PAN Europe's feedback to the call for evidence on Water Resilience Strategy

PAN Europe welcomes the European Commission's initiative for a European Water Resilience Strategy (EWRS), recognising water's place at the centre of EU policy and urging actions to address water challenges. The recent reports by the European Commission assessing the implementation of the Water Framework Directive (WFD), Floods Directive, and Marine Strategy Framework Directive highlight -once again- the urgency of the situation.

PAN Europe has been raising alarms for years about the environmental impacts of synthetic pesticide use in agriculture on water quality and biodiversity, calling for stricter and more effective implementation of existing EU legislation on pesticides. For that matter, the EWRS should build on the achievements of the Zero Pollution Action Plan and the existing EU legislations' objectives to protect water resources against pollution in all sectoral policies related to pesticides and water pollution. In this regard, PAN Europe has co-produced a Roadmap outlining the essential steps to phase out pesticides and protect the environment, biodiversity and people's health.

Background:

Europe is at a critical juncture. The Commission's monitoring results on the WFD implementation align with the European Environment Agency's 2024 report- and they are alarming. Europe's freshwater resources are widely polluted, with only 26.8% of surface waters meeting the good chemical status standards set by the WFD in 2021. Agricultural pesticide use remains a common contributor. For groundwater, while 86% achieved good chemical status that year, 59% of polluted groundwater bodies were affected by pesticides.

The report emphasises that current monitoring practices under the Environmental Quality Standards Directive (EQSD) severely underestimate pesticide pollution as, for the most part, only a few old and banned substances are monitored in surface water, and the mixture effects are not efficiently monitored. Indeed, a report by PAN Europe found that, in four Member States, mixtures of 15-23 different pesticides were detected in surface water close to greenhouse fields, with total concentrations exceeding the proposed total threshold of 0.5 µg/L[1] in most cases — even reaching 90 µg/L in one sample. Evidently, the reality is much worse than what is shown in the Commission's report due to a lack of monitoring by public authorities.

The recent reports published by the European Commission also indicate that local policy measures by Member States have failed to ensure that water resources are sufficiently protected. For instance, the report on the WFD assessing the third River Basin Management Plans (RBMPs) highlights that the percentage of surface waterbodies in good chemical status has decreased

[1] The European Commission proposal updating the WFD, EQSD and GWD from October 2022, introduced a total pesticide threshold for surface water of 0.5 µg/L.

(from 33.5% in 2015 to 26.8% in 2021). It further emphasises that pesticides and their metabolites are responsible for the failure to achieve good chemical status of groundwater bodies at least in nine Member States (Austria, Belgium, Czechia, Denmark, Estonia, France, Luxembourg, the Netherlands and Spain).

Therefore, to effectively protect our European water resources from pesticides, it is of utmost importance to address pesticide pollution at its source, gradually shifting from intensive chemical-reliant agriculture practices to more sustainable alternatives. These should include the endorsement of Integrated Pest Management (IPM) practices where synthetic pesticides are truly used as a last resort, or even better, organic agriculture and agroecology, as foreseen in the Directive on the Sustainable Use of Pesticides (SUD, dir. 2009/128/EC). Such transformation is possible only through ambitious and rigorous measures and their strict implementation at the EU and national level, aiming to support farmers through such a transition.

In light of the growing urgency to ensure clean and sufficient water, we emphasise the following recommendations relating to the priorities announced by the Commission:

1. The need to address pollution at the source – policy integration

The objectives of the WFD will remain unachievable in the absence of a concerted effort to address pollution at its source. Regarding the use of pesticides, there is an increasing body of evidence indicating a correlation between pesticide contamination of freshwaters and adverse effects or population declines of certain species, biodiversity loss and ecosystem function disruptions[2]. This is no news, and pesticide pollution is already addressed in current European policies, although weakly implemented.

Current policies already call for the protection of the aquatic environment:

The **Pesticide Regulation (EC) 1107/2009** clearly states that pesticide active substances can only be approved if they are shown to not adversely affect human or animal health or the environment (Articles 1.4 and 4). A particular emphasis is given to the protection of groundwater, biodiversity and ecosystems. Yet, 95 pesticide active substances currently approved are officially classified as very toxic to aquatic life with long-lasting effects and another 14 as toxic with long-lasting effects[3]. Moreover, a recent PAN Europe investigation found that 34 PFAS pesticide active substances are currently approved in the EU. Many of them degrade into the highly persistent trifluoroacetic acid (TFA), which contaminates surface and drinking water across Europe, even reaching pristine water sources. TFA has been proposed for classification as toxic to reproduction (Category 1B), while its rising and irreversible contamination is becoming a growing global threat[4].

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[2] Europe's state of water 2024: the need for improved water resilience, EEA Report 07/2024, p. 52.

[3] Source: EU pesticide database and ECHA's official website

[4] Hans Peter H. Arp, Andrea Gredelj, Juliane Glüge, Martin Scheringer, and Ian T. Cousins The Global Threat from the Irreversible Accumulation of Trifluoroacetic Acid (TFA) Environ. Sci. Technol. 2024, 58, 45, 19925–19935

The **Sustainable Use of Pesticides Directive (EC) /2009/128** already aims to protect the aquatic environment and drinking water from pesticides while it promotes the use of safer alternatives, including non-chemical ones. Article 11 calls Member States to put in place specific measures to protect the aquatic environment and drinking water, the first one being giving preference to pesticides that are not dangerous for the aquatic environment. Mitigation measures Member States have to take include the establishment of pesticide-free appropriately-sized buffer zones for the protection of non-target aquatic organisms and pesticide-free zones for surface and groundwater when these are abstracted for drinking water. Non-agricultural use close to surface or groundwater bodies should be substantially reduced or eliminated. Furthermore, Article 12 mandates Member States to minimise or prohibit in protected areas under the WFD and always to consider low-risk substances and biological control measures first. Article 14 obliges the implementation of Integrated Pest Management (IPM) to ensure that professional users adopt all necessary preventative measures, reducing vulnerability of cropping systems to pests, and always prioritise practices and products with the lowest risk to human health and the environment.

Unfortunately, despite the existing policy, Member States have not established strict and appropriately sized buffer zones in areas of water resources, nor have they banned the use of pesticides that cause aquatic toxicity. Often, buffer zones are 0.5 - 3m, which are not science-based and are thus completely insufficient to prevent water contamination. Indeed, due to pesticide drift, pesticide residues have been detected at distances of 600m - 7500m from where they have been used[5]. Moreover, implementation of IPM has been fundamentally lacking, as acknowledged by EU institutions[6]. Yet effective implementation of IPM is crucial for reducing overall pesticide use and risk, as well as protecting the environment, including water bodies. Since pesticides can drift far beyond their application sites, reducing their use and associated risk is essential to safeguard our water resources.

The Commission's report mentions that "*with respect to the* **Common Agricultural Policy (***CAP) 2023 - 2027, an increased contribution to tackling pollution from nitrates and pesticides can be expected*." Unfortunately, this argument has never been true. It refers to the original CAP conditionality payment system that would only support farmers complying with certain minimal standards that are beneficial to the environment and climate called "good agricultural and environmental conditions" (GAECs). Although these GAECs were already significantly too weak to ensure needed protection of the environment, including water resources, the Commission significantly weakened or scrapped the majority of them in Spring 2024. This fast-tracked revision took place without impact assessment or robust stakeholder consultation. One of the GAECs weakened included the obligation to keep a minimum share of land pesticide-free, which was made voluntarily. Also, the obligation to apply crop rotation and permanent soil cover was deleted and left to member states to decide upon. These are essential to reduce vulnerability to pests and

[5] Linhart, C., Niedrist, G.H., Nagler, M. et al. Pesticide contamination and associated risk factors at public playgrounds near intensively managed apple and wine orchards. Environ Sci Eur 31, 28 (2019). https://doi.org/10.1186/s12302-019-0206-0

[6] Implementation assessment on SUD by the European Parliamentary Research Service (2018)
Report on the SUD of the European Commission (2020)
Report on the SUD of the European Court of Auditors (2020)

ultimately reduce pesticide use. Without obligatory enforcement, it is very uncertain if Member States will take the necessary measures to protect water resources and/or if farmers will implement voluntary eco-schemes. The weakening of the, already largely insufficient, CAP conditionality is therefore very likely to lead to further deterioration of water resources.

The CAP budget comprises one-third of the EU budget and amounts for the 2021-2027 period to €386.7 billion of taxpayers' money. It is socially unacceptable to spend taxpayers' money on practices which severely harm human health, biodiversity, soil, water resources, and long-term food security.

PAN Europe welcomes the EU's commitment under the ***Vision for Agriculture and Food*** to reduce pollution under the EWRS, and its ambition to move towards a future agri-food sector that is "functioning within planetary boundaries", where farming and the food sector preserve healthy soils, clean water and air, while protecting and restoring Europe's biodiversity. This is partly in line with the recommendations of the final report of the ***Strategic Dialogue on the Future of EU Agriculture***, a consensus of 29 diverse stakeholders, launched by the Commission's President in 2024. These recommendations clearly state the need to reduce external inputs from pesticides, as well as to promote investment and practices to advance towards water-resilient and less resource-intensive farming. All these can only be achieved by setting measures across Member States that significantly tackle pesticide pollution.

Tackling pollution & strengthening implementation of EU legislation:

Current measures taken by Member States have failed to stop the contamination of water resources from pesticides. In order to curb this source of pollution, there is an urgent need to strengthen these measures and promote actions at the EU and national levels to truly reduce pesticide use and adopt sustainable practices in line with EU legislation.

Recommendations:

- Better integration between the WFD and the Pesticide Regulation must be implemented. The authorisation and use of pesticides that are detected in surface waters and groundwater should be examined and potentially withdrawn to achieve a good chemical status for European waters. Pesticides that are identified as toxic or very toxic to aquatic life with long-lasting effects should be banned, or their use severely restricted.
- Promote ambitious National Action Plans (NAPs) in Member States to implement the Sustainable Use of Pesticides Directive, particularly the obligations of articles 11, 12 and 14. This includes banning pesticide use in proximity to water resources and establishing pesticide-free buffer zones of at least 100 m or wider where necessary to protect aquatic ecosystems and setting pesticide-free safeguard zones for surface and groundwater used for drinking water abstraction. Preference should always be given to pesticides not classified as dangerous for the aquatic environment. Furthermore, full implementation of the Directive is essential to ensure that Member States commit to reducing the use and risk of pesticides, truly implementing Integrated Pest Management, where pesticides are

a last resort, with priority always given to safer alternatives, including bio-control and organic agriculture.

- Ensure that any CAP subsidies are linked to robust conditionality (environmental protection measures) and that farmers taking measures which support ecosystem services and go beyond the legal requirements are able to receive additional financial support.
- To urgently address the contamination of water resources with TFA, particularly in proximity to agricultural zones, the European Commission must urgently start phasing out PFAS pesticides.
- The Commission and the Member States must additionally adopt and implement a comprehensive and ambitious restriction on PFAS under the REACH Regulation.

2. The need to maintain, implement and strengthen Water Laws

Better implementation of the WFD:

The 2019 Fitness Check of the WFD concluded that the WFD is fit for purpose but needs to be better implemented. Yet the lax approach to enforcement of the WFD, allowing Member States to miss almost all WFD deadlines so far without real consequences, has contributed to the slow pace of improvements. This is confirmed by the Commission's report, which states that implementation gaps are slowing down the efficient protection of European waters.

The European Commission should, where feasible, take appropriate actions to ensure better implementation of WFD by the Member States. Correlatively, there should be no tolerance for Member States not achieving the Water Framework Directive's deadline of reaching good water status by 2027, and exemptions should only account for truly exceptional circumstances as outlined by the WFD. Any attempts to weaken these principles and the overall objectives of the WFD must be strongly opposed.

Strengthening the WFD – new environmental standards:

The full scale of EU water pollution as chemical status is only assessed against a small fraction of the substances present in the environment and does not consider mixture effects, meaning that the full picture of chemical pollution in aquatic environments is underestimated and underreported.

Currently, most of the pollutants or priority substances to be tackled across the EU have individual threshold values that do not account for mixture effects. Moreover, several pesticides currently listed as priority substances are no longer in use. While banned substances can still be of significant environmental concern, the list of priority substances must reflect reality. Many substances that are both in frequent use and of very high concern for aquatic life and human health are not yet monitored.

Ambitious new EU environmental standards need to be developed in a timely manner to address new pollutants of concern, this is especially true in the case of PFAS and TFA[7]. New practices

[7] https://pubs.acs.org/doi/10.1021/acs.est.4c06189

and strict thresholds should also be developed and implemented to better assess the chemical mixture effect in both surface and groundwater. Correlatively, increasing the monitoring of pesticide residues and their metabolites (relevant and non-relevant) in water bodies and implementing stricter enforcement of pesticide application regulations is essential to mitigate their impact on water quality.

Finally, the introduction of good monitoring practices should also be implemented, as it is a key tool towards addressing agricultural pressure on water bodies, such as event-based monitoring to capture the effects of peak events[8] and mixture effects monitoring.

Recommendations:

- Integrate the objectives of the WFD into national measures and ensure their consistent monitoring. Regularly update the priority list substances and support the monitoring of additional active substances based on their toxicity profile and widespread use.
- The EU institutions should commit to upholding the WFD as a robust and effective legal framework and push back on attempts to weaken it, e.g. proposals from the Council to introduce new exemptions to the WFD in the current update of the list of priority substances.
- The European Commission and Member States thus should swiftly adopt and implement EU-wide quality standards for PFAS totals and TFA under the WFD, the EQSD, the Groundwater Directive and the Drinking Water Directive.
- Concerted efforts should be put toward enhanced monitoring of chemical mixture effects in both surface and groundwater, such as effect-based monitoring, assessing the biological impact of the water sample with all its contaminants.

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Pesticide Action Network (PAN Europe) is a network of NGOs working to reduce the use of hazardous pesticides and have them replaced with ecologically sound alternatives. We work to eliminate dependency on chemical pesticides and to support safe sustainable pest control methods. Our network brings together over 45 consumer, public health and environmental organisations and women's groups from across Europe.

Co-funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or CINEA. Neither the European Union nor the granting authority can be held responsible for them.

[8] See for example EAWAG news portal (2020) Short-term peak concentrations are severely underestimated.R. Chow, et al., "A review of long-term pesticide monitoring studies to assess surface water quality trends". Water Res X. 2020 Sep 6;9, < https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7501075/> ; M. Bundschuh, et al., "Evaluation of pesticide monitoring strategies in agricultural streams based on the toxic-unit concept--experiences from long-term measurements". Sci Total Environ. 2014 Jun 15 < https://pubmed.ncbi.nlm.nih.gov/24686148/>.