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WATER FRAMEWORK DIRECTIVE (WFD)

POSITION PAPER

Modern agriculture, mainly irrigated agriculture, brought economic development and food security to European society. Much has been done to make agricultural water use more sustainable. Investments were made to support sustainable and environmentally friendly growth in the sector, which is now among the most advanced and innovative in the agricultural sector and beyond.

Optimum management of the Water/Food nexus is crucial to ensure sustained economic development in Europe and to implement the Circular Economy. The large set of Common Agricultural Policy (CAP) instruments in place to foster sustainable management of natural resources and the EU water policies are exerting a strong pressure on the irrigated agriculture sector and on agricultural water managers.

In the last years, irrigated agriculture has made significant progress towards sustainable food production, light footprints, and particularly towards sustainable water use. Irrigated agriculture has great potential in terms of production of public goods. It is supported by excellent technical capabilities, and has a proven capacity for innovation. Irrigated agriculture aims at mobilizing them in support of the common objectives of promoting quality & sustainable agricultural production. This will translate in food security, adaptation to climate change and promotion of bio-economy and circular economy. The European rural society strongly relies on water resources, and is committed to their good status. There is no deny about the significant environmental progress made by European farmers in the last decades, whilst irrigated agriculture continues to contribute to the production of food, biomass and other social goods (positive externalities).

In light of the current evaluation of the WFD under Art 19, *Irrigants d'Europe* calls for the following points to be taken into consideration (the order doesn't indicate priority):

1. Art 4 - Access to resources

In the past decades, the reduction of water use has been the main instruments to maintain the dilution capacity of water bodies at the required level. This has contributed to control pollutants (i.e. nitrogen) and to sustain water quality while other measures were enforced. Irrigated agriculture has progressively reduced its water abstraction while its water productivity and efficiency continued to increase. Significant efforts and investments have been - and still are - required to attain the ambitious environmental targets imposed by the WFD to irrigated agriculture. These huge efforts and the growing limitations to access water resources are taking irrigated agriculture close to the limit of socio-economic sustainability.

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Irrigants d'Europe therefore calls for the implementation of alternative measures - i.e. reduction of pollutant loads, limitations to their use and advanced tertiary treatments to remove them from urban and industrial wastewaters – thus reducing dilution needs in natural and artificial water bodies, permitting to mobilise resources for productive uses.

2. Art 4 – One-out, all-out principle

Although significant progress has been made in the vast majority of EU water bodies, this is not reflected by the Directive's reporting systems. Concerning the achievement of good water status, the one-out, all-out principle is discouraging ambitions and not rewarding the efforts made and the success achieved. It is also limiting the benefits resulting from the achievement of the final target. This principle requires significant investments to achieve only minor additional benefits. Therefore, the cost/benefit trade-off could often be unfavourable. Furthermore, it contrasts with the ecosystem approach the WFD is pursuing, as it is scientifically difficult to justify that a single component determines the quality of an entire ecosystem. Rather than be scientifically based, the one-out, all-out principle is not taking into account a central element in WFD-compliant assessment systems: the estimation of uncertainty. This builds on the understanding that bioassessment still has a great imbedded error level, further aggravated by several unavoidable sources of variability and errors. For instance, the variability in sampling and laboratory analysis or the seasonal and geographical variability.

Irrigants d'Europe therefore calls for the application of more flexible criteria in assessing water quality, instead of the one-out, all-out principle. A stepwise approach where gradual improvements are recognized and rewarded is very much needed. This implies that qualitative assessment of water bodies should pay more attention to economic aspects. In addition, realistic targets, particularly taking into account natural conditions, different water uses, and the effects of climate change need to be established. Historical loads and their effects on water quality need to be clearly recognized. Otherwise, the widespread use of exemptions must be forced. Furthermore, attention must be paid to the application of Minimum Ecological Flows, that will have to be applied in many water bodies to homogeneous sections (i.e. from the hydro morphological point of view), thus making even more difficult to comply with the One-out All-out principle.

3. Art 5 – Economic Analysis

The current application of art. 5(1) has been mainly limited to economic analyses aiming at supporting the application of water pricing under art. 9.

Irrigants d'Europe calls for the implementation of extended socio-economic criteria under art. 5, avoiding unbalanced cost/benefit evaluation and partial assessment of the real art. 9 impacts on rural society, the agri-food sector and the overall food security. Therefore, Annex III needs to be revised and fair criteria need to be developed and implemented. Moreover, the revision of Annex III falls under art. 20 provisions.

4. Art 9 – Water-pricing and the polluter-pays principle

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Irrigated agriculture has made significant efforts and investments in compliance with EU environmental standards in the fields of water protection. As a consequence, farmers are bearing significant costs and shortfalls in their revenues. Therefore, environmental and resource costs are already largely accounted for by the irrigated agriculture sector.

Irrigants d'Europe strongly opposes any endeavour to further valorise water and are also against any monetarization of the ecosystem service of freshwater provision for agricultural purposes. Irrigated agriculture generates unaccounted positive externalities. For instance, agricultural water networks provide ecosystem services similar to those provided by natural water bodies, but their costs are largely supported by farmers. According to the Directive's polluter-pays principle, environmental and resource costs can neither be expressed in monetary terms nor individually allocated. The existing approaches are costly, time-consuming and highly administrative, making their practical implementation impossible. Furthermore, increased water costs would also harm the implementation of modern agricultural irrigation as a particularly sustainable and climate change adaptive form of agriculture. Moreover, in Southern European Member States, collective agricultural management boards have always been in charge of building and maintaining agricultural infrastructure. This irrigation infrastructure is currently utilised for a variety of purposes, such as for drainage and flood alleviation for urban areas. These activities are mainly carried out at farmers' expenses (construction, maintenance and operation costs).

5. Art 14 - Stakeholder involvement

Irrigants d'Europe strongly believes in the broad involvement of stakeholders foreseen under the WFD. Public participation has the potential to contribute significantly to an effective approach to water management. The WFD objective can be reached only by stimulating and allowing stakeholders to work together closely with the European institutions, proactively, and on equal footing.

Therefore, *Irrigants d'Europe* calls for more effective and inclusive participatory approaches in all Member States. In order to foster participation of irrigated agriculture stakeholders, efforts have to be made starting from significant preliminary preparation work aiming to levelling out technical understanding of the topic and of boundary conditions.

6. Emerging contaminants and uncontrolled non-agricultural pollution sources

Since the enforcement of the WFD, farmers had to implement Action Plans on a compulsory basis, effectively reducing the adverse impact of agriculture on water quality. However, the leaching from broken sewage systems into the surface and groundwater, effluents from stopped or malfunctioning Urban Waste Water Treatment Plants (UWWTP), and aged, undersized sewage infrastructures constitute serious problems, which are not sufficiently recognized. In addition, untreated storm water from densely populated areas contains ever-increasing concentrations of harmful substances. Emerging pollutants, including medicinal residues and microplastics, are raising societal concerns about their impact on the food chain and on irrigation water quality.

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Irrigants d'Europe considers that the fast increase of molecules identified as emerging pollutants, and their concentration in urban treated wastewater and in untreated effluents has reached an alarming level, particularly when these flows reach natural streams and aquifers. Therefore, more attention should be paid to non-agricultural pollution sources and to the wide range of products that could result in detectable concentrations of emerging pollutants wastewater treatment plants are not currently able to remove. These new classes of pollutants cannot be managed by farmers and water managers, not even by wastewater treatment plants, thus to avoid substances nearly impossible to be removed enter the water cycle, limitations on their use in industrial productions or actions against misuse must be undertaken.

7. Water Storage and Reuse

In water-scarce EU regions, water saving is vital not only for irrigated agriculture but also for human consumption. Even in the case that rivers are restored to pristine conditions, severe water scarcity would hit during the central summer months. Water storage and reuse are effective strategies to reduce abstraction of groundwater and surface water and to further improve their efficient use. The development of water storage, starting from small on-farm storage up to large reservoirs, is the single most important mean to address water security. Agricultural water managers and farmers are in need of fiscal and financial incentives to make this happen (grants, tax incentives, skills). A reduction in red tape for reservoir applications (licensing, planning) is equally needed to face the hydrological changes that we just envisage. Due to the very low return of investments index (ROI) that characterizes investments in the agricultural water sector, the adoption of such adaptive strategies needs to be incentivized. There is a high potential in water reuse for agricultural irrigation, but this water has to be treated applying the “fit for purpose” criteria. Bottlenecks have to be overcome. For instance, consumers’ perception and legal liabilities are still slowing down the further uptake of such water.

Irrigants d'Europe claims for long-term plans and supporting actions aiming to overcome the variety of bottlenecks currently impeding water storage and reuse. In particular, bureaucratic burdens and barriers, consumers’ perception and legal liabilities are still slowing down the further uptake of such water. WFD should impulse a dynamic of simplification of European and consequently national legislations.

8. Heavily Modified and Artificial Water Bodies

In accordance with Article 4(3), a very large number of water bodies were assessed for designation as HMWB or AWB until 2008/9 as for the CIS Guidance document n. 4. CIS Guidance provides indications to identify measures leading to Good Ecological Status (GES), restoration measures, namely hydromorphological changes. These measures may range from reducing the environmental impact to completely removing the physical alteration. In many cases “physical alterations” have been in place for centuries, protecting life and assets from floods or droughts. In particular, water supply and flood defence uses of such water bodies would be significantly affected by the restoration

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measures required to achieve good ecological status. The “wider environment”, including rural society, would be equally hurt.

Irrigants d'Europe calls for criteria to identify technically feasible, cost-effective environmental options to achieve HMWB and AWB good ecological status, considering the specific uses of water supply or flood defence as irremissible priorities.

9. Underestimation of climate change

Primary production is the economic sector most affected by climate change. Indeed, water resources are hit through impacts on the quantity, variability, timing, form, and intensity of precipitation. More than ever, climate change negatively affects European freshwater ecosystems, their biodiversity and ecological status, introducing serious risks in the accomplishment of the targets set out by the WFD.

Because of air temperature increase and changes in rainfall distribution and intensity, crop water requirements are increasing in large part of Europe. At the same time, soil water and aquifer storage are under stress. Despite all efforts undertaken by irrigated agriculture, such as the implementation of precise irrigation scheduling, modernization of irrigation infrastructures and optimization of water uses, climate change is still significantly affecting biodiversity and the ecological status of water bodies. This results in a widespread trend of degradation in water quality. In this context, the adverse impact of irrigated agriculture on water quality is in many cases overrated and needs to be objectified. By solely focusing on agriculture we risk overseeing other currently evolving pressure factors.

Irrigants d'Europe therefore calls for a revision of targets and standards aiming to meet agricultural demands while achieving environmental goals, and for more flexibility in their application taking into account ongoing and future effects of climate change on crop production patterns.

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