

By email: environmental.targets@defra.gov.uk

27th June 2022

AIC's response to the [Defra Consultation on environmental targets](#)

The Agricultural Industries Confederation (AIC) is the UK's leading agri-supply industry trade association. AIC has over 250 Members in the agri-supply trade and represents circa £9 billion turnover at the farmgate, including fertilisers, animal feeds, seeds, crop protection and agronomy and marketing of grain and oilseeds; as well as services (quality and safety assurance schemes) to support progressively sustainable agricultural systems. Annually, the AIC membership invests £50 million in research, and is part of the £40 million annual spend in transferring research into innovative solutions for farm managers and £9 million on Continuing Professional Development of on-farm advisers.

Overview response

For the agri-supply industry, a key part in a sustainable food chain, it is essential that the recently published Food Strategy, the proposed land use framework referenced, and the proposed Environmental Targets are compatible in the context of targets affecting agriculture. We do not see food and environmental resilience as being mutually exclusive policies – they must not be.

We support land intensification, land sharing and only where appropriate, highly targeted land sparing without there being an overall loss in the nation's farm productivity. Whilst ultimately achievable, this does require an integrated approach to food production and environmental protection.

Our member companies are continually investing in modern technology, knowledge and the value of farm advice to enable productivity efficiencies in combination with enhancing their environmental credentials in the farmed habitat.

AIC has committed in its [Roadmap](#) to an increasingly sustainable food supply *considering social, economic and environmental* goals in every assessment of the decisions we make and in working with farmers and growers we support and influence. We have made our own commitments to R&D, optimising the circular economy and improving efficiencies of livestock and crops in balance with

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contributing to air, water, soil targets and other aspects of ELMS delivery. We have a significant part to play.

We would like to see future interventions that support the delivery of environmental targets having multiple benefits. An illustrative case would be building 3D buffers (trees, hedges, ground cover) around watercourses that creates corridors of wildlife habitat, captures ammonia, provides carbon sequestration and intercepts nutrient loss pathways etc. alongside farmed areas that are able to remain productive. With the right intervention in the right place, a loss of productive land can and should be kept to a minimum.

AIC is concerned about the Environmental Targets being laid in statute this year without a clearer strategic longer-term policy plan for their delivery.

We are particularly interested in the proposed nutrient (Nitrogen & Phosphorus) loading targets in the timeframe (before 2037). We are not convinced by the information provided in the evidence report that the targets are robust, proportionate and achievable based on current and planned policies. Without a clearer vision of future incentives and regulations from Defra, nor forecasting of industry activity in this time period the targets risk being arbitrary rather than beneficial.

To set a 15 year theoretical target, we believe a clearer transition plan for that period, in 5 year tranches needs to be place, which is transparent to all parties involved and involves conducting a technical and economic feasibility test in the context of the policy and barriers at that time.

The current analysis for the nutrient loadings targets isn't fully transparent or comprehensive at this stage and seems largely based on high level and high-risk assumptions that ELMS would result in 85% uptake (which appears unlikely from previous agri-environment scheme uptake, current industry feeling and healthy grain and livestock prices) and current legal compliance.

We are also interested in the targets for water quality, air quality and biodiversity (linked with urban effort sharing) and tree cover (3% increase by 2050) and how these might be assessed cumulatively and not in isolation. We are concerned about the evidential link between crop protection and biodiversity and how this will be handled in future evidence gathering and policy, given that crop production and biodiversity need to exist hand in hand.

Our response specifically addresses the water quality and agriculture questions: Do you agree or disagree with the level of ambition proposed for the nutrient:

Reduce nitrogen, phosphorus and sediment contribution from agriculture in the water environment by at least 40% by 2037 against a 2018 baseline, catchment ambitions?

The evidence presented in the consultation for the target is very high level and does not provide us with the necessary justification or confidence that the N & P reduction in loadings target is achievable by 2027, given all other variables affecting agriculture - we note the most ambitious scenario modelled in Project WT1594 suggests that this would not be sufficient to deliver the proposed target.

In any case, nutrient loadings are just one indicator of the pressures on water but do not necessarily determine it: *(The quantity of fertiliser used does not necessarily reflect its environmental impact. The timing, method of application and form in which the fertilisers are used can make a big difference to their pressure in the environment (EA, State of Environment, 2000).* We are concerned about the departure from this basic understanding in pursuit of setting blanket targets for water.

Mass balance approach – and catchment specific prioritization

It appears that Defra sees merit in the nutrient loading target for agriculture as a mass balance approach for the country but the rationale and real benefit is not practically clear and therefore buy-in to the national target may be hard to achieve. We are not sure how helpful this is in practice for driving a better balance between nutrient inputs and outputs at a systems, catchment or regional level or how complementary it is to the catchment-based approach. (See [RePhoKUs project systems flow analysis](#) which could be used for nitrogen flow analysis also).

We support the setting of catchment ambitions, commitments which are not legally binding but bought into by all key stakeholders.

Given the localised nature of nitrogen and phosphorus pressures on water, we would be concerned if Defra was to depart from prioritizing action at the current catchment scale and as proportionate to the actual catchment issues. There are many catchments across the country where data indicates that a 40% reduction in loading may not be required (some regions are in negative phosphorus balance for example and many farming systems are not posing a risk to nitrate levels).

Where will the quantum shift come from to achieve the proposed nutrient loading targets?

We are assuming, from Nutrient Management Expert Group, and Ministerial signals that there will be increasing policy emphasis on reducing the loadings from Nitrogen and Phosphorus largely by utilising nutrients in organic materials more effectively (hence the N and P target being the same) and their redistribution (moving the loads from hotspot areas) and lowering demand for mineral forms of N & P to balance crop needs as a result of improving soil health and overall nutrient balance. However, the intention for this significant shift in policy and how this will be achieved, and without increasing emissions, is not made explicit. There is logic in the principle, of optimising the value of N & P in organic materials but we would need to see the technical and economic assessments and policy plans supporting this to have assurance of the loading targets being met through this route, alongside ELM, CSF and [FACTS](#) & [FAR](#) advice and any new nutrient management policies in the pipeline.

Evidence base – there are differing views on its interpretation

The evidence paper makes reference to there being no progress for nitrate in surface waters – yet only circa 0.2% fail as a result of nitrogen from agriculture (EA 2017) so a 40% reduction in N loading and actual risks to water seems at odds with the current environmental conditions and priorities. We of course accept that there are catchment issues for groundwaters and coastal waters, where 40% reduction in N loadings may be necessary and that there should be no backsliding on N loadings generally.

There is little mention of the phosphorus and sediment evidence base from which the 40% loading reduction is derived. We know the P loads and pathways of loss are catchment and pathway specific.

If there could be a common interpretation of the evidence – this would build trust in the direction of travel and the target setting process.

Loadings from digestate (water and ammonia)

Changes in the rate of utilisation of recycled N and P can be forecast to further support overall Nitrogen Use Efficiencies from the 27% improvement made in the last 30 years and improve farm P balances. That is providing these new materials are also regulated in the way they are used - AD applications are a case in point with high field emission factors, lowering NUE as a result unless pH and application method is carefully controlled.

The value of Defra N&P balance sheet evidence base

[Soil nutrient balances UK, 2020 - statistics notice - GOV.UK \(www.gov.uk\)](https://www.gov.uk/statistics/soil-nutrient-balances-uk-2020)

We strongly advocate that Defra makes maximum use of the balance sheets for N and P, which can be further developed to report at regional and catchment scale. These data would be more informative of the pressures to water than loadings alone and are the rationale for our own collective ambition to improve Farm Nutrient Balance: [AIC | Sustainability Roadmap \(agindustries.org.uk\)](https://agindustries.org.uk/sustainability-roadmap)

We are disappointed that the N, P Balance target which was mooted in earlier conversations has been replaced with a simplified nutrient loadings target.

With many thanks to the team at Defra for considering these views.

Kindest regards

A handwritten signature in black ink, which appears to read 'Jane Salter'.

Jane Salter
Head of Environment Policy