EUROPEAN
COMMISSION

Brussels, 15.7.2026
SWD(2026) 235 final

COMMISSION STAFF WORKING DOCUMENT

EXECUTIVE SUMMARY OF THE EVALUATION

Commission Staff Working Document

Evaluation of the Nitrates Directive (Council Directive 91/676/EEC)

{SWD(2026) 234 final}

EXECUTIVE SUMMARY

The Nitrates Directive (Council Directive 91/676/EEC) adopted in 1991, aims to protect human health and aquatic ecosystems across Europe by reducing and preventing diffuse water pollution by nitrates from agriculture. Water pollution from agricultural activity caused by the losses of nutrients[1] which occur when chemical fertilisers and livestock manure are not taken up by crops remain one of the key challenges for water resilience in Europe. Too high nitrate concentrations make freshwaters unsuitable for drinking water abstraction or involve additional treatment costs. In surface waters, high nutrient concentrations lead to eutrophication of rivers, lakes coastal and marine waters, due to excessive growth of algae and other plants, resulting in oxygen depletion and liberation of toxic substances, thereby affecting aquatic and marine ecosystems.

The Directive acts at farm level by promoting and enforcing agricultural practices to reduce nitrate losses to water. Specifically, Member States are required to promote good agricultural practices by setting out basic principles for all farms on managing and using manure and other fertilisers (right amount, type, place and time). In areas that are identified as polluted or at risk of pollution, Member States should enforce those practices by implementing action programmes with specific mandatory requirements for all farms in those areas.

The Directive was adopted in 1991, when after a period of steady growth in fertiliser use since the 1960s, nitrate content in waters was increasing, and was compromising drinking water standards but also leading to eutrophication of fresh and marine waters.

This is the first comprehensive evaluation of the Nitrates Directive. It therefore covers the entire period from the early 1990s to the present day to the extent that data was available. The evaluation covers all compulsory evaluation criteria set in the Commission's Better Regulation guidelines investigating effectiveness, efficiency, relevance, coherence and EU added value of the EU intervention. It also examined the potential for simplification and burden reduction. This document summarises the conclusions and lessons learned[2].

Extensive stakeholder consultation activities ensured that the public interest across the EU was properly reflected in the evaluation. Consultation activities included an online public consultation[3], an implementation dialogue[4], three stakeholder events on specific topics, and interviews and questionnaires feeding into the support studies. Member State experts were consulted extensively in the Nitrates Expert Group[5].

Effectiveness, Efficiency and Coherence

1. Looking back over 30 years of implementation by national authorities and farmers, the intervention of the Directive has been overall effective. significant progress has been achieved in more efficient fertiliser use and in reducing fertiliser losses to water which have so far been

[1] Nutrients designate nitrogen and phosphorus. Nitrates is a form of nitrogen soluble in water. Manure contains nitrogen and phosphorus.

[2] In line with the Commission's better regulation guidelines, Commission evaluation reports do not make any commitment for future action.

[3] Protecting waters from pollution caused by nitrates from agricultural sources - Evaluation

[4] https://environment.ec.europa.eu/events/implementation-dialogue-environmental-legislation-2026-02-18_en

[5] The Nitrates Expert Group brings together experts from national administrations responsible for the implementation of the Nitrates Directive (https://ec.europa.eu/transparency/expert-groups-register/screen/home?lang=en GROUP E03023)

partially translated to reductions in water pollution. A temporary stagnation or even increase of agricultural pressures in the 2010s has been followed by renewed progress in overall reduction of agricultural pressures in the last reporting period. This has led to overall stagnation or some deterioration in overall water quality in recent years but should bring positive impacts on water quality in the coming years.

2. The Directive has contributed to reduce and prevent eutrophication thanks to a general reduction in fertiliser and manure use and in nitrate and phosphorus concentrations in surface waters, but measuring progress and success has been less straightforward. The Water Framework Directive (WFD) provides a comprehensive and scientific basis for assessing eutrophication in relation to the ecological status of surface water, for attributing loads to different sources and for defining nitrogen and phosphorus concentration thresholds compatible with good ecological status and absence of eutrophication. The WFD thus provides a framework to develop progress indicators and assess success. However, gaps remain in ensuring monitoring and reporting of eutrophication are fully consistent between the Nitrates Directive and the WFD.

3. Climate change is increasingly affecting outcomes in terms of impacts on water quality, and it will significantly alter the physical and societal context within which the Nitrates Directive is implemented in the future. With its generic and adaptable measures, the Directive is capable of responding to climate change through changes in its practical implementation, that do not require legal amendments. The Directive's inherent flexibility should allow for innovative and resilient approaches to address the challenges associated with climate change and help farms to adapt, especially by exchanging knowledge and best practice, allowing Member States to design more flexible and effective measures.

4. Nitrogen pollution from agriculture (covering all forms of nitrogen pollution) imposes significant costs on society, estimated to be in the general order of magnitude of EUR 68-182 billion annually. The benefits of the Directive in lowering cost of pollution are estimated to be in the general order of magnitude of EUR 10-22 billion per year, and are found to be three to seven times the total implementation costs for farms and public authorities, which have been estimated at EUR 2.8 - 3.1 billion per year. The costs for farms represent less than 1% of agricultural output in the EU. In general, there would seem to be a strong correlation between the implementations costs and level of pollution, as the Directive generally imposes higher implementation costs in situations when pollution is more severe. The highest costs linked to the implementation of the Directive are concentrated in nutrient pollution hotspot regions and mostly borne by intensive livestock production, which is a key driver of nutrient pollution due to the high manure production. However, the evaluation shows that, considering regional specificities, the competitiveness of livestock farming remains generally unaffected by the Nitrates Directive. Even in Member States with *very* high livestock density, the livestock sector has successfully managed to retain its competitiveness despite the fact that costs of implementation of the Directive increase significantly. In areas where there is no pollution risk, the implementation costs can be close to zero (outside nitrate vulnerable zones - NVZ), so the geographical distribution of the costs and benefits of the Directive would tend to be consistent in this sense. The general distribution of costs would seem consistent with the polluter pays principle.

5. The agricultural practices promoted under the Nitrates Directive are generally effective in addressing pollution if properly implemented. Over time Member States have

strengthened the preventive approach of the Directive. Currently, problems with implementation are usually linked to the insufficiency rather than the absence of mandatory measures, as illustrated in the recent enforcement actions by the Commission and national courts.

6. Balanced fertilisation is an effective and efficient measure to promote nitrogen use efficiency and balance between the private economic interests of the farm and the societal interests to prevent and reduce nitrogen pollution and its associated costs. It has brought about considerable reductions in fertiliser use while agricultural production has continued to increase, thereby contributing to strategic autonomy and food security.

7. The wide flexibility that the Directive allows in its practical implementation means that Member States can adapt implementation to local conditions, which should be more efficient. This flexibility also enabled them to adapt to new and emerging challenges, while regular meetings in the Nitrates Expert Group has allowed sharing of best practices. As a result, national implementation varies considerably between Member States and even between different regions in the same Member State. However, flexibility also means a considerable responsibility on Member States to impose and enforce necessary measures. Market pressures are pushing the sector towards intensification with high fertiliser inputs to optimise yields and towards the geographic concentration of livestock production in a few regions, which has probably had a negative impact on the Directive's implementation. The evaluation also identifies both positive and negative examples where the flexibility of the Directive and the Member States' choices have favoured cost-effective implementation of measures. However, in some Member States, authorities and farmers' associations have highlighted that in order to accommodate increased flexibility and maintain overall effectiveness, national rules have become more complex and more difficult to implement or control. The evaluation has identified potential for more flexible and proportionate implementation approaches that are adapted to national specificities, while ensuring that objectives can be effectively achieved, as a potential area for simplification including through exchange of best practices, knowledge, research results and dialogue with stakeholders.

8. Setting a common limit for the application of nitrogen from manure (and processed manure) in nitrate vulnerable zones (NVZ) has served as a pivotal benchmark in curbing different pathways of nutrient pollution from manure, contributing positively to limiting the negative environmental effects of intensive livestock production. In general, manure application above the limit leads to a risk of excessive water pollution. The evaluation finds that the manure application limit is effective, scientifically sound and cost-efficient, although, in polluted areas, it may not be sufficient to achieve the Directive's objectives, and additional measures adapted to the local conditions may need to be taken.

9. Derogations remain a tool for flexibility regarding the manure limit, but the evaluation shows that they may affect the effectiveness of the Directive and therefore have to be used carefully to avoid long-term negative impacts.

EU added value and relevance

10. The Directive has provided benefits to EU citizens, as water consumers and beneficiaries of a well-functioning environment. It has also benefited economic sectors that depend on clean water and healthy aquatic ecosystems, including the food, fisheries and tourism sectors. The Directive plays a complementary role alongside other frameworks

dedicated to transnational cooperation and the development of coordinated strategies. Addressing nutrient pollution remains necessary and urgent for achieving key EU policy objectives, in particular water resilience and sustainable and competitive agriculture including the livestock sector. Despite progress under the Nitrates Directive, nitrates pollution in groundwater and eutrophication of surface waters remain major challenges throughout the EU.

11. The Nitrates Directive provides a cost-efficient and sustainable approach in protecting drinking water resources. The Directive's objectives to prevent and reduce pollution therefore remain fully relevant for the resilience of drinking water resources, even more so when considering increasing scientific evidence that nitrate levels in drinking water should be lower than 50 mg/l to protect against carcinomic effects.

12. The Directive contributes to a level playing field among farms across the EU, by setting out the basic standards for nutrient pollution control and a common menu of the types of practices that should be implemented. The common manure application limit in NVZ and the derogation process through the comitology procedure help to maintain a common minimum baseline and avoid distortion, including with organic farming.

13. Overall, the Nitrates Directive remains necessary, relevant and effective, although the evaluation identifies potential areas for improvement. Its intervention logic and key measures are effective to address the problem that it was designed to address. It tackles water pollution by nutrients from agriculture in a generally effective, efficient and coherent way, and fully complements other legislation tackling other sources of nutrient pollution like urban wastewater. The Directive helps achieve outcomes that could not have been attained by the Member States acting alone, and its provisions generally remain relevant to the current context and emerging policy challenges. In particular, it is by design a very flexible legal instrument, targeting its intervention to areas where pollution or the risk of pollution is a problem and gives wide discretion to Member States in national implementation and adaptation to scientific and technological progress, which facilitates the adaptation of measures to new circumstances (e.g. technological innovation, climate change).

Potential for simplification and policy change

14. The evaluation has identified potential areas for improvement on which the Commission and Member States could follow-up as part of a coherent effort. These potential areas for improvement detailed below are linked to (i) simplification potential, (ii) better implementation, (iii) increased coherence with the Water Framework Directive, (iv) climate change adaptation and (v) better management of excess manure and high livestock concentration, some of which are broader policy issues beyond the Nitrates Directive itself.

15. There are indications that implementation of the Nitrates Directive has not always been sufficiently, effective or efficient. The evaluation identified potential for simplification and burden reduction for farms by adapting implementation in the Member States to manage the evolving realities faced by farms in the light of changing market conditions, technological pressures and climate change, while both minimising unnecessary burdens and ensuring that measures are proportionate and effective in reaching EU water quality standards.

Exchange of knowledge, best practice and research results, as well as further clarifications by the Commission and dialogue with stakeholders can help Member States in designing robust approaches, avoiding the risk of backsliding or postponing difficult decisions, while

considering specific situations and flexibilities for certain sustainable farming practices. Stronger links could be made between technical, research and innovation progress, and more research could address knowledge gaps and provide innovative solutions for nitrates related challenges. The Fertilisers action plan and the livestock strategy put forward actions in this direction.

16. The integration of the Nitrates Directive with the WFD is incomplete. There is scope for a more coherent approach in the preparation of the national plans, in the assessment of eutrophication and in the monitoring and reporting under both directives. In line with the priorities set out in the water resilience strategy, a more coordinated 'source to sea' approach to addressing both nitrogen and phosphorus pollution, and in particular eutrophication, could help Member States step up national implementation to reach its full potential in complementarity with structural measures under the WFD to tackle better transboundary aspects of nutrient pollution and achieve water quality objectives.

The evaluation has identified potential for simplification in the monitoring and reporting to the EU by national authorities, including timeframes, and better integration with the WFD. The monitoring cycles are set to converge in 2027 and would be a moment to take stock on the achievement of water quality objectives and potentially align better reporting processes.

17. The manure application limit at farm level acts as a minimum common basis but is not sufficient on its own to reduce or maintain nutrient emissions from manure below harmful levels in areas with a very high concentration of livestock production.

In its vision for agriculture and food, the Commission highlighted that 'priority should be given to addressing nutrient pollution hotspots and promoting integrated territorial approaches. A key aspect of this would be the management and control of nutrients from livestock farming to limit negative externalities, support extensification in regions with high livestock concentrations'. In 2026, the Commission presented a livestock strategy.

18. To reduce nutrient pressure on the environment it remains necessary to improve nutrient management at farm level by reducing losses, increasing circularity and better accounting the nutrients in soil and in manure. Through balanced fertilisation and the manure application limit, the Nitrates Directive promotes responsible use of fertilisers and inherently enforces circularity of nutrients. It does this through the the reuse of manure as fertilisers on farms and the redistribution of excess and processed manure between regions and between livestock and arable farms, which contributes to strategic autonomy. Recent crises in fertiliser prices highlight the urgent need to support Member States and farmers develop sustainable solutions in this direction. The Fertilisers action plan put forward actions in this direction.