From farm to drinking water: fit for the future? Improving governance conditions to better protect drinking water resources against agricultural pollution from nitrate and pesticides



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Over the last decades, nutrients and pesticides have proved to be a major source of pollution of drinking water resources in Europe. In response, the EU has developed an extensive policy framework, including directives to protect resources (Drinking Water Directive, Water Framework Directive and Groundwater Directive) and directives and policies to limit agricultural pollution (Nitrate Directive, Pesticides Directive and the Common Agricultural Policy CAP). However, the challenge to attain water quality objectives is still ongoing. The H2020 FAIRWAY project has identified necessary changes in policy implementation approaches and governance conditions at local/regional, national and European level. This policy brief presents five key messages to help promote policy measures that need to be discussed and/or implemented.

Coherence and consistency

Good drinking water needs a policy framework, including legal and economic instruments, that is firm and clear. Inconsistencies between directives, policies, objectives and requirements were found that weaken their effectiveness. Alternatively, improving correlations and cross-referencing them strengthens the overall framework of policies and directives, making them more effective tools for protecting our drinking water resources.

Capacity

Each directive addresses parts of the complex challenge to protect drinking water resources from agricultural pollution, while also enabling economic development for farmers. Good drinking water quality requires sufficient capacity at the local level to ensure that implementation of policies and laws results in consistent, coherent and effective local action. Complexity and diversity of modes of implementation across the EU are illustrated in Figure 1. Guidance from the EU legal and policy framework on implementation can support these local efforts and increase their impact.

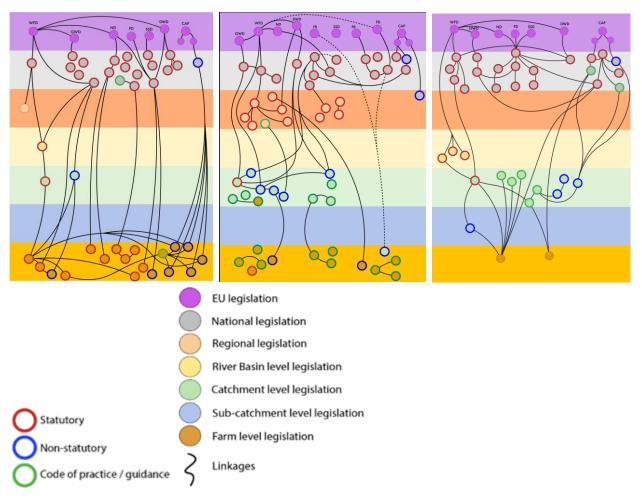
Feedback mechanisms

Well-designed feedback mechanisms could support connections between local/regional challenges to improvements in the plethora of policy and legal instruments provided by the EU and national government. These mechanisms should specifically include the intersectoral dependencies that promote water quality



ambitions. The risk-based approach in the recent revision of the DWD is an example of such an improved interlinkage.

Figure 1: Example impressions from three EU countries that visualise the governance cascade from EU level (on top, purple) to national, multiple regional levels and finally farm scale level (on bottom, orange). WFD: Water Framework Directive, GWD: Groundwater Directive, ND: Nitrates Directive, PD: Pesticides Directive, SSD: Sewage Sludge Directive, DWD: Drinking Water Directive, CAP: Common Agricultural Policy (+ Pillar 1 & 2)



Intersectoral learning

Additional capacity (knowledge and means) is needed to improve the transdisciplinary and cross-sectoral approach, over scales and sectors. A combination of top-down and a bottom-up approaches will give extra impetus and improvement. The EU could support this process of capacity building by facilitating international and intersectoral learning.

Incorporation

Economic pressure from agriculture severely limits local room to manoeuvre to further improve water quality. Measures mentioned by stakeholders as effective, like catch crops and buffer zones, will contribute to water quality improvement. However, what can be achieved in the local optimisation process, is only a fraction of what can be achieved with more structural policy choices that reduce inputs and pressures at their source. In view of current policy initiatives such as the Green Deal and From Farm to Fork, the EU, its MS and partnering states should incorporate their impact on water quality in assessments and policy choices at all levels.