

## CONSULTATION QUESTIONS

### **Question 1: Do the 2011-2016 strategic priorities remain robust and relevant for the period 2016-2021?**

Yes; we are content that the strategic priorities remain the same, and remain of the view that scientific resilience should be a key part of these priorities.

### **Question 2: Do these ‘enabling principles’ set the right context or should additional principles be adopted?**

*Exchanging Knowledge:* This could more clearly emphasise the need for researchers to listen to users’ needs **before** framing research questions, and to engage with users while developing outputs so that these can be most useful in informing policy and practice. Knowledge exchange is not one way, and must not be limited to the communication of outputs.

*Inspiring Innovation:* Innovation should also be about promoting innovative solutions and approaches to land management. This might involve ‘old’ research approaches such as experimental work to develop evidence for the costs and benefits of alternative management , and not just ‘innovative’ modelling approaches. Monitoring and analysis of long-term data sets is also not innovative but proving increasingly important for today’s problems. Interdisciplinary research should be used to promote an integrated approach to land management – one which looks at social, economic and environmental costs and benefits together rather than separately. Co-production of research with practitioners and stakeholders is an innovative techniques that could be used more to ensure the applicability and relevance of research.

*Maintaining capacity:* We would prefer to emphasise the value of intellectual assets here, over and above the physical infrastructure and equipment.

### **Question 3: Are the high level outcomes sufficiently clear, if not, what changes would you propose?**

The high level outcomes look quite comprehensive, if overlapping, to some degree. We would also suggest that a suitable outcome from each of these research programmes might be something along the lines of “effective scientific evidence support for SG strategies”; in that respect, the outcomes could mention the Land Use and Biodiversity strategies under the second and third themes, to name but two.

**Health and wellbeing:** we suggest this is lacking an outcome relating health benefits to environmental quality; this is the basis of much of the urban greenspace initiatives and should be a part of this theme. There could also be an outcome related to developing a better understanding of stakeholder and community decision-making.

There is a second area of work which operates across all three themes, but could perhaps be placed here for convenience. The state of nature in any place is a result of environmental factors (physical factors) interacting, shaped by a host of social factors, over time. These are history, culture, and social, economic and technological development. Without the human side of the equation we can't be sure why the environment has come to be the way it is or what the trend of the state of nature is. Knowledge of these is fundamental to inform how we might try to manage land effectively or to define outcomes. We tend to look at changes in the physical environment and, separately, probe social perceptions and attitudes to the environment through various surveys. We think there would be considerable merit in bringing these together so that we couple our measures of change in a particular place with the social factors contributing to environmental change and how local people feel about that change.

**Productive land-use:** We suggest this should have reference to forestry, and to wood products, and other 'non-food and drink' rural products: wool, peat, stone and minerals, biomass and non-physical products such as tourism and energy generation. Issues around the sustainable land management of shooting and sporting management systems should also be considered.

**Ecosystem services:** See our comments in Q4 regarding the naming of this theme. We strongly recommend that 'Healthy biodiversity and ecosystems' should be added explicitly to these outcomes. A key area within this will be the measurement of natural capital and ecosystem health, and science to improve our understanding of ecosystem function and biodiversity's role within this.

As regards the Scottish Biodiversity Strategy, this RESAS Research strategy should explicitly seek to support the research required to deliver the current SBS. However, the next RESAS Strategy will be current beyond the next major review date of 2020 for the biodiversity strategy, and the research agenda should include elements of appraisal of progress as well as forward-looking research to help identify priorities for the next decade.

We welcome the inclusion of the erosion and flood management element in this grouping, and the emphasis placed on sustainable solutions to these issues.

Finally, we suggest there should be clearer mention of broader aspects of carbon management, rather than just the development of low carbon systems. Carbon conservation (eg in peatlands) is crucially important in Scotland, and there should be links to the blue carbon agenda (are

saltmarshes terrestrial or marine environments, or do they provide a vital link between the two?)

**Question 4: Are the three broad themes identified an appropriate way of structuring our work? If not, what alternatives should be considered?**

We are not convinced that the three themes and groups of outcomes will necessarily achieve the intended integration and collaboration – the viability of land use will depend on sustainable management of the environment, and how it takes into account community and individual health and wellbeing. However we don't have an easy solution to this, and three themes may well prove to be better than the more divided structure we had before.

Perhaps our major comment across the entire document relates to the use of 'Ecosystem Services' as a theme. We strongly recommend that this theme is re-named. Ecosystem services should be seen as a tool not a goal; the concept of 'ecosystem services' is a way of linking nature and environment with benefits to people. 'Ecosystem services' is only a small element of the much broader CBD Ecosystem Approach, as is the concept of 'natural capital', again technical jargon. May we suggest an alternative of 'Healthy Environment'?

So then we have:

- Healthy people and communities
- Healthy land use, business and industry
- Healthy environment

and we can then develop ideas how to promote the integration of three clearly-linked themes.

**Question 5: How can the SG maximise the benefits of ongoing investment in the MRPs to build and benefit from connectivity with the wider science base?**

In brief, by continuing to examine the utility and use of the MRPs' assets: are properties such as farms being used for collaborative research and demonstration, and are datasets being made available, to the widest possible user base? Are HEIs encouraged to use MRP resources for their research? Will it be possible to encourage MRPs to undertake collaborative research with HEIs as part of the research bidding process?

The launch of ESCom (Ecosystem services community of practice) seems to be one good example of a new attempt to improve collaboration and links between MRPs and other research bodies, particularly in a new research area where there is potential for unnecessary overlap and proliferation of approaches. It will be valuable to assess its success in a year or two.

**Question 6: What are your views of the performance and operation of the CoEs to date, are there any additional areas that would benefit from such support?**

We have been impressed by the ability of ClimateXChange to respond to SNH's short term needs, e.g. in co-ordinating effort to support a large piece of work of immediate practical relevance: on protected areas assessment, in facilitating co-ordination and collaboration; on peatlands; and in short pieces of work to support application of SNH's Adaptation Principles; on native woodlands; and producing useful outputs to support SG policy on mitigation and adaptation. Overall we think that CXC provide an excellent service.

We have had less involvement with CREW to date, partly because of the past status of SNH within the CREW structures. However, we have now acquired full customer status with CREW and are looking forward to a productive relationship with them, similar to that we experience from CXC.

We have had less involvement again with the Animal Disease CoE, but do see the value of such a grouping, particularly in respect of wild animal disease.

Overall, we support the 'Centres of Excellence' approach and are very pleased to see that SG proposes to maintain this support. This model; and the ability to bring together expertise in MRPs (and elsewhere) to address short-term needs is of real benefit. However, we would encourage the CoEs to link to other experts (across the UK and internationally) in particular fields subject to their assessments (one-off involvements), and not just to rely on their 'core group'. We also encourage them to involve 'customers' right through their projects; both of these should help in leading to the best quality outputs. Finally, there may be value in agreeing independent QA for some outputs, perhaps on a risk-based process for the more controversial reports.

We also suggest that the CoE approach would be of benefit to SNH in other areas.

Prime among these might be the development of a centre on Plant Health, to provide the best possible advice in respect of plant and tree diseases. This has been much-debated with the recent issues surrounding ash dieback and other tree diseases.

Another area which may provide benefits in terms of scientific expertise is the 'ecosystem approach' group of issues; on natural capital evaluation and ecosystem health assessment, cultural services assessment, testing ecosystem services tools, and assessments in support of pilot or demonstration projects on ecosystems approach, multiple benefits and green infrastructure. There is a risk that this may be duplicated (for example by ESCoM), but that perhaps demonstrates the need for an expert community to progress this area of work.

**Question 7: Do you agree with the SG's proposal to end support for SPs and to explore alternative mechanisms to strengthen engagement between its investment in research and the business sectors it aims to support?**

SNH has had little contact with either of the Strategic Partnerships, as they operate outside our core interest areas, and is therefore not in a position to comment on their effectiveness or value. We are not clear about the real differences between SPs and CoEs; would small CoEs be an alternative route for the delivery of science advice in key subject areas?

**Question 8: Do you have any proposals for how the research portfolio can better link to the business community to deliver the desired outcome?**

Business representatives could be involved in the strategic reviews of programme needs during the development of the programme bids. They could be involved at the project level, in helping on steering groups for projects of relevance to them. In cases where businesses are major data collectors (eg renewables and development environmental assessments) they could become part of a wider data management group to share their data for scientific and analytical purposes.

**Question 9: Is the purpose and value of underpinning capacity sufficiently clear, if not how can it be improved?**

Yes, it is clear, and this is a very valuable part of the portfolio, especially as regards the management and availability of long-run datasets.

**Question 10: Do you have any views regarding the performance and use of the Contract Research Fund including how it could be improved?**

In recent years, it seems to us that the CRF has become very internalised within SG. It is some time since we have seen a list of CRF projects proposed or agreed for funding, and searches on the SG website and SEWeb yield nothing since around 2008.

This does not encourage collaboration with (CAMERAS) partners who may have similar needs and interests, and it may be that all partners need to review the ways in which they share their short to medium term research proposals, to encourage collaboration and identify common priorities, and maximise the benefit from the work done. Perhaps there could be a role for CAMERAS partners in the CRF commissioning process? Could this also work through the nomination of a RESAS staff member to act as a research link to individual CAMERAS partners? In SNH's case, this might sensibly

be the observer from SG-RESAS who attends the SNH Scientific Advisory Committee meetings.

To the best of our knowledge, there is also no standard route for the publication of CRF reports, on the SG or SEWeb sites, for example. This risks work never being published or made available more widely than the commissioning officer or team, and being lost from future assessments. One example relates to CRF projects related to goose policy, where work carried out in 2003, 2006 and 2010 has become increasingly difficult to relocate, even though it should be valuable for current and future reviews.

This is a problem common to many bodies. In recent months SNH has been working on an improved access and storage system for its Commissioned Reports; if it would be helpful for SG staff to examine our approach we would be very willing to discuss this issue.

**Question 11: Could the overall delivery model be further simplified in a way which still enables SG to meet its strategic priorities for the portfolio, if so how?**

We are comfortable with the proposed delivery model; though the future balance between the elements may be worth examining. There may be value in increasing the scope and role of the CoEs, whose prime purpose is the synthesis of existing research findings into scientific evidence for policy.

**Question 12: Do you have specific suggestions as to how the RESAS research strategy can contribute to the delivery of the objectives of the CAMERAS partnership?**

The RESAS Strategy should use the CAMERAS RAE Evidence Strategy as part of the information to identify priority areas for its themes and programmes. It should also liaise with CAMERAS partners over their research priorities, and seek to incorporate these, whenever, possible, within the programme bids as they are developed. Involvement of CAMERAS partners in the bid development and review process will be very important (this was very much appreciated in the last cycle), and we welcome the recent letter from RESAS (Susan Davies, 1 April 2014) setting out the commissioning process and our likely role in that process.

As regards ongoing delivery, a clear connection with the Strategic Research Programme Board would be very welcome; might there be a place on the board for a CAMERAS partner representative?

At a lower level, MRPs should continue to be encouraged to discuss work streams with CAMERAS partners from a very early date, and to involve

them in the steering groups for relevant workstreams and projects. In that way, partners are involved in the evolution of the research work through the period, rather than simply being recipients of completed project outcomes.

**Question 13: Do you have any suggestions for developing the partnership with other research funders?**

The concept of using part of the Contract Research Fund to make contributions to shared initiatives, such as LWEC, remains attractive. However, we need to be clear that such partnership processes deliver outputs of value to Scottish (SG and CAMERAS) interests. It may be appropriate to review the outputs from LWEC in the near future, to help assess future spend. Like MRP outputs, LWEC outputs and products should be clearly signposted and linked from Scottish research websites.

**Question 14: Do you have any particular suggestions as to how greater engagement with the HEI sector might be achieved?**

Some of our comments in response to Q6 make suggestions on improving links to the HEIs, by working with them as part of the CoEs, either permanently or temporarily. The development of the CAMERAS Strategies is another route for connection; when published they should be promoted to the HEIs as indicators of priority research areas. This could lead to HEIs seeking funding for research relevant to these priorities.

One area which could be considered for development is the funding of relevant PhDs within the HEIs. SNH has operated a small-scale PhD fund, (with SEPA for several years) and is exploring a similar linked approach with Marine Scotland. This provides a degree of capacity building, engenders a spirit of collaboration with HEIs, helps to train next-generation scientists and provides useful applied research outputs. This might be achievable as an option within the CRF element of the Strategy.

**Question 15: Are the research outputs from the RESAS portfolio of research readily accessible or can this be further improved, if so how?**

There are always ways in which access to research outputs can be improved. At the top level, it would be really beneficial to have a single system or site to provide (links to) all the research outputs from the programme: at the present, these are dispersed around a series of websites and it is difficult to develop an overview of the products of the programmes and the CRF. It may be that the SEWeb site or SG website could/should host this service. By this route, awareness of and access to research

outputs generated through the strategic programme could and should be improved.

Regular briefings should be provided to intended end users (if necessary in different forms for different users) with links to actual outputs, where possible online. Briefings should be short, written in plain English, demonstrate intended use, and integrate across the portfolio, with a range of overview briefings and briefings on more specific topics. The RELU project provides a good example of providing briefings. Periodic emails (by subscription service?) should highlight new briefing and outputs.

Throughout the programmes, researchers should be strongly encouraged, or required, to produce peer-reviewed papers, from their work, but this must not be seen as a substitute for the briefing material, as most policymakers and practitioners do not have the skills, time or the detailed scientific understanding to assess and interpret peer-reviewed papers.

MRPs should also offer to give oral briefings and presentations to users at appropriate events (user-led events not just research-led events), and these should demonstrate how the research can be used, and what impact it may have, rather than simply describing the interesting results of the research.

**Question 16: Is the current performance management approach fit for purpose or can it be improved, if so how?**

The performance management system seems appropriate to SNH, but also see our comments in Q12. From an external perspective, a single system for the clear posting of (links to) project outputs would be a very useful overview of what has been delivered by the programmes (see Q15).