



# **Business Plan**

## **2010-2015**

Draft v6

January 2010

**MCCIP Business Plan, 2010-2015**

Marine Climate Change Impacts Partnership Secretariat, Lowestoft, 35pp

January 2010

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## Executive Summary

The United Kingdom marine area extends to cover the whole of the UK Exclusive Economic Zone, an area of 764,000 km<sup>2</sup> compared to a land surface of only 245,000 km<sup>2</sup>. Across this area our abundant shelf-seas extend and include the western Celtic Seas, across the English Channel through to the extensive North Sea area. Surrounding the United Kingdom these seas are rich, diverse, complex and very busy. In addition to providing ecosystem goods and services of both intrinsic value and essential economic significance this marine environment is criss-crossed with infrastructure, much of which is critical to the national economy. In 2005-6, direct marine-related activities comprised 4.2% of the total UK Gross Domestic Product, at basic prices, to a total value of £46bn. Of the total UK employment, 890,000 jobs were marine-related, 2.9% of the total. This gives a total direct and indirect contribution of marine activities to the UK economy of between 6.0% and 6.8% (Pugh 2008). Understanding of marine climate change is at an early and exciting stage. There remain many unanswered questions relating to the potential impact of climate change on marine systems; indeed existing levels of scientific understanding in this arena are poor in comparison with the knowledge base on atmospheric and terrestrial climate impacts.

Working across this diverse and complex environmental and economic backdrop the Marine Climate Change Impacts Partnership (MCCIP) is a beacon project for the UK. Founded in 2005, this novel initiative has gone from strength to strength, demonstrating clearly the huge added value of collaborative working to understand and begin to overcome the challenges posed by climate change. Covering the period 2010-2015, this Business Plan presents an overview of the partnership's ideas and plans for the next phase in its development.

Since its formation five years ago the MCCIP brand has become synonymous with the provision of practical results and advice, by transforming the plethora of evidence on marine climate change into clear, peer reviewed and easily understandable briefing material for application across the UK's environmental, economic and social decision-making community. MCCIP's production of Annual Report Cards (ARCs) on marine climate change impacts best exemplifies the achievement; this high profile product reduces the lag time of getting evidence from science to policy to essentially a one year cycle. Equally successful has been the preparation of the partnership's Special Topic Report on 'Ecosystem Linkages' which provides insight and clarity for the reader on a complex and little understood topic.

The MCCIP Steering Group has brought together the key marine climate change interests from across the UK. Direct financial investment in MCCIP over the course of phase I (2005-2010) currently stands at £545,000. However, the help-in kind contribution has been calculated much higher at in excess of £1m, demonstrating the huge added value that has been attached to working together in partnership. Over the past five years MCCIP has gone a long way, and this is best demonstrated by Charting Progress, the UK Government's reporting process on the state of our seas. In the first report prepared back in 2005 it was emphasised that there was a poor shared understanding of the potential impact of climate change across UK seas. MCCIP was in part an immediate response to that weakness, with its focus on assembling the evidence on climate change and synthesising and translating it into policy relevant advice. Now, with Charting Progress 2 scheduled for publication in mid-2010, complete with a detailed chapter on

climate change, we see not only much greater clarity regarding how climate change is manifesting across the marine environment, but also hugely valuable spin-off products, such as the preparation of a separate marine scenarios study as part of formalised national reporting activities for UKCIP09. The same has been reflected in the OSPAR Quality Status Report, and, looking forward, the first UK Climate Change Risk Assessment will include coverage of the marine 'sector'.

The approaches pioneered by MCCIP have also had a clear influence on understanding impacts in terrestrial environments, with a similar partnership being established for land based impacts in the UK. MCCIP can also demonstrate influence on the international stage, with an Australian marine report card having been launched in November 2009 and considerable interest in adopting our approaches from the United States National Oceanic and Atmospheric Administration (NOAA) and the International Union for Conservation of Nature (IUCN). At the latest UNFCCC conference of parties, a new acidification guide has been launched in multiple languages, building directly on best practice from MCCIP, helping to ensure that acidification and other ocean impacts have begun to receive their due attention from climate change policy-makers. MCCIP also received recognition at this meeting, with the latest reports available to delegates and mention of MCCIP's work in the UK Secretary of State's speech at the event's Oceans Day.

Looking ahead there remains much to be done and, now mature, MCCIP will set pace and leadership with future challenges. Exciting new products planned for the next five years will see MCCIP moving from not just providing clear 'expert advice' to decision-makers but also working to build the capacity for climate change adaptation across the marine community via the provision of a range of new practical products. Such innovations will include;

- Introducing the concept of 'smart adaptation' through Climate Smart Working (see accompanying text box) across the marine community – working to help organisations respond to climate change in ways that are positive, creative and above all mindful of the bottom line.
- Scheduling a more dynamic and interactive events programme that, managed by a newly recruited communications officer to oversee communications, will allow people to improve their understanding of marine climate change impacts and adaptation and share good practice at both national and regional level.

#### ***What is Climate Smart Working?***

Climate Smart Working (CSW) is a new package we will develop in MCCIP to set out in an attractive and engaging way how communities of interest at the coast or at sea are working to address climate change impacts, now and in the future. This approach will look to recognise and celebrate achievements so far (Climate Smart Actions), as well as to set out the problems and issues they struggle with (Climate Smart Challenges) that prevent them being even more climate smart, and the research requirements needed to help move forward (Climate Smart Research).

'Communities of interest' will focus on traditional sectors (e.g. ports) or will focus on geographic elements (e.g. an estuary or marine plan area), or sometimes a mixture of the two. It is expected that the 'communities' themselves help support meetings (free venues etc) given we are trying to help them in their challenges, will widely promote their good practices and challenges, and are creating something that would be much more expensive and difficult for them to do alone.

Whilst adaptation work will be a key development in phase II, this will not detract from our impacts work, with the continued publication of report cards for policy makers on marine climate change, with our formal annual reporting process (ARC) moving on to a two year cycle, with special topic reports covering a wider range of topics in alternate years.

Another key aspect of our work in phase I was providing advice, either directly or through third parties, to a wide range of related activities in the UK (e.g. UKCP09 marine and coastal projections; National Climate Change Risk Assessment; Charting Progress II; Investigating our Oceans parliamentary sub-committee), Europe (e.g. OSPAR quality status report for the North-East Atlantic) and beyond (e.g. NOAA, IUCN, Australian Government and the European Project on Ocean Acidification (EPOCA)). As a mature partnership, MCCIP is well placed to continue providing wide-ranging advice in phase II at the regional, UK and international level.

The additional costs to UK of MCCIP taking on this enhanced 'adaptation' focused responsibility are anticipated to be very small in relation to the benefits – just £50k per annum would be required in addition to the core programme of work developed in phase I. A new evaluation 'programme' in phase II will ensure that MCCIP continues to provide valued products and services in phase II.

The table overleaf provides an overview of phase I metrics, compared alongside phase II metrics, including provision for the new products outlined above.

We trust that this summary will encourage you to read on and work with us to make MCCIP Phase II happen.

MCCIP Steering Group  
January 2010

<b>Activity</b>	<b>MCCIP I</b>	<b>MCCIP II</b>
<b>MCCIP Steering Group Meetings</b> [includes co-ordination of SG meetings; writing papers, including financial reporting, planning and risk, minuting and responding to action points].	<b>18.6k</b>	<b>16.7k</b>
<b>Annual Report Card / Special Topic Reporting</b> [Development and delivery of the ARC / special topic including Working Group coordination; managing expert submissions, design, proofing and editing].	<b>49.2k</b>	<b>55.2k</b>
<b>MCCIP Secretariat</b> [Servicing the SG, Dissemination of key products (e.g. ARC), respond to requests for climate data and impacts / adaptation information; Participation in other related initiatives e.g. UKCIP / MECN / Carbon-ops; contract meetings; business development].	<b>22.3k</b>	<b>21.9k</b>
<b>Climate smart working</b> [To include salary of (seconded) group chair if this is to be a significant position; many aspects similar to Annual Report Card production, but with a greater emphasis on directly liaising with the wider stakeholder community].	-	<b>£50.9k</b>
<b>Communications and Outreach</b> [As part of an expanded programme in phase II, a communications officer will be recruited to oversee comms and outreach activities in this work module, aswell as management of programme databases].	<b>17.7k</b>	<b>24.1k</b>
<b>Programme evaluation</b> [includes annual evaluation of use of MCCIP products and overall value of the partnership from members, other main beneficiaries and the wider user community under the guidance of an independent evaluator].	-	<b>7.6k</b>
<b>Total</b>	<b>£108k</b>	<b>£176.4k</b>

Note: Costs for MCCIP phase I are based on Cefas staff rates and overheads for FY2009-2010 for guidance. Costs for phase II are based upon Cefas staff rates and overheads for FY 2010-2011 and upon re-forecast resource requirements in phase II.

**An allowance for rate increases of approximately 3% per annum should be made over the lifetime of phase II.**

**Total cost over the 5 year programme for phase II = £926,426.**

**In-kind contributions approximately double the value of the programme to £1,888,426.**

**The quarterly financial reporting implemented during Phase I, will continue to be a core activity of the secretariat during Phase II.**

**See annex VII for full financial budget for phase II.**

## Strategic context

Climate change presents a significant challenge, if not threat, to the marine environment and the ways in which we benefit from it.

Comprising 97% of the water, covering over 70% of the surface and as the main heat and carbon dioxide store of the world, the oceans play a key role in climate regulation. They have partly buffered (neutralised) the effects of increasing levels of greenhouse gases in the atmosphere and rising global temperatures and have an important influence on weather systems, the cryosphere and temperature and precipitation on land. Over the next century we will need to respond to the effects of changes in storm intensity, sea-level rise, increasing sea temperatures, acidification and changes in ocean processes. These changes will impact on ecosystems, commercial fisheries and aquaculture, coastal communities, tourism, shipping, ports and other marine based infrastructure.

Our ability to adapt successfully will depend critically on how well we understand these impacts, and the many ways in which they are inter-linked, and how well we anticipate the need to take action.

***Given that direct marine related activities contributed £46bn Gross Value Added (GVA) to the UK in 2005-06<sup>1</sup>, it is critical that we understand the risks associated with the impacts of marine climate change.***

The Marine Climate Change Impacts Partnership (MCCIP) has been established to help improve our understanding and communication of the implications of climate change in our seas, ensuring that the latest science is effectively synthesised and translated for policy-makers, programme managers and the many other stakeholders who collectively oversee the stewardship of our seas.

The partnership brings together many of the UK's key organisations with marine interests and responsibilities, from central Government, the devolved administrations, advisory and regulatory agencies, the scientific community and NGOs.

MCCIP is just reaching the end of its first phase (2005-2010) and can point to some significant successes:

- An established strong community between policy, regulators and leading scientists with a clear pathway from science to ministers.
- A range of new approaches developed to communicate scientific evidence (annual report cards and special topics) that have set a benchmark being widely adopted both in the UK and overseas, not only for marine but terrestrial environments too.
- Significant reductions in the lag time for transferring quality assured science to end users with clear guidance on our level of confidence in the science.
- A clear focal point for building the evidence base, such that Charting Progress 2 will have a very detailed and wide ranging climate change chapter. In 2005,

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<sup>1</sup> Pugh, D. Socio-economic Indicators of Marine-related Activities in the UK economy. The Crown Estate copyright. March 2008. ISBN: 978-1-906410-01-8

Charting Progress 1 was unable to provide this information, demonstrating that MCCIP has made significant progress in building the evidence base.

- Means to provide high level, synthesised input to other strategic policy-making in the UK (e.g. CCRA, UKCP09) and overseas (e.g. OSPAR Quality Status Reports).

The partnership's ability to bridge the science-policy gap has been recognised in the UK marine science strategy as an example of good practice by the Marine Science Coordination Committee<sup>2</sup>. The approaches pioneered by MCCIP have also had a clear influence on understanding impacts in terrestrial environments, with a similar partnership being established for land based impacts in the UK. MCCIP can also clearly demonstrate influence on the international stage, with an Australian marine report card having been launched in November 2009 and considerable interest in adopting our approaches from NOAA and the IUCN. At the latest UNFCCC conference of parties, a new acidification guide has been launched in multiple languages building directly on best practice from MCCIP. Secretary of State for the Environment, Hilary Benn, was able to address the parallel Oceans Day conference on the importance of acidification and climate change, drawing on the latest MCCIP reports and making front page news.

This business case reviews the effectiveness of the first phase of MCCIP and sets out proposed aims, objectives and deliverables for an enhanced second phase, from 2010 to 2015. We see a continuing need for synthesis and translation, as new evidence emerges and as we respond to changing user requirements. In particular, MCCIP will strengthen its focus on the development of climate adaptation tools, working with different sectors to identify and interpret implications of climate change for their business.

MCCIP will continue to play a key role in providing marine climate change expertise for national and international high-level reporting requirements, such as the new National Climate Change Risk Assessment exercise, future Charting Progress reports, and OSPAR reporting, and will also provide evidence and advice that is highly relevant to the new marine management organisations, and the Marine Science Co-ordination Committee. The outputs from MCCIP will also help organisations respond to legislative drivers such as the Water Framework Directive, Marine Strategy Framework Directive, Habitats Directive and various Marine and Coastal Access and Climate Change Acts.

The key outputs from the programme in phase II will be:

1. Full report cards every 2 years.
2. Special topic reports every other year.
3. 'Climate smart' adaptation reports for identified communities of interest – initially we would pilot the new approach and then consider annual updates.
4. Programme of engagement events – mainly through working with others but also through an MCCIP branded event each year
5. Advice and input to national and international state of the environment reporting.

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<sup>2</sup> Insert link to science strategy when it publishes

## **What will success look like in phase II?**

In phase II, MCCIP will look to build on its established reputation as an example of good practice in partnership working. By building on the evidence base to provide risk based analysis of marine climate change impacts we aim to become a one stop shop for marine climate change impacts evidence and adaptation advice.

Success will be measured through the implementation of a costed evaluation framework, which will be guided by an independent evaluator. The framework will consider the use of MCCIP products and overall value of the partnership to members, other main beneficiaries and the wider user community.

A key activity will be the mid-term review, which is scheduled for 2013. This will provide a formal means through which MCCIP partners can feedback on progress made in Phase II. Views from external evaluators will also be sought as part of this process.

**For more information on the evaluation framework go to annex VII**

## Partnership Background

The Marine Climate Change Impacts Partnership (MCCIP) was launched in March 2005 as a direct response to *Charting Progress: An Integrated Assessment of the State of the UK Seas*<sup>3</sup>. This report identified climate change and unsustainable fishing as the two main threats facing the UK's marine environment.

The original aim was to facilitate the rapid transfer of marine climate change impacts evidence from the scientific to user community. A range of key partners, representing a wide range of interests from across the UK were identified and brought together, with the secretariat function contracted out to Cefas.

MCCIP's work was reviewed in November 2008 through a questionnaire to partners and two external reviewers. The review confirmed widespread support for MCCIP. Its core product, the annual report cards, was seen as providing a unique, clear and concise resource for communicating complex issues to a wide range of stakeholders. The key challenges, looking forward, were

- Turning the work on impacts into targeted work on adaptation. It was important for MCCIP to take opportunities to influence governments' climate change adaptation work as part of the UK Climate Change Act.
- Maintaining stakeholder interest and awareness of the issues. Ways needed to be found to keep the issue 'hot' by developing new and innovative ways to present data and key messages.
- Securing financial support and the commitment of all involved in the face of emerging priorities and increasing demands on time.
- Interpretation of UKCP09 outputs and assessing the impacts of mitigation measures

Much work remains to be done and, now mature, MCCIP will set pace and leadership with future challenges. The UK climate change community now must begin to prepare the UK to adapt to the impacts of climate change, and MCCIP is no exception in its planning for how we will live with climate change. Exciting new products planned for the next five years will see MCCIP moving from not just providing clear 'expert advice' to decision-makers but also working to build capacity for climate change adaptation across the marine community via the provision of a range of new hands-on, practical products.

These themes are picked up and developed further in the phase II business case.

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<sup>3</sup> Department for Environment, Food and Rural Affairs (Defra) (2005). *Charting Progress: An Integrated Assessment of the State of UK Seas*. 120pp

## **Policy Landscape and legislative drivers**

MCCIP is well placed to both respond to the contemporary marine and climate policy landscape. Looking first at marine legislative drivers, climate change impacts and adaptation cut across a range of key instruments including the Marine and Coastal Access Act (2009), Marine (Scotland) Act 2010, the Marine Strategy Framework Directive, the EU Integrated Maritime Policy, the EU adaptation white paper and the developing need for Marine Spatial Planning. Operationally, MCCIP provides a critical knowledge stream into significant international and national marine management 'products', including the UK's Marine Monitoring and Assessment Programme, Charting Progress 2 (in prep.), State of Scotland's Seas Report and the OSPAR Quality Status Report (QSR). These important products both respond to and influence policy development nationally and internationally.

MCCIP has provided valuable information to aid the production of key reporting requirements such as the *UK 21st Century Climate Scenarios*, (UKCP09) and will provide the baseline for marine stakeholder engagement into the first UK Climate Change Risk Assessment as required under the Climate Act 2008.

More widely, MCCIP provides a useful resource on marine climate change for decision-makers working to implement both the EU Habitats Directive across UK shelf-seas and the EU Water Framework Directive around the UK coast.

With understanding of marine climate change lagging approximately ten years behind the knowledge base on terrestrial and atmospheric climate change related matters, the practical/policy support that MCCIP provides is only set to rise in future years.

## MCCIP aims and objectives

We propose that the MCCIP aims and objectives should remain largely unchanged in phase II. We consider that these continue to reflect the needs and priorities expressed by partners and other stakeholders. However, in phase II there will be a much stronger emphasis on developing adaptation guidance and this is reflected in the overall aim of the programme as described below.

The Aim of MCCIP is **to provide a co-ordinating framework for the UK, so as to be able to transfer high quality evidence on marine climate change impacts, and guidance on adaptation and related advice, to policy advisors and decision-makers.**

For the purposes of this partnership, we consider marine to include the coastal fringe, UK shelf seas and, where appropriate, beyond (e.g. large-scale ocean processes extending way beyond our territorial waters have a profound influence on the UK).

The objectives for MCCIP are to:

- A. Develop and maintain a coordinating framework for marine climate change partners in the UK.
- B. Build the knowledge base and consolidate evidence of marine climate change impacts, with emphasis on the spatial dimension where possible.
- C. Provide effective mechanisms for the efficient transfer of marine climate change knowledge from the scientific community to policy advisers and decision makers.
- D. Develop guidance and build upon best practice for adaptation tools and strategies available to stakeholders (e.g. 'climate smart' approaches - see annex V).
- E. Identify present shortcomings in UK marine climate science (i.e. what other science could be done / supported to help decision makers and UK marine industries).
- F. Actively engage with partners and consult wider communities on requirements for climate change tools and information (e.g. marine scenarios of climate change).

The intended target audience of MCCIP is marine and coastal stakeholders including policy makers, requiring marine climate change knowledge in an accessible format, enabling them to make informed decisions based upon quality assured science (e.g. MCCIP annual report card)

The direct beneficiaries are:

- MCCIP partners, including Government, advisory and regulatory agencies.
- Other central and local government.
- Science community.
- Marine business sectors.
- Non-governmental organisations.
- Marine recreational users.
- Coastal communities.

Indirect beneficiaries include:

- Overseas governments.
- International organisations.
- Media.
- Education bodies.
- General public.

## Approach

MCCIP will achieve its aim and objectives during phase II through five main deliverables:

### **1. Full report cards every 2 years**

The full report cards will take a detailed overview of the state of knowledge on marine climate change impacts in the UK, both at national and regional scales. A high level summary card will be produced based upon detailed, peer reviewed reports from leading marine and climate scientists. Findings from the report card will be used to inform MCCIP climate adaptation reports (see below). Successive report cards will continue to track advances in our understanding of marine climate change impacts drawing on best available science in the UK. New and innovative ways to present information will be developed to improve clarity of messages and keep users informed of the very latest developments.

### **2. Special topic reports**

Special topic reports will be produced in alternate years to full report cards, to respond to particular needs from the user community. In phase I, the ecosystem linkages report card was produced to demonstrate how the impacts described for individual [topics] in the full report cards are interlinked and highlight the importance of considering ecosystem level responses to climate change. In response to the new Marine and Coastal Access Act and Marine (Scotland) Act, a special topic on climate change and marine spatial planning could be worth considering early in phase II.

### **3. Sector [or spatially] specific climate smart adaptation reports**

Building on the evidence base outlined in the full and special topic report cards, the adaptation reports are a logical progression for MCCIP, helping empower user communities to take action. MCCIP will work closely with identified communities of interest to explore current best practice, identify key risks and outline potential responses to those risks. This would be the main new activity of MCCIP, reflecting the progress in building the evidence base on impacts and a growing demand for engagement on adaptation.

**More details of climate smart adaptation are provided in annex V**

### **4. Outreach**

MCCIP will engage in a range of events that will both help inform the development, and subsequent dissemination of, products one to three. A new MCCIP communications officer will be responsible for implementing the engagement plan and ensuring that MCCIP maintains a high profile and is an important part of the decision making process for both the public and private sector at national and regional scales. It is anticipated that MCCIP will both support related workshops and conferences and run its own events on an annual basis.

## **5. Advice**

During phase I, the partnership was requested to provide advice, either directly or through third parties, to a wide range of related activities in the UK (e.g. UKCP09; CCRA; Charting Progress II; Investigating our Oceans parliamentary sub-committee), Europe (e.g. OSPAR quality status report) and beyond (e.g. NOAA, IUCN, Australian Government and EPOCA). As a mature partnership, MCCIP is extremely well placed to continue providing wide-ranging advice in phase II at the regional, UK and international level.

**A more detailed action plan for delivery of these five main products is provided in annex I**

## MCCIP structure and delivery

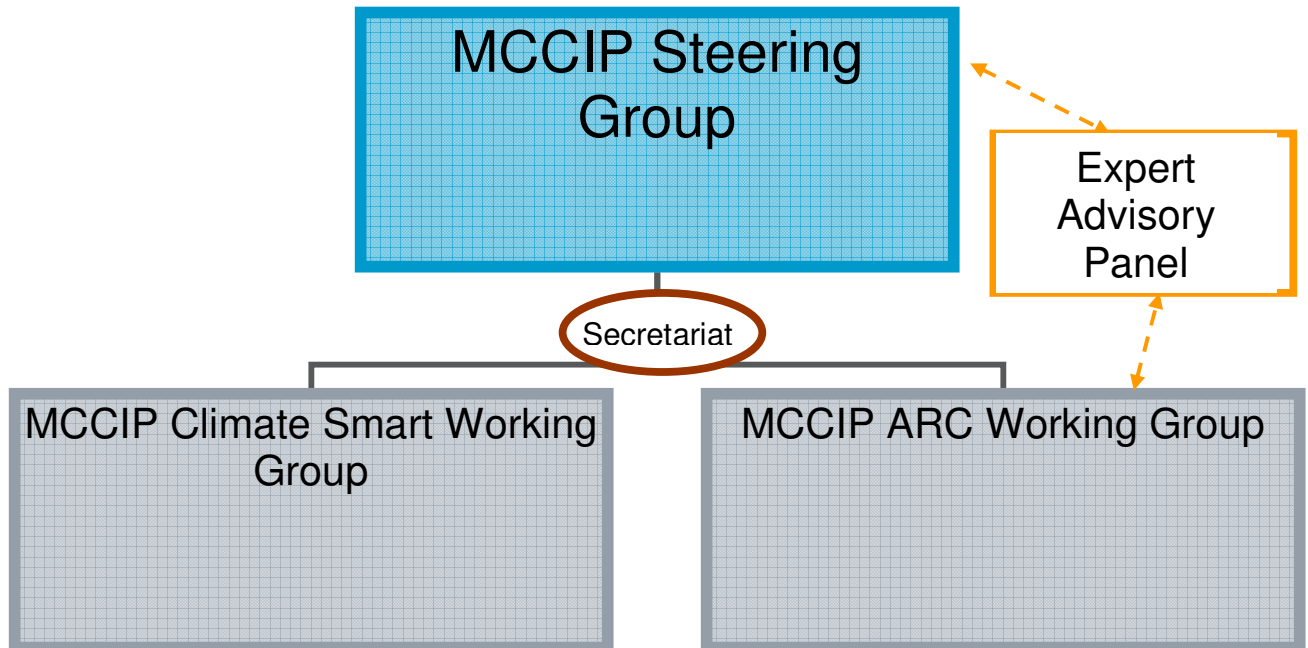


Figure 1. MCCIP structure

A key factor in the success of MCCIP is the role, standing and commitment of both the Steering Group and the Working Groups, and the Expert Advisory Panel, which together will ensure that MCCIP achieves its overall aim. More detail on structure is provided in annex II

### Steering Group

The primary purpose of the **Steering Group (SG)** is to deliver the MCCIP aim. All MCCIP partners are entitled to participate in the steering group's work. It is proposed that the objectives of the steering group should remain unchanged in phase II, namely:

- Oversee the development of the Partnership.
- Receive progress updates on MCCIP products and Expert Advisory Group discussions.
- Provide Communication Quality Assurance for the Annual Report Card and Briefing Notes, to ensure messages are clearly communicated and fit for purpose.
- Oversee the arrangements for partner and stakeholder engagement.
- Provide feedback on the performance of the MCCIP Secretariat.
- Provide a forum for partners in climate / marine related developments.
- Assign tasks to working groups as appropriate.
- Agree to required updates in the Business Plan.
- Monitor and evaluate implementation of the Business Plan.

**The SG full Terms of Reference are included in Annex IV**

In addition to the steering group, we propose two working groups under phase II:

**Annual Report Card Working Group (ARCWG):** This group will oversee the operational delivery of the main MCCIP scientific products, notably the annual report cards and special topic reports. The group is currently chaired by NERC.

**Climate Smart Working Group (CSW):** This new working group will engage with marine user communities and oversee the climate adaptation deliverables (sector reports or similar related products). The formation of this group is a direct response to the phase I mid-term review to make advising on adaptation strategies a core element of phase II. This group replaces the communications WG. Communication activities will now be managed by a dedicated communications officer (see page 20) reporting to all groups as required.

In addition, the **Expert Advisory Panel (EAP)** will review the scientific content of MCCIP outputs, enabling MCCIP to maintain science quality as its foundation for relevance and credibility. The expert base required will need to be fluid to ensure that the best people are approached to quality assure both new (climate smart) and evolving (annual and special report card) products. The chair of the EAP will report back to the SG on its activities and request inputs from the SG members as appropriate. The EAP chair is currently based at Scottish Natural Heritage.

MCCIP will continue to be supported by a **secretariat**, based at Cefas (also see annex III), which will act as a central source of information and focal point. It will be responsible for the daily running of MCCIP, gathering information and producing a clear overview of effort and outcomes.

## Funding MCCIP

The delivery of MCCIP's proposed phase II programme will depend heavily, as with phase 1, on the in-kind contributions of its partner organisations and the scientific community. For example, the production of the ARC involved over 70 leading scientists providing in-kind contributions to outputs through an iterative process, with a further 30 scientists peer-reviewing their individual topic reports.

Key personnel of the various partner organisations and of other expert organisations have provided in-kind contributions by way of staff time to allow for attendance at MCCIP meetings, advice on MCCIP outputs and other general advice / input as necessary. For MCCIP to succeed and for stakeholders to be engaged fully, further contributions of a non-financial nature will continue to be required.

However, some of MCCIP's activities, most significantly the provision of the secretariat function, the production of annual and topic cards and new work on climate change adaptation, cannot be funded through in-kind contributions.

The proposed phase II budget focuses on these "core" programme costs. The overall budget amounts to approximately £180,000 per annum. The increase in budget compared to phase I primarily reflects the additional work proposed on climate adaptation, communications and the evaluation programme (see figure 1). It should be noted that these costs are based upon Cefas staff time and overhead costs for FY 2009-2010, which are currently subject to a 3% increase on a year on year basis. Increases in staff and overhead costs over the lifetime of phase II would have to be reflected in slight increases in contributions from partners as the programme progresses, attracting additional funding from new partners or loss of some 'core' staff time available on an annual basis.

### Financial summary for phase I of the project

The following tables summarise the core budget over the lifetime of phase I. Based only on confirmed funding to the end of Nov. 2010 we anticipate a small contingency in funding to remain as managed over the lifetime of the contract (see table 1)

In-kind contributions to the project approximately double the value of the project (see table II). Estimated in-kind expenditure for the 2009-2010 ARC alone is estimated to be worth over £100,000.

Table 1. Financial budget for 'core' (funded) activities - based on confirmed income only

	<b>Expenditure</b>	<b>Expenditure Aggregate</b>	<b>Confirmed Income</b>	<b>Confirmed Income Aggregate</b>	<b>Running balance</b>
FY05/08	£281,575	£281,575	£261,480	£261,480	-£20,095
FY08/09	£93,682	£375,257	£150,255	£411,735	£36,478
FY09/10	£112,182	£487,439	£110,500	£527,235	£39,796
FY10/11	£57,500	£544,939	£21,500	£548,735	£3,796
<b>Total</b>	<b>£544,939</b>			£548,735	£3,796

Note: FY10-11 currently only runs to end Nov 2010 (when phase I ends)

Table 2. Estimated 'core' and 'in-kind' contribution over the lifetime of phase I

FY	Secretariat cost	Estimated 'in kind' expenditure	Total estimated full value (Secretariat+'in kind')
05/06	£26,839	£22,000	£48,839
06/07	£132,790	£117,000	£249,790
07/08	£121,946	£107,500	£229,446
08/09	£93,682	£92,030	£185,712
<b>09/10</b>	<b>112,182</b>	<b>£160,000</b>	<b>£272,182</b>
<b>10/11</b>	<b>57,500</b>	-	
<b>Total</b>	<b>£544,939</b>	<b>£498,530</b>	<b>£1,043,469</b>

**NOTE:**

a) Here the projections for in-kind contribution in years 05/06 and 06/07 are based upon the same percentage 'in-kind' contribution relative to Secretariat cost as estimated in 2007-08.

b) in-kind contributions for 10/11 are not included as the key deliverable for this year is to be determined but would be expected to represent at least a doubling of the core budget.

**Funding required for phase II**

Based upon a work programme in phase II, that consists of activities from phase I plus a new climate adaptation workstream and evaluation programme, a breakdown of costs by activities, per annum, is summarized in figure 1 :

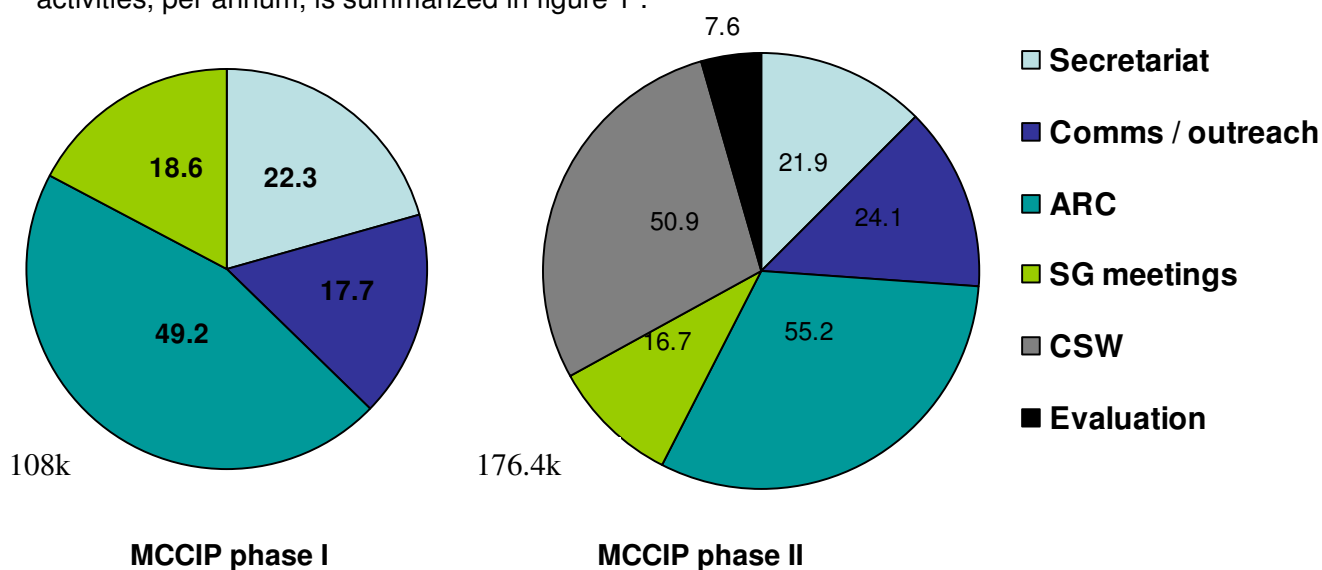


Figure 1. Annual budget for phase I and phase II activities. Costs for MCCIP phase I are based on Cefas staff rates and overheads for FY2009-2010 for guidance. Costs for phase II are based upon Cefas staff rates and overheads for FY 2010-2011 and upon re-forecast resource requirements in phase II. Phase II includes new work modules on CSW and programme evaluation. Costs of alternating ARCs and special topics are broadly comparable. Figures are in 1000s of pounds.

**An allowance for rate increases of approximately 3% per annum should be made over the lifetime of phase II.**

**The quarterly financial reporting implemented during Phase I, will continue to be a core activity of the secretariat during Phase II.**

**See annex VII for a full breakdown of the phase II budget.**

## **General description of work undertaken by the secretariat under each workstream:**

**MCCIP Steering group meetings:** Co-ordination of meetings; writing SG papers, including reporting on finances, planning and risk. Writing minutes and following up on actions.

**ARC / special topic:** Development and delivery of the ARC / special topic including servicing the ARCWG; co-ordinating submissions, design, proofing and editing.

**MCCIP Secretariat:** Servicing the SG, Dissemination of key products (e.g. ARC), respond to requests for climate data and impacts / adaptation information; Participation in other related initiatives e.g. UKCIP / MECN / Carbon-ops; contract and other internal meetings; quarterly financial reporting; updating the business plan

**Climate smart working:** To include salary of (seconded) group chair if this is to be a significant position; many of the aspects of producing an annual report card will be relevant here (we anticipate overall costs of the ARC and climate smart report card deliverable to be of comparable value) but with a greater emphasis on directly liaising with the stakeholder, rather than scientific, community.

**Communications and Outreach:** It is proposed that as part of an expanded programme in phase II, a communications officer (80 days p.a.) will be recruited to oversee communication and outreach activities (accounting for 50% of this role). This will include, but not be limited to:

- Development and implementation of the phase II engagement plan
- Oversee communication activities, inc. MCCIP workshops and launch events
- Frequently update the website and produce the MCCIP newsletter
- Support the work of the climate response WG.
- Manage contact lists

The communications officer will also assess and comment on the impact/value of MCCIP communications and will report back to the SG. The programme assistant will also help support the working groups.

**Programme evaluation:** To include annual evaluation of use of MCCIP products and overall value of the partnership from members, other main beneficiaries and the wider user community under the guidance of an independent evaluator.

## **Sources of funding**

MCCIP has benefited in its first phase from the support of a wide range of partners (see annex II). This business case seeks funding, as before, from as wide a range of partners as possible so that it can achieve its aim and objectives. In addition, we will seek funding for some of the sector-specific products (e.g. on climate adaptation) from the relevant sectors.

Shortfalls in funding will necessarily force a reduction in the number or scale of products delivered through MCCIP – such decisions would be taken by the steering group based on its view of relative priorities.

**An overview of this, and other risks, are provided in annex VI**

## ANNEX I - Action Plan Milestones

The initial deliverables and milestones for phase II are summarised below.

**Phase II milestone delivery will commence from the point when funding commitment is in place.**

Task	Description of Task	Deliverable	Who delivers	Milestone (Month)	Relevance to delivery of main products
1	Review terms of reference and recruit membership of an appropriately balanced SG and WGs	Operating SG and WGs	SG / WGs / Secretariat	Month 1	2-3
2a	Recruit communications officer	N / A	Secretariat	Month 1	4
2b	Recruit 'climate smart' chair	N / A	SG	Month 1 (to be reviewed on an annual basis)	3
2c	Recruit programme 'evaluator' and sign-off evaluation plan.	N / A	SG	Month 1 (to be reviewed on an annual basis)	1-5
3	Synthesise data and information to provide an accepted view on the impacts of climate change on all aspects of the marine environment.	Annual Report Card / Special Topic	Secretariat with input from ARCWG, SG and EAP	By month 12 and yearly afterwards	1-2
4	Gather, test and publicise guidance and other tools for assessing climate change vulnerability and adaptation to impacts in a marine context using 'climate smart' approaches for targeted 'communities of interest'	Guidance / climate smart report card	Climate response WG with support from the secretariat	By month 12 and yearly afterwards (following a review of the pilot CSW card)	3
5	Organise and report on MCCIP workshops to help deliver key MCCIP products (e.g. ARC / special reports / climate smart action plans) and help deliver objectives E and F.	Dependant on workshop requirements	Secretariat	To be discussed	1-4
6	Deliver recommendation on priority areas for research based on workshops, literature review and expert input.	Recommendations for research	Secretariat with input from ARCWG / EAP	To be discussed	1-4

Task	Description of Task	Deliverable	Who delivers	Milestone (Month)	Relevance to delivery of main products
7	Co-ordinate consultations to assemble community views (To include monitoring and evaluation work of MCCIP outputs)	Community Views	Secretariat	Ongoing on an ad hoc basis.	4
8	Compile briefing notes on key issues for the user community	Briefing notes	Secretariat (Stakeholder / EAP input)	As required.	4
9	Regularly updated interactive web site and e-newsletter	Web site / monthly newsletter	Secretariat	Monthly	4
10	Demonstrate proactive and effective ongoing communications with marine stakeholders at both UK-wide and regional scales	Various (speaking at workshops / meetings etc..)	Secretariat	Ongoing	4
11	Facilitate provision of information for regional, national and international marine CC assessments and legislative drivers (e.g. CCRA / CP3)	Give advice	Secretariat with input from EAP	Ad-hoc as requested	5
12	Revise the MCCIP business plan and produce a report of Secretariat progress towards MCCIP objectives.	Revised business plan	Secretariat to coordinate with SG input	Month 1 and yearly updates	N/A

### MCCIP activities and outputs

As MCCIP develops, other deliverables will be taken forward. These will include

- The development and implementation of an engagement plan (building on the communication strategy from phase I).
- Sector specific workshops and seminars to explore marine climate change in more detail.
- Developing links with industry through climate smart approaches
- Exploring applications of UKCP09 marine climate change scenarios and providing guidance on development of user requirements for future UK coastal and marine scenarios.
- Consider marine observational requirements for marine climate change impact and adaptation researchers and modellers

These will be developed as time and resource permits and the need is identified.

## ANNEX II – MCCIP Structure

### Terminology Partnership

The use of the word partnership for MCCIP does not constitute a partnership in law. Partner organisations are those organisations that commit time and resource to the project.

#### **Current Partnership membership list**

The MCCIP sponsoring partners (at December 2009) are:

- British Energy
- Countryside Council for Wales
- Department for Environment, Food and Rural Affairs
- Department of the Environment, Northern Ireland
- Environment Agency
- Joint Nature Conservation Committee
- Natural England
- Scottish Environment Protection Agency
- Scottish Government
- Scottish Natural Heritage
- States of Guernsey
- States of Jersey
- Welsh Assembly Government

The following organisations contribute to the work of MCCIP through the provision of technical and scientific expertise on marine climate change issues:

- Centre for the Environment, Fisheries and Aquaculture Science
- Climatic Research Unit, UEA
- Department for Energy and Climate Change
- Marine Institute, Ireland
- Marine Scotland Science
- Marine Environmental Change Network
- Natural Environment Research Council
- Royal Society for the Protection of Birds
- Sir Alistair Hardy Foundation for Ocean Science
- The Crown Estate
- UK Climate Change Impacts Programme
- UK Met Office

#### **Partnership Agreement**

Contractual obligations of the partner organisations have been documented either in a Partnership Agreement document or Letter of Agreement, as appropriate. The duties of Cefas (as the MCCIP Secretariat) and the partner organisations are specified in these. To co-operate and foster the implementation of MCCIP, the partners commit to doing everything in their reasonable power to achieve the implementation and successful outcome of the project. Partner organisations also have equal member status with each other and with in-kind contributing organisations.

## **Steering Group**

The primary purpose of the Steering Group (SG) is to deliver the MCCIP aim. For detail of the SG terms of reference please refer to Annex IV.

The SG recognises 2 working groups that will be commissioned and empowered to deliver the MCCIPs objectives. This will be within a framework agreed, monitored and directed by the SG.

## **General points regarding the Working Groups (WGs)**

1. The chair of each group will report to the full SG meetings that it is envisaged will take place twice per year.
2. Administration. The MCCIP secretariat will continue to provide administrative functions as identified in the business plan, including programme management, finance co-ordination, action tracking and presentation and circulation of papers to the SG.
3. The Secretariat, chair of SG and chairs of WGs will meet on an ad hoc basis as necessary to ensure smooth running and completion of any actions required.

The working groups provide significant opportunity for current SG members to maintain hands on involvement where desired. In addition, it is envisaged that each working group will co-opt other members to the group on an ad hoc basis as required. For example, particular input may be requested from communication experts for the ARC Working Group or Climate Smart Working Group.

The 2 working groups are as follows:

## **Annual Report Card Working Group (ARC-WG)**

The aim of the ARC working group of the SG will be to deliver the ARC and special topics (or similar related products). The ARC-WG will take direction from the SG and invite the scientific submissions. They will review and amend the synthesis of the first Secretariat edits to the submissions with particular reference to the presentation/Clear English of the output ready for submission to peer review and scientific editorial by the EAP. The chair of the ARC-WG will report back to the SG on the activities of the WG and agree activities and direction for development of the ARC and request inputs from the SG members as appropriate.

The ARC-WG will consist of the Secretariat, and other members drawn from the SG. (Total time commitment to be approx 6 days per year [consisting of 4 meetings + 2 days prep outside meetings] with potential for additional 2 days per year on particular tasks outside meetings). The chair of the ARC-WG will commit approximately 10 days per year.

Current membership: Craig Wallace (NERC, ARCWG Chair), Matt Frost (MECN), John Baxter (EAP chair), Paul Buckley, (MCCIP secretariat), Martyn Cox (Scottish Government), Stephen Dye (MCCIP Secretariat), Philip Stamp (Defra, MCCIP chair), Jon Lartice (Defra) Dan Laffoley (Natural England), Emma Verling (JNCC)

### **Climate Smart Working Group (CSW)**

The aim of the Climate Response Working Group of the SG will be to deliver the climate smart working deliverables, principally through a climate smart report card (or similar related products). The chair of the climate response WG will report back to the SG on the activities of the WG and agree activities and direction for development of the climate smart report cards and request inputs from SG members as appropriate.

The group will actively engage with identified 'communities of interest' at the coast or at sea and look at how they are working to address climate change impacts, now and in the future. Climate smart working will recognise and celebrate achievements so far (Climate Smart Actions), as well as set out the problems and issues they struggle with (Climate Smart Challenges) that prevent them being even more climate smart, and the research requirements needed to help move forward (Climate Smart Research).

'Communities of interest' will focus on traditional sectors (e.g. ports) or will focus on geographic elements (e.g. an estuary or marine plan), or sometimes a mixture of the two. It is expected that the 'communities' themselves will help support meetings (free venues etc) given we are trying to help them in their challenges, will widely promote their good practices and challenges, and are creating something that would be much more expensive and difficult for them to do alone.

The Climate response WG will consist of the Secretariat, and other members drawn from the SG. (Total time commitment to be approx 6 days per year [consisting of 4 meetings + 2 days prep outside meetings] with potential for additional 2 days per year on particular tasks outside meetings). The chair of the Climate Smart Working Group will commit approximately 15 days per year.

Members: TBC

### **Secretariat**

MCCIP will continue to be supported by a Secretariat, which will be a central source of information and focal point. It will be responsible for the daily running of MCCIP, gathering information and producing a clear overview of effort and outcomes.

The permanent Secretariat began 01 December 2005 and in this second phase of MCCIP will continue from 30 November 2010 to 30<sup>th</sup> November 2015. A review is scheduled for Year 3 (2013), details of which are yet to be agreed, however, the intention is to maintain the partnership through to at least 2015.

The MCCIP Secretariat has the following staff resources available to it for the period December 2010 – November 2015:

1. Paul Buckley MCCIP programme manager (140 days pa)
2. Stephen Dye MCCIP secretariat scientific lead (40 days pa)
3. Climate Smart Working lead (15 days pa)
4. Communications officer (80 days pa)
5. Support Pool - Cefas staff (30 days pa)
6. Web support (20 days pa)

As the partnership evolves and its requirements from the Secretariat change the resources will need to respond flexibly as determined by regular reviews of staffing profile.

Roles and responsibilities of the MCCIP Secretariat will be to:

- Ensure aims and objectives for MCCIP are met.
- Prepare papers and products for and attend meetings with SG and draft minutes of these meetings.
- Ensure completion of all deliverables within the Business Plan, to include:
  - Producing relevant reports, briefing packs and annual report cards.
  - Gathering information on research & monitoring gaps and disseminating such information.
  - Developing and maintaining the MCCIP web site.
- As the MCCIP continues to mature, new opportunities, challenges and priorities will arise, and it will be the role of the Secretariat to respond to them, by synthesising, transferring and sharing knowledge and information as required.

**Activities that the Secretariat leads on:**

- Service SG: co-ordinate planning of meetings, production of minutes, key documents (relating to an agreed business plan).
- Report on finances, planning and risk.
- Support and co-ordination in the delivery of agreed products.
- Production of and dissemination of key documents.
- Updating the MCCIP website.
- Production of newsletters.
- Production of MCCIP posters.
- Respond to requests for parliamentary level advice
- Respond to and co-ordinate requests for climate data and impacts/adaptation information.
- Participation in other related initiatives e.g. UKCIP / MECN / CarbonOps.
- Promotion of MCCIP. Through writing of articles / conference attendance and presentations, through regional Partnerships and at Cefas facilitated meetings.
- Production of database of stakeholders for dissemination of products etc.
- Co-ordinate and participate in the production of MCCIP related articles to other media outlets.

**Activities that the secretariat is not responsible for/does not lead on:**

- The secretariat cannot operate outside of the costed and itemised ToR/contract. For example, to produce ad-hoc reports.
- The secretariat is not the decision maker body for e.g. dates / venues for launch of products, initiation/cessation of products, direction of MCCIP, who attends meetings, who joins Partnership, who are on the WGs or EAP (the status of orgs and their applicability to join MCCIP).
- The secretariat is not the sole / principal fundraiser.
- The secretariat does not provide data or additional research.
- The secretariat does not have a MoU with other organisations within the Partnership to respond to additional requests for services / products.
- The secretariat is not an external lobbying group. Internally the secretariat will provide suggested approaches and solutions to procedural and process related matters.

### Annex III. Why should the MCCIP secretariat be hosted at Cefas?

Cefas is one of the United Kingdoms operational marine scientific centres and is an Executive Agency of the UK Government's Department for Environment, Food and Rural Affairs (Defra). **Cefas' vision is to make a real difference for society as recognised leaders in marine and aquatic science.**

Working across the scientific evidence/policy interface Cefas delivers applied marine science solutions and consulting to Government and others. It provides the high quality science used to conserve and enhance the aquatic/terrestrial environment, promote sustainable management of its natural resources, and protect the public from contaminants. Many Cefas scientists are leaders in their fields and advisors on international bodies such as the International Council for the Exploration of the Seas (ICES). Through this understanding Cefas is able to provide stakeholders with the knowledge to develop, inform and guide policy and proportionate regulatory controls and to fulfil the UK commitments under national and international agreements.

Cefas possesses both long-term datasets on physical variables such as temperature and salinity (some datasets extend back over 100 years) and also long-term biological observations. Ecosystems have changed or varied appreciably over the past 100 years, and the wealth of Cefas datasets allows us to gain added insight into mechanisms of change. With a widespread acceptance that our climate is changing and a rapidly developing body of associated evidence, the key responsibilities for marine science are twofold:

- To understand the degree to which human-induced climate change is impacting upon what are already highly complex and dynamic natural systems, and;
- To identify the likely significance of such change for future generations.

In order to begin to consider how to address the impact of climate change on the aquatic environment, differentiation is required between natural aquatic variability and superimposed human impacts; this is not an easy task but is a necessary one. In addition, we need to distinguish what our changing climate means for ecosystem goods and services, including physical processes, individual species, and commercial productivity?

Within the marine context, we have the capability and breadth to begin to provide responses to these challenges. Within our pool of 500 scientists, more than 50 work directly on climate-related topics, providing strength, depth and responsiveness.

## ANNEX IV - Steering Group (SG) - Terms of Reference

### 1. **AIM**

The primary aim of the SG is to provide a mechanism to deliver the MCCIP aim.

The SG's role is to own MCCIP, to drive and develop the MCCIP vision and facilitate and co-ordinate the work of the partners and secretariat.

### 2. **OBJECTIVES**

The objectives of the Steering Group are to:

- Oversee the development of the Partnership.
- Elect a chair for the Steering Group.
- Receive progress updates on MCCIP products and Expert Advisory Group discussions.
- Provide Communication Quality Assurance for the Annual Report Card and Briefing Notes, to ensure messages are clearly communicated and fit for purpose.
- Oversee the arrangements for partner and stakeholder engagement.
- Provide feedback on the performance of the MCCIP Secretariat.
- Provide a forum for partners in climate / marine related developments.
- Assign tasks to working groups as appropriate.
- Agree to required updates in the Business Plan.
- Monitor and evaluate implementation of the Business Plan.

### 3. **MEMBERSHIP**

Each Partner organisation will be entitled to be represented on the Steering Group. Partners comprise those stakeholders who have contributed financially to the partnership and/or are committed to providing a significant contribution "in kind".

The Steering Group is currently chaired by Defra and is supported by the MCCIP Secretariat.

Each member should be able to commit long-term the necessary time to Steering Group activities to maintain stability and functionality. In the event of a member not being available for a meeting, they may nominate one deputy who will have full delegation for the meeting. Additional people may only be invited to the meeting with the Chairman's permission.

### 4. **REPORTING ARRANGEMENTS**

The SG will report to policy makers and decision makers across Government Departments and the Devolved Administrations. It is also anticipated that in phase II, MCCIP could also report to the Marine Science Co-ordination Committee.

### 5. **MEETI NG**

Steering Group Meetings will be held approximately twice per year – one in Spring/Summer to consider priorities for the coming FY and one in Autumn/Winter for reviewing and forward planning. Meetings will usually be hosted by one or more members at different venues across the UK.

Meeting papers will be co-ordinated by the MCCIP Secretariat and sent to members at least 1 week in advance of the meeting wherever possible.

**6. COMMUNICATION AND REVIEW**

Minutes of the SG meetings will be made available on the website.

These Terms of Reference will be reviewed at least once a year at the Spring/Summer Steering Group meeting.

## Annex V - Climate Smart Working

### *Introduction*

A new proposed element of MCCIP phase II will be to look at how we can adapt to the evidence and projections contained in the ARC, the consequences of which are explained in more detail in the Ecosystem Linkages report card. This is a natural progression for our work, and 'Climate Smart Working' is intended to provide an innovative, attractively packaged and clearly defined approach to the very challenging and complex subject of adaptation.

### *What is Climate Smart Working?*

Climate Smart Working (CSW) is a new packaging we will develop in MCCIP, working in collaboration with UKCIP, to set out in an attractive way how communities of interest at the coast are working to address climate change impacts, now and in the future, and to recognise and celebrate those achievements (Climate Smart Actions), as well as to set out the problems and issues the communities struggle with (Climate Smart Challenges) that prevent them being even more climate smart, and the research requirements needed to help move forward (Climate Smart Research). In the first instance, simply helping groups understand the complex nature of adaptation would be a massive step along the path to responding to the challenges presented by climate change.

'Communities of interest' could focus on traditional sectors (e.g. ports, fisheries etc (as the Barrier Reef is doing)) or could focus on geographic elements (a port, an estuary, MPAs (as the USA are doing)). In practice, a mixture of the two is likely to be required. We would look to engage with the community at a very early stage in the process and it is expected that the 'communities' themselves help support meetings (free venues etc) given we are trying to help them in their challenges, will widely promote their good practices and challenges, and are creating something that would be much more expensive and difficult for them to do alone. One of the effects of doing CSW is the opportunity to innovate with sectors to help them meet the challenges.

The links to policy advisors, decision-makers and a Ministerial launch are all added incentives for participation (it would be nice, for example, to bring Environment Ministers together with Ministers representing the community of interest).

It should be emphasised that Climate Smart Working is still at an early concept stage and we will look to 'pilot' a first report in the first year of MCCIP phase II.

### *Climate smart working report cards*

This would be used to assess how communities of interest are working to address climate change impacts, now and in the future. The report would recognise achievements already made (Climate Smart Actions), as well as to set out the problems and issues these communities struggle with that prevent them being even more climate smart.

It could also go to the next level, forming a new certification scheme for Government with various levels – CSW gold, CSW silver, CSW bronze – that relate more to geographic/individual institutions rather than broad sectoral perspectives.

Whilst our overall intent will always be pushing 'adaptation', some of the detail that communities of interest may wish to promote as a result will be 'mitigation' actions.

*What might the report card look like?*

An eight-side card accompanied by an introductory 4 side card could be produced in the first year (which explains what we are creating – not just the CSW idea and card but how we wish to work with communities of interest to celebrate their achievements and share and support them on the challenges they face).

The four side introduction card would introduce the reader to the concept of CSW – what is it, why we are doing it, how it fits in with the Government agenda and why participation is a win-win for communities of interest. Thus it should introduce, explain and sell the concept in a very easy to understand language and in a compelling manner.

The eight side card could do the following:

- *Front cover* – brief words about community of interest which is 'this years focus', followed by a summary of Climate Smart Actions the community of interest is taking that we can help them celebrate.
- *Inside cover double page* – could introduce the sector and how it links to the ARC card, the risks it is exposed to and the problems it therefore faces now and in the future. This section should also be used to make the case for adaptation and clarification of climate smart thinking and basic guiding principles.
- *Middle double pages* – could explain what is being done by the sector to adapt to climate change and work with future projections – an expansion of the Climate Smart Actions summarised on the front cover.
- *Back page spread* – could set out the challenges the community of interest faces (Climate Smart Challenges) and opportunities to make progress in these areas. It would set out the Climate Smart Research needed to address those challenges.
- *Back page* – usual stuff about the card and process.

Key elements in generating the card would be to focus down on priorities across Climate Smart Actions, Climate Smart Challenges and Climate Smart Research, as well as being clear on timescales for all three – short (next 5 years), medium (next 15 years) and long-term (looking 50 years ahead). The card would set these out for the community of interest on the relevant pages of the card

Communities of interest, for example, could include Ports and shipping; Tourism; Fisheries; Local government; Nature conservation; MPAs; Estuaries

*How we might evolve MCCIP to create and drive forward Climate Smart Working?*

There are several actions that we would need to take to provide the basis for development of the CSW card. These involve:

- further work on ‘risks’ to be able to link the ARC card outputs on impacts through to any community of interest;
- restructuring of MCCIP to take on this new work load (and evolution of the Business Plan); and
- Creation of a forward look timetable of products that maximises opportunities for linkages between ARC cards, ‘hot topics’ (such as Ecosystem Linkages), and the new CSW cards.

Risks work: At present the ARC cards provide a structured description of what is happening and may happen in the future structured around a standardised impacts framework. In order to encourage discussions with communities of interest we will need to assess the relevant risks from the ARC card – be it ports, fisheries, MPAs etc. This then provides a strong linkage between the ARC card and the CSW initiative leading to evidence-based Climate Smart Actions being taken by the sector and Climate Smart Challenges identified as a result for things yet to be taken forward.

Restructuring of MCCIP: we will need to be careful not to simply add on new areas to the MCCIP structure that might become unwieldy to manage. The suggestion is that with additional funding we create a new CSW leadership role, who should have strong skill set in socio-economic aspects more than marine conservation. Alongside this we would evolve the communications working group to become the CSW group. This would require an evaluation of membership and skill set needed in this grouping. We may also wish to bring in new members on the Steering Group now we are progressing into this area who may have particular interests in participating e.g. Crown Estate. The new communications officer would also support the CSW group as part of their remit.

Creation of forward looking timetable: the proposal is to continue to have ARC cards alternating with hot topics. Alongside this we would introduce CSW cards on an annual basis. From discussions, and building on the full report card and introduction to CSW in 2009/10, the timetable of products could look something like this through to 2012, though we may stagger the two work streams so that we in effect have a new major product coming out every six months:

<b>Year</b>	<b>Work Stream 1</b>	<b>Work Stream 2</b>
2010/2011	Hot topic: ???‘climate proofing’ marine spatial planning and MPA networks <sup>4</sup>	CSW for....?community of interest 1
2011/2012	ARC Card	CSW for....?community of interest 2

<sup>4</sup> We need to make a ‘smart’ choice on the next hot topic – this suggestion would support new legislation and CSW with communities of interest – if carefully co-ordinated both could support each other.

## Annex VI – Programme risks

<b>Risk</b>	<b>Likelihood</b>	<b>Importance</b>	<b>Response</b>
Disengagement of partners post-2010	Low	High	Need to understand individual partner needs, both in terms of what they want out of MCCIP post-2010 and what information they require to help secure funding through their organisation.
Shortfall in MCCIP funding over the lifetime of the project	Low	High	Ensure that pledged funds from partners are realised and potential funding opportunities are capitalized on from existing partners who have not pledged funds for forthcoming years of the programme. Consider sector sponsors for climate smart outputs of interest to certain organizations.
Overspend on new activities	Medium	Medium	Accurate financial reporting on product costs to date. Prioritise key deliverables over the lifetime of the project. Maximise opportunities for in-kind contributions on future key deliverables.
Too many initiatives calling on a few key people means we struggle to get input into our deliverables.	Medium	High	Consider how timing of key MCCIP deliverables fits around likely 'bottlenecks' for the research community. Explore synergies between what the deliverables need to avoid duplication of effort.
Loss of goodwill from 'in-kind' scientific contributors	Medium	High	Ensure that we can sell benefits of contributions in their own work plans (i.e. reaching policy and user communities).
Lack of engagement with climate smart working.	Low	High	Ensure sectors are engaged at an early stage in the process and that the outputs from the reports are highly applicable to a wide range of communities.

<b>Risk</b>	<b>Likelihood</b>	<b>Importance</b>	<b>Response</b>
Lack of connectivity with related key initiatives like the UK marine science co-ordination committee, European MSFD, UKMMAS	Medium	Medium	Ensure that we are well embedded into this process and look for ways that the USPs of our deliverables is of value to such organisations.
Are we delivering products of value outside of our own organisations (and indeed to other parts of our own organizations)	Medium	High	Ensure that the monitoring and evaluation aspects of the programme reach widely across the user community.
Loss of interest in existing products	Medium	High	Keep 'evolving' report cards to include latest issues (e.g. using UKCP09 in 2009-2010 report card) and try and build a strong regional focus.

## Annex VII – Evaluation framework

The table below shows how we propose to evaluate the impact of the main MCCIP products and our achievement of the overall aim.

	Evidence of use of MCCIP products by partners [Qualitative, case studies]	Evidence of use of MCCIP products by other main beneficiaries [Qualitative, case studies, feedback from events]	Evidence of wider stakeholder interest in MCCIP products [Quantitative, unique visitors to web site, downloads, report card distribution]	Evidence of use of products or adoption of similar approaches by indirect beneficiaries [Quantitative, media coverage; qualitative, examples of adoption of similar approaches]	Evidence of perceived quality of key MCCIP deliverables from wider user and scientific community [quantitative and qualitative online surveys post-launch]	Evidence of user satisfaction amongst main beneficiaries [Qualitative, mid-term review* to include achievement of overall aim]
Full report cards	✓	✓	✓	✓	✓	✓
Special topic reports	✓	✓	✓	✓	✓	✓
Climate “smart” working reports		✓	✓	✓	✓	✓
Engagement events	✓	✓			✓	✓
Advice and input to UK/international reporting				✓		✓
Man effort (secretariat)	2 days p.a.	2 days p.a.	2 days p.a.	2 days p.a.	4.5 days p.a. (inc. 2 each for CSW card + ARC or special topic)	0.5 days p.a

\* The mid-term review will be conducted independently of the secretariat, but the secretariat will provide input as requested from the review group.

Total man effort p.a. = 13 days from secretariat **plus** 3 days from an evaluator. Total cost estimated = £7,500 p.a.

## Annex VIII – Full 5-year budget for MCCIP phase II

FY	Work package												Overall		Overall value including in-kind contributions*
	1. Secretariat		2. SG meetings		3. ARC / Special Topic		4. Climate Smart Working		5. Comms and outreach		6. Evaluation				
	Effort (days)	Effort cost inc. T & S / Cons	Effort (days)	Effort cost inc. T & S / Cons	Effort (days)	Effort cost inc. T & S / Cons	Effort (days)	Effort cost inc. T & S / Cons	Effort (days)	Effort cost inc. T & S / Cons	Effort (days)	Effort cost inc. T & S / Cons	Effort (days)	Effort cost inc. T & S / Cons	
2010 / 11	45	21,867	34	16,712	93	55,248	85	50,913	50	24,073	13	7,601	320	176,414	£351,414
2011 / 12	45	22,457	34	17,164	93	56,559	85	52,061	50	24,729	13	7,780	320	180,751	£408,251
2012 / 13	45	23,065	34	17,630	93	57,910	85	53,244	50	25,405	13	7,964	320	185,219	£350,219
2013 / 14	45	23,692	34	18,109	93	59,301	85	54,463	50	26,102	13	8,153	320	189,820	£417,320
2014 / 15	45	24,291	34	18,568	93	60,632	85	55,629	50	26,768	13	8,335	320	194,222	£359,222
Overall	225	115,372	170	88,183	465	289,650	425	266,310	250	127,077	65	39,833	1600	926,426	£1,886,426

### Notes:

- All 'Total' figures include 'consumable' and 'T and S' costs and sub-contractor fees for the evaluation module.
- Inflationary increases per annum are set at a rate of 3%
- In WP3, it is assumed that full report cards and special topics will be produced in alternate years over the lifetime of the budget
- Costs for 2010 / 11 assume that additional funding to that already secured from phase I (currently 57.5k to the end of Nov 2010) will be sourced.  
Proposed activities in 2010/11 will run over the full FY rather than be truncated by an 'end' to phase I in November 2010 and 'start' to phase II in December 2010.

\* in-kind contributions breakdown as follows (per activity, per annum)

Activity	Est. value
Secretariat	£7,500
SG meetings	£30,000
ARC	£112,500
Special topic	£50,000
CSW	£75,000
Comms / outreach	£10,000
Evaluation	£2,500

£10,000 less in subsequent years, allowing for development of concept in yr.1

### Breakdown for estimates of 'in kind' contributions

**Secretariat:** in kind time contribution associated with chairing MCCIP beyond the direct requirement to attend the SG and WGs.

**Steering Group Meetings:** SG meeting attendance by scientists and policy advisors- in time and T&S.

**ARC / Special Topics:** in-kind contributions from lead authors, co-authors and peer-reviewers for topics covered (more for the ARC than ST);  
estimated contribution of the members and chairs of the ARCWG and EAP

**CSW:** development of concept; in-kind contributions from authors, co-authors and peer-reviewers for the CSW report;  
estimated contribution of the members and chairs of the CSW-WG; workshop attendance;

**Communications and Outreach:** assistance provided to the comms officer from SG members; SG members giving presentations for MCCIP at various meetings.