Special Report

Combating eutrophication in the Baltic Sea: further and more effective action needed
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This performance audit was produced by Audit Chamber II — headed by ECA Member Henri Grethen — which specialises in structural policies, transport and energy spending areas. The audit was led by ECA Member Ville Itälä, supported by the Head of his Private Office, Turo Hentilä and Outi Grönlund, Attaché; Alain Vansilliette, Principal Manager; Maria del Carmen Jimenez, Head of Task; and Krzysztof Zalega, Nils Odins, Zuzana Gullova, Tomasz Plebanowicz, Jean-François Hynderick and Vivi Niemenmaa, auditors.

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Reply of the Commission
**Body of water:** A discrete and significant element of surface water. This includes lakes, reservoirs, streams, rivers, canals, transitional bodies of water and stretches of coastal water.

**BSAP:** Baltic Sea action plan (see paragraph 8).

**EUSBSR:** EU strategy for the Baltic Sea region (see paragraph 11).

**Helcom:** Helsinki Commission (see paragraph 8).

**Polluter pays principle:** A principle set out in the Treaty on the Functioning of the European Union (Article 191.2). With regard to waste water, this principle dictates that dischargers of waste water should pay for the pollution caused (for example, households should pay for waste water treatment services at the waste water price; waste water treatment plants pay a pollution charge).

**Programme of measures:** The part of the river basin management plan which indicates the measures that are necessary for water bodies to be restored to a good status, considering the characteristics of the river basin district. Similar programmes of measures have to be prepared to restore the quality of marine waters.

**River basin:** The area of land from which all surface run-off flows through a sequence of streams, rivers and, possibly, lakes into the sea at a single river mouth, estuary or delta. The district is the part of the river basin within a specific Member State.

**Sources of pollution:** There are two main types of waterborne pollution source: Diffuse sources, for which there is no specific point of discharge; the largest contributors are agricultural and forestry activities and dwellings not connected to the sewage network. Point sources, for which there is a specific point of discharge; these are discharges from urban waste water treatment plants and from industries and fish farms.

**Water status:** Is the general expression of the status of a body of inland surface water, as determined by its ecological and its chemical status. For marine water, the water status corresponds to the environmental status, which is based on other criteria than the status of inland surface water.
Executive summary

I
The Baltic Sea is bordered by eight EU Member States (Denmark, Estonia, Finland, Germany, Latvia, Lithuania, Poland and Sweden) and Russia. The Baltic Sea is one of the world’s most polluted seas. Combating eutrophication is seen to pose a significant challenge. The 2008 marine strategy framework directive aims to achieve a good environmental status of the EU’s marine waters by 2020. Under that directive, Member States have to cooperate within regions and sub-regions to achieve the objectives of the directive, using for instance, where practical and appropriate, the structures already in place under the regional sea conventions. For the Baltic Sea, the relevant convention is the Helsinki Convention (governed by the Helsinki Commission (Helcom)) and its Baltic Sea action plan, which requires the reduction of nutrient loads from the signatory countries.

II
In 2009, the European Council adopted a macro-regional strategy, namely the European Union strategy for the Baltic Sea region, aiming, in particular, to foster environmental protection, including the reduction of nutrient loads, by promoting increased cooperation between neighbouring countries and innovative solutions.

III
The main sources of nutrient loads causing eutrophication are agriculture and urban waste water. In the 2007-2013 period, the EU contribution to waste water collection and treatment projects in the five Member States bordering the Baltic Sea benefiting from EU support in this field was 4.6 billion euro. Rural development measures, including water protection, to all eight Baltic Sea coastal Member States amounted to 9.9 billion euro.

IV
The Court’s audit answers the question whether the EU actions have been effective in helping Member States to reduce nutrient loads into the Baltic Sea. The overall conclusion is that these actions have led to limited progress towards nutrient reduction in the Baltic Sea.

V
The Member States’ plans for achieving Helcom nutrient reductions are based on their river basin management plans prepared on the basis of the water framework directive. These plans lack ambition as they focus on ‘basic measures’ for implementing EU directives in relation to the specific activities causing nutrient pollution, mainly urban waste water and agriculture. Less focus is put on measures for the control of diffuse sources of nutrients and on ‘supplementary measures’ as set out in the water framework directive. Measures are established on the basis of insufficient information. They also lack targets and appropriate indicators for the assessment of achievements made in reducing nutrient loads into waters.
Executive summary

VI
Actions to reduce nutrient loads from urban agglomerations have led to a reduction of nutrients. Several agglomerations treat the urban waste water to higher standards than those laid down in the urban waste water treatment directive. However, despite significant EU funding, the implementation of the directive is delayed in the Member States which joined the EU in 2004. In addition, not all of the Baltic Sea Member States which were required to comply with the directive by 2012 do so. The Commission’s follow-up of Member State implementation of the directive has not been timely. In Russia and Belarus, EU actions regarding urban waste water are potentially cost efficient, but are very limited in scope compared to what is needed and projects implementation takes a long time.

VII
The implementation of the nitrates directive by Baltic Sea Member States is not fully effective. Relevant areas are not properly defined and the requirements set by Member States in their action programmes are not strict enough. Regarding nutrient fertilisation requirements, the deterrent effect of the cross-compliance mechanism is insufficient, as the level of non-compliance remains high. Even though all river basin management plans include supplementary measures intended to tackle nutrient loads from agriculture, they have been insufficiently targeted at areas identified as needing them. In addition, no Member State has used the option under EU regulations of making some of those measures compulsory for farms located in these areas.

VIII
The European Union strategy for the Baltic Sea region is raising the political importance of the Baltic Sea’s environmental status and of regional cooperation, but, to date, its added value for nutrient input reduction is difficult to assess.

IX
We make a number of recommendations to improve the effectiveness of the actions combating eutrophication in the Baltic Sea.
Baltic Sea and eutrophication

01
The Baltic Sea is one of the world’s most polluted seas and eutrophication is seen as its greatest challenge. The Baltic Sea is bordered by nine countries: eight EU Member States (Denmark, Germany, Estonia, Latvia, Lithuania, Poland, Finland and Sweden) and Russia. Belarus is another large country within the Baltic Sea catchment area.

02
Eutrophication is a process that occurs when excess nutrients generated mostly by human activity, mainly nitrogen and phosphorus, enter a body of water. High nutrient concentrations lead to intense, potentially toxic, algal blooms (see Picture 1).

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Picture 1 — Eutrophic marine water
Source: Helcom, photo by Samuli Korpinen.
Introduction

03
Eutrophication can significantly reduce the utility of the sea by reducing biodiversity, spoiling the appearance of the coast and depleting fish stocks. The most affected sea sub-basins are the Gulf of Finland, the Gulf of Riga and the central deepest zone of the Baltic Sea, called Baltic Proper (see Figure 1).

Figure 1

Eutrophication in the Baltic Sea

Introduction

The main sources of nutrients released to the sea are waterborne loads coming from inland via rivers and direct discharges from the coast. Waterborne loads account for 78% of the overall nitrogen and 95% of the overall phosphorus which enter the Baltic Sea\(^2\). The two most significant sources of waterborne nutrient loads are: diffuse sources, mainly agriculture (45% of overall nitrogen and 45% of overall phosphorus), and point sources, mainly urban waste water (12% of overall nitrogen and 20% of overall phosphorus)\(^3\).

Climate change adds two further challenges. Firstly it is predicted that shorter and wetter winters will lead to less snow and ice cover and thus to greater run-off from rivers’ catchment areas. This will result in increasingly high nutrient loads entering the sea, which will aggravate eutrophication\(^4\). Secondly, increased sea temperatures will provide better conditions for the growth of algal blooms, as well as leading to a prolonged growing period.

EU legal instruments addressing nutrient pollution of waters

The quality of EU marine waters is governed by the 2008 marine strategy framework directive\(^5\), the objective of which is to ensure that the EU’s marine waters reach a good environmental status by 2020. The directive is still in an early stage of its implementation: by October 2012, Member States had to report to the Commission on their determination of a good environmental status for marine waters, based on the descriptors proposed by the directive (one of them being eutrophication), an initial assessment of their marine water status and their environmental targets and associated indicators.

The implementation of the directive is a responsibility of the Member States. By the end of 2015, they had to prepare a programme of measures to achieve the good environmental status. These programmes must be sent to the Commission by March 2016. As a general principle, Member States should, as far as possible, build on the objectives and activities of the existing regional sea conventions.

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2 Helcom, updated Fifth Baltic Sea Pollution Load Compilation (PLC-5.5) — 2015 (2010 data).
4 'Second Assessment of Climate Change for the Baltic Sea Basin', the BACC II Author Team, Regional Climate Studies, Springer International Publishing, 2013.
### 08
For the Baltic Sea, a regional convention was signed back in 1974: the Helsinki Convention on the Protection of the Marine Environment of the Baltic Sea Area. The current signatories are Denmark, Estonia, the European Union, Finland, Germany, Latvia, Lithuania, Poland, Russia and Sweden. In 2007, the Helsinki Commission (Helcom) governing that convention proposed the Baltic Sea action plan (BSAP) to restore the Baltic Sea to a good environmental status by 2021. This plan was adopted by the signatories.

### 09
Key to achieving the good environmental status of marine waters is the good quality of the water from rivers flowing into the seas. The 2000 water framework directive provides a framework for inland, transitional and coastal water protection. Its aim is to ensure the good status of surface water and groundwater by 2015 or, in certain exceptional cases, by 2021 or 2027. Member States were first required to devise river basin management plans by December 2009, identifying bodies of water at risk of not reaching that objective by 2015, and specifying the most significant pressures affecting them. Similarly to the marine strategy framework directive, these river basin management plans include a programme of measures to contribute to achieving the water framework directive’s objectives.

### 10
These programmes must at least include the necessary measures for a full implementation of the already existing directives aimed at the preservation of water quality and other measures made compulsory by the water framework directive (and in particular measures to control diffuse sources of pollution). The already existing directives include notably:

- the 1991 urban waste water treatment directive regarding the collection and treatment of waste water from agglomerations;

- the 1991 nitrates directive concerning the adoption of measures to ensure that farmers in agricultural areas which cause or are at risk of causing nitrate pollution in water (referred to as ‘nitrate vulnerable zones’) respect minimum requirements concerning the use of nitrogen fertilisers.

### 11
Finally, the EU strategy for the Baltic Sea region (EUSBSR) was adopted by the European Council in 2009. This strategy addresses various objectives under three themes: ‘Save the Sea’, ‘Connect the Region’ and ‘Increase Prosperity’. One of the sub-objectives of the ‘Save the Sea’ theme, named ‘Clear water in the Baltic Sea’, adopted the targets set out in the BSAP as regards the reduction of nutrient inputs. The EU’s action is designed to promote cooperation among neighbouring countries, both EU Member States and non-EU countries.
EU budgetary instruments available for addressing nutrient pollution of water

12

The European Regional Development Fund and the Cohesion Fund under the cohesion policy\(^\text{10}\) can be used to co-finance infrastructure projects in the field of waste water as part of the Member States’ operational programmes. The total EU contribution to waste water collection and treatment projects in the Member States bordering the Baltic Sea\(^\text{11}\) was 4.6 billion euro in the 2007-2013 period: Poland, 3.4 billion euro; Latvia, 0.6 billion euro; Lithuania, 0.4 billion euro; Estonia, 0.2 billion euro and Germany, 0.04 billion euro.

13

The European Agricultural Fund for Rural Development\(^\text{12}\) can be used to finance a number of rural development programme measures which may have either a direct or an indirect impact on water quality (mainly measures related to ‘improving the environment and countryside’\(^\text{13}\)). For that type of measure, an amount of 9.9 billion euro was allocated to all eight Baltic Sea coastal Member States in the 2007-2013 period\(^\text{14}\). The amount that was specifically dedicated to address water protection is not available.

14

As regards non-EU countries, the European neighbourhood policy offers Russia and Belarus a number of opportunities to cooperate in the field of the environment. These include the non-nuclear window of the Northern Dimension Environmental Partnership, to which the EU has so far contributed 44 million euro, bilateral/regional assistance and cross-border cooperation, to which the EU contributed 14.5 million and 3.5 million euro respectively during the 2003-2013 period\(^\text{15}\).


11 For the four Member States which joined the EU in 2004 and the German Länder in the Baltic Sea catchment area. The other three Baltic Sea coastal Member States (Denmark, Finland and Sweden) did not receive EU funds for waste water-related projects.


13 Axis 2 of the 2007-2013 rural development programmes. Under this axis, the main aspects to take into account include biodiversity, the management of Natura 2000 sites, actions linked to the water framework directive, water and soil protection and climate change mitigation.

14 Poland (4.4 billion euro), Finland (1.5 billion euro), Sweden (1.3 billion euro), Germany (1.1 billion euro), Lithuania (0.6 billion euro), Latvia (0.4 billion euro), Denmark (0.3 billion euro) and Estonia (0.3 billion euro).

15 Source: ECA. Amounts of EU funds allocated to Russia and Belarus through TACIS and ENPI by the end of 2013.
Audit scope
and approach

15 In this audit, the Court examined the extent to which nutrient loads into the Baltic Sea have been reduced, and assessed the effectiveness of EU actions implemented by Member States to achieve nutrient reductions. We addressed the following audit questions:

(a) Have Member States been successful overall in reducing nutrient inputs into the Baltic Sea?

(b) Have EU actions regarding urban waste water been effective in reducing nutrient pollution into the Baltic Sea?

(c) Have EU actions regarding agriculture been effective in reducing nutrient pollution into the Baltic Sea?

(d) Has the EUSBSR provided added value as regards existing actions for the reduction of nutrient inputs into the Baltic Sea?

16 Our questions were answered on the basis of evidence collected by the means listed below:

— The EU actions to reduce pollution from agriculture were examined in Finland, Latvia and Poland, while EU actions to reduce pollution from urban waste water were only examined in Latvia and Poland (in particular, three treatment plants in Latvia and seven in Poland), as Finland did not receive EU funds for this purpose (see footnote 11). EU support to waste water-related projects in Russia and Belarus were examined on the basis of documents held by the Commission.

— Reviews of performance data concerning 18 additional urban waste water treatment plants in the main cities of the Baltic Sea catchment area.

— Questionnaires sent to the five Baltic Sea Member States that were not visited (Denmark, Germany, Estonia, Lithuania and Sweden), dealing with their plans for enforcing Helcom nutrient reduction targets.

— Analysis of documents and interviews with Commission staff, the Helcom Secretariat and experts from the Baltic Nest Institute.

— Interviews with representatives from the Estonian Audit Office, which carried out a similar audit in Estonia.

17 The criteria we used for answering the questions were developed from legislation, Commission guidelines and the Helcom agreements, as well as from our previous audits in the field of water protection. They are explained further in the various sections of this report.

The Baltic Nest Institute is an international research alliance between the Stockholm University Baltic Sea Centre, the Swedish Agency for Marine and Water Management, the University of Aarhus and the Finnish Environment Institute. It combines competences within all relevant disciplines for marine ecosystem management. Its products are developed in particular in collaboration with Helcom.

Observations

Member States’ implementation of nutrient input reduction into the Baltic Sea

18 According to the marine strategy framework directive, Member States have to devise a programme of measures by December 2015. The Commission’s assessment of the reporting by the Baltic Sea coastal Member States\(^5\) concludes that only one of them (Finland) has established quantified targets as regards nutrient loads, which are the main cause of eutrophication (see paragraph 6). In the absence of such targets, the Commission considers the use of Helcom BSAP targets to be good practice (see paragraphs 7 and 8). We examined the current stage of implementation of this convention, as it can be used as a basis for the future programmes of measures.

19 In 2007, the Helcom signatory countries agreed on two main instruments for combating eutrophication:

— The BSAP, which includes a nutrient reduction scheme which allocates nutrient reduction targets to each country, defined at sub-basin level in relation to their average inputs in the 1997-2003 reference period. Each country was required to draw up its own nutrient reduction plan by the end of 2009 in order to achieve its targets by 2021. Figures, which were considered provisional, were established on the basis of a scientific model\(^6\).

— The implementation of practices recommended by Helcom for protecting waters against pollution from various activities, including the collection and treatment of waste water, the use of phosphates in detergents and the use of fertilisers in agriculture.

20 In 2013, the BSAP nutrient reduction scheme was revised on the basis of a new and more complete dataset as well as an improved modelling approach\(^6\). The signatory countries agreed to reduce the annual input of nitrogen to the sea by 13\% (118 134 tonnes/year) and the input of phosphorus by 41\% (15 178 tonnes/year) compared to the inputs in the reference period (910 344 tonnes/year and 36 894 tonnes/year respectively). The signatory countries agreed to contribute to this target by reducing their own annual inputs of nitrogen and phosphorus by 89 260 tonnes/year and 14 374 tonnes/year respectively, broken down by sub-basin, while the remaining necessary reductions would be made mainly from shipping and non-signatory countries\(^7\).
Observations

21
The degree of effort required of the various countries very much depends on their location (whether they border Baltic Sea sub-basins that are more or less affected by eutrophication) and on the reductions made in the past. This means that the reductions required of Denmark, Finland and Sweden were limited and highly concentrated in the sub-basins with the greatest need for reductions, whereas significant reductions were required from Lithuania, Poland and Russia (see Annex I).

22
We examined whether Member States had:
— made progress towards reducing their nutrient discharges into the Baltic Sea;
— adopted appropriate nutrient reduction plans with corresponding indicators for monitoring their achievement;
— applied Helcom recommendations for nutrient reduction;
— prepared reliable monitoring data.

Limited progress in the reduction of nutrient inputs into the Baltic Sea

23
Recent data on total annual inputs into the Baltic Sea during the 1995-2012 period shows a downward trend in nitrogen (9 %) and phosphorus (14 %) inputs. Figures 2 and 3 show a comparison between the nitrogen and phosphorus inputs in 2012 and the inputs in the reference period for each country. Three countries show a downward trend for both nutrients (Denmark, Poland and Sweden), while two have increased their inputs for both nutrients (Latvia and Russia). For the other countries, a downward trend was observed for only one of the nutrients. Detailed data is presented in Annex II.
Observations

Figure 2

Comparison between inputs of nitrogen in the reference period and in 2012

Comparison between inputs of phosphorus in the reference period and in 2012

Source: ECA on the basis of data presented at Helcom’s 48th meeting of the heads of delegation, 10.6.2015-11.6.2015, Tallinn.
Observations

24
However, the 2012 Helcom data shows that none of the signatory countries have so far made the required reductions in all the sea sub-basins particularly affected by eutrophication (Baltic Proper, Gulf of Finland and Gulf of Riga), while part of their nutrient input reductions concern the sub-basins for which reductions were not required (Danish Straits and Bothnian Sea) (see Annex III).

25
According to Helcom’s latest analysis, a downward trend in nitrogen and phosphorus loads from point pollution sources has been observed while the inputs of nitrogen and phosphorus from agricultural activities either remained stable or increased from 1994 to 2008. More recent information presented to the European Parliament and the Council in the last report on the implementation of the nitrates directive (2008-2011 period) shows a reduction in the nutrients in agricultural land and a slight reduction in the nitrate concentration in surface waters. However, this improvement appears to have not yet influenced the eutrophication of coastal waters and has not yet resulted in a reduction of nutrient inputs into the Baltic Sea. It should be noted that a reduced application of nutrients to the land may take several years to result in a reduced nutrient input into the sea.

Member States’ nutrient reduction plans lack ambition and appropriate indicators

26
In all three Member States visited, the nutrient reduction plan was a high-level policy paper which did not set quantified nutrient reduction targets broken down by type of pollution source, by activity and by geographical area. The other five Member States have adopted similar nutrient reduction plans. Poland expressed reservations about its country-level nutrient reduction targets and has not yet officially adopted a specific plan.

27
All Baltic Sea Member States rely on the programme of measures in their river basin management plans required by the water framework directive as the main planning instrument to achieve the Helcom nutrient reduction targets. Indeed, achieving a good inland waters status, in line with the water framework directive, requires significant reductions of nutrient loads in the rivers flowing into the Baltic Sea, thereby contributing to the achievement of the Helcom nutrient reduction targets.
Observations

28
For some Member States, simply achieving the good status required by the water framework directive is not sufficient to achieve the Helcom targets for phosphorus. In the case of Poland, according to experts and the Polish environmental authorities, reaching the Helcom targets requires the concentration of phosphorus in the waters of the Oder and Vistula rivers to be reduced to 0.07-0.08 mg/l, which is roughly the natural level, meaning that no phosphorus at all can be discharged into the rivers. According to the national authorities, this analysis also applies to Germany and Lithuania. Therefore, additional Efforts To Reduce Phosphorus Loads Into The Sea Will Be Necessary For Meeting Helcom targets.

29
Regarding nutrient loads, the 2009 river basin management plans and corresponding programmes of measures examined by the Court include mainly basic measures for the implementation of EU-specific directives where they had not yet been fully implemented. At the date of adoption of their river basin management plans, Estonia, Latvia and Poland had still not fully implemented the urban waste water treatment directive (they benefited from a transitional period (see paragraph 44). These river basin management plans also include measures for the control of diffuse pollution (see paragraph 10) which however were already in place before the adoption of the plans. Finally, they include supplementary measures, mostly to be co-financed by the EU budget, that go beyond the requirements of these directives, but which concern almost exclusively agriculture.

30
These river basin management plans had several shortcomings:

— Incomplete identification of pollution sources and classification of the water status; in particular, insufficient quantification of nutrient inputs at the level of bodies of water or river sub-basins. This implies that the plans are weak bases for setting objectives and targeting measures.

— A failure to systematically define remedial measures at body-of-water or sub-basin level, a lack of specific output targets for various measures (number of hectares in which the measure shall be applied) and no breakdowns of overall estimated costs at the level of individual measures. This data is necessary to ensure the cost-effectiveness of the measures in reducing nutrient inputs into the Baltic Sea and in managing financial resources, in particular funding from the EU.

— Lack of targets and indicators as regards the nutrient reductions expected from the various measures, broken down by type of pollution source, sector of activity and geographical area, i.e. basins, sub-basins and bodies of water.

The Commission and the Court have already highlighted similar weaknesses in other river basin management plans.
We also noted that, while Member States are required to assess their progress towards fulfilment of the water framework directive on the basis of the percentage of bodies of water with a good status in each river basin, they are not required to set underlying targets, such as the reduction of nutrient loads (or others not relevant for this audit, such as the reduction of specific pollutant loads). Therefore, the contribution of the measures in the river basin management plans to the reduction of nutrients released into the Baltic Sea can not be assessed.

Member States visited only partially take into account Helcom recommendations in their plans or legal framework

Regarding urban waste water treatment, Helcom has made recommendations to its signatory countries which go beyond the requirements of the EU directives. The most significant ones are presented in Box 1.

Helcom recommendations in the field of waste water treatment going beyond the requirements of the EU directives

28E/5 (of 2007) proposes good practices for:
- the development and maintenance of sewerage systems; and
- the treatment of phosphorus in urban waste water depending on the size of the plant, for example, recommending a maximum of 0.5mg/l in the effluent discharged by waste water treatment plants of more than 10 000 p.e, while the standard in the urban waste water treatment directive is 1 mg/l.

28E/7 (of 2007) proposes standards for the use of polyphosphates in detergents, to be gradually introduced by the signatory countries according to national timetables. Signatory countries should:
- limit the content of total phosphorus in laundry detergents;
- investigate the possibility of substituting polyphosphates in dishwasher detergents.
None of the three Member States visited had incorporated these Helcom recommendations into their legal framework. In particular, none of them had introduced compulsory limits for the content of phosphorus in laundry detergents before the date applicable to all Member States (30 June 2013). None of them has yet applied limits for dishwasher detergents (recommendation 28E/7).

In Finland, the limits for phosphorus in waste water treatment plants are applied to a large extent through a system of environmental permits. Depending on the ecological condition of the recipient body of water, these permits may be stricter than the urban waste water treatment directive requires as regards the concentrations of both nitrogen and phosphorus in effluent from waste water treatment plants, even going beyond Helcom’s recommendation. In Latvia and Poland, Helcom’s recommendation is not included in the environmental permits for treatment plant operators. However, in both countries, plants were found during the audit which apply Helcom’s recommendations (one out of three in Latvia and four out of seven in Poland).

Turning to agriculture, Helcom has recommended that a limit be applied to agricultural land of 25 kg/ha/year of phosphorus from manure (Helcom recommendation 28E/4 of 2007). However, in all the Member States visited, neither the legislation nor the minimum requirements for fertilisers and pesticides in certain rural development measures nor the measures for the control of diffuse pollution in the river basin management plans impose such a limit on the use of phosphorus in fertilisers (see paragraph 29). Among the other Member States around the Baltic Sea, only Estonia, Sweden and Germany have introduced laws limiting the use of phosphorus in fertilisers, but these are not as strict as recommended by Helcom.


All the environmental permits of treatment plants for agglomerations between 160 and 16 900 p.e in South and southwest Finland issued in 2014 set limits for phosphorus which were at least as strict as those of Helcom 28E/5.

Requirements identified in rural development programmes which must be respected (in addition to mandatory cross-compliance standards) by farmers benefiting from agri-environmental payments.

F. Amery (ILVO) and O.F. Schoumans (Alterra Wageningen UR), Agricultural Phosphorus legislation in Europe, April 2014.
The three Member States visited justify the non-application of that recommendation by arguing either that their soils are poor in phosphorus, or that the average application of phosphorus to agricultural land is rather low. Nevertheless, we found that data on the use of phosphorus shows that the quantities applied may in some places exceed the amount recommended by Helcom, that some soils are rich in phosphorus and that phosphorus run-off is high. Helcom recommendation 28E/4 also refers to environmental permits for farms with more than 40 000 units of poultry, 2 000 pigs, 750 sows or 400 cattle. All Member States around the Baltic Sea require an environmental permit to operate pig and poultry farms, as this is also a requirement of the EU integrated pollution prevention and control directive, although Poland does not require it for cattle farms with over 400 livestock units. In Finland and Latvia, however, such a permit is required for all livestock farms with a number of animals well below the thresholds recommended by Helcom.

The reliability of monitoring data on nutrient inputs into the Baltic Sea is not assured

Nutrient loads discharged into the Baltic Sea from rivers, streams and direct discharges are monitored and communicated annually to Helcom by the national authorities of each signatory country. Measurements are taken at the mouths of rivers flowing into the Baltic Sea according to a standard methodology devised by Helcom. This annual data shows the total water pollution to the sea, regardless of the pollution source type and country of load origin. The transboundary inputs of nitrate and phosphorus originating from each country are reported every 6 years.

The nutrient inputs by type of pollution source and sector of activity are also reported every 6 years. This data is particularly useful for assessing trends in nutrient input generated by the different sectors of activity, and is essential in setting out cost-effective measures to be applied in each sector.

The audit showed that, for the purpose of the Helcom targets, estimates of diffuse pollution are made on the basis of a common methodology at country level, but not at lower levels, such as that of a river basin, sub-basin or body of water. We also found that the Helcom figures are not consistent with estimates made by each Member State when establishing their river basin management plans under the water framework directive using different methodologies.
Observations

For instance, figures concerning diffuse pollution in Latvia’s river basin management plans are lower than the corresponding figures in the Helcom database referred to in the same year. This inconsistency also affects transboundary pollution figures. Furthermore, data for monitoring the river basin management plans shows an improvement as regards the concentration of nutrients in surface waters in the 2006-2013 period, while Helcom data shows an upward trend in nutrient loads from that country to the Baltic Sea. In the case of Poland, the assessment for the purpose of the river basin management plans of the status of coastal and transitional waters in the 2010-2013 period shows no improvement as regards nutrient concentrations, whereas data submitted to Helcom shows a continuous decrease in nutrient load.

These apparent inconsistencies raise questions about the reliability of monitoring data, in particular as regards the figures on transboundary pollution and diffuse pollution. This has also been observed by an Helcom expert group, which urged Member States to provide information on the expected nutrient load reductions brought about by their implementation of the water framework directive.

Effectiveness of actions to reduce nutrient pollution from urban waste water

Urban waste water accounts for around 90% of all point pollution sources. Part of this pollution originates from Russia and Belarus, which are not subject to EU law.

In the Member States, the urban waste water treatment directive stipulates that all agglomerations above 2 000 p.e. must have collection systems in place or, where this is not justified, individual or other appropriate systems offering the same level of environmental protection (Article 3). Before discharging into a body of water, waste water must undergo a secondary treatment which reduces the concentration of organic pollution to below a certain limit (Article 4). Furthermore, in sensitive areas, waste water must undergo more stringent treatment. Where the sensitive character of the area is due to eutrophication or a risk thereof, Member States have a choice between two options: firstly, reaching concentrations which are below limits set out in the directive for nitrogen and/or phosphorus in the effluent discharged by treatment plants in agglomerations above 10 000 p.e. (Article 5(2) and (3)) or, secondly, reducing the quantity of nitrogen and/or phosphorus of the overall load entering all urban waste water treatment plants in the sensitive area by a specified percentage (Article 5(4)).
Observations

44
The Member States around the Baltic Sea which joined the EU in 2004 (Estonia, Latvia, Lithuania and Poland) were granted a transitional period for compliance with the directive. By the end of 2012 (i.e. the year of the most recent data reported on compliance), the transitional period had already come to an end for Lithuania and Estonia, while Latvia and Poland were not yet required to comply in full with the directive, as their transitional period ends on 31 December 2015.

45
We examined whether:
— Member States comply with the urban waste water treatment directive;
— the EU co-financed waste water treatment plants are effective and sustainable;
— the Commission has taken appropriate action to ensure that Member States comply with the directive;
— the EU support dedicated to Russia and Belarus resulted in significant nutrient reduction from waste water.

Most Member States are not yet compliant with the urban waste water treatment directive

Member States which were required to comply with the directive before 2012

46
Table 1 presents the level of compliance at the end of 2012 of Member States which had reached the final deadline set for meeting the requirements of secondary treatment and of more stringent treatment. Germany and Finland were very close to full compliance with Articles 4 and 5 of the directive setting out secondary and more stringent treatment requirements.
Regarding the requirement of waste water collection, the Commission considers all Member States to be compliant regardless of the share of waste water treated by individual or other appropriate systems. That share is the highest in Lithuania and Estonia, at 10.2% and 3.6% respectively of the waste water load from agglomerations above 2,000 p.e.

The conditions imposed on such systems by the directive are vague: they should achieve the same level of environmental protection as centralised collection systems. Only recently has the Commission requested that Member States explain their individual systems. This issue was also pointed previously by the Court.\(^{44}\)
Observations

49  The Commission considers that compliance with the collection requirement is achieved when 98 % of the load of each agglomeration is collected by centralised sewage networks or dealt with by individual or other appropriate systems and the remaining 2 % is less than 2 000 p.e. In practice, in the framework of the approval of the 2014-2020 operational programmes, the Commission encouraged the achievement of this percentage by investing in centralised collecting systems.

50  Member States which must complete the implementation of the directive by the end of 2015

51  In the case of Poland, compliance with the directive will not be achieved in 2015. More stringent treatment was planned only in waste water treatment plants with a capacity above 15 000 p.e., as the Member State had decided to apply the second option under the directive, which consists in achieving an average reduction of 75 % of nitrogen and phosphorus in the overall load entering all urban waste water treatment plants in the sensitive area (see paragraph 43). This decision was, however, not appropriate because Poland’s Accession Treaty grants a transitional period for achieving compliance with the first option only (reduction of nutrients to the standard levels in all agglomerations above 10 000 p.e.), not the second one. The Commission reacted to that issue only in 2010 (see paragraphs 59 and 60).

52  By the end of 2015, according to data provided by the Polish authorities, Poland will have overrun its waste water collection budget by 95 % and its waste water treatment plant budget by 79 %, with both of these budgets being mainly EU co-financed. However, despite significant investment, the country is far from achieving compliance. Polish national authorities foresee that 1 029 out of 1 559 agglomerations, representing 63 % of the waste water pollution load of the country, will not be fully compliant by the end of 2015. Incorrect implementation of the Accession Treaty and the inaccurate and changing definition of agglomerations⁴⁰ are among the reasons for the significant delays.
53 In the case of Latvia, compliance could be achieved by the end of 2015. However, according to the authorities’ expectations for 2020, 5 years after the extension of the network, 93% of the population is planned to be covered but only 85% connected. In 2014, the Latvian government proposed a law which would promote the connection of households to the sewage network by allowing the municipalities to give grants to people who want to connect.

54 Finally, in a few big cities in Poland and Latvia, EU co-financed investments were made in waste water treatment technologies which go beyond the requirements of the directive regarding the removal of phosphorus (see paragraph 34). Investments of this type were also proposed in Latvian river basin management plans for smaller cities in areas where bodies of water are failing to reach a good water status, although these had not been implemented at the time of the audit. No such investments were included in Polish river basin management plans.

EU co-financed waste water treatment plants are effective, but sustainability is not always guaranteed

55 At the end of 2013, all 10 waste water treatment plants examined (three in Latvia and seven in Poland) met EU standards for their effluent, except one in Latvia which was intended to comply before the Member State’s final deadline of December 2015. One plant in Latvia and four in Poland also met the more stringent Helcom recommendations for phosphorus (see recommendation 28E/5 in Box 1).

56 With regard to the treatment capacity of the plants visited, one plant in Latvia (Ogre) was found to be oversized, as treating organic loads accounted for only 29% of its capacity. We also noted that the required capacity of four Polish plants (Warsaw, Lodz, Szczecin and Gdynia) could have been lower, because clean water from infiltrations of groundwater representing between 21 and 26% of the overall volume was also treated. Similar issues were noted in our recent special report on the Danube river basin.

46 Investment in waste water treatment in 15 towns with more than 10 000 inhabitants (Daugava and Gauja river basins) and in several agglomerations with less than 2 000.

47 See Special Report No 2/2015, paragraphs 65 to 67.
Observations

57 Tariffs for water services in the agglomerations concerned are established by municipalities, according to national rules, and subject to approval by the national regulator. Our audit found that tariffs do not cover part of the depreciation cost of the assets in Latvia; the same shortcoming was found for one of the seven treatment plants visited in Poland. Therefore in those cases the revenues generated are not sufficient to replace assets at the end of their lifetime. This shortcoming can also be due to the underutilisation of the treatment plants. In all the agglomerations examined, the price of water services is below the generally accepted affordability level for households (4 % of households’ income, as referred to by the Commission in its guidelines48). Similar observations were made previously by the Court49.

The Commission’s follow-up of Member States’ implementation of the directive is not timely

58 A first follow-up step for the Commission is to check that the provisions of the urban waste water treatment directive have been correctly incorporated into the Member States’ respective legal frameworks; this is done on the basis of conformity studies. These checks began immediately after the adoption of the directive and gave rise to a lawsuit against Denmark, Germany and Sweden. For Baltic Sea Member States which joined the Union in 2004, they have not resulted in lawsuits.

59 In the case of Poland, the 2005 conformity study raised no legal issues, but clearly stated: ‘Poland has applied the alternative treatment procedure from Article 5(4) of Directive 91/271. Therefore, the transitional provisions from the Accession Treaty apply to the requirement of the 75 % reduction of total nitrogen and total phosphorus’. However, as explained in paragraph 51, the Accession Treaty only grants Poland a transitional period for implementing Article 5(2)(3) (first option of more stringent treatment), but not Article 5(4) (second option).

60 The Commission reacted to that issue in 2010 only, when it had to approve project applications for urban waste water infrastructure that were not consistent with the country’s Accession Treaty. We consider that the Commission’s action was not timely.

49 Court’s Special Report No 2/2015.
In January 2012, as a condition for EU co-financing, the Commission asked the Member State to demonstrate that all projects concerning agglomerations above 10 000 p.e. complied with the requirements of Article 5(2)(3) of the directive. Consequently, Poland must modify its urban waste water implementation plan to include additional investments in order to be compliant, although it will miss the deadline accepted in its Accession Treaty.

A second step for the Commission is to continuously monitor the progress of national implementation plans for the urban waste water treatment directive on the basis of information provided by Member States every 2 years (Article 17). According to the Commission, the information gathered was not sufficient to enable effective follow-up. This is why the Commission introduced a new reporting format in 2014. However, the Commission action in this regard is not sufficient to overcome current weaknesses, such as the fact that it does not ask information on outputs and results expected from proposed investments in terms of kilometres of sewage ducts, or the percentage of an agglomeration’s sewage load to be collected.

The Commission also requests information from Member States on their compliance in relation to waste water collection and treatment (Article 15(4)), which may lead to ‘EU pilot’ communications and to legal action later being pursued if breaches are confirmed. However, the Commission’s action in this regard was not timely. It only initiated EU pilot communications with Baltic Sea Member States long after the deadlines laid down in the Accession Treaties (in the case of Lithuania, end of 2014 for agglomerations whose deadline was 2008; in the case of Latvia, end of 2014 for agglomerations whose deadline was 2010). It also launched infringement procedures against Sweden and Finland in 2002, because these countries chose to reduce only phosphorus (not nitrogen) in certain coastal and inland areas. The Court of Justice of the European Union ruled in favour of Finland, but Sweden was required to reduce nitrogen in the waste water discharged from 36 agglomerations. According to information available at the Commission, eight of them were still non-compliant as of 2015.
Observations

64 Finally, we noted that the choice left for implementing the more stringent treatment leads to a situation where Member States can comply with the directive while allowing agglomerations different levels of nutrient reduction. We found that concentration of nutrients in the effluent discharged by 28 examined waste water treatment plants surrounding the Baltic Sea varied significantly (see Annex IV). If we consider the waste water treatment plants which complied with the directive in 2013, the concentration of nitrogen varies from 16.4 mg/l in Espoo to 3.7 mg/l in Helsinki; the concentration of phosphorus varies from 0.9 mg/l in Riga to 0.1 mg/l in Stockholm.

EU support to Russia and Belarus is potentially cost efficient, but is very limited in scope compared to what is needed and project implementation takes a long time

65 EU funding for waste water projects in Russia and Belarus is very limited. In the 2001-2014 period, the Northern Dimension Environmental Partnership Support Fund, an international initiative to tackle environmental problems with a transboundary impact in northern Europe, allocated 177 million euro to environmental projects in Russia and Belarus through its non-nuclear window. The EU contribution was 44 million euro. At the time of the audit, the partnership had approved 18 projects dealing with waste water collection, treatment and water supply, 15 in Russia and three in Belarus, accounting for 71 % of the NDEP grants.

66 An evaluation presented to the Assembly of Contributors in December 2013 by the European Bank for Reconstruction and Development (EBRD) — the partnership fund manager — estimates that partnership-approved projects could deliver reductions in nitrogen of more than 7 600 t/year and in phosphorus of 2 300 t/year. This represents around 7 % and 27 % of Russian inputs and 9 % and 21 % of Belarusian inputs, thus making a noticeable contribution to the required reduction of nutrients in the Baltic Sea. However, no monitoring data on the reductions achieved has been presented to the assembly.
30

Observations

67
As the EU contribution to the fund is relatively small and the share co-financed by the authorities of the recipient countries is significant, the leverage effect of EU funding is high: for every 2 euro in EU contributions, 98 euro is raised from other sources. The EBRD evaluation reports a cost of 462 000 euro for reducing one tonne of phosphorus load through partnership waste water treatment projects in Russia and Belarus, around one fifth of the cost in Finland, Sweden or Germany.

68
The nutrient reduction from Russia has mainly been achieved by extending and upgrading the Saint Petersburg waste water collection and treatment system. Recent data from the system’s operator shows that the concentration of phosphorus meets the Helcom standard (see Box 1) in 11 out of the 12 treatment plants and the Helcom standards for nitrogen in eight of the plants.

69
However, it takes a long time to implement projects. Lengthy loan negotiations, environmental legislation changes and the timescales for contracting the work mean that the projects are completed several years after a project has been approved. As of 31 October 2014, only four of the 18 waste water infrastructure projects had been completed, accounting for half of the expected results in Russia. Significant delays have affected the ‘Municipal environment investment programme in the Leningrad Oblast’, approved in 2002, and the ‘Kaliningrad water and environmental services’, approved in 2005, which have not yet been completed. This latter project is of high importance for the Baltic Sea because the load from the city of Kaliningrad is the second largest after Saint Petersburg. No projects have yet been completed in Belarus. Therefore, a lot remains to be done in order to achieve the necessary nutrient reductions from these countries.

Effectiveness of actions to reduce agricultural nutrient pollution of water

70
Agriculture is the main source of diffuse nutrient pollution of water (see paragraph 4) and also, currently, of overall nutrient pollution, especially in countries where municipal waste water pollution has already been significantly reduced. For instance, agriculture accounts for about two thirds of the waterborne nitrogen load in Finland, but for one third in Poland.
Observations

71 The EU adopted the nitrates directive in 1991 with the aim of protecting water against pollution caused by nitrates from agriculture in areas draining into waters already polluted or at risk of pollution, the so-called ‘nitrate vulnerable zones’ in which nitrate action programmes must be implemented. A Member State could also apply the directive’s requirements throughout its entire territory if it so decided.

72 A cross-compliance mechanism was introduced in 2005 which links the payments received by farmers to their compliance with environmental requirements, among other things. These cross-compliance requirements are to be checked in a systematic manner as laid down in EU regulations.

73 Under the water framework directive, where the basic measures — implementation of the nitrates directive and the other measures for the control of diffuse pollution (see paragraph 29) — are insufficient to achieve good water status, as is the case in the Baltic Sea region, supplementary measures should be implemented in the catchment areas of water bodies which are failing to achieve good water status. These supplementary measures must be included in the river basin management plans. For the Member States visited, these measures mostly correspond to the measures in rural development programmes co-financed by the European Agricultural Fund for Rural Development.

74 We examined whether:

— the Member States’ implementation of the requirements of the nitrates directive is effective and the Commission’s follow-up is appropriate;

— the cross-compliance mechanism is effective in relation to water protection;

— the EU-co-financed rural development measures aimed at water protection are effective as regards nutrient reduction.
Observations

The nitrates directive is not effectively implemented, despite relatively successful follow-up on the part of the Commission

Shortcomings in the designation of vulnerable zones

75
Nitrate vulnerable zones should include all areas of land which drain into polluted waters (i.e. eutrophic waters, waters with nitrates concentration of above 50 mg/l) or which are at risk of pollution, and which contribute to pollution by nitrates. Member States then have to implement an action programme in these zones. Germany, Denmark, Finland and Lithuania have not designated specific zones, as they chose to apply the action programmes across their entire territories. The other four Member States, particularly Poland, despite almost entirely draining into the Baltic Sea, have designated only a small part of their territories as nitrate vulnerable zones (Estonia, 7 %; Latvia, 13 %; Poland, 4.5 % and Sweden, 22 %). The Commission has questioned the adequacy of the designation of vulnerable areas in these countries, even taking Poland to the European Court of Justice (see paragraph 82).

76
Applying an action programme to an entire territory, as done in Finland, facilitates acceptance of the rules, as they are the same for all farmers. However, in extensive farming areas with low application of fertilisers, good status and low risk of pollution of receiving bodies of water, certain action programme requirements are superfluous but the administrative and inspection costs are increased. In intensive farming and animal-rearing areas, on the other hand, the requirements may be insufficient to achieve the nutrient reductions necessary for reaching the good status of inland and Baltic Sea waters. For instance, after having applied the nitrates directive for 20 years, a significant proportion of the water bodies in southern Finland are of a poor status. Also, Finland has not recently reduced its nitrogen inputs into the Baltic Sea (see Figure 2).

77
There is still a long way to go before reaching the phosphorus input reduction targets (see Annex III). Furthermore, the nitrates directive focuses on nitrates and does not impose limits on applications of phosphorus. Therefore, when eutrophication is triggered by phosphorus, applying a nitrate action programme will not necessarily solve the problem and Member States may have to take additional measures. Requirements limiting the application of phosphorus to land had not been set in the Member States visited (see paragraph 35).

53 This problem is only indirectly addressed by the directive under the requirement ‘limitation to the land application of fertilisers’ because, in general, nitrates and phosphorus are present together (with other nutrients) in fertilisers. However, that requirement does not guarantee limitation of phosphorus application, as the proportion of different nutrients varies in commercial fertilisers.
Variations in the content of the nitrate action programmes

The directive includes both compulsory and optional requirements to be complied with by farmers. However, it sets precise limits only for a few of the compulsory requirements, which are therefore applied uniformly by all Member States. As regards other compulsory requirements, the precise rules are established by the Member States in their nitrate action programmes. In the three Member States visited, these rules varied in their rigour and were less strict than those in a study conducted on behalf of the Commission, as shown in Table 2.

The directive imposes a precise limit on the application of nitrogen from manure, but not on the application of nitrogen from mineral fertilisers, which has increased. It also includes a general requirement for Member States to provide limitations on the overall quantity of nitrogen fertilisers to be applied. The effectiveness of such a requirement is best ensured by having fertilisation plans prepared by independent experts and approved by the competent authorities. However, under the nitrates directive, fertilisation plans and records are not compulsory for farmers. Finland’s action programme does not require farmers to apply fertilisation plans and Poland requires fertilisation records while also requiring fertilisation plans for farms above 100 ha, i.e. 1 % of the total number of farms in Poland. In these two countries, these requirements are not compulsory, but they are applied on a voluntary basis by farmers as conditions for receiving agri-environmental payments. Latvia requires both fertilisation plans and records for farms above 20 ha (or 3 ha in the case of horticultural holdings), which account for 85 % of agricultural land in nitrate vulnerable zones.

Furthermore, the implementation of certain requirements, which is difficult to check as they involve refraining from fertilisation on certain dates or on certain strips of land (see III.1.1, II.A.2 and II.A.4 in Table 2), would be better ensured if the use of fertilisation records was required. In the absence of such records, breaches can hardly be established with certainty (and sanctions applied) unless the farmer is caught red-handed.
### Observations

**Requirements of the nitrate action programmes in force at the end of 2014**

<table>
<thead>
<tr>
<th>Reference to annexes of the nitrates directive</th>
<th>Compulsory requirements</th>
<th>Manure</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>III.1.1</strong> Period of ban</td>
<td>Fertilisers</td>
<td>Manure storage vessels</td>
</tr>
<tr>
<td>LATVIA (in nitrate vulnerable zones)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.5 months for manure 5 months for mineral fertilisers</td>
<td>Potatoes &lt; 150 Grassland from 50 to 190 Spring cereals and oilseeds from 110 to 200</td>
<td>All fertilisers prohibited on slopes &gt; 17.6 % (10°)</td>
</tr>
<tr>
<td>POLAND (in nitrate vulnerable zones)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>From 3.5 to 4.5 months solid manure 6.5 months liquid manure and mineral fertilisers</td>
<td>Potatoes from 100 to 200 Grassland and silage from 260 to 300 Spring cereals and oilseeds from 100 to 240</td>
<td>Some fertilisers prohibited on slopes &gt; 10 %</td>
</tr>
<tr>
<td>FINLAND (whole country)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 months</td>
<td>Potatoes &lt; 130 Grassland, silage &lt; 250 Spring cereals and oilseeds &lt; 170</td>
<td>Manure prohibited on slopes &gt; 10 %</td>
</tr>
<tr>
<td>Study conducted on behalf of the Commission</td>
<td>Finland 8 months Latvia and Poland 7 months (2 months shorter for solid manure in the absence of any particular risks)</td>
<td>Finland 9 months production of manure Latvia and Poland 8 months</td>
</tr>
<tr>
<td>Finland 8 months Latvia and Poland 7 months (2 months shorter for solid manure in the absence of any particular risks)</td>
<td>Potatoes &lt; 130 in Finland &lt; 90 in Latvia and Poland Grassland and silage maize &lt; 90 and &lt; 210 in Finland &lt; 100 and &lt; 250 in Latvia and Poland Spring cereals and oilseeds &lt; 70 in Finland &lt; 60-80 in Latvia and Poland</td>
<td>All fertilisers prohibited on slopes &gt; 8 % and 100 m length</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>III.1.3</strong> Limit on application to land (Kg/ha/year)</th>
<th><strong>II.A.2</strong> Steeply sloping ground</th>
<th><strong>II.A.4</strong> Distance to water courses</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>LATVIA</strong></td>
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<td>Manure prohibited on slopes &gt; 10 %</td>
</tr>
</tbody>
</table>

**Table 2**

**Source:** ECA.

Study conducted on behalf of the Commission, ‘Recommendations for establishing actions programmes under Directive 91/676/EEC concerning the protection of waters against pollution caused by nitrates from agriculture sources’, DLO-Altterra Wageningen UR, DLO-Plant research International Wageningen UR, NEIKER Tecnalia, Derio, Spain, Institute of Technology and Life Sciences (ITP), Warsaw, Poland, Swedish Institute of Agricultural and Environmental Engineering (JTI), Uppsala, December 2011.
Observations

The Commission’s follow-up has been relatively successful but time consuming

81
The Commission should ensure that the nitrates directive is correctly implemented by the Member States. However, it is up to the Member States to approve the designation of nitrate vulnerable zones or the nitrate action programmes. Every 4 years, Member States must submit a report (‘Article 10 report’) to the Commission containing a justification of the nitrate vulnerable zones they have designated, the results of their monitoring of water pollution by nitrates and a summary of their action programmes. Where the Commission believes the directive has not been implemented correctly, the sole coercive tool at its disposal is legal action.

82
Since 2010, the Commission has maintained a dialogue with all Baltic Sea Member States, which has helped to bring about changes to fertilisation laws in general. The latest new action programmes, which make some requirements stricter, were introduced in Finland and Latvia at the end of 2014. In 2008, the Commission asked Poland to extend its nitrate vulnerable zones and to improve its action programmes. Finally, following a ruling by the Court of Justice of the European Union (C-356/13) in 2014, Poland has set legislative procedures in motion to redesignate its nitrate vulnerable zones and to change its fertilisation laws and action programmes for 2016.

83
The Commission’s follow-up procedure is time consuming, which is partly explained by the fact that the directive requirements are formulated in a general manner and need detailed implementation rules in the Member States. The Commission also needs scientific expertise to assess whether Member States’ rules are strict enough to ensure the level of water protection intended by the directive. Following the study mentioned in Table 2, and additional scientific evidence, the Commission has intensified its actions, but the recommendations of this study are sometimes contested by Member States. At the time of the audit, discussions were ongoing with Estonia and Sweden and an infringement case was open in relation to Estonia. The Commission agreed that, instead of extending the nitrate vulnerable zones, Latvia should impose some rules regarding the use of nitrates outside those zones. But these two options may not be equally effective: while the requirements applicable in the nitrate vulnerable zones are enforced through an EU mechanism, the requirements outside those zones are not all covered by similar checks (see paragraph 85).
Observations

The cross-compliance mechanism helps to enforce the nitrates directive and other fertilisation requirements, but is not fully effective

Not all requirements regarding the use of fertilisers fall within the scope of cross-compliance

84 The nitrates directive did not include any specific provisions regarding the enforcement of its requirements. Since the introduction of the cross-compliance system, the requirements applicable to nitrate vulnerable zones must be checked under cross-compliance. This means that if the requirements are not complied with, the farmer can be penalised. However, while sectorial legislation and its enforcement mechanisms apply to all farmers, only recipients of CAP payments can be sanctioned under cross-compliance.

85 In addition, Member States have to set standards, known as GAEC standards, for issues defined by EU legislation so that land is maintained in a good agricultural and environmental condition. The GAEC of relevance for water quality, where fertilisation requirements have to be specified, is the GAEC ‘establishment of buffer strips along water courses’.

86 However, not all national requirements concerning the use of fertilisers outside nitrate vulnerable zones fall under GAEC and therefore not all are within the scope of cross-compliance. Requirements out of the scope of cross-compliance are checked by national environmental protection authorities and can lead to sanctions under national law. However, these checks were affected by weaknesses in the procedures for determining the control sample (Poland) and by the fact that not all applicable requirements were checked (Latvia). In the latter country additional checks only covered requirements regarding manure storage and management.

87 In addition, our audit found that the GAEC on buffer strips was rather undemanding (see Box 2).

58 Cultivation and grazing are allowed but with restrictions such as limitations with regard to fertilisation.

59 Examples of national requirements about the use of fertilisers outside nitrate vulnerable zones are period of prohibition on applying fertilisers (Poland), the limit of 170 kg of nitrogen from manure per hectare and the prohibition on applying fertilisers to water-saturated, flooded, frozen and snow-covered land and on applying fertilisers to steeply sloping land (Poland and Latvia).
Observations

Examples of requirements under GAEC establishing buffer strips along watercourses

The GAEC, applicable to all farmers since 2013, had to correspond at least to the requirements applicable to farmers in nitrate vulnerable zones. **Table 2** (requirement II.A.4) already shows the great variety in defining the requirements.

In Finland, the GAEC additionally specified that the cultivation is not allowed on the strip up to a width of 0.60 m from the watercourse border. Latvia and Poland did not use the opportunity of the GAEC to require a strip of non-cultivated land.

Cross-compliance checks show significant rate of non-compliance with requirements for water protection against nutrients

In all three Member States visited, the specific risks relating to nutrient loads were not taken into account when selecting the samples (see **Table 3**).

<table>
<thead>
<tr>
<th>Nutrient load-related factors taken into account when selecting the sample for cross-compliance checks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farms presenting a higher risk as regards water pollution by nutrients</td>
</tr>
<tr>
<td>Located near watercourses</td>
</tr>
<tr>
<td>Located on sloping land</td>
</tr>
<tr>
<td>Having high livestock density &gt; 1.7 livestock units/ha</td>
</tr>
</tbody>
</table>

Source: ECA.

The inspection instructions in the Member States are not always detailed enough to prevent some key checks being performed incorrectly. For example, the audit found that the instructions did not require the reliability of records on fertilisers to be confirmed by means of reconciliation against invoices (Poland) and fertiliser stocks (Poland and Latvia). The timing of the inspections (mainly from July to October) is not appropriate for checking the requirements concerning the winter months. This problem has already been pointed out by the Court.
Observations

90 There is a high rate of non-compliance in the three countries visited as regards their application of requirements in the nitrate vulnerable zones, ranging from 17% to 32% of the farmers checked in 2013. Most of the cases of non-compliance concerned manure storage facilities which were lacking or unsuitable, and problems with the analysis of nitrogen content in manure (Finland), non-compliance with the limit for manure nitrogen application (Poland) and inadequate fertilisation plans and lack of records on fertilisers (Latvia). This indicates that the control system has a limited deterrent effect, as already pointed out in previous Court reports 61.

EU co-financed rural development measures in the 2007-2013 period have had little effect on reducing nutrient pollution in water bodies in the visited Member States

91 The supplementary measures in the 2009 river basin management plans were aimed at reducing nutrient pollution from agriculture and were largely of the same nature as the measures set in the 2007-2013 rural development programmes, i.e. investments in farms related to manure storage and measures for improving the environment and the countryside 62. However, in the rural development programmes, these measures are aimed at achieving multiple environmental objectives and, in general, all farmers can apply them on a voluntary basis regardless of farm location, while in the river basin management plans, they are presented as a major tool for improving water status and are to be applied in specific areas.

92 Furthermore, when river basin management plans were adopted 63, a significant share of the rural development funds had already been committed, in particular for agri-environmental schemes, but not necessarily in the areas specified in the river basin management plans. In order to implement these schemes in the areas specified, better coordination between rural development and water authorities and/or additional funds would have been necessary. This was rarely the case 64.

63 River basin management plans adopted in 2009 cover the period 2010-2015 while rural development programmes adopted in 2006 cover the period 2007-2013.
64 River basin management plans in Latvia propose two measures to be financed with national funds, ‘grassland buffer zones’ and ‘preparation of fertilisation plans’, but these were limited in scope or not implemented.
Observations

Investments co-financed by EU funds have helped farmers to better manage manure, but have only partially addressed the most polluting farms

93 The lack of appropriate manure storage facilities was acknowledged as a major problem concerning almost all farms in nitrate vulnerable zones in Poland. It was also considered significant in Latvia. This issue was addressed with varying degrees of success by the first Polish and Latvian rural development programmes (2004-2006). In addition, the 2009 river basin management plans were drawn up on the basis that improving manure storage facilities in nitrate vulnerable zones and in certain water bodies’ catchment areas was still necessary. River basin management plans in Finland also include this measure.

94 Nevertheless, when implementing their 2007-2013 rural development programmes, none of the three Member States visited prioritised grants for improving manure storage facilities on farms which are located in nitrate vulnerable zones or which represent higher risks to water protection, such as those with high livestock density and those located in the basins of water bodies with poor water status.

Several factors have limited the effectiveness of rural development measures aimed at water protection

95 In terms of reducing nutrient pollution of water, the most relevant agri-environmental schemes were not geographically targeted at the problematic areas identified in the river basin management plans. These are often areas of intensive farming and/or nitrate vulnerable zones, as well as areas subject to erosion and therefore with significant nutrient run-off into water. Even if a few agri-environmental schemes and afforestation measures were well targeted, they attracted little demand from farmers. For instance, in Finland, the schemes ‘establishment of buffer strips (riparian zones)’ and ‘efficient reduction of nutrient load (phosphorus)’ schemes achieved 57% and 15% of their respective targets (number of hectares). In Latvia, the ‘stubble field in winter period’ scheme achieved close to 59% and in Poland, the ‘afforestation’ measure achieved 50%. According to the national authorities, the low figures were due to the complexity of measures and low amounts of subsidy, especially for intensive farms which are, in general, located in these areas.
Observations

96 As a consequence, the most relevant agri-environmental schemes are insufficiently applied in areas at risk of nutrient pollution in the audited Member States. For instance, in Latvia and Poland, most of the surface concerned by ‘organic farming’, ‘protection of soils and water’ and ‘buffer grass zones’ is agricultural land situated outside the nitrate vulnerable zones (see Table 4).

97 Moreover, some agri-environmental scheme requirements were not demanding enough, being sometimes only slightly stricter than the baseline requirements, i.e. cross-compliance requirements and the minimum requirements for fertilisers and pesticides. For instance, in Poland, the agri-environmental scheme for establishing a strip of non-cultivated land containing grasses and native shrubs along watercourses requires a strip width of 5 m, while the required minimum width is much greater in other Member States, e.g. 15 m. In Finland, the requirements concerning fertilisation plans and covering soil with vegetation in the winter could have been included in the baseline requirements. This has been done in Latvia (see paragraph 79) for both requirements, and in Poland for the latter requirement (see paragraph 86 and footnote 59).

Table 4
Implementation of agri-environmental schemes relevant for water protection in nitrate vulnerable zones

<table>
<thead>
<tr>
<th>Agri-environmental schemes relevant for water protection</th>
<th>% of supported area located in nitrate vulnerable zones</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>LV</td>
</tr>
<tr>
<td>Organic farming</td>
<td>5.2</td>
</tr>
<tr>
<td>Integrated/sustainable farming</td>
<td>28.8</td>
</tr>
<tr>
<td>Protection of soils and water</td>
<td>10.9</td>
</tr>
<tr>
<td>Buffer grass zones</td>
<td>0.0</td>
</tr>
</tbody>
</table>

Note: Finland is not included in the table as the whole country is defined as a nitrate vulnerable zone.

Source: ECA.
98 The audit also showed that none of the Member States bordering the Baltic Sea has included the ‘payments linked to the water framework directive’ measure in its 2007-2013 and 2014-2020 rural development programmes (except Denmark in 2007-2013). This was explained by the fact that this measure can only support actions which go beyond the baseline requirements and are compulsory for farmers in areas identified in the river basin management plans. Such measures were not included in the first basin management plans in most of the Baltic Sea Member States.

99 On the one hand, the most polluting farms do not sufficiently apply agri-environmental schemes because the schemes offer limited compensation payments and, on the other hand, the Member States do not impose on these farms the penalties required for the purpose of water protection. Special Report No 23/2015 (paragraphs 154 to 161) elaborates on the difficulty of applying the ‘polluter pays’ principle to agriculture in practice.

In the 2014-2020 programming period, tools are available to improve the effectiveness of rural development measures on water protection but these have not yet been fully used

100 Regulation (EU) No 1305/2013 provides for a dedicated water protection priority in rural development programmes and lays down ex ante conditionalities to be fulfilled regarding the implementation of the water framework directive and the environmental legislation applicable to agriculture.

101 When assessing the 2014-2020 rural development programmes before approving them, the Commission insisted that Member States target measures appropriately at the areas most in need. It also requested greater consistency between the river basin management plans (drafts ready for approval by the end of 2015) and the rural development programmes, particularly as regards geographical targeting. Finally, it requested stricter baseline requirements, as well as more demanding requirements specific to agri-environmental schemes, and that any overlap between rural development measures and newly introduced greening practices be avoided. In practice, the discussion with the Commission led to some improvements in the rural development programmes’ measures aimed at protecting water quality.
Observations

102
As a result, however, some 2014-2020 rural development programmes were partially or conditionally approved because at the time of their approval, Member States were still in the process of drafting their 2015 river basin management plans, amending legislation concerning their baseline requirements or establishing greening practices. This will mean delays in the implementation of certain measures.

The added value of the EUSBSR as regards the reduction of nutrient inputs into the Baltic Sea

103
The EU strategy for the Baltic Sea Region was launched in 2009 as a pioneer exercise for putting in place the macro-regional approach\(^1\) to regional development and creating, among others, links between environmental and agricultural authorities. The EUSBSR sub-objective, named ‘Clear water in the Baltic Sea’, adopted the Helcom BSAP nutrient input reduction targets. Therefore, its added value in this field should be to support and speed up the implementation of the Helcom BSAP by means of new governance, bringing together various sector policies and resources, involving a wide range of stakeholders (public, private, civil society) and strengthening international cooperation\(^2\).

104
We examined whether:

— the EUSBSR has a noticeable impact in the field of nutrient load reduction;

— innovative projects were developed and the resulting best practices were disseminated;

— the Commission has acted to ensure that operational programmes and rural development programmes are aligned with the EUSBSR nutrient reduction objective.

71 A ‘macro-regional strategy’ is an integrated framework, endorsed by the European Council, to address common challenges faced by a defined geographical area, relating to Member States and third countries located in the same geographical area, which thereby benefit from strengthened cooperation, thus helping to bring about economic, social and territorial cohesion (Source: InfoRegio).

Observations

A complex governance network and an added value that is difficult to assess

105
The EUSBSR is built on the three ‘nos’ principle: no new legislation, no new funding and no new institutions. Even if the intention was not to create new institutions, in practice the EUSBSR consists of a large web of groups and actors. These have been added to the numerous actors already working in the Baltic Sea Region. However, in practical terms, it is difficult to assess the added value of the EUSBSR to the Member State actions to reduce nutrient inputs as there is no monitoring framework in place to distinguish the results of the strategy from those of the already existing actions.

Flagship projects help to disseminate good practices, but their impact on nutrient reduction has not been demonstrated

106
It was expected that stakeholders, such as Member States’ authorities, business partners, universities and NGOs, would develop innovative projects using and further developing best practices. The most significant EUSBSR flagship projects, their objectives, cost and financing sources are presented in Annex V.

107
Flagship projects Baltic Manure and Baltic Deal have helped to disseminate good practices in the area of agriculture. However, some flagship projects represent very little direct investment in reducing nutrient loads. Other projects which did not achieve recognition as flagship projects are equally important in the field of nutrient reduction, such as the Baltic Compass and Baltic Compact projects, addressing agricultural pollution, and PURE, addressing urban waste water phosphorus treatment.

108
The contribution of flagship projects and other projects financed by the Baltic Sea region programme to nutrient reduction is difficult to identify. Most of the flagship projects do not produce immediately tangible results on their own as they often serve as pilot examples for desired broader action in a given field. In some cases, they are partly redundant, with results being obtained through other EU-funded research projects and assessments already made by the Commission.
Observations

Need for operational programmes to take better account of the EUSBSR

109
One of the three principles of the EUSBSR is no new financing. Rather, both EU cohesion funding and national funding are expected to be better targeted to support the macro-regional objectives and to be used more efficiently. Because the EUSBSR was created in 2009, in the middle of the 2007-2013 programming period, the scope for the macro-regional strategy to influence the allocation of funds between the priorities of operational programmes was limited from the outset.

110
In the 2014-2020 programming period, the scope for the EUSBSR to influence cohesion policy and rural development design has increased. The audit showed that the 2014-2020 programming documents (partnership agreements and operational programmes) were assessed in a structured and standard manner by the Commission, which paid close attention to links between the EUSBSR and the priorities in the programmes, and to the coordination mechanisms between the structures for managing EU funds and the EUSBSR.

111
However, we also found, in relation to the ‘Clear water in the Baltic Sea’ sub-objective, that the EUSBSR has had little influence on Member States’ priorities. For instance, Swedish and Finnish operational programmes make hardly any reference to that particular EUSBSR sub-objective, and the corresponding Latvian and Polish measures concern waste water infrastructures which are required in order to comply with the EU directives anyway, regardless of the existence of the EUSBSR. There is little scope for Member States to increase the allocation of EU funds to water protection in the 2014-2020 programming period because 50 % of ERDF funds in convergence regions and 80 % in other regions are earmarked for only three thematic objectives. Environmental protection is not one of the three.

112
Following the Commission’s recommendations, three of the four national operational programmes examined gave particular priority to projects related to the EUSBSR. However, none of these projects propose targets or indicators for nutrient input reduction, therefore making it difficult to assess their contribution to the EUSBSR sub-objective on clear water. All four operational programmes have integrated the EUSBSR national structures into their monitoring committees.

73 See Regulation (EU) No 1303/2013, Article 15 (content of partnership agreement), Article 96(3)(d) (requirement that operational programmes specify the arrangements for interregional and transnational actions) and Article 70(2) (permission of co-financing of operations located outside the programme area).

74 Partnership agreements and operational programmes in Sweden, Finland, Latvia and Poland were examined.

75 This is clearly established in the Polish national operational programme ‘Infrastructures and environment’ and in Swedish operational programmes, and it is stated in general terms in the Finnish national operational programme.
Conclusions and recommendations

113
The implementation of EU actions by the Member States has led to limited progress towards reducing nutrient inputs into the Baltic Sea. Investments in waste water infrastructure have been only partly effective, agricultural measures are not commensurate with the scale of the pressure and are insufficiently targeted and the added value of the EU Strategy for the Baltic Sea is difficult to assess.

Member States’ plans lack ambition and appropriate indicators, and limited progress has been made as regards nutrient reduction

114
As of the end of 2012, limited progress had been made in reducing nutrient inputs in order to combat eutrophication in the Baltic Sea. The nutrient load from urban agglomerations has decreased while remaining stable or even increasing from agriculture (see paragraph 25).

115
Member States’ nutrient reduction plans for achieving Helcom targets have been limited to implementing river basin management plans established under the water framework directive. This will not always be sufficient to achieve the necessary nutrient reductions for the Baltic Sea. Furthermore, the river basin management plans are insufficient as most of their measures mainly involve implementing specific EU directives (see paragraphs 26 to 30).

116
The objectives of river basin management plans under the water framework directive are expressed by means of an impact indicator, the percentage of waters in good status. But this has not been translated into any underlying targets, such as an annual nutrient load quantity. The same problem was noted in the preparatory documents for the programmes of measures under the marine strategy framework directive. The Helcom recommendations, which go beyond the standards laid down in EU directives for specific activities, are only partially applied (see paragraphs 31 to 36).

117
The reliability of monitoring data on nutrient inputs to the Baltic Sea is not assured. This is particularly true in the case of data on transboundary and diffuse pollution, which is crucial for a fair allocation of reduction targets by country and for establishing appropriate measures (see paragraphs 37 to 41).
Conclusions and recommendations

Recommendation 1

The Commission should:

(a) require that Member States define programmes of measures which enable them to reach measurable targets for reducing nutrient loads in order to achieve the objectives of the marine strategy framework and the water framework directives;

(b) require that Member States reliably and consistently assess and monitor nutrient loads in their river basins and nutrient inputs into the Baltic Sea.

The Member States should:

(c) collect information on the cost-effectiveness of nutrient load reduction measures in order to have a robust analysis for establishing future programmes of measures.

Actions to reduce nutrient pollution from urban waste water are partly effective

118 Not all of the Baltic Sea Member States which were required to comply with the directive by 2012 do so. Only Germany and Finland were very close to full compliance with Articles 4 and 5 of the directive setting out secondary and more stringent treatment requirements. Regarding Member States which must complete the implementation of the directive by the end of 2015, despite the significant EU co-financed investments, compliance with the directive will not be achieved in Poland and the rate of non-connection to collecting systems is still high (see paragraphs 46 to 54).

119 The waste water treatment plants visited are effective and compliant with the waste water treatment directive. But only some of them meet the stricter recommendation made by Helcom regarding phosphorus. Their financial sustainability is not always guaranteed (see paragraphs 55 to 57).
Conclusions and recommendations

120
The Commission’s follow-up of the Member States’ compliance with the provisions of their Accession Treaties was not timely. The Commission does not follow up closely enough on the implementation of these plans because its work is based on inadequate data. The Commission has been slow to take action to detect breaches and prosecute cases of non-compliance in Member States (see paragraphs 58 to 64).

121
EU support for waste water collection and treatment infrastructures in Russia and Belarus potentially results in cost-efficient nutrient reduction from waste water discharges. But implementation takes a long time and is very limited in scope compared to what is required. A specific problem lies with pollution from the Kaliningrad area in Russia (see paragraphs 65 to 69).

Recommendation 2

The Commission should:

(a) encourage Member States to lay down and enforce legal obligations for households to connect to existing sewage networks;

(b) require that Member States implement a sustainable waste water tariff policy in order to enable the correct maintenance and renewal of assets. This policy should take into account the polluter pays principle and the affordability of water services;

(c) decrease the time needed to assess compliance with the urban waste water treatment directive;

(d) continue to promote projects aimed at reducing the nutrient loads into the Baltic Sea from Russia and Belarus by focusing more closely on key polluters identified by Helcom (such as the Kaliningrad area).

The Member States should:

(e) plan and construct their waste water infrastructure as efficiently as possible and, if necessary, consider granting financial support to households which could not otherwise afford to connect to the sewage network;

(f) set stricter nutrient standards for effluents than those laid down in the urban waste water treatment directive for areas that drain into waters failing to reach nutrient conditions consistent with water framework directive and marine strategy framework directive good status.
Conclusions and recommendations

Reluctance of the Member States to make full use of the possible actions in the field of agriculture and lack of targeting to the areas in need

122 Mandatory measures under the nitrates directive are applied to an insufficient area in some Member States. The action programmes vary in their rigour and are not always as strict as recommended by the Commission. The directive does not explicitly require farms to draft fertilisation plans, nor to keep records of the fertilisers used. Both tools would help to implement and control several requirements of the nitrates directive. The Commission has provided guidance to Member States and has undertaken a continuous follow-up of the implementation of the nitrates directive. This has led to improvements in the designation of nitrate vulnerable zones and action programmes, but the process is time consuming (see paragraphs 75 to 83).

123 The cross-compliance mechanism helps to enforce the requirements regarding nitrates and other fertilisation requirements, but is not fully effective because some requirements are not very demanding. The cross-compliance system of checks and sanctions is affected by weaknesses in sample selection and instructions. There is a high rate of non-compliance as regards the application of requirements in the nitrate vulnerable zones indicating that control systems have currently a limited deterrent effect. There are weaknesses in national checks on requirements outside the scope of cross-compliance (see paragraphs 84 to 90).

124 EU co-financed rural development measures have had little impact on reducing nutrient pollution in water bodies. The investments aimed at helping farmers to improve manure storage and management have only partially addressed the relevant farms. The agri-environmental schemes have not been geographically targeted to areas where water bodies are failing to achieve good status. The specific measure regarding the implementation of actions linked to the water framework directive has rarely been implemented. The polluter pays principle is not sufficiently applied to agricultural activity (see paragraphs 91 to 99).
Conclusions and recommendations

The Commission has taken the opportunity provided by new tools applicable to the 2014-2020 programming period to require stricter baseline requirements and more demanding agri-environmental measures. It has also requested better geographical targeting of rural development measures and improved consistency between rural development programmes and river basin management plans. Discussions with Member States have led to improvements. However, several measures will still have to be redefined once all of the corresponding pieces of national legislation and planning are adopted. This will thus delay the implementation of certain measures and add to the administrative burden of the programmes (see paragraphs 100 to 102).

**Recommendation 3**

The Commission should:

(a) require that the Member States designate appropriate nitrate vulnerable zones. In doing so, Member States should take into account information on agricultural nutrients pollution pressures gathered in river basin management plans of the water framework directive.

Member States should:

(b) set appropriate limits for the use of phosphorus in agriculture where it puts at risk the good water status;

(c) establish their nitrates action programme rules based on the most recent scientific evidence;

(d) establish compulsory actions which go beyond the existing requirements for polluting farms in catchment areas draining into eutrophic waters;

(e) apply the most relevant agri-environmental schemes in relation to reducing nutrient pollution of water and target these schemes and afforestation measures at the areas where their impact on nutrient load reduction is highest.
The macro-regional EU strategy for the Baltic Sea region added value on the reduction of nutrients is difficult to assess

126
The EUSBSR’s governance structure is complex and adds new layers to the existing regional governance institutions. The EUSBSR’s impact on Member States’ actions to reduce nutrient inputs into the Baltic Sea is difficult to assess (see paragraph 105).

127
Flagship projects carried out in cooperation between several EU and non-EU countries are aimed at developing best practices to be implemented broadly. Sometimes, however, their results do not go beyond what was already available and their impact in practical terms has been rather low (see paragraphs 106 and 108).

128
In addition, the expected result of aligning the priorities of EU co-financed programmes with the ‘Clear water in the Baltic Sea’ sub-objective was very modest (see paragraphs 109 to 112).
### Annex I

#### Nutrient input reduction targets

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Denmark</td>
<td>70 490</td>
<td>1 928</td>
<td>2 890</td>
<td>38</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Estonia</td>
<td>27 684</td>
<td>804</td>
<td>1 800</td>
<td>320</td>
<td>7</td>
<td>40</td>
</tr>
<tr>
<td>Finland</td>
<td>88 005</td>
<td>3 609</td>
<td>3 030</td>
<td>356</td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td>Germany</td>
<td>65 672</td>
<td>627</td>
<td>7 670</td>
<td>170</td>
<td>12</td>
<td>27</td>
</tr>
<tr>
<td>Latvia</td>
<td>61 164</td>
<td>829</td>
<td>1 670</td>
<td>220</td>
<td>3</td>
<td>27</td>
</tr>
<tr>
<td>Lithuania</td>
<td>48 689</td>
<td>2 463</td>
<td>8 970</td>
<td>1 470</td>
<td>18</td>
<td>60</td>
</tr>
<tr>
<td>Poland</td>
<td>212 412</td>
<td>11 787</td>
<td>43 610</td>
<td>7 480</td>
<td>21</td>
<td>63</td>
</tr>
<tr>
<td>Russia</td>
<td>87 122</td>
<td>7 142</td>
<td>10 380</td>
<td>3 790</td>
<td>12</td>
<td>53</td>
</tr>
<tr>
<td>Sweden</td>
<td>130 279</td>
<td>3 639</td>
<td>9 240</td>
<td>530</td>
<td>7</td>
<td>15</td>
</tr>
<tr>
<td><strong>Nutrient input originating in Helcom countries</strong></td>
<td><strong>791 517</strong></td>
<td><strong>32 828</strong></td>
<td><strong>89 260</strong></td>
<td><strong>14 374</strong></td>
<td><strong>11</strong></td>
<td><strong>44</strong></td>
</tr>
<tr>
<td>Nutrient input from non-signatory countries$^1$</td>
<td>21 421</td>
<td>1 979</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Nutrient load into Baltic Sea through Helcom countries</strong></td>
<td><strong>812 938</strong></td>
<td><strong>34 807</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nutrients from other sources$^2$</td>
<td>97 405</td>
<td>2 087</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total Baltic Sea</strong></td>
<td><strong>910 343</strong></td>
<td><strong>36 894</strong></td>
<td><strong>118 134</strong></td>
<td><strong>15 178</strong></td>
<td><strong>13</strong></td>
<td><strong>41</strong></td>
</tr>
</tbody>
</table>

---

1. Transboundary riverine nutrient inputs from the Czech Republic, Ukraine and Belarus.
2. Inputs from shipping and atmospheric pollution originated in all EU countries not included in the Baltic Sea catchment area.

Source: ECA, based on data from the ‘Summary report on the development of revised maximum allowable inputs (MAI) and updated country allocated reduction targets (CART) of the Baltic Sea action plan’, Helcom ministerial meeting, 2013.
## Trends in nitrogen and phosphorus inputs into the Baltic Sea by country

<table>
<thead>
<tr>
<th></th>
<th>DE</th>
<th>DK</th>
<th>EE</th>
<th>FI</th>
<th>LT</th>
<th>LV</th>
<th>PL</th>
<th>RU</th>
<th>SE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>N</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inputs 1997-2003</td>
<td>65 672</td>
<td>70 490</td>
<td>27 684</td>
<td>88 005</td>
<td>48 689</td>
<td>61 164</td>
<td>212 412</td>
<td>87 122</td>
<td>130 279</td>
</tr>
<tr>
<td>Inputs 2012 including uncertainty (test value)</td>
<td>55 963</td>
<td>52 535</td>
<td>28 378</td>
<td>94 688</td>
<td>55 502</td>
<td>70 388</td>
<td>191 602</td>
<td>91 757</td>
<td>116 723</td>
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<tr>
<td><strong>P</strong></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inputs 1997-2003</td>
<td>627</td>
<td>1 928</td>
<td>804</td>
<td>3 609</td>
<td>2 463</td>
<td>829</td>
<td>11 787</td>
<td>7 142</td>
<td>3 639</td>
</tr>
<tr>
<td>Inputs 2012 including uncertainty (test value)</td>
<td>630</td>
<td>1 663</td>
<td>782</td>
<td>3 608</td>
<td>1 929</td>
<td>1 242</td>
<td>9 680</td>
<td>7 230</td>
<td>3 509</td>
</tr>
</tbody>
</table>

Source: Preliminary assessment for following up on progress towards the country-wise allocated reduction targets on nutrients (CART) adopted by the 2013 Copenhagen Helcom Ministerial Declaration.

### Achievement of input ceilings by sub-basin

<table>
<thead>
<tr>
<th>Sub-basin</th>
<th>Nitrogen input ceiling taking into account the Helcom reduction target (tonnes/year)</th>
<th>Inputs 2012 including uncertainty (test value) (tonnes/year)</th>
<th>Extra reduction</th>
<th>Missing reduction to fulfil 2021 Helcom targets (tonnes/year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bothnian Bay</td>
<td>57 622</td>
<td>60 484</td>
<td>4 578</td>
<td>2 862</td>
</tr>
<tr>
<td>Bothnian Sea</td>
<td>79 372</td>
<td>74 794</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baltic Proper</td>
<td>325 000</td>
<td>375 760</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gulf of Finland</td>
<td>101 800</td>
<td>119 687</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gulf of Riga</td>
<td>88 418</td>
<td>97 106</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Danish Straits</td>
<td>65 998</td>
<td>51 495</td>
<td>14 503</td>
<td>8 200</td>
</tr>
<tr>
<td>Kattegat</td>
<td>74 001</td>
<td>65 801</td>
<td>8 200</td>
<td>27 281</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>792 211</strong></td>
<td><strong>845 127</strong></td>
<td><strong>27 281</strong></td>
<td><strong>80 197</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sub-basin</th>
<th>Phosphorus input ceiling taking into account the Helcom reduction target (tonnes/year)</th>
<th>Inputs 2012 including uncertainty (test value) (tonnes/year)</th>
<th>Extra reduction</th>
<th>Missing reduction to fulfil 2021 Helcom targets (tonnes/year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bothnian Bay</td>
<td>2 675</td>
<td>2 787</td>
<td>283</td>
<td>112</td>
</tr>
<tr>
<td>Bothnian Sea</td>
<td>2 773</td>
<td>2 490</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baltic Proper</td>
<td>7 360</td>
<td>15 145</td>
<td></td>
<td></td>
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<tr>
<td>Gulf of Finland</td>
<td>3 600</td>
<td>7 536</td>
<td></td>
<td></td>
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<td>Gulf of Riga</td>
<td>2 020</td>
<td>2 775</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Danish Straits</td>
<td>1 601</td>
<td>1 418</td>
<td>183</td>
<td>199</td>
</tr>
<tr>
<td>Kattegat</td>
<td>1 687</td>
<td>1 591</td>
<td>96</td>
<td>562</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>21 716</strong></td>
<td><strong>33 742</strong></td>
<td><strong>562</strong></td>
<td><strong>12 588</strong></td>
</tr>
</tbody>
</table>

**Source:** Preliminary assessment for following up on progress towards the country-wise allocated reduction targets on nutrients (CART) adopted by the 2013 Copenhagen Helcom Ministerial Declaration.

Nutrient concentration in the effluent of waste water treatment plants in the main cities of EU Member States around the Baltic Sea (2013)

Source: ECA, based on data from the end of 2013 provided by Member States. The values for Copenhagen and Stockholm are derived from the averages of two waste water treatment plants in each of these cities.
Flagship and other projects significant for the implementation of the EUSBSR

### EUSBSR flagship projects dealing with eutrophication

<table>
<thead>
<tr>
<th>Priority area AGRI</th>
<th>Source and amount of financing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baltic Manure</td>
<td>Baltic Sea region (BSR) OP: Total: 3.7, ERDF: 2.8</td>
</tr>
<tr>
<td>Recycling phosphorus</td>
<td>Baltic Sea region (BSR) OP: Total: 3.7, ERDF: 2.8</td>
</tr>
</tbody>
</table>

### Priority area NUTRI

<table>
<thead>
<tr>
<th>Project</th>
<th>Source and amount of financing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Removing phosphates in detergents</td>
<td>The small project budget was funded by the Swedish Chemicals Agency.</td>
</tr>
<tr>
<td>PRESTO</td>
<td>Total: 4.6, ERDF: 1.1, ENPI: 2.8</td>
</tr>
<tr>
<td>Baltic Deal</td>
<td>Total: 3.8, ERDF: 3.0</td>
</tr>
<tr>
<td>Assessment of regional nutrient pollution load and identification of priority projects to reduce nutrient inputs from Belarus to the Baltic Sea.</td>
<td>Funded by BSAP Fund, managed by NIB/NEFCO, Sweden and Finland as investors: 0.25</td>
</tr>
</tbody>
</table>

### Horizontal action ‘Neighbours’

<table>
<thead>
<tr>
<th>Project</th>
<th>Source and amount of financing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economically and environmentally sustainable Lake Peipsi area</td>
<td>Estonia–Latvia–Russia OP</td>
</tr>
</tbody>
</table>

- Baltic Manure: This project aims to develop expertise in relation to innovative manure management solutions, such as the production of renewable energy and organic fertilisers.
- Recycling phosphorus: This project aims to recover phosphorus from the main sources in the Baltic Sea region, such as manure, sewage sludge and carcasses and to produce recycled fertilisers. It also aims to develop site-specific fertilisation strategies in order to make the Baltic Sea region the first self-sustaining region in terms of mineral phosphorus fertiliser input.
- Removing phosphates in detergents: The aim of this project was to support the Baltic Sea states in implementing HELCOM recommendation 28E/7 (i.e. national legislative action to limit the use of phosphates in laundry detergents and automatic dishwasher detergents) by producing information material for policymakers. An EU-wide ban on phosphates in laundry detergents was adopted in 2011.
- PRESTO: The project aims to reduce the nutrient load into the Baltic Sea through education programmes for operating staff, designers and academic trainers involved in waste water treatment, as well as technical studies and investments in selected Belarusian waste water treatment plants (Baranovichi, Grodno, Molodechno and Vitebsk).
- Baltic Deal: This project aims to combat farm nutrient run-off and leakage: it was initiated by five farmers’ federations on a voluntary basis.
- Assessment of regional nutrient pollution load and identification of priority projects to reduce nutrient inputs from Belarus to the Baltic Sea: This project aims to identify priority investments and build local capacity to reduce nutrient inputs into the Baltic Sea in the context of the Northern Dimension Environmental Partnership, with a particular focus on agriculture, municipal waste water and industry, including the production and use of detergents containing phosphorus.
- Economically and environmentally sustainable Lake Peipsi area: This project aims to improve the environmental situation of the Lake Peipsi basin by renovating existing waste water treatment facilities in Pskov Oblast and by setting up new infrastructure in small harbours on the Estonian side of Lake Peipsi.
### BSR OP projects (other than Flagships) dealing with eutrophication

<table>
<thead>
<tr>
<th>BSR OP projects (other than Flagships) dealing with eutrophication</th>
<th>Source and amount of financing (BSR OP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baltic Compass <strong>Note:</strong> This project involves working with the agriculture and environment sectors to address the need for a transnational approach to reducing eutrophication of the Baltic Sea.</td>
<td><strong>Total:</strong> 6.6  ERDF: 4.6  ENPI: 0.5</td>
</tr>
<tr>
<td>Baltic Compact <strong>Note:</strong> This project deals with agri-environmental actions.</td>
<td><strong>Total:</strong> 1.9  ERDF: 1.5</td>
</tr>
<tr>
<td>BERAS (Baltic Ecological Recycling Agriculture and Society) <strong>Note:</strong> This project aims to decrease eutrophication, stop the use of pesticides and reduce the food sector’s impact on global warming.</td>
<td><strong>Total:</strong> 4.4  ERDF: 3.4  ENPI: 0.05</td>
</tr>
<tr>
<td>Waterpraxis <strong>Note:</strong> This project aims to improve the status of the Baltic Sea by supporting the practical implementation of river basin management plans in the region.</td>
<td><strong>Total:</strong> 2.0  ERDF: 1.5</td>
</tr>
<tr>
<td>PURE (Project on urban reduction of eutrophication) <strong>Note:</strong> The project aims at preparing and executing investments in municipalities by means of transnational cooperation.</td>
<td><strong>Total:</strong> 3.2  ERDF: 2.0  ENPI: 0.5</td>
</tr>
</tbody>
</table>
Executive summary

V
The Commission noted these issues in the assessment of the first RBMPs and in the assessment of the first programmes of measures as an important area to improve on and has urged Member States to take action on this in the second RBMPs.

VI
The Commission considers that its action has been appropriate. It is clearly set out in the Treaty and in the constant jurisprudence of the Court of Justice that the Commission disposes of a large margin of appreciation as to when to start and pursue infringements in line with its role as guardian of the Treaties. In some cases alternative tools or political dialogue can be a more effective approach than infringement proceedings.

 Nonetheless, the Commission has a substantial proven track record in achieving compliance with the urban waste water treatment directive by using the infringement tool.

VII
The implementation of the nitrates directive by Member States has encountered a number of challenges in some cases, while it has been effective in others. Nonetheless, the overall trend of average nitrate concentrations in the EU and in the Baltic has been improving.

The cross-compliance policy is not meant to serve as a measure to enforce implementation of European legislation in Member States. For failures of implementation, the infringement procedure is the proven means.

The number of non-compliances and sanctions applied due to the cross-compliance mechanism is rather indication of its functioning than its insufficiency. Cross-compliance applies only to farmers receiving direct payments or participating in some of the rural development measures such as the agri-environmental measures.

VIII
The Commission considers that the EUSBSR has successfully contributed to promoting the environmental protection of the Baltic Sea. In general, the new macro-regional approach can be seen as a valuable tool for addressing regional problems and enhancing cooperation between the countries bordering the Baltic Sea.

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Introduction

9 Both the water framework directive (WFD) and the marine strategy framework directive (MSFD) programmes of measures have been streamlined for common reporting in March 2016. The WFD and MSFD programmes of measures, reported by Member States, should consider Helcom and integrational agreement obligations.

13 For both the 2007-2013 and 2014-2020 programing periods, the EAFRD defines water management as one of the main objectives of rural development. These objectives can be achieved through various measures including non-area-based measures such as investment and training.

For the 2007-2013 period, information on the financial allocation is available at the level of axes and measures only. For the 2014-2020 period, such information is available at the level of measures and focus areas (or priority, as in the case of the priority linked to water management) which will allow the receipt of data linked directly to the objectives.

Observations

18 The Commission notes that even though the Helcom nutrient reduction targets are considered good practice, Baltic Sea Member States could not legally be expected, in their reporting under the MSFD in October 2012, to report their Helcom nutrient reduction targets that were adopted in the Helcom ministerial meeting of October 2013. In practice, however, the Commission would welcome it if Member States’ programmes of measures under the MSFD, due in March 2016, also contributed to the achievement of their Helcom commitments.

28 The WFD and Helcom pursue the same objective — a Baltic Sea that is not eutrophic. Achieving good status under the WFD should be sufficient to achieve the Helcom target. Additional measures are needed by Poland — but these are needed not just to comply with Helcom targets but also for the achievement of WFD objectives.

For the first RBMPs, Poland did not set sufficiently stringent WFD-compliant phosphate standards that correlate with WFD good ecological status (they used pre-existing older standards) and as such it may appear that the Helcom targets are more strict. This apparent anomaly should be rectified by Poland setting WFD-compliant phosphate standards and using these to define programmes of measures in the second RBMPs that reduce phosphate to both inland and marine waters.

31 The Member States’ reporting for the second RBMPs requires a nutrient gap analysis to be done and so the Commission’s tracking of the nutrient reduction achieved by Member States over the next two reporting periods should improve.

Member States must report in the second river basin management plans the degree to which the nitrates directive implementation is sufficient to address agricultural nutrient pollution and what additional WFD basic and supplementary measures will be programmed to address this. This will help Member States and the Commission understand where further action is necessary.
The Commission expects that existing urban waste water treatment permits will be reviewed as part of the measures included in the RBMP and revised where needed to ensure that urban pollution is reduced to a level that allows conditions with good status to be reached in all water bodies. In some waters, this may be 1 mg/l of P or in other areas may need to be stricter — for example 0.5 mg/l or below — where there is a high population density, or low dilution.

The Member States’ plans for achieving nutrient reductions which are based on their river basin management plans lack ambition as for the most part they just present the ‘basic measures’ already in place for implementing EU directives in relation to the specific activities causing nutrient pollution, mainly urban waste water and agriculture, and do not set out how these measures are to be strengthened to allow nutrient conditions consistent with good status to be achieved. Few new measures to control diffuse sources of pollution pursuant to Article 11(3)(h) of the WFD have been included (particularly missing here are controls on diffuse sources of phosphate) and ‘supplementary measures’ are vague in their overall expected contribution. The Commission noted this issue in the assessment of the first RBMPs\(^3\) and in the assessment of the first programmes of measures\(^4\) as an important area to improve on and has urged Member States to take action on this in the second RBMPs.

See also the Commission’s reply to paragraph 30.

The Commission considers Germany and Finland as compliant with the directive in line with the Commission’s compliance assessment methodology, since they reach compliance rates of 99% or above. The four other Baltic Sea Member States were required to fully comply with the directive in 2012, and reached high compliance rates of 89% and above.

The use of individual or appropriate systems (IAS) is indeed not automatically considered as a breach by the Commission as this possibility is offered by the directive. However, a high rate of IAS may indicate issues with collecting systems and the Commission will follow up/investigate those situations (see reply to paragraph 48 for more details).

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48 The Commission is investigating the use of individual and appropriate systems via the so-called pilot tool (e.g. types of IAS in place in the Member States, registration, authorisation and inspections of IAS). The Commission has also been looking into IAS for many years, by including IAS in the reporting table under Article 15. In addition, the guidance on 'Terms and definitions of the urban waste water treatment directive', which has existed since 2007, includes a section on IAS.

49 The Commission decided to accept that 100% compliance was neither likely nor realistic, and so made the cut off to 'launch infringements' by introducing the two standards mentioned by the Court. This methodology has been accepted by the Court of Justice of the European Union (see Commission v Belgium, Case C-395/13, paragraphs 33 to 38).

51 The Commission points out that it was aware of the choice made by Poland before 2010 but was not legally in a position to challenge this or to predict the level of non-compliance in Poland before 2010. The directive clearly leaves these two options to the Member States and Poland’s choice of using Article 5(4) was one legally open to it, even if unrealistic given that this meant that Poland could not benefit from the additional time granted under the Accession Treaty by this choice.

52 The Commission has followed the implementation of this directive in Poland with increasing alarm and attention as it became clear that there was and still is a fundamental lack of clear planning for its implementation. The choice of legal basis is the least of the Commission’s concerns in this matter and not a valid excuse for this lack of coordinated action at the national level.

The Commission has regularly pointed out since 2011 that foreseen investments will not lead to a compliance situation in Poland. In addition, Poland delivered only preliminary investment plans (master plans), and has not worked on the relevant KPOSK (2010) so far. Neither the preliminary master plan of February 2014 nor the final version of May 2015 have so far been accepted by the Commission.

56 Waste water treatment plants are infrastructures which have a long lifetime and it is difficult to assess an appropriate size for them in the short term only. In general, the size of the plants may be determined by several factors such as safety margins, the capacity to cope with seasonal activities/variations such as tourism, heavy rains water inflow or provisions for possible future connections due to population growth.

In addition, a minimum rate of clean water is not detrimental as it avoids the waste water becoming septic and generating hydrogen sulphide that is dangerous to human health.
Assessments of the legislation were carried out for the accession countries before accession and deemed to be complete as was required before accession with regard to the existing EU *acquis* of which Directive 91/271/EEC.

Member States are open to choose between Article 5(2) and Article 5(4) and are not limited in that choice by the existence of the provisions of the Accession Treaty.

After Poland’s accession, the Commission gradually started to identify problems which Poland had with the implementation of the urban waste water treatment directive and, since 2007, it has initiated regular extended screening of the projects’ applications for EU co-financing. As from 2010, when the Commission had collected sufficient information indicating that there were serious problems with implementation, official communication on the issue started with the Polish authorities. It must be reiterated that the problems which Poland had were much broader and more fundamental than the choice between the application of Article 5(2) or 5(4) and related to the incorrect delineation of agglomerations, missing or incoherent reporting of compliance data, a lack of clear and coherent planning and an arbitrary cut-off of investments focused only on treatment plants treating a load over 15,000 p.e.

Despite the Commission’s numerous communications to Poland requesting the submission of coherent data concerning the state of implementation and future planning of implementation of the urban waste water treatment directive (including data that would show compliance with either Article 5(2) or 5(4)), Poland failed to provide this. The Commission would like to emphasise that, after exchanges of communication with the Commission, Poland itself chose to apply Article 5(2). In 2012, during the negotiations for the 2014-2020 programing period, the Commission requested Poland to prepare a master plan for implementation of the urban waste water treatment directive which would be subject to the Commission’s scrutiny in order to ensure that EU co-financing in the 2014-2020 programing period would be granted to projects which are compliant with the urban waste water treatment directive and which contribute the most to closing the implementation gap.

The Commission has now reactivated Article 17 reports, with the objective of knowing when a specific agglomeration will become compliant, if this is not yet the case.

With the new Article 17 template, the Commission tried to strike a balance between improving knowledge of the Member States’ situation whilst not increasing the administrative burden. Most Member States responded positively and reported under the new format. In addition, Member States are free to describe each project in the reporting table. Under Article 15, the Commission knows the percentage of the load that is discharged without treatment and thus the ‘distance to compliance’. Then it is up to Member States to define an adapted project to comply as soon as possible. The Commission does not intend to increase the reporting burden on Member States as there is no need to have detailed information concerning km of sewage ducts per agglomeration at EU level.
The Commission has a considerable margin of discretion in these matters and must choose the most appropriate tools. In this case, the Commission chose engagements through meetings with Member States on urban waste water treatment and preferred to wait for the launching of more formal cases until a sufficient number of deadlines had elapsed for a sufficient number of Member States. Pilots launched on the basis of the initial deadline assessed (2004 to end 2006) would only have concerned three Member States, including Poland. For efficiency reasons, it was therefore decided to await the results of the next reporting exercise when the exercise would be more substantive in terms of Member States and agglomerations covered.

The Commission therefore considers that its action has been appropriate. It is clearly set out in the Treaty and in the constant jurisprudence of the Court of Justice that the Commission disposes of a large margin of appreciation as to when to start and pursue infringements in line with its role as guardian of the Treaties. In some cases alternative tools or political dialogue can be a more effective approach than infringement proceedings.

Finally, the Commission has taken the different implementation periods (14 years for EU-15 Member States vs 3 to 11 years for the EU-10 Member States that joined in 2004) into account when launching pilot and infringement cases.

Nonetheless, the Commission has a substantial and proven track record in achieving compliance with the urban waste water treatment directive by using the infringement tool (e.g. France, Belgium, United Kingdom).

The urban waste water treatment directive sets minimum standards to be achieved in Table 2 of its annex, but leaves the Member States free to apply stricter standards. Such stricter standards may be legally necessary to ensure compliance under the water framework directive.

The Commission would like to specify that the Kaliningrad water and environmental services project is expected to be fully in operation in the course of 2016 as regards its water components.

Waters in extensive farming areas with low application of fertilisers can still be subject to nutrients pollution. Under the nitrates directive waters that are at risk of pollution must also be covered by specific measures.

In certain areas, measures under both the nitrates directive and the water framework directive are needed in order to achieve the nutrient reductions necessary for reaching good status for waters.

The application of N from mineral fertilisers cannot by itself be used as an indicator of the lack of impact of the requirements and needs to be interpreted cautiously. The total N losses or the total N surplus (from all sources) are more suitable indicators.
The Commission considers that measures such as the ban on application of fertilisers during certain periods of the year can be effectively checked as long as inspections are carried out at the right time.

Fertilisation plans or fertiliser records are included in several action programmes under the nitrates directive as common practice towards balanced fertilisation and to facilitate controls.

The Commission underlines that cross-compliance is not a mechanism to enforce European environmental legislation but aims inter alia ‘to make the CAP more compatible with the expectation of society’ (see recital 54 of Regulation (EU) No 1306/2013). Cross-compliance links common agricultural policy (CAP) payments to the respect of certain rules while infringing such rules leads to reductions in CAP payments. Cross-compliance should in principle use existing control systems. However, it should also ensure a minimum control rate when the control system of the sectorial legislation is not sufficiently effective.

It is up to Member States to define GAEC standards in such a way as to achieve the goal of the standard. Regarding the mentioned GAEC ‘establishment of buffer strips along water courses’, its goal is on establishing buffer strips and their management but not, in general, the use of fertilisers on agricultural land. Hence, the scope of the said GAEC is limited to buffer strips both inside and outside nitrate vulnerable zones. Furthermore, certain requirements stemming from the nitrates directive are part of the cross-compliance scope via SMR1 former SMR 4.

The aforementioned GAEC buffer strips applicable since 1 January 2012 (see Article 149 of Regulation (EC) No 73/2009) refer to requirements stemming from the nitrates directive and transpose those requirements to agricultural land situated outside the nitrate vulnerable zones bearing in mind local conditions, as required by Article 94 of Regulation (EU) No 1306/2013. Accordingly, the variety in defining the requirements noted by the Court stems from the nitrates directive itself and mirrors the variety of local conditions as considered by Member States.

The number of non-compliances and sanctions applied due to the cross-compliance mechanism are rather indication of its functioning than its insufficiency. For example, the lack of manure storage is still an issue in nitrate vulnerable-zones and this infringement is followed up under cross-compliance, which explains the high rate of non-compliance (see also paragraph 93).
The 2007-2013 rural development programmes were to contribute to the rural development objectives implemented by means of several axes. Some of the implemented measures and operations, including agri-environment, could target one main objective but many were established with a view to achieving multiple objectives, which does not diminish the effectiveness of such measures and helps to ensure better value for money.

The agri-environmental measures carried out by a large number of farmers over vast areas can also contribute to improving water status in all such areas.

During the adoption of the 2014-2020 programmes, the Commission commented on the need for Member States to make a greater use of targeting, including on water issues.

During the 2007-2013 programming period, the different calendar for the adoption of river basin management plans and rural development programmes was one of the reasons why the scope of agri-environment measures did not always correspond to the areas concerned by river basin management plans.

Furthermore, it should be recalled that compliance with mandatory requirements to which river basin management plans often make reference cannot be ensured through agri-environment, which can only support voluntary actions going beyond mandatory requirements.

Moreover, in the course of the programming period, Member States had the possibility to amend their programmes with regard to their content and/or the financial allocation. The proposed amendments have to be in accordance with the overall objectives and strategy of the programme. Through this mechanism they could have coordinated with RBMPs when available. In 2009, as a result of the health check of the CAP and the European economic recovery plan, the water management objective was further reinforced as one of the rural development challenges.

In 2004-2006 the new Baltic Sea Member States (Estonia, Latvia, Lithuania and Poland) were invited to introduce specific support for manure storage facilities to meet water protection standards.

The 2007-2013 rural development programmes contained measures on investments in manure storage facilities.

In particular, it was possible for Member States to support investments to improve manure storage on farms only when these were aimed at complying with new Community standards stemming from the nitrates directive as implemented in the Member States and for a limited grace period of 36 months from the date on which the standards became mandatory.
The Commission considers that the diversity of agri-environment measures means that these measures include both simple and more complex operations aimed at protecting and improving the environment. This allows beneficiaries to apply operations corresponding to their particular needs and environmental pressure.

The level of support is always correlated to the level of commitments and compensates for income loss and additional costs linked to those commitments.

The low uptake can also be explained by reasons other than the operations’ complexity such as insufficient promotion of the support, insufficient transfer of knowledge or of advisory services use.

The issue of low uptake of agri-environmental measures in the areas of intensive agriculture was one of the reasons why the Commission proposed in 2011 to green the first pillar of the CAP, with the aim of reaching those areas with simple, generalised, non-contractual measures, the environmental effects of which should be enhanced by more targeted agri-environmental measures.

For the 2014-2020 period, the Commission promoted targeting which was implemented in Poland and Finland.

See also Commission reply to paragraph 92.

Most Member States opted, in both programming periods, for the use of other measures such as agri-environment-climate to achieve targets and objectives related to the water management priority. Targets and indicators related to water quality and water management in both periods show that even without the implementation of the ‘WFD payments’ measure, Member States programme actions which are to contribute to those targets and indicators.

Lack of compulsory measures in river basin management plans and problems with defining their measures were one of the main obstacles to use of the measure in question in the period 2007-2013.

As regards the application of penalties for water protection, it is up to the Member States to apply them (beyond the rules of cross-compliance) if need be and in cases where the individual responsibility for pollution can be established.

The Commission considers that there is no inherent difficulty in applying the polluter pays principle to agriculture. For instance, a fertiliser or manure tax could be levied. Ambitious nitrate action programmes and WFD basic measures could set clear controls to reduce pollution at source.
Regulation (EU) No 1305/2013 provides for *ex ante* conditionalities specific to rural development. The *ex ante* conditionalities concerning the water sector (applicable for investments programmed under Priority 5) are linked to the existence of a water pricing policy and to an adequate contribution of different water uses to the recovery of the costs of water services at a rate determined in the approved river basin management plan for investments supported by the programmes.

Other rural development-specific *ex ante* conditionalities in the environmental field concern good agricultural and environmental conditions, minimum requirements for fertilisers and plant protection products use, energy efficiency and renewable energy.

When the relevant legal bases are not in place, certain rural development measures cannot be activated. This is the case for water framework directive payments measure which can be implemented only when river basin management plans and their programmes of measures have been established. However, Member States have the possibility to amend their programmes throughout the programming period.

With regard to the amendments to legislation concerning the baseline requirements, when changes to the relevant baseline are introduced during the implementation of the measures, Member States have to reflect such changes in the measures’ content (e.g. levels of commitments and of premiums if the changes have impacts on these elements).

For the EUSBSR, Member States opted for a very ‘light’ governance structure. Work is based on a network of policy area and horizontal action coordinators. They seek to ensure consistency between all the priorities of the EUSBSR. No new institutions or Council formations were created. The chosen governance structure is not too complex and burdensome.

In general, the macro-regional approach can be seen as a valuable tool to address regional problems in a smaller geographical area compared to the whole EU level. The Commission considers that the EUSBSR has successfully contributed to the promotion of the environmental protection of the Baltic Sea.

It lies in the discretion of each project developer to apply for a flagship status. The EUSBSR action plan describes the procedure and provides for an application template. It requires a short assessment by the policy area or horizontal action coordinator, with the assessment criteria being, among others, the ‘macro-regional impact of the flagship’ and the contribution ‘towards the objectives/indicators/targets of the EUSBSR’. The Commission carries out an internal consultation on each application and finally the group of national coordinators approves the flagship status. Policy area and horizontal action coordinators encourage project developers to apply for flagship status.
The Commission notes a strong interest from project developers in receiving flagship status, presumably as it helps projects to mobilise funding for macro-regional projects and increases the visibility of their work.

The Commission considers that the contribution of specific ‘flagships’ to nutrient reduction can be identified. Flagships should serve a wide range of purposes such as creating new networks, exchanging experience, contributing to capacity building, facilitating multi-level governance and making pilot investments. Results and impact on the policy objectives can indeed be only seen in a long-term perspective. In that sense, even small-scale projects can be important drivers in development. As an example, the PRESTO project not only invested in waste water treatment techniques but also paid attention to increasing the competence of operating staff of the waste water treatment plants, plant designers and university staff who train the future waste water engineers.

Common Commission reply to paragraphs 111 and 112

The Commission would have preferred to see a stronger embedding of the EUSBSR in the ESIF programmes of the Baltic Sea region. It takes note that the level of commitment to the strategy varies between the Member States and regions concerned, thus reflecting different national and regional priorities.

However, the programmes provide openings for financing the implementation of the EUSBSR. For example, Lithuania is giving some priority in the selection process to projects that contribute to the EUSBSR (emphasis on cooperation aspect/international partnership) and plans to organise specific calls where needed. Sweden is also planning to have selection criteria for projects of relevance to the EUSBSR and plans to allocate resources to areas for initiatives and/or projects in line with the definition in the Action plan of the strategy. The concrete implementation process of the programmes will show to what extent these possibilities will be taken up.

Conclusions and recommendations

The WFD and Helcom pursue the same objective — a Baltic Sea that is not eutrophic. Achieving good status under the WFD should be sufficient to achieve the Helcom target.

The Member States’ plans for achieving nutrient reductions which are based on their river basin management plans lack ambition as for the most part they just present the ‘basic measures’ already in place for implementing EU directives in relation to the specific activities causing nutrient pollution, mainly urban waste water and agriculture, and do not set out how these measures are to be strengthened to allow nutrient conditions consistent with good status to be achieved. Few new measures to control diffuse sources of pollution pursuant to Article 11(3)(h) of the WFD have been included (particularly missing here are controls on diffuse sources of phosphate) and ‘supplementary measures’ are vague in their overall expected contribution. The Commission noted this issue in the assessment of the first RBMPs and in the assessment of the first programmes of measures as an important area for improvement and has urged Member States to take action on this in the second RBMPs.

In October 2012, Member States reported their environmental targets, under the marine strategy framework directive, to the Commission. Some Member States were more ambitious than others in setting pressure reduction targets in the form of nutrient input load targets (see also paragraph 17).

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Recommendation 1(a)
The Commission accepts the recommendation and considers that it has already been implemented for the water framework directive (WFD) and will be implemented for the marine strategy framework directive (MSFD).

The WFD reporting for the second river basin management plan requires Member States to report on the nutrient load reduction necessary to achieve nutrient conditions consistent with WFD good status (this will include the nutrient load necessary to meet the MSFD if the proper approach is taken by the Member State).

For the MSFD, the Commission will take this recommendation into account together with analysis of the current cycle of the programmes of measures when defining reporting requirements for the next cycle.

Recommendation 1(b)
The Commission accepts the recommendation and its implementation is ongoing.

For the WFD, the gaps in monitoring and assessment identified in the first RBMPs were followed up by bilateral discussions with Member States. Actions were agreed with Member States to improve the situation on monitoring and assessment and the Commission will review this as part of the assessment of the second RBMPs which will take place during 2017.

Under the MSFD, Member States have established monitoring programmes to assess progress towards good environmental status and targets. The Commission’s draft assessment of monitoring programmes for the Baltic Sea that indicates that most Member States have included nutrient input monitoring (for instance, input levels of land-based sources of nutrients, of nutrients from the atmosphere and of fertilisers and other nitrogen- and phosphorus-rich substances).

In addition, work that should lead to guidance in 2018 is being done to compare nutrient standards set by Member States for the WFD and the MSFD, to ensure that these are consistent with biological standards and to understand how Member States use them in designing programmes of measures.

Recommendation 1(c)
The Commission notes that this recommendation is addressed to Member States

118
The Commission considers Germany and Finland as compliant with the directive in line with the Commission’s compliance assessment methodology, since they reach compliance rates of 99 % or above. The four other Baltic Sea Member States which were required to fully comply with the directive in 2012, reached high compliance rates of 89 % and above.

Where evidence is available of late implementation or compliance, EU pilots and infringement cases have been launched by the Commission and the normal procedures are being followed.

120
The Commission considers that its action has been appropriate. It is clearly set out in the Treaty and in the constant jurisprudence of the Court of Justice that the Commission disposes of a large margin of appreciation as to when to start and pursue infringements in line with its role as guardian of the Treaties. In some cases alternative tools or political dialogue can be a more effective approach than infringement proceedings.

In addition, the Commission also decided to wait until several transitional deadlines had expired before launching pilots so that, for efficiency reasons, the exercise would be more substantive in terms of Member States and agglomerations covered.
Finally, the Commission has taken the different implementation periods (14 years for EU-15 Member States vs 3 to 11 years for the 10 Member States that joined in 2004) into account when launching pilot and infringement cases.

**Recommendation 2(a)**
The Commission accepts this recommendation and considers it already implemented in agglomerations above 2,000 p.e. In those agglomerations, the urban waste water treatment directive provides that collecting systems or individual or appropriate systems are in place, and the Commission therefore considers that the legal framework — at EU level — is in place. However, the Commission stresses that it cannot force households to connect to sewage networks as this falls under the responsibility of Member States and is a national policy decision.

**Recommendation 2(b)**
The Commission accepts this recommendation as it is based on a reading of Article 9 of the WFD. The Commission will assess the implementation of this recommendation in the overall assessment of the second river basin management plans, which were due to be adopted by the Member States by 22 December 2015.

**Recommendation 2(c)**
The Commission accepts the recommendation and is working on improving the reporting process under the urban waste water treatment directive, which is the basis for the compliance assessment.

**Recommendation 2(d)**
The Commission accepts the recommendation.

**Recommendation 2(e)**
The Commission notes that this recommendation is addressed to Member States.

**Recommendation 2(f)**
The Commission notes that this recommendation is addressed to Member States.

123 The Commission underlines that cross-compliance is not a mechanism to enforce the European environmental legislation but aims inter alia ‘to make the CAP more compatible with the expectation of society’ (see recital 54 of Regulation (EU) No 1306/2013. Cross-compliance links common agricultural policy (CAP) payments to the respect of certain rules while infringing such rules leads to a reduction of CAP payments. Cross-compliance should in principle use existing control systems. However, it should also ensure a minimum control rate when the control system of the sectorial legislation is not sufficiently effective.

124 The Commission recalls that compliance with mandatory requirements of the river basin management plans cannot be ensured through agri-environment measures which only support voluntary actions. Nevertheless, many RDPs included from the beginning certain measures (investment, training, agri-environment) which targeted the water-related objectives.

In 2007–2013 the support for mandatory manure storage was limited to those which resulted from the new Community standards stemming from the nitrates directive as implemented by Member States.
In the 2014-2020 period, the specific measure regarding the implementation of actions linked to the water framework directive has been programmed in a number of the programmes.

Moreover, during the adoption of the 2014-2020 programmes, the Commission commented on the need for Member States to make a greater use of targeting including on Water issues.

As regards the application of penalties for water protection, it is up to the Member States to apply them (beyond the rules of cross-compliance) if need be and in cases where the individual responsibility for pollution can be established.

The Commission considers that there is no inherent difficulty in applying the polluter pays principle to agriculture. For instance, a fertiliser or manure tax could be levied. Ambitious nitrate action programmes and WFD basic measures could set clear controls to reduce pollution at source.

See also Commission replies to paragraphs 91 to 99.

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The new greening architecture of the CAP with greening requirements in Pillar I influences rural development. Actions supported under those greening requirements cannot be subject to agri-environment-climate payments in order to avoid double funding.

When the relevant legal bases are not in place, certain rural development measures cannot be activated. This is the case for the water framework directive payments measure, which can be implemented only when river basin management plans and their programmes of measures are established. However, Member States have the possibility to amend their programmes throughout the programming period.

While such amendments might lead to additional administrative efforts, they should be seen in the context of their additional added value in achieving the objectives and priorities of the programmes.

**Recommendation 3(a)**
The Commission accepts this recommendation and is in the process of implementing it. When Member States are revising their nitrate vulnerable zones and nitrates action programmes, the Commission asks that WFD information on agricultural nutrient pollution pressures is taken into account. This is essential to control pollution at source, especially in Member States where the national regulation to implement the nitrates directive is the only legal instrument controlling agricultural nutrient losses.

Member States must report in the second river basin management plans the degree to which the nitrates directive implementation is sufficient to address agricultural nutrient pollution and what additional WFD basic and supplementary measures will be programmed to address this. This will help Member States and the Commission understand where further action is necessary.

**Recommendation 3(b)**
The Commission notes that these recommendations are addressed to the Member States.

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For the EUSBSR, Member States opted for a very ‘light’ governance structure. No new institutions or Council formations were created. The Commission considers that the EUSBSR has successfully contributed to promoting the environmental protection of the Baltic Sea.
The Commission considers that the contribution of specific flagships to nutrient reduction can be identified. Flagships serve a wide range of purposes and even small-scale projects can be important drivers in development. Concrete results and the impact on the policy objectives can only be seen in a long-term perspective.

The Commission agrees with the Court’s analysis and would have preferred to see a stronger embedding of the EUSBSR in the ESIF programmes of the Baltic Sea region. It takes note that the level of commitment to the strategy varies between the Member States and regions concerned, thus reflecting different national and regional priorities.
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The Baltic Sea is one of the world’s most polluted seas. Combating eutrophication, which is caused by nutrient loads mainly from agriculture and urban waste water, poses a significant challenge. Under the Helsinki Convention, all bordering EU Member States and non-EU countries, as well as the EU, are engaged in the environmental protection of the Baltic Sea. The EU legal framework requires Member States to implement measures to combat excessive loads of nutrients and to achieve the good environmental status of marine waters. The EU co-finances some of those measures. The Court examined whether the EU actions have been effective in helping Member States to reduce nutrient loads into the Baltic Sea. We concluded that these actions have led to limited progress towards nutrient reduction in the Baltic Sea. We make a number of recommendations to improve the effectiveness of the actions combating eutrophication in the Baltic Sea.