

**SANA Response to Scottish Government Consultation:**  
**“Agriculture transition in Scotland”**

*Completed: 11 November 2021*

**Overview**

Future agriculture policy for Scotland will affect how land is used and for what purpose. Both of these outcomes can have profound implications for the quality of freshwater and coastal habitats in Scotland for fish – through both the quantity of water available and the quality (chemical composition) of its constituent parts.

A particular concern is the amount of land which might be taken out of agricultural production and planted with trees, in large part influenced by a relatively new income stream, carbon credits. The net effect could be a substantial loss of water volume to water bodies in Scotland. However, SANA is very much in favour of well-defined new planting as a positive contribution to water quality (buffering) and water temperature (shading).

This submission was prepared as an adjunct to a previous submission to SEPA on River Basin Management Planning. Its text draws heavily on that source but also interprets issues in terms of the questions posed in this consultation.

*Q 1. Should agricultural businesses receiving support be required to undertake a level of baseline data collection?*

Yes  No  Don't know

*please explain your answer*

Response: Yes

We want awareness about how land management can affect the wider environment to be prominent. The collection of data for reporting, as a condition of support, would have a double benefit: the data in itself and the effect of keeping attention on the implications of land practices.

The data sought should not be restricted to assessing carbon footprints and biodiversity indicators. Our key focus would be manure spreading and all chemical inputs to the land, viz. fertiliser, herbicides, insecticides, sheep dip etc. We comment further on this topic at Q9.

However, imposing such requirements on farmers alone would be wrong. Other major land uses, especially forestry, should have equivalent obligations.

*Q2. Should collected data be submitted for national collation?*

Yes  No  Don't know

*Please explain your answer*

Response: No

For the purposes of catchment management, the appropriate scale for analysis and oversight of the data is local. SEPA local offices might be an appropriate scale but we suggest that District Salmon Fishery Boards and/or Fishery Trusts might be contracted by central government to collate and analyse data that is relevant to the water environment.

*Q3. What are the next steps that can be taken to commit businesses to continuous improvement utilising the information presented by carbon, soil, biodiversity auditing?*

*Please explain your answer*

Response: Incentives could be free advice/education, backed up by enhanced support payments and/or grant payments on capital projects. Disincentive would be disqualification from support.

*Q4. How can baselining activities be incorporated in to common business practices across all farm types?*

*Please explain your answer*

Response: SANA has no locus for answering this question

*Q5. Should capital funding be limited to only providing support for capital items that have a clear link to reducing greenhouse gas emissions?*

Yes  No  Don't know

*If not, why not?*

Response: No

Eligible projects should cover the whole gamut of environmental improvement. For example, fencing off water courses and planting trees adjacent to water courses (where appropriate) should be encouraged and supported.

*Q6. What role should match funding have in any capital funding?*

*Please explain your answer*

Response: Don't know.

*Q7. What capital funding should be provided to the sector to assist in transformational change, particularly given that in many instances the support called for was directly related productivity or efficiency, that should improve financial returns of the business concerned?  
Please explain your answer*

Response: Don't know.

*Q8. Should all farm and crofting businesses be incentivised to undertake actions which enhance biodiversity?*

Yes  No  Don't know

Response: Yes.

*Q9. What actions would be required by the farming and crofting sectors to deliver a significant increase in biodiversity and wider-environmental benefits to address the biodiversity crisis?*

*Please explain your answer*

Response: Rural land use is a complicated subject because of the diverse land uses which can impact on water bodies and how they relate to each other. Having a planning preference for how a site should be used excludes other possible uses.

We see prospective climate change as a driver of public policy on land use. The experience of increased extremes – viz. heavier rainfall events, more droughts and especially higher water temperatures - is very concerning for the conservation of native freshwater species. The amelioration measures through land use should be: slower discharge to water courses; better water retention and shading of habitats used by juvenile fish.

A current issue, which is driven by the climate change agenda, is the search for opportunities to generate carbon credits by overseas corporate bodies through acquisition of farm land in Scotland for planting with trees. It is recognised that there is widespread foreign demand for sites to plant trees on Scottish soil. This is to offset carbon emissions produced overseas. Countries and/or companies have targets to meet and land for tree planting can be scarcer elsewhere\*. Also, within the UK there is official advocacy of growing trees for the purposes of selling carbon credits. See: <https://www.gov.uk/guidance/the-woodland-carbon-code-scheme-for-buyers-and-landowners>

More generally, SANA is concerned that insufficient attention is paid to disbenefits of afforestation, e.g. consumption of water by trees, acting as a vector for acidification of watercourses, contributing to flood events and badly configured drainage leading to deposition of silt in watercourses.

On specifically climate grounds, an issue of good practice should be the design of forests. For instance, an objective of forest design can be to moderate water temperature through shading. However, shading is only good practice for some fish species. Also, there should be a clear distinction between conifers and deciduous trees, with a preference for the latter on or near watercourses. While dense planting of commercial conifer forests is the major concern, dense planting of deciduous forests may cut out most of the light too, other than during winter. In short, forest design, with respect to water, should be integrated with local fishery management objectives.

In general, deciduous woodlands protect water quality, limit bank erosion and bed erosion and minimise siltation problems, not just beneath the tree canopies, but also in the water courses downstream. Densely planted conifers let in so little light that almost all ground cover plants, themselves potentially soil-binding, are absent. Streams in commercial forestry areas tend to be more acidic, sometimes acutely so, also they are flashy in flows and prone to dry up. While these problems are widely understood and accepted, and mitigation measures are available, will these be applied sufficiently to preserve natural riparian and water channel biodiversity? High standards of forest/woodland design and subsequent implementation on the ground are fundamental to mitigation measures. Therefore, there needs to be strict enforcement and substantial penalties for non-compliance. Deterrents against bad practice are needed. Otherwise, grants for climate mitigation measures could result in frantic tree planting - a numbers game without sensible controls.

\* “We consider land value as a key constraint and there is a pinch point where forestry cannot compete. Our research shows that the average land value in England is just under £8,000 per acre, or £5,000 per acre for poor livestock land. However, in Scotland, where a lot more planting takes place, suitable land is generally below £2,000 per acre, meaning the case for conversion to productive forest is easily made.”

Source: [https://www.savills.co.uk/research\\_articles/229130/239002-0](https://www.savills.co.uk/research_articles/229130/239002-0)

Relating specifically to agriculture, as opposed to farm forestry, we have to note that there have been pronounced and far reaching changes in arable and mixed arable/livestock farming areas of Scotland. Although these areas only comprise around 10% of the land area of Scotland the adverse influences of evolving agricultural practices over the past seventy years have adversely impacted on the water environment of many rivers.

Some of these impacts are apparent to those who have observed them develop over the years while others are not apparent to the naked eye. These many and varied impacts are well known to the authorities and recognition of them is evidenced by regulations coming into play this century. These regulations are welcome but their effect in returning rivers, whose catchments are largely arable, to their former condition can be likened to closing the stable door after the horse has bolted.

In this context, the two metre no-plough buffer zones, riverside fencing, hard-standing watering points and the regulated timing of spreading natural and artificial fertilisers will help in controlling diffuse agricultural pollution, siltation and eutrophication in enriched catchments. However, inspections to advise land managers on fully complying with

regulations should continue and should be more widely carried out. Given that the Scottish Government has a complete database of farm businesses and inspects farms, inter alia for compliance with the requirements of Good Agricultural and Environmental Condition, we suggest that SEPA liaise with the Scottish Government for advice on where and when to carry out inspections in addition to SEPA's current programme. That programme could be usefully extended to random inspections, as opposed to reaction to pollution events.

*Q10. What do you see as the main opportunities for crofters, farmers and land managers in a Just Transition to a net zero economy?*

*Please explain your answer*

Response: With respect to the water environment, all sections of society stand to benefit from improvement directly or indirectly.

*Q11. What do you see as the main barriers for farmers, crofters and land managers in a just transition to a net zero economy?*

*Please explain your answer*

Response: SANA is not qualified to respond on the detail of this question. However, we can make the following, perhaps obvious, assertion that, in general, unless land managers' businesses are viable they will not be in any condition to deliver environmental benefits. If this reform of agricultural policy does not secure these businesses, the net effect will be depopulation of the places which we wish to conserve and improve. If that happens, we doubt whether there would ever be sufficient resources in public agencies to replace commercial land managers.

*Q12. How best can land use change be encouraged on the scale required for Scottish Government to meet its climate change targets?*

*Please explain your answer*

Response: Don't know.

*Q13. Would incentives for farm plans specifically targeting flock/herd health, soil health, & crop health (for example) demonstrate real improvements in productivity over time?*

*Please explain your answer*

Response: Don't know

*Q14. Should future support be dependent on demonstration of improvements in productivity levels on farm?*

Yes  No  Don't know

*If so, how would this be measured?*

Response: Don't know

*Q15. In light of ongoing research activities supported by the Scottish Government and the 2022-2027 research strategy, are additional measures needed to ensure research is supporting the agriculture sector to meet its climate change targets?*

Yes  No  Don't know

*If yes, please specify*

Response: Don't know

*Q16. What importance do you attach to knowledge exchange, skills development and innovation in business?*

*Please explain your answer*

Response: SANA has no locus for answering this question.

*Q17. What form should tailored, targeted action take to help businesses succeed?*

Response: SANA has no locus for answering this question.

*Q18. Should continuing professional development be mandatory for businesses receiving public support funding?*

Yes  No  Don't know

Response: Don't know.

*Q19. How can the green credentials of Scottish produce be further developed and enhanced to provide reassurance to both businesses and consumers?*

*Please explain your answer*

Response: SANA has no locus for answering this question.

*Q20. Should farm assurance be linked to requirements for future support?*

Yes  No  Don't know

*Please explain your answer*

Response: SANA has no locus for answering this question.

*Q21. How can ongoing data capture and utilisation be enhanced on Scottish farms and crofts?*

Response: SANA has no locus for answering this question.

