EUROPEAN
COMMISSION

Brussels, 4.5.2018
SWD(2018) 246 final

PART 6/9

COMMISSION STAFF WORKING DOCUMENT
Accompanying the document

Report from the Commission to the Council and the European Parliament

on the implementation of Council Directive 91/676/EEC concerning the protection of waters against polllution caused by nitrates from agricultural sources based on Member State reports for the period 2012-2015

{COM(2018) 257 final}

SECTION III
NITRATE VULNERABLE ZONES

Under Article 3 of the Nitrates Directive, Member States are required to identify polluted waters or waters at risk of pollution, according to the criteria defined in Annex I to the Directive, and have to designate all areas that drain into identified waters and contribute to pollution as nitrate vulnerable zones (NVZ).

The Directive gives the possibility to Member State not to identify specific vulnerable zones, if they establish and apply action programmes throughout their national territory (Article 3(5)). Austria, Denmark, Finland, Germany, Ireland, Lithuania, Luxembourg, Malta, the Netherlands, Slovenia, Romania, the Region of Flanders and Northern Ireland have followed this approach.

Including the Member States that apply whole territory approach, the total area of NVZ has increased since 2012, from 1,951,898 km^2 to about 2,175,861 km^2 in 2015.

Table 25 presents the 2012 and 2015 situation in relation to the implementation of Article 3 of the Nitrates Directive. The 2015 situation is also shown in Map 18 .

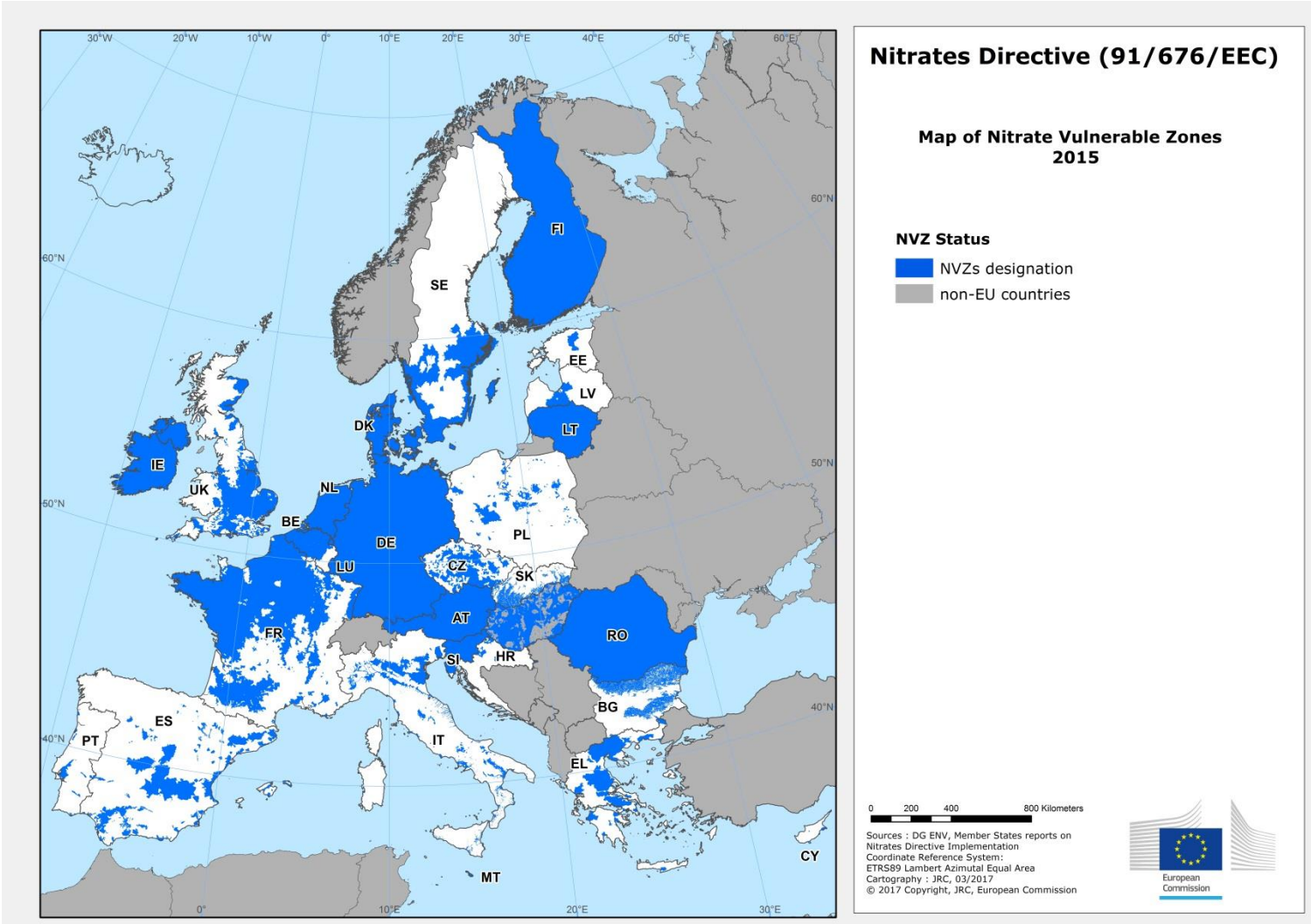
Country	Note	Designated Area 2012 (km^2) (COM(2013) 683 final)	Designated Area 2015 (km^2)	Change (%)
AT	Whole t. app. - Art. 3(5)	*83,948*	*83,948*	0.0
*BE**		23,356	23,356	0.0
BG		38,352	38,352	0.0
CY		486	452	-7.0
CZ		32,835	33,020	0.6
DE	Whole t. app. - Art. 3(5)	*357,737*	*357,737*	0.0
DK	Whole t. app. - Art. 3(5)	*43,175*	*43,175*	0.0
EE		3,250	3,267	0.5
EL		31,963	42,288	32.3
ES		81,699	79,117	-3.2
FI	Whole t. app. - Art. 3(5)	*337,617*	*337,617*	0.0
FR		255,372	313,891	22.9
HR		N.A.	5,089	
HU		42,519	65,268	53.5
IE	Whole t. app. - Art. 3(5)	*69,957*	*69,957*	0.0
IT		39,391	40,309	2.3
LT	Whole t. app. - Art. 3(5)	*64,901*	*64,901*	0.0
LU	Whole t. app. - Art. 3(5)	*2,595*	*2,595*	0.0
LV		8,259	8,265	0.1
MT	Whole t. app. - Art. 3(5)	*316*	*316*	0.0
NL	Whole t. app. - Art. 3(5)	*37,374*	*37,374*	0.0
PL		14,171	21,320	50.4
PT		4,047	4,011	-0.9
RO	Whole t. app. - Art. 3(5)	137,804	*238,364*	73.0
SE		99,339	101,717	2.4
SI	Whole t. app. - Art. 3(5)	*20,274*	*20,274*	0.0
SK		14,622	14,626	0.0
*UK***		106,539	125,255	17.6
*EU****		1,951,898	2,175,861	11.5

***Table 25**. Nitrate vulnerable zones in Member States and Member States applying an action programme to the whole national territory in line with Art. 3(5) of the Nitrates Directive (source: data provided by Member States to JRC).*

** The Region of Flanders applies an action programme to its entire territory in line with Art. 3(5) of the Nitrates Directive. Flanders whole surface (NUTS 3) has been considered for the calculation of the NVZ in Belgium.*

*** Northern Ireland applies an action programme to its entire territory in line with Art. 3(5) of the Nitrates Directive. Northern Ireland whole surface (NUTS3) has been considered for the calculation of the NVZ in the United Kingdom.*

**** The values for EU-28 have been calculated taking into account the whole land area of countries applying an action programme to their territory in line with Art. 3(5) of the Nitrates Directive.*



Map 18. Implementation of Article 3 of the Nitrates Directive in 2015 (Source: JRC)

SECTION IV

CODES OF GOOD AGRICULTURAL PRACTICE AND NITRATES ACTION PROGRAMMES

All Member States have established a Code of Good Agricultural Practice (CGAP). The CGAP is identical or almost identical to the Action Programme in Austria, Belgium, Denmark, Germany, Ireland, Luxemburg, the Netherlands and Slovenia. In most other Member States the CGAP apply voluntary to farmers outside NVZs. The actual uptake of the measures was reported by few Member States: Czech Republic stated 60% application for farmers outside NVZs, Estonia stated 65% of farmers apply all measures within the CGAP, and Spain stated 1 to 100% application outside NVZs, depending on the region. Other Member States did not report on the actual application of CGAP measures.

Member States are required to establish one or more action programmes that apply within designated vulnerable zones or to the whole territory. Action programmes include at least the measures referred to in Annexes II and III to the Directive and relating to periods when mineral and organic fertilizers application is prohibited, minimum required storage capacity for livestock manure, limitation of land application of fertilisers, and land application near waters and on slopes.

Most Member States, or regions within certain Member States (Spain: 11, Italy 14) have adopted a new or revised Action Programme during the reporting period 2012-2015. No revisions were reported by Cyprus, Germany, Estonia, Latvia and Malta. Austria did not report changes but stated that the Action Programme is under review and will be changed into a more regional approach with stricter measures for areas with a high risk on nitrate leaching. Greece did not report changes, but stated that it needs to draft Action Programmes for the new NVZs that were designated after 2010.

The recent changes in Action Programmes are foremost related to the periods of land application of slurry and fertilizer and the storage capacity of animal manure. Other recurring changes relate to application of manure and fertilizers during unfavourable climatic conditions, on sloping areas and close to surface waters.

All but one (Greece) Member States reported on control of measures in the Action Programmes. In general the reports stated either the proportions of farms or the number of farms that were checked administratively or on-site, the type of farms (arable vs. livestock, or whole territory vs. NVZ), and whether the controls were carried out as part of cross compliance or as part of a specific agro-environmental regulation. Most Member States specifically mentioned that controls were carried out at least at 1% of the farms under cross compliance. Additional control programs showed wide variations of checked farms.

When reported, the proportion of infringements also showed a wide variation between countries and between measures, in a range of approximately 3% to 30%. The dominant types

of infringements were related to manure storage capacity, on-field manure storage, fertiliser application near water courses, limitation on manure use and record keeping. Less frequently observed infringements were related to soil sampling, manure application techniques, crop rotation, cover crops in winter and manure analysis.

Cost effectiveness was reported in various ways by Austria, Belgium-Flanders, Czech Republic, Denmark, Estonia, France, Germany, Hungary, Latvia, the Netherlands, Poland, Romania, Slovakia, Slovenia and Spain-Catalonia. The results were either presented as costs per kg N not lost to groundwater, surface water or the sea, total national costs, costs per ha, investment costs. Costs per kg reduced N loss showed a huge variation from around zero to €160.

SECTION V
DEROGATIONS

The Directive establishes a maximum annual limit of 170 kg N/ha from livestock manure that can be applied on land. The Directive envisages a possibility for a temporary derogation to this maximum amount, as long as this not prejudice the achievement of the objectives specified in Article 1. Derogations must be justified on the basis of objective criteria (for instance, long growing seasons, crops with high nitrogen uptake, high net precipitation, and soils with exceptionally high denitrification capacity).

The derogation is granted at request of a Member State by means of a Commission Implementing Decision and is subject to an opinion of the Nitrates Committee.

Table 26 presents the situation concerning granted temporary derogations in place at the end of the year 2015.

Member State/Region	**Commission Decision**	**Publication**	**Expiry date**
Denmark	2012/659/EU	OJ L 295/20, 25.10.2012	31.07.2016
Belgium: Flanders	2015/1499/EU	OJ L 234/10, 8.9.2015	31.12.2018
Ireland	2014/112/EU	OJ L 61/7, 1.03.2014	31.12.2017
Netherlands	2014/291/EU	OJ L 148/88, 20.5.2014	31.12.2017
UK: Northern Ireland	2015/346/EU	OJ L 60/42, 4.3.2015	31.12.2018
UK: England, Scotland and Wales	2013/781/EC	OJ L 346/65, 20.12.201	31.12.2016
Italy: Lombardy, Piedmont, Veneto, and Emilia Romagna	2011/721/EU	OJ L 287/36, 4.11.2011	31.12.2015

Table 26*. Derogations in force at the end of the year 2015.*

In general, derogation is mentioned briefly and inconsistently in the Article 10 reports of the relevant Member States. The focus is on the conditions for derogation and the specific rules that apply to farmers that are granted derogation.

Denmark states that on agricultural holdings where at least 2/3 of the livestock are cattle, manure and degassed plant biomass may be applied in quantities corresponding to 2.3 livestock units per hectare per planning period when in compliance with certain conditions.

The report of Flanders presents extensive descriptions of the additional rules for farmers. In short these additional rules are:

- no use of mineral phosphate fertiliser
- specific manure applications rates for a limited number of crops.
- specific rules for the grassland to increase the period of N uptake
- registration of fertilising use and soil sampling for mineral N.
- obligatory fertilisation plan in case of high mineral N

Ireland stated that farmers have to apply annually for a derogation, and have to comply with additional conditions related to the application of manure and other fertilisers and conditions related to land management.

The Netherlands outlines various rules for farmers that use derogation:

- that nitrogen and phosphate levels in national livestock manure production will not exceed 2002 levels
- prescribed percentage of grassland on farms that use derogation
- these farms may no longer apply phosphate-containing fertilisers.
- these farms have lower nitrogen application rates for maize
- these farms need to keep a fertilising plan, carry out periodic nitrogen and phosphate analyses of the soil, and asses the nitrogen contribution from organic matter mineralisation after ploughing grassland.

The report of the United Kingdom briefly states the additional rules and criteria for farmers:

- Farms with at least 80% grassland may apply annually for a derogation to permit application of up to 250 kg/ha/year N from grazing livestock manure.
- annual fertilisation plan, including soil testing.
- no application of any organic manures, in winter after ploughing.
- Annual fertilisation account must be submitted to controlling authority.
- Temporary grassland is only permitted to be ploughed in spring.
- Ploughed grass is followed immediately by a crop with a high N demand.
- Crop rotation must not include leguminous or other plants fixing N except for grassland with less than 50% clover and to areas with cereals and peas undersown with grass.
- There must not be an exceedance of a surplus of 10 kg P/ha/year on a derogated holding.

The report of the Italy has one dedicated chapter about the derogation. It describes the number of farms that apply for derogation, and it briefly describes the additional rules for these farmers:

- obligation to distribute at least 2/3 of the quantity of nitrogen in effluents before 30 June of each year;
- prohibition on the use of effluents and fertilisers after 1 November;
- prohibition on administration of phosphorous based fertilisers.

The submission of the Member States reports and the accompanying water quality data by the 28 Member States were due in June 2016. However, only 12 Member States[1] respected this deadline and for some of them relevant information was still missing and was reported later on. For 19 Member States[2] missing or corrected information was submitted only in 2017. The complete set of information was only available to the Commission in October 2017.. In general the reports followed the layout of the Reporting guidelines (2012), but with significant variety in level of detail, completeness and quality.

- Water quality data were generally presented in the format of the draft guidelines. However the data presented in the Article 10 reports data did not always match with the submitted digital data through EOINET.
- Most Member States reported on agricultural pressure for the whole territory and also for NVZs. The data generally covered the complete reporting periods 2008-2011 and 2012-2015. However, in certain cases, the reporting included incomplete periods or even different periods and years per parameter.
- The sections on the Code of Good Agricultural Practice and the implementation of the Action Programme were presented in nearly all reports, but in a huge variety of detail and completeness.
- The sections on cost effectiveness and forecast of water quality were not reported by many Member States. When reported, the interpretation and formulation of conclusions was very different per Member State.

The Member States' water quality data were submitted between June 2016 and October 2017. The data were checked and processed as described in Section VII. For nearly all Member States there were issues with the data quality and completeness, requiring intensive feedbacks and renewed and repeated data submissions. There were also some cases of inconsistencies between the information included in the Article 10 reports and the submitted digital data and water quality data. In some cases Member States had to re-submit data for the previous reporting period 2008-2011.

Surface water data of saline waters were not included in the dataset for many Member States. Eutrophication status was reported in various ways which were not in line with the required ND reporting guidelines.

[1] Belgium, Croatia, Estonia, Finland, Ireland, Italy, Lithuania, the Netherlands, Portugal, Slovakia, Slovenia and Sweden.

[2] Bulgaria, Croatia, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Malta, the Netherlands, Portugal, Romania, Spain, Sweden and United Kingdom.