

RESPONSE FORM

DRAFT SEAWEED POLICY STATEMENT 2013

1. Do you agree with policies 1-6?

State any you agree or disagree with, and your reasons.

In general we are in support of the policies but we would like to raise the following points, which do need some clarification.

Policy 3- Will the end use of the seaweed be covered in the licence to ensure it is fit for human consumption?

Policy 5 "States that other marine users and activities should be considered in the siting of farms" –But it does not state how you will achieve this or which users this includes and how will they be 'considered'?

2. Should policy 2 require local provenance, i.e., stock must originate from the water body the seaweed is to be grown in? YES

State your reasons: To reduce the risk of the introduction of non-native species we would support the use of locally sourced material but it should be noted that the species being considered for cultivation occur across the whole of Europe. We would recommend that the designation of seaweeds for cultivation should be sourced from UK waters. But also that a more complete study of the population genetics of local seaweed populations be carried out to confirm the level of diversity within both Scottish and UK waters

We suggest that Policy 2 should be worded in the following way

"Only species native to the area where the seaweed cultivation will take place should be cultivated, to minimise the risk from non-native species. Stock must either originate from the water body the seaweed is to be grown in, or have a demonstrated inability to reproduce in order to avoid erosion of local genetic diversity."

3. Do you agree with policy 7? YES

State your reasons: We would recommend for Policy 7 that an Environmental and Social Impact Assessment (EIA) be developed for this scale of seaweed cultivation to allow the applicant to provide evidence for mitigation of potential environmental and social impacts including those on the benthos, water column and interactions with other marine organisms as well as implications for fisheries and space, visual/other coastal impact etc. This would depend on the site that has been chosen for development as a seaweed farm and mitigation factors likely to include how densely the farm is planted and speed of current through the site coupled with the angle the cultivation system has been sited in terms of the direction of the current flowing through the site. But it must be noted that the information given in the SEAS document is largely based on farming taking place in Asia and it may be difficult to extrapolate this to farming taking place in other geographical locations. It will only be as the scale of farming increases within a Scottish context that evidence for any impacts whether positive or negative will be highlighted. We would recommend a deploy and monitor approach with initial baseline data taken for a site and sampling taking at various time points to monitor any environmental impacts in order to inform the evidential EIA. This is currently being done at a small scale through projects such as At Sea and EnAlgae

4. Do you agree with policies 8 and 9?

State any you agree or disagree with, and your reasons: Yes we on the whole agree with both policies. We would recommend that IMTA as defined within Policy 9 be expanded to include not only finfish and seaweed IMTA but to include other IMTA configuration for example Shellfish and seaweed.

5. Do you think that the size scales (shellfish (small), medium, and extensive), are appropriate?

Give your reasons For all sizes of farms suggested shellfish farms have been chosen to represent the scale of seaweed farming. Currently small scale farms do use a shellfish longline configuration for seaweed cultivation but that may not be the case in the future. Systems currently being trailed in Europe are using everything from nets to pipes. We would recommend that all sizes of farms should be defined both in terms of their overall footprint and as the number of longline to allow flexibility within the Seaweed Policy document. Plus this should be coupled to biomass production per unit area because biomass is modulated by the species being cultivated. For example *Palmaria palmata* biomass production will be far smaller than kelp production on the same longline system – leading to different footprints. However, this would require reliable estimates of biomass production for typical cultivated species. This will be directly linked to the type of cultivation system, specie etc again if the size of farms were described in terms of footprint and/or longline number this would build in the necessary flexibility to cover a range of different commercial seaweed species that could be grown in Scottish waters

6. Which consenting option would be most appropriate for seaweed cultivation?

Give your reasons Option 4 – beneficial for IMTA, but also, if seaweed is being cultivated commercially for other purposes, will potentially not be at a medium or extensive scale anyway.

7. Should guidance be developed for the harvesting of wild seaweed? If not, what (if any) alternative arrangements would you suggest?

Yes guidance should be developed for wild harvest of seaweeds within Scottish waters. Although there is currently little evidence of any adverse environmental impacts caused by wild harvesting of seaweed within Scotland studies in other countries have shown that harvesting of wild seaweeds can have detrimental effects both for the target species and the associated community. As the document notes, the industry is small scale but in recent years there has been an increase in the number of companies wishing to utilise seaweed biomass. There is also a lack of information on the actual standing stocks of seaweeds in Scottish waters with levels of biomass quoted from the studies of Walker from the 1950s. We would recommend that if wild harvest is to be expanded in a sustainable manner there needs to be an updated survey carried out to determine current standing stocks and potential levels of biomass which could be removed from a site and/or target lengths at which to cut the seaweeds when applicable before having an adverse effect. Following this, harvesting rotations should be implemented, based on the life cycle of the species in question to allow stock recovery. We would also recommend that a whole system approach be taken to the guidance given to include for example potential effects of removing seaweeds on both micro and macro fauna, other associated macroalgae, seabirds and fish as a standing stock, considering the duration of that effect in the harvesting rotations and measures of ecosystem functioning such as the role of storm cast material in supporting beach and dune ecosystems.

8. Should the 1997 Act should be amended to provide the flexibility to farm other species or specifically named species? YES

State what named species should be included, and provide your reasons. Yes other species should be considered including sea cucumbers and a range of native seaweed species but the biology needs to be considered. For example bivalves and sea urchins are very different in terms of their requirements and impacts. This will be also true of any other new species included in the amended 1997 Act.

9. Do you have any comments to make on the BRIA content?

Potentially we would like EIA mentioned in terms of large farms similar to what is required for finfish. Also there needs to be a statement on how the social and financial (business?) implications to other users of the sea (fishers, tourism etc.) will be handled