A COORDINATED AGENDA FOR MARINE, ENVIRONMENT AND RURAL AFFAIRS SCIENCE (CAMERAS) (2011-2016)

Name: John Cameron

1. Do you agree that the two broad categories of "Local Responses to Global Change" and "Optimising the Potential of Scotland's Natural Assets" are helpful in providing an overlying structure to the Co-ordinated Agenda?

No. The themes are very broad and it is not clear how these fit with the Scottish Government's Single Purpose on sustainable economic growth. They do not seem to include maximising the impact of managed land for crop and livestock production.

2. Are the descriptions of these set out in Section 3 (and Annex 3) comprehensive?

No. The aims of the science need to be clearly defined so that the Scottish population (and others) including farmers, land owners and the general public can understand what science is delivering and what it can deliver in the future.

3. Do these cover the major policy challenges where science can contribute as you see them?

No, food production, including livestock and crop production are not clearly highlighted in the consultation. Indeed, they seem to be mainly absent from the prioritisation and discussion. Agriculture is a major contributor to the Scottish economy in terms of both primary production and gross added value. These figures are available within RERAD and it is surprising they don't appear in the documents.

Animal health and welfare is a major strategy in Scotland. Farmers are aware of the losses they incur due to disease and they will rely on scientific outputs to make their businesses more competitive in future.

4. Are they likely to remain broadly relevant over the longer time horizon (well beyond the 2016 focus of this Coordinated Agenda)?

No, not as stated currently as the consultation seems to focus on environment or "Greener" issues only. If the other strategic objectives of the Scottish Government were added (Healthier, Wealthier etc) then these would be likely to be important now and in future years.

5. Do you agree with the description of support for the National Capability Theme set out in Section 3 (and Annex 3)?

No, more detail on what areas this covers is needed.

6. What facilities, resources and data do you think are important for Scotland to maintain?

Scientists who can deliver useful outputs to support Scottish public, landowners and farmers. People are the most important resource and we need to be sure that science frameworks developed do not initiate the loss of important scientists within Scotland. We need to keep facilities to deal with outbreaks of exotic and other infectious diseases of animals. These facilities must be maintained to the highest level to ensure that there is no escape of diseases into the surrounding areas.

Data on livestock health, sheep, cattle and pigs in particular is essential for future development of these industries. Data to allow better breeding would also be of benefit.

Data on animal movements is important although individual electronic identification of sheep is impractical for most Scottish systems.

7. Are there other resources that Scotland needs to acquire to support future policy development?

Many diseases of livestock still need further research e.g. lameness, mastitis and reproductive failure in farmed animals.

8. Have we correctly identified the key policy issues and the associated scientific opportunities in Section 3?

Food and efficient food production should be emphasised. We need safe food of high quality now and in the future.

9. Are there additional issues that should be included?

Wasted greenhouse gas emissions are caused by livestock disease and death which cause reduced efficiency. These can be reduced significantly by health and flock plans which prevent problems. Better feeding, breeding and disease diagnosis could contribute significantly to targets to reduce CO2. These should be undertaken in addition to contributions from most other industries and users of energy.

10. What do you think will be the most important influences on Scotland's future in the Marine, Environment, Rural Affairs and related areas?

Climate change is an obvious influence though there could be beneficial effects in addition to negative effects.

Failure of the banking systems mean that agriculture and primary food production have become a major priority for Scotland and most other countries. Scotland also needs to develop better food processing and business development to keep the secondary benefits of food production within the country. Healthy products, free of diseases and toxic chemicals is important in delivering this. Preventing disease through vaccination and breeding is likely to be important in both livestock and crop production.

EU legislation and regulation. Scientists need to provide the evidence base to help politicians and stakeholders make the correct decisions. This will help to counter decisions made on emotion only.

11. Why do you think these are important?

See above.

12. Are there other scientific opportunities which should be highlighted?

Science areas which have been successful in attracting external investment into Scotland should be identified and supported.

13. What existing areas of Scottish based scientific expertise should be maintained to contribute evidence to key policy issues?

Livestock and crop research to produce practical methods of disease control and efficient food production.

14. How clear is the relationship between the scientific areas and the key policy issues?

Good in some areas and not clear at all in others. I am not sure if this refers to the consultation or science in Scotland at the moment. Some scientific organisations are very good at getting their message across to many stakeholders. This needs a constant supply of high quality research and this varies with different bodies.

15. In which areas of science can we continue to make use of expertise supported elsewhere e.g. at the UK, EU and international levels?

Most areas can attract co-investment from other countries. Scotland needs to find its priorities and then match that with others. Many of the problems we face as society are global and Scotland needs to be one of the leading science partnerships.

16. In the time frame for CAMERAS (2011-2016) what new emerging areas of science are likely to mature and become available for more general use or application?

Genetics and breeding, especially related to diseases, both old and new.
We badly need more vaccines and tests to control diseases at an early stage.
Control programmes for pneumonia and parasites are critical.
Johnes disease will remain a problem until a better test has been developed.

17. Do we have the expertise available to be able to use these new opportunities?

Yes, in many of the Institutes and in some of the universities. We have international experts within our Institutes and these individuals and research areas must be supported.

18. In which areas does Scotland need to be self reliant?

None, the world is small and we should work with others.

19. Knowledge Exchange is essential for scientific activity to achieve impact. Do you agree that KE should be an explicit and integral aspect of the delivery of this Coordinated Agenda?

Yes, without this, science doesn't reach the intended beneficiaries.

20. How can we continue to improve the integration of evidence from a diverse range of sources into forms that are accessible to end users?

Use the best people who have been doing this very well for many decades. Support new ways of getting results and ideas out to the public. Don't forget face to face meetings where scientists can be asked questions directly is one of the best ways possible.

21. How can we reconcile the requirement for science to be responsive and flexible to short term demands while at the same time ensuring that longer term strategic research continues to progress our knowledge and understanding?

Liase with the experts themselves and the managers of Institutes and universities who themselves have a wide knowledge of the issues to be addressed. Have regular meetings with stakeholders to ensure science is well focussed and that aims and objectives change when needed. Make sure that some funding is flexible so that can be used by those in charge to make the necessary changes.

22. How can we ensure that the 2 way flow of knowledge from science to policy and from policy to the academic community is optimised?

Build on existing strengths. Don’t reinvent the wheel. Scotland excels in this and we are doing much better than many other administrations within the UK and in other countries.

23. Are there alternative structures/systems or new approaches/organisations that could enhance these flows?

See above response.

24. Are there science delivery models which could provide examples of good practice for Scotland to follow?

I can give some examples of poor alternatives.

25. We would also welcome any other general comments you may have on any of the issues raised in this document.

I found this consultation difficult to follow and very wordy. Could this not have been achieved through a workshop where people can discuss the issues and explore ways of moving forward. The consultation seems to focus very much on environmental issues alone, at a time when so many other issues are coming to the fore. We need to be able to find science which will provide us with food, while causing least damage to the environment. Scotland has a proud history of doing this – let’s continue to support it.