the sunset date to 54 months after inclusion in Annex XIV, which is expected for the beginning of 2011. – Medium chain chlorinated paraffins (MCCPs), octylphenols (OP)/Octylphenol ethoxylates (OPE), perfluorooctanoic acid (PFOA) and decabromodiphenyl ether (decaBDE) require registration and communication of risk and risk management. – DecaBDE is regulated under Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment (ROHS). The UBA as partner of the COHIBA project is leading workpackage 5 “Cost effective management options to reduce discharges, emissions and losses of hazardous substances”. http://www.cohiba-project.net
H-14		Start work on strict restrictions of use for perfluorooctane sulfonate (PFOS), nonylphenol/nonylphenolethoxylates (NP/NPEs), short-chain chlorinated paraffins (SCCPs)	2008	– Under REACH Norway submitted a harmonised classification and labelling dossier (reprotox. and cancer.) for PFOA , for which the discussion is currently in progress. – For all other substances no restriction proposals were made nor were they identified as Substances of very High Concern (SVHC) up to now. – The UBA as partner of the COHIBA project is leading workpackage 5 “Cost effective management options to reduce discharges, emissions and losses of hazardous substances”. http://www.cohiba-project.net
H-13		Introduction of ban on the use, production and marketing of endosulfan, pentabromodiphenylether (pentaBDE) and octabromodiphenylether (octaBDE)	2010	– Ban on the use, production and marketing of pentaBDE and octaBDE are carried out in the framework of relevant existing European regulations/policy. In addition regulated under the Stockholm Convention. Endosulfan is not allowed to be used as plant protection agent on the European level; under evaluation as POP within the Stockholm Convention and CLRTAP Aarhus Protocol.

H-15		Assessment of possibility of introduction of restrictions on cadmium content in fertilisers	2009	– German Use of Fertilisers Ordinance (16/12/2008) is directed to "…fertilizers brought into circulation that are not labelled as EU-fertilisers…" (§ 2). According to Appendix 2, table 1 Cadmium has to be labelled at 1.0 mg/kg (tolerance 50%), threshold being 1.5 mg/kg. Fertilisers with more than 5% P2O5 (ww) have to be labelled at 20 mg Cd/kg P2O5, threshold being 50 mg Cd/kg P2O5. – The Scientific Committee for Toxicity, Ecotoxicity and the Environment (SCTEE) concluded as follows: – At low Cd-concentrations in fertilisers (1...20 mg Cd/kg P2O5) only a comparatively slow enrichment of Cadmium in soil can be expected. At the best, there may be even a reduction over a period of 100 yrs. due to outbalance of removal via field crops to input via fertiliser. – At high Cd-concentrations (≥ 60 mg Cd/kg P2O5) a comparatively high enrichment over 100 yrs. is predicted. – This results in the following recommendations of the SCTEE (which is supported by UBA): – Fertiliser with Cd-concentrations ≤ 20 mg/kg P2O5 are not likely to induce long-term accumulation if no other inputs occur. – Fertiliser with Cd-concentrations ≥ 60 mg/kg P2O5 is very likely to induce long-term accumulation of cadmium in soils. – UBA demands a step-by-step reduction of the Cd-threshold in fertilisers of 25 or 20 mg/kg P2O5 (60-40-20).
H-16		Application of strict restrictions on the use of mercury in products and from processes and support the work towards further limiting and where feasible totally banning mercury in products and from processes	2010 – review	– The remaining CAK regular plants using the mercury cell process (4 in Germany) are scheduled to convert to the membrane process or close at the latest in 2020. Two plants producing specialties (alcoholates, dithionites) are not included because currently alternative production methods lack advantages and/or have issues of their own. Reduction of Hg in products (about 50 ppbw) is not seen as feasible.
H-17		Application of same requirements concerning hazardous substances for products		– COHIBA http://www.cohiba-project.net

		marketed globally as in the internal European market		
H-23		Development of biological effects monitoring	2008	– Monitoring on eelpouts has been investigating the prevalence of gonadal disorders, e.g. intersex and atresia. – http://www.umweltprobenbank.de/en/documents/publications/11946 – The German Environmental Specimen Bank is a major component of the national environmental observation system. The archive for samples that is used to document and assess the quality of the environment. The specimens are representative of a particular area, and are collected at regular intervals, to allow to monitor changes in the concentration of various (pollutant) substances over the course of time. – http://www.umweltprobenbank.de/en/documents/
H-19	**International work**	Input to international forums to influence work on hazardous substances (e.g. revision of BREFs, REACH, plant protection and biocides regulation, etc.)	-	– All actions of the "Hazardous Substances Segment" are carried out in the framework of relevant existing European regulations/policy.
H-10, H-11		Establishment of chemical product registers to be built upon e.g. the EU regulatory framework for Registration, Evaluation, Authorisation and Restriction of Chemicals, REACH (EC1907/2006)	2010	– Within the EU, REACH and CLP will generate substantial substance-specific information on use and amount of chemicals used. REACH will generate a widely available cutting-edge registry of chemical substances in the EU, where CLP will provide an EU-wide classification and labelling inventory.
H-18		Implementation of the Globally Harmonised System (GHS) on	as soon as possible	– The GHS is being developed under the United Nations Sub-Committee of Experts on GHS, that also assists implemenation in countries and regions worldwide with ist scientific expertise. Germany is taking part in this Sub-Committee, supporting its work

		classification and labelling of chemicals and to take into account guidelines for preparing safety data sheets		and the work of Working Groups installed. – GHS was implemented in the European Union by ordinance ((EG) Nr. 1272/2008), called CLP regulation for Classification, Labelling and Packaging. The ordinance came into force in the EU and thus, also in Germany the 20th January 2009. – The first transition phase passed on 1st December 2010 and requires classification and labeling of substances. The European Chemicals Agency (ECHA) was installed to supervise instruments of CLP and to coordinate the further development of the CLP-regulation. – German experts participate in the working groups at ECHA, e.g. in developing guidance for industry on how to apply the GHS in Europe. – German experts are also participating in the development of guidance and training courses for GHS implementation worldwide (UNITAR, Twinning project between Germany and Egypt). – On the national level, guidance has been developed and workshops have been organized to install a platform for discussing GHS-implementation issues between different sectors and experts. Germany also holds a helpdesk for GHS in order to support industry with GHS-implementation.
H-20		Promotion and support of identification and inclusion of new candidate substances to Stockholm POPs Convention and CLRTAP Aarhus Protocol	-	– Federal Ministry for the Environment, Nature Conservation and Nuclear Safety as well as the Federal Environmental Agency are participating in international discussions about new candidate substances to the Stockholm POPs Convention and CLRTAP Aarhus Protocol.
H-21		Ratification of Stockholm POPs Convention	Not later than 2010	– Action is carried out in the framework of the relevant European legislation (the POP Directive Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC (see L229/5 of 29.6.2004))
H-22		Promotion of and participation in SAICM implementation process	Not later than 2010	– The German Federal Environmental Agency is appointed as national SAICM Focal Point. A Stakeholder meeting took place June 2008. The Progress report can be found under: http://www.umweltbundesamt.de/chemikalien/saicm.htm
H-24		Continuation of HELCOM's work with regard to radioactivity,	-	– The Federal Maritime and Hydrographic Agency is responsible for monitoring and assessment of radioactivity in water and sediments of the Baltic Sea; the Agency takes part in the HELCOM MORS-PRO project.

		including monitoring of discharges, emissions from nuclear power plants as well as their effects in the marine environment in order to reach the targets for radioactivity		

III Biodiversity and Nature conservation segment of the HELCOM BSAP

B	III BIODIVERSITY AND NATURE CONSERVATION SEGMENT			
Item No. (ref. No)	**Reference to the HELCOM Baltic Sea Action Plan**		**Deadline**	**Actions taken/planned**
38	**Natural marine and coastal landscapes**	Elaboration of broad-scale, cross-sectoral, marine spatial planning principles based on the ecosystem approach	Develop jointly by 2010 Test, apply and evaluate by 2012	– Germany elaborates on developing, introducing and implementing systems and appropriate tools of Marine Spatial Planning throughout the Baltic Sea in a coherent manner. – In Germany the Federal Maritime and Hydrographic Agency is responsible for drafting the Maritime Spatial Plan for the EEZ of the Baltic Sea. Therefore this Agency takes part in the HELCOM workshops on MSP. The Agency will support the HELCOM initiative for a pilot project (tender of DG Mare) and is a Lead Partner for the BSR INTERREG IVB Project BaltSeaPlan dealing with the introduction of MSP in the Baltic Sea (2009-2012). – The Federal Agency for Nature Conservation contributed with a nature conservation perspective to the draft Maritime Spatial Plan for the German EEZ of the North and Baltic Seas. The original version in German can be downloaded from: – http://www.bfn.de/habitatmare/de/downloads/Planungsbeitrag_zur_Raumordnung_AWZ_2006.pdf . For an English translation view: Marine_Conservation_MSP_EEZ – The BALANCE-project (Germany = member) developed important broadscale cross-sectoral marine spatial planning principles for the entire Baltic Sea area (http://www.balance-eu.org/). – In the Federal States of Mecklenburg-Vorpommern and Schleswig-Holstein marine spatial planning is implemented (12 nm zone) – The Regional Development Plan adopted by the Federal State of Schleswig-Holstein includes marine spatial planning of the coastal waters of SH (12 nm zone) as well as – for the first time - an environmental assessment report of measures relating to the regional planning policy. The Plan is legally binding for all authorities concerned and is based on sustainability principles.

39		Designation of HELCOM Baltic Sea Protected Areas (BSPAs)	Already established MPAs by 2009, new MPAs by 2010	– Germany has officially designated to the HELCOM secretariat most of her marine Natura 2000 sites as BSPAs including two National Parks and one large purely off-shore Nature Reserve.(latest In May 2008 when Germany designated 6 Marine Protected Areas as HELCOM BSPAs, thus implementing HELCOM Rec. 15/5 in an excessive manner) – All in all these make up more than 40% of the German Baltic Sea.
40		Assessment of ecological coherence of the BSPA/MPA network (Joint HELCOM/OSPAR working programme to the 2003 Ministerial Declaration)	2010	– By designating an area of 7851 sqkm in the Baltic Sea as MPAs, (i.e. 51,1 % of the Baltic Sea are under BSPA/Natura 2000 regime) Germany contributes actively to a coherent OSPAR/HELCOM network of MPAs as decided in 2003 at Ministerial level. – Germany, represented by the Federal Agency for Nature Conservation, together with the HELCOM secretariat leads the implementation of the Joint Work Programme and the respective actions of the BSAP and has produced an implementation report for the 2010 Ministerial Meeting of HELCOM in cooperation with the HELCOM secretariat.
41		Finalisation and where possible implementation of management plans for Baltic Sea Protected Areas	2010	– In the German Baltic Sea, National Parks and some other BSPAs have got management plans or equivalent legal regulations. In some areas voluntary agreements with stakeholders were signed. For most BSPAs no management plans exist, but overviews of existing management measures are compiled or management measures are under preparation in co-operation with stakeholders and when necessary with national and international Competent Authorities. The intention is to finalise the work by 2012.
42		Further development of detailed landscape maps	-	– The Federal Agency for Nature Conservation has produced a detailed marine landscape map for the German Baltic Sea area which is available as Fig. 5 in the national implementation report
43	**Thriving and balanced communities of plants and animals**	Updating of a complete classification system for Baltic Sea marine habitats/biotopes	2011	– In 2006 the Federal Agency for Nature Conservation published a German Red Data Book on Biotopes including a comprehensive biotope classification system which includes the German Baltic marine area. The English version of the German Red Data Book on Endangered Habitats (short version) is now available as download (http://www.bfn.de/fileadmin/MDB/documents/themen/landschaftsundbiotopschutz/Red_Data_Book_Habitats_krz.pdf).
		Updating of HELCOM Red lists of Baltic habitats/biotopes and biotope complexes	2013	– see No. 43

		Identification and mapping of potential and actual habitats of habitat forming species (bladder wrack, eelgrass, blue mussel, stonewords) and development of a common approach for the mitigation of negative impacts	2013	– The Federal Agency for Nature Conservation produced draft detailed marine biotope maps which will be made available soon via: http://www.bfn.de/habitatmare/de/downloads-tagungsberichte.php. They include information on habitat forming species; however, not all occurrences are mapped. The data is visualized using GIS. A comprehensive project on detailed marine biotope mapping will most likely start in the first half of 2011. – Additionally in 2009 Schleswig-Holstein has produced a report on habitats according to the Habitats-Directive based on existing data and information. Based on this report SH is continuing the mapping of habitats using different imaging technologies, e. g. sides scan sonar, echo sounder, video recording. This mapping will be continued at least for several years.
46	**Viable populations of species**	Producing a comprehensive HELCOM Red list of Baltic Sea species	2013	– Germany has nominated experts to all species groups and to the biotopes group of the respective HELCOM project and leads the group on birds. The Federal Agency for Nature Conservation published German red lists of endangered plant and animal species in 1996 and 1998 respectively, they are currently under revision. These include the Baltic Sea. There exists also a regional BfN- (=Federal Agency for Nature Conservation)Red list of endangered plant and animal species in the Baltic Sea marine and coastal areas from 1996. The most actual data from these lists will be fed into the HELCOM project.
47		Develop research on reintroduction of valuable phytobenthos species in regions of their historical occurrence	-	– The BfN-Red lists (see No. 46) provide important scientific background for this item.
48		Production of an assessment of the conservation status of non-commercial fish species	2011	– The BfN-red lists (see No. 46) provide respective information.
49		Further development of a coordinated reporting system and database on harbour porpoise sightings, by-catches and strandings	2010	– The Johann Heinrich von Thünen-Institut -Federal Research Institute for Rural Areas, Forestry and Fisheries-(vTI) collects stranding data of the Federal States of Niedersachsen, Schleswig-Holstein and Mecklenburg-Vorpommern. Biopsy data are held by German Oceanographic Museum in Stralsund (DMM Stralsund) and at the Research and Technology Centre (FTZ) of the University of Kiel; – At the Research and Technology Centre (FTZ) of the University of Kiel a coordinated reporting data base was developed and transferred to the HELCOM Secretariat

50		Promotion of research on developing methods for assessing and reporting on impacts of fisheries on biodiversity	-	– The Federal Agency for Nature Conservation commissioned a research and development project to ICES (EMPAS-project) which includes respective assessments and reporting. Results can be viewed at: http://www.ices.dk/projects/empas.asp. A follow up of this project is currently running at the Kiel Earth Institute working on concrete management options for MPAs in cooperation with the Johann Heinrich von Thünen-Institut -Federal Research Institute for Rural Areas, Forestry and Fisheries (see 52 (B-8)
51		Development and implementation of effective monitoring and reporting systems for by-caught birds and mammals	-	– The Johann Heinrich von Thünen-Institut -Federal Research Institute for Rural Areas, Forestry and Fisheries developed Pinger control device to check the functioning of pingers. Meanwhile German fishery inspection authorities are equipped with this device. – Within its responsibility of enforcement authority the BfN will in 2011 commission the further development and implementation of effective monitoring and reporting systems for by-caught birds and mammals.
52		Development and implementation of fisheries management measures for fisheries inside marine protected areas	2010	The ICES/Federal Agency for Nature Conservation (BfN) project entitled "Environmentally Sound Fishery Management in Protected Areas [EMPAS]", was started in ICES in February 2006 based on funding from the German Federal Agency for Nature Conservation. The main aim of the project was to develop fisheries management plans for each of ten German NATURA 2000 sites (see Figure). The results of the EMPAS project have been presented and discussed at the occasion of a conference in Stralsund, held 3 – 5 November 2008. In coastal areas, e.g. of the Federal State of Schleswig-Holstein, fishing activities are legally restricted by ordinance, e.g. bottom trawling is only allowed inside the 3-nm-zone in areas deeper than 20 m and set nets must not be higher than 1,3 m and closer than 200 m to the shoreline.
53		Finalisation and implementation of national management plans and implementation of non-lethal mitigations measures for seals-fisheries interactions (HELCOM Recommendation 27-28/2)	2012	– Currently there is no need for a seal management plan in the German Baltic Sea area, because in the Baltic Sea no self sustaining seal population exists.

54		Baltic Sea shall become a model of good management of human activities; all fisheries management be developed and implemented based on the Ecosystem Approach in order to enhance the balance between the sustainable use and protection of marine resources		– The Federal Agency for Nature Conservation conducted workshops, research and development projects including EMPAS (see No. 50) with relevance for this BSAP-item. Publications, reports and downloads can be viewed at: http://www.bfn.de/habitatmare/.
55		The competent fisheries authorities to take all the necessary measures to ensure that populations of all commercially exploited fish species are within safe biological limits, reach Maximum Sustainable Yield, and are distributed through their natural range, and contain full size/age range	2021	–
56		Development of long-term management plans for commercially exploited fish species (salmon, sea trout, pelagic species and flatfish)	2010	–

57		Introduction of additional fisheries management measures to achieve: - that all caught species and by-catch are landed and reported - continued designation of additional/improved spatial and/or temporal closures - designation of additional permanent closures - further development and application in all cases of appropriate breeding and restocking practices for salmon and sea trout - minimisation of by-catch of under-sized fish and non-target species - an evaluation of the effectiveness of existing technical measures to minimise of by-catch of harbour porpoises and to introduce adequate new technologies and measures (by 2008)	2012 (2008)	– The Federal Agency for Nature Conservation commissioned to the German Oceanographic Museum in Stralsund (DMM) the co-ordination of a comprehensive research and development project on the implementation of the Jastarnia Plan. In October 2007 DMM and the Federal Agency for Nature Conservation conducted the conference: Year of the dolphin in Europe – Conservation of small cetaceans and marine protected areas, where the results from the Jastarnia project were presented (including by-catch and new mitigation technologies). See more at: – http://www.bfn.de/habitatmare/de/aktuelles-konferenz-year-of-the-dolphin.php.
58		Elimination of illegal, unregulated and unreported (IUU) fisheries and further development of landing control	Immediately	–

59		Implementation of existing long-term management plans for cod and eel. The competent authorities to apply, in relation to the recommendation above, the targets annexed to the Action Plan	2012	–
60		A joint submission by EU Member States to the 2012 review of EU Common Fisheries Policy	2012	–
61		Additional fisheries measures such as: 1. national programmes for eel stocks 2. classification and inventory of rivers 3. development of restorations plans to reinstate migratory fish species 4. conservation of at least ten wild salmon rivers	1. 2008 2. 2012 3. 2010 4. 2009	– 61.2: At the University of Bremen a digital atlas of all fish species in Germany and Austria is under development (http://www.fischartenatlas.de). Recently a book on the distribution of fish- and lamprey species in the Federal State of Mecklenburg-Vorpommern has been published [ISBN: 978-3-9810058-5-1], and for most parts of the German Baltic Sea catchment area an additional historical distribution atlas of all fish species exists (Mitteilungen der Landesforschungsanstalt für Landwirtschaft und Fischerei M-V, Volume 32, 261 S. ISSN 1618-7938). It is the intention of the Federal Agency for Nature Conservation to combine all relevant data on migratory species in one GIS based data base. – cf. 1: In Schleswig-Holstein management-plans are in place for the protection/restoration of eel stocks in the river-basin Schlei-Trave – cf. 2: will be elaborated in the framework of the implementation of the WFD and the Habitats-Directive – cf. 3: Supporting Measures for Fish Species are in place for sea trout (Salmo trutta trutta) and Baltic Whitefish (Coregonus lavaretus baltica); measures are financed through Fisheries Fee.
62		Establish a cooperation network to agree on guidelines to promote the ecosystem-based management of coastal fisheries	-	–
63		Enhance restoration of lost biodiversity by supporting German/Polish action to reintroduce Baltic sturgeon	-	– In Germany the project is ongoing, more info at: http://www.igb-berlin.de/abt4/mitarbeiter/sturgeon/index_e.shtml. On suggestion of Germany, the re-establishment of a HELCOM project on sturgeon remediation was confirmed by HELCOM in 2010. It will start as soon as respective funds are available.

64		Development of long-term management plans and a suite of indicators for coastal fish species	2012	–

IV Maritime Activities Segment of the HELCOM BSAP

M	IV MARITIME ACTIVITIES SEGMENT			
Item No. (ref. No)	**Reference to the HELCOM Baltic Sea Action Plan**		**Deadline**	**Actions taken/planned**
65	**TBT pollution from shipping**	Ratification of the AFS Convention	2009	– Germany has deposited the instrument of ratification on 20th August 2008. The AFS Convention has entered into force nationally on 20th November 2008. – Further formal implementation e.g. with regard to compliance control is currently under development.
66		Extend monitoring of non-compliant ships entering the HELCOM area using Automatic Identification System (e.g. for enforcement of AFS Convention)	-	– A proposal for a technical solution was presented to HELCOM MARITIME. – Germany is currently in a process of implementing additional regulation with regard to the AFS-Convention and its annexes.
67		Promote development of effective, environmentally friendly TBT-free antifouling systems on ships	-	-
68	**Emissions from ships**	Ratification of Annex VI of MARPOL 73/78 Convention	1 Jan. 2010	– In Germany MARPOL Annex VI was in force since 2005, revised MARPOL Annex VI is in force since 1 July 2010. The regulations are applied correspondingly.
69		HELCOM Recommendation 28E/13 on introduction of economic incentives to reduce emissions from ships	-	-

70		Investigate feasible and effective economic incentives for reducing emissions from ships	2009	– Related German documents have been submitted to MEPC 59 and MEPC 60. – In MEPC 59/4/25 and MEPC 59/4/ 26 Germany, France and Norway provided further input to the discussion on a global market based measure (MBM) and gave details of a possible worldwide Emission Trading Scheme (ETS) for shipping. – - In MEPC 60/4/43, Germany together with France, Norway and the United Kingdom submitted a paper on common features of a global ETS. – - In MEPC 60/4/54, Germany submitted an impact assessment of an Emissions Trading Scheme with a particular view on developing countries. – - In summer 2010 an expert group worked on the impacts of the MBMs which are currently on the table in MEPC. Germany had an active role in this group. The report was submitted to MEPC 61 under MEPC 61/INF 2.
71		Estimate the contribution of NOx emissions from shipping to eutrophication	-	– In the framework of the work of the Correspondence Group on Designation of the Baltic Sea as a NOx Emission Control Area responsible actors invited a large number of responsible German Authorities and stakeholders to report about/give input on available, ongoing and planned research studies related to estimating emissions of NOx from ships in the Baltic as well as its contribution to eutrophication of the marine environment of the Baltic. The work is still going on domestically.
72		Joint submissions to IMO in order to tighten regulations concerning SOx and NOx emissions from ships within the revision of Annex VI to MARPOL 73/78	Before MEPC 57 (31 March-4 April 2008)	– Lead Party Germany has delivered the joint submission of all HELCOM CPs with regard to tightening regulations concerning SOx emissions from ships to MEPC 57. By adopting the revision of Annex VI the issue has been finalised. – Further formal implementation of the revised MARPOL Annex VI is currently under development. – The Correspondence Group on Designation of the Baltic Sea as a NOx Emission Control Area (Germany = member of the CG) presented the outcome of the first meeting of the CG at HELCOM MARITIME 9/2010 concerning the "Proposal to designate the Baltic Sea as an Emission Control Area for Nitrogen Oxides".
73	**Sewage from ships**	Joint submission to IMO in order to amend Annex IV to MARPOL 73/78 with requirements on nutrient discharges in sewage	Before IMO MEPC 59 in 2009	– Germany has as a member of the Correspondence Group supported the discussion and reviewing of the proposal to IMO to designate the Baltic Sea area as a Special Area in MARPOL Annex IV. The implementation can only be enacted when there are sufficient capacities of port reception facilities available. – MEPC 62 approved the amendments in principle, technical details still under discussion – Germany tries to develop a definition for “adequate reception facility” in this context

74		Encourage voluntary agreements to dispose sewage to the port reception facilities	-	– In order to encourage voluntary agreements to dispose sewage to the port reception facilities, the current status of the existing port reception facilities has been reviewed. The information gathering includes: – • the names of the ports where passenger ships and cruise ships call – • if the reception of sewage from passengers ships in these ports is arranged as requested by the ECC or, if not, in what way the reception of sewage is arranged? – • if there is there a special charge for the reception of sewage or if the no-special-fee system is applied?
75		Improvements in the availability of port reception facilities for sewage	-	– see information under No. 74 – both issues are closely linked in Germany – Currently the Coastal States work on meeting the infrastructural requirements.
76	**Wastes from ships**	Enhance the availability of adequate port reception facilities for ship-generated wastes and sewage and the application of the "the-no-special-fee" system	-	– Germany will consider in cooperation with the federal states, whether and in which way revised MARPOL Annex can be backed up by incentives ongoing investigation about port reception facilities in 10 selected German harbours, seaports and fishing ports to identify regional differences in the implementation of EU-Directive 59/2000, evident shortfalls and best practice. – Fishermen approached to join the German fishing for litter initiative are called to provide information about waste management and port reception facilities for ship-generated waste and sewage – Germany is co-chairing the MSFD technical sub group on marine litter. The results of the sub group will provide baseline information on ship generated waste and propose standard methods for monitoring, indicators, objectives and targets.
77	**Marine litter**	HELCOM Recommendation 28E/10 Extension of "no-special-fee" to cover also waste caught in fishing nets Consider adequate incentives for fishermen to deliver litter onshore	-	– Fishing associations and port authorities in Germany (e.g. Heiligenhafen, Fehmarn/Burgstaaken) provide fishermen with "no-special-fee" facilities for ship-generated waste, "ghostnets" and other "caught" marine litter is not covered so far. – The NABU-Project "Seas without Plastics", funded by BMU/UBA, intends to initiate fishing for litter in Germany. The first pilot region will be established in the two ports Burgstaaken (Fehmarn) and Heiligenhafen in Schleswig-Holstein. All stakeholders (fishermen, port authorities, waste management industries and local authorities) agreed to join the project and to start fishing for litter in spring 2011. The NABU-project covers most cost and coordinates logistics and communication. The project is also associated to the international KIMO initiative.

78		Promote projects aiming at removing litter from the coastal and marine environment	-	– See above – KIMO Baltic has applied for an EU Interreg project to establish fishing for litter initiatives in the Baltic region. The German initiative will be associated to KIMO. The project is scheduled to start in the second half of 2011. – NABU, as well as other NGOs (e.g. Deepwave) and institutions, promote and conduct coastal cleanup events, associated to international initiatives (ICC).
79	**Alien species**	Ratification the Ballast Water Management Convention preceded with implementation of a road map, including: 1. compile a list of non-indigenous, cryptogenic and harmful native species; 2. select and agree on a list of HELCOM Target Species; 3. conduct baseline surveys of prevailing environmental conditions in major port 2008; 4. develop criteria for unacceptable high risk scenarios and acceptable low risk scenarios for Baltic Sea voyages	2013 2008 2008 2008 2009	– The formal national ratification process is under development; Germany has decided that the Federal Maritime and Hydrographic Agency BSH is the competent domestic authority for measures to prevent the distribution of alien organisms through ships including the examination, approval and control of ballast water management systems as well as for the necessary preparations and international approval processes (§§ 5 Abs. 1 Nr. 4c, 1 Nr. 15 SeeAufgG). The Federal Maritime and Hydrographic Agency had been the first administration to issue a Type Approval Certificate for a ballast water management system which has undergone the whole G9 and G8 procedure of the Ballast Water Management Convention and is currently working on over 10 applications for approval of ballast water management systems. • Germany is Lead Country of the Correspondence Working Group on implementation of the HELCOM Ballast Water Road Map. • Germany is designated Lead Country for the Flagship-Project "Ballastwater" within the European Union Strategy for the Baltic Sea Region. • The Federal Maritime and Hydrographic Agency is Partner in the "North Sea Ballast Water Opportunity project" within the European Union Regional Development Fund Interreg IVB Programme. The project has been presented at MEPC 59 (MEPC 59/Inf.24 and presentation) and HELCOM MARITIME 8/2009 and updated with document 7/1/INF for HELCOM MARITIME 9/2010 to inform HELCOM member states about the key developments in the project on an ongoing basis. Progress on implementation of the HELCOM Ballast Water Road Map has also been made. At MONAS 13/2010 Germany presented the outcomes of a first rapid assessment of neobiota in German harbours and marinas (cf. HELCOM MONAS 13/2010, document 6/4). The formal implementation is currently under development.

80	**Response capacity**	HELCOM Recommendation 28E/12 on strengthening of sub-regional cooperation in response field, including building adequate emergency and response resources based on: - sub-regional risk assessments - identification of gaps in resources, incl. shoreline response - preparation of plans how to fulfill the gaps	2013	– There have been four project meetings so far, including the most recent one on 5-6 October 2010 in Århus, which discussed the progress in the risk assessment of shipping accidents and pollution. The work so far has included, among others, the ice effects on traffic, preliminary modelled risk of accidents and oil spills, division of the Baltic Sea into meteorological and hydrological areas, and environmental sensitivity. – To cover the whole Baltic Sea area by bi- and multilateral agreements to a satisfactory degree some existing agreements/plans have to be extended and new one have to be concluded. The SWEDENGER plan will be extended eastwards to cover the Bornholm area and Poland will join the SWEDENGER plan once an agreement between Poland and Germany, currently under the development, has been signed.
81		Oiled wildlife response and integration into contingency planning	-	– - The Federal States of Schleswig-Holstein and Lower Saxony have recently developed concepts for oiled wildlife response measures. In order to achieve a harmonized approach between the concepts of the five federal states at the coastline a Working Group under the leadership of the CCME has been established. The concepts of the federal states will be a part of the national contingency plan.The Coastal State Schleswig-Holstein has a contingency plan for oiled wildlife that is presently being implemented. The integration of all of the HELCOM recommendations on oiled wildlife into national contingency planning is not a simple task for the Coastal States and will need further consultations. – The Federal State of Mecklenburg-Vorpommern is one of the partners in the "Control Command for Maritime Emergencies", i.a. taking care for continuously strengthening and renewing response capabilities.
82		Develop best practices for shoreline response and integration into national contingency plans	-	– A working group with experts of the five federal states at the coastline and the CCME has finished a report in which they inspected the existing equipment and strategy of shoreline response measures. It includes plans what kind of equipment has to be ordered or what concepts are to be investigated in the next few years. The definition of international standards will follow on the basis of the results of BRISK. It is a permanent task of the HELCOM Response Group to strengthen the international cooperation in order to achieve information exchange and to improve international cooperation. The HELCOM Response Group called a correspondent group with Poland as the lead country with the task to make proposals for the further steps. The CCME is engaged in the correspondent group. – The Federal State of Mecklenburg-Vorpommern is one of the partners in the "Control Command for Maritime Emergencies", i.a. taking care for continuously strengthening and renewing response capabilities;

83		Develop and agree on a decision support system for use of dispersants	2009	At the HELCOM Response 12/2010 Germany informed the partners, that the use of dispersants in the Baltic Sea has been excluded from the national conception for the use of dispersants.
84		Develop and implement a mutual plan for places of refuge Further investigate issues of liability and compensation related to a mutual plan on places of refuge	2009 and 2010	– still under negotiation in the framework of HELCOM MARITIME
85		Promote development and use of technology to respond to accidents (difficult weather conditions, heavy oil, hazardous substances)	-	–
86	**Safety of navigation**	HELCOM Recommendation 28E/11 measures to improve safety of navigation in ice conditions: - trained crew - voluntary pilotage	-	– Germany is a party of the STCW-Convention. According to regulation II/1, II/2 of the Annex to the STCW-Convention, the national Maritime Education, Training and Certification-System (METC-System) includes all the required competencies for operating a ship in ice-covered waters. It is not possible in Germany to reduce the minimum standard by issuing certificates with a limitation due to "near coastal voyages" according to regulation I/6 of the Annex to the STCW-Convention. Because of this and due the Manila-Amendments 2010 to the STCW-Convention, no further regional measures are necessary to improve safety of navigation in ice conditions. The present regulations and amendments of the STCW-Convention must be / have to be enforced.
87		Consider joint submission to IMO in order to introduce the necessary modification of Automatic Identification System (AIS)	2008	– Germany has actively contributed to the revision of SN/Circular 236 in the framework of NAV 55. NAV 55 endorsed the revised draft SN circular on Guidance for the presentation and display of AIS Application-Specific Messages Information based on the report by the relevant correspondence group, coordinated by Sweden and forwarded it to MSC 87 for approval.
88		Agree on amended HELCOM Agreement on Access to AIS Information (based on the proposal by HELCOM AIS EWG 16/2007)	2008	– Germany has agreed on the amended HELCOM AIS Agreement
89		Support in IMO speeding up introduction of a general requirement for carriage by ships of an Electronic Chart Display and Information System (ECDIS)	-	– A proposal for a mandatory ECDIS carriage requirement was discussed in the IMO at MSC. The Baltic Sea Region is well prepared for the introduction. It is well covered with officially issued ENCs which form the basis of ECDIS. This status had been reported to the IMO.

90		Cooperation in investigation of the potential for DGNSS broadcast via AIS base stations pending on recommendation by IALA	-	–
91	**Law enforcement**	Harmonized aerial and satellite surveillance in the whole Baltic Sea	-	– Satellite surveillance requirements are coordinated through HELCOM IWGAS and flight plans are exchanged between neighbouring countries (DK, SWE) Germany provides coverage for its area of responsibility in the Baltic Sea with two routes and a coverage factor of five a week. The number of flights is mainly influenced by the number of satellite passages and weather.
92		Encourage development and use of innovative and cost-effective, integrated pollution surveillance systems	-	–
93		Concentrated inspection campaigns under the 1982 Paris MoU	-	– Germany together with Finland (lead Country) had started a campaign (Concentrated Inspection Campaign) for checking the implementation of provisions according to MARPOL Annex I concerning protecting the sea against oil pollution. The Campaign has been conducted and finalised successfully in spring 2006 (c.f. HELCOM IMO submission 5/2/INF from October 18 2006;) Right now (until 30.11.2010) a CIC with regard to loading and stability of Tankers is conducted with UK as lead country has just been finished. All HELCOM Countries are involved adequately.
94	Implementation of the Offshore Action Plan Development of the list on “red” and “black” chemicals		2010	–