



MCCIP Climate Smart Working

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The principle 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.

Marine Climate Change Impacts Partnership (MCCIP)



Marine Environmental Change Network



UK reporting on marine climate change impacts

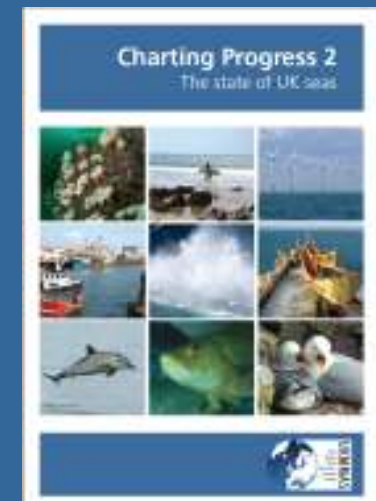
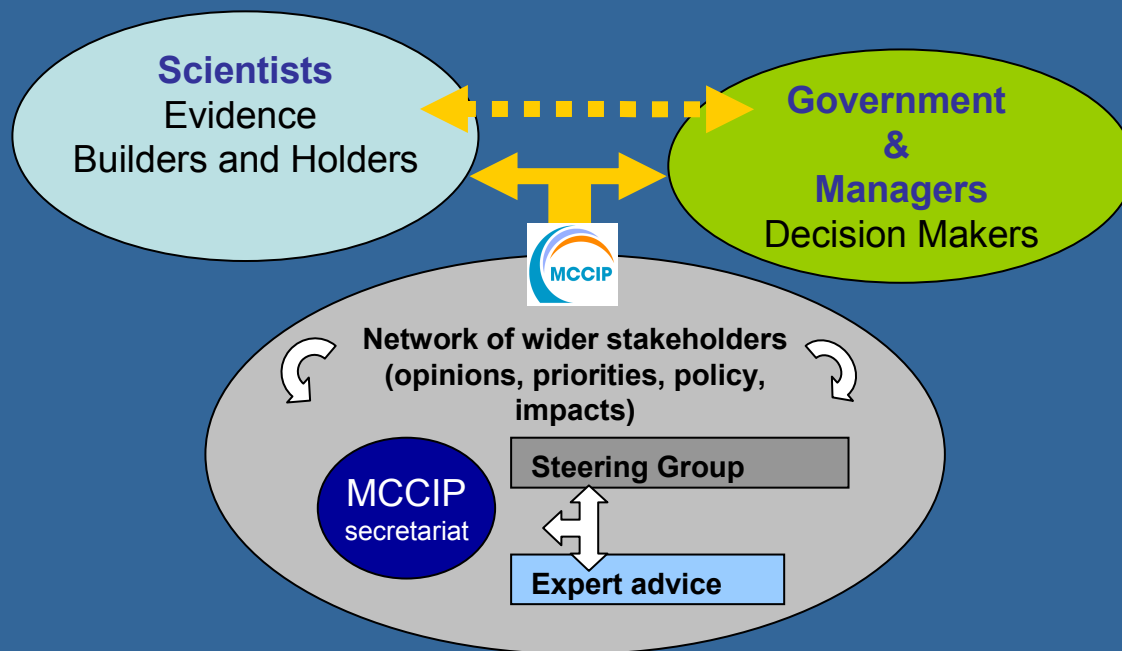
The UK government has set out a vision for...

'clean, safe, healthy, productive and biologically diverse oceans and seas'

...yet as recently as 2005, 'charting progress', was unable to assess potential impacts of climate change on the UK's marine environment.

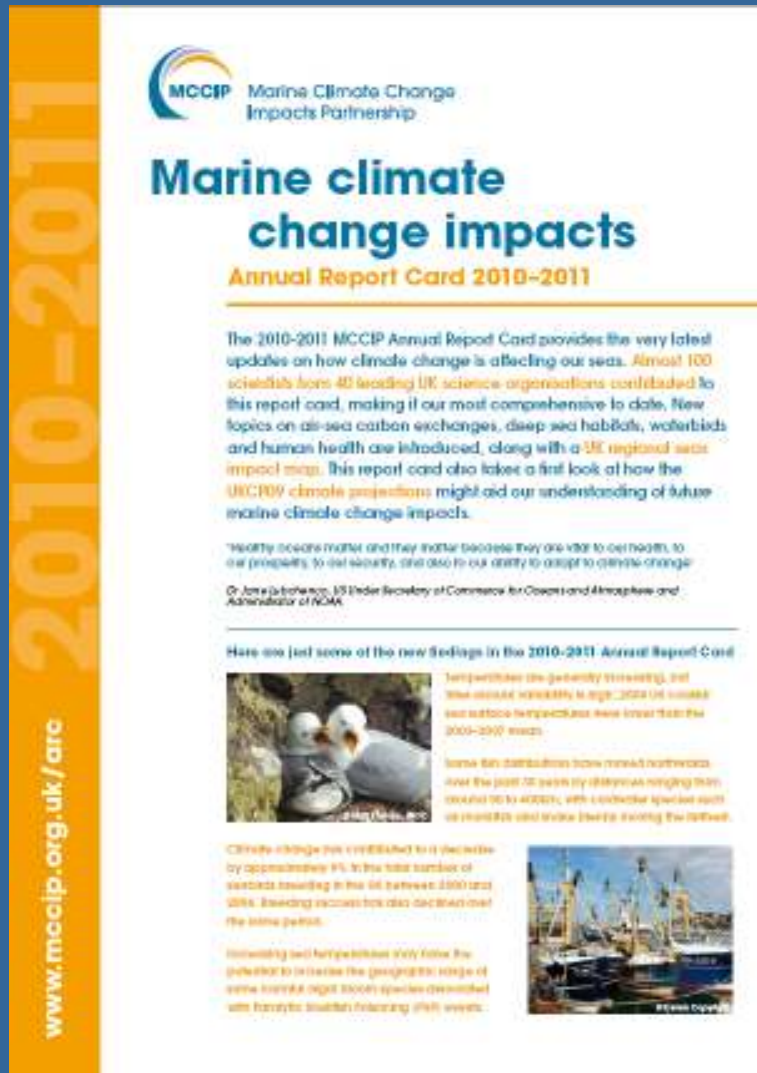


In response, the Marine Climate Change Impacts Partnership (MCCIP) was established.



MCCIP Annual Report Card 2010-11

Building a 'science community' view



- Latest report published **mid-July 2010**
- **100 scientists** from **40 institutes** contributed on **30 topics**
- 12 page-summary card with **headline messages**
- Communicates **uncertainty** on each topic
- Highlights changes to **ocean climate** (e.g. warming UK seas) and impacts on **biodiversity, cleanliness and safety** and **commercial interests**

From evidence to action in the marine 'sector'

Understanding risk and adapting to change



- The marine 'sector' is **very complex**, with a huge variety of issues and an incredibly **diverse** range of stakeholders
- Scientific understanding of climate change impacts **less developed** than atmospheric / terrestrial environment, especially future scenarios
- It is widely considered that marine adaptation work is in its **early stages** in the British Isles, but high up agenda for UK and DA's
- **UK climate change risk assessment** underway, will be laid before parliament in early 2012 (then every 5 years). The most 'critical' risks for the marine sector have been identified (drawing heavily on MCCIP report cards) and risk 'metrics' are being agreed

MCCIP Marine Climate Smart Working

Doing our bit for adaptation...



Marine Climate Smart Working

Understanding, communicating and celebrating marine adaptation work in the British Isles

Help shape the future!

Climate change is undoubtedly one of the biggest challenges of the modern age. Through MCCIP's Annual Report Cards on Marine Climate Change Impacts we know that many small changes are already occurring in our seas. These impacts are projected to increase, significantly in some cases, in the coming decades.

Climate change will not just affect the environment and the distribution and abundance of wildlife around our shores, but will also influence how we benefit from the seas, for example as rising sea levels inundate low lying areas on a more frequent basis in some regions, and fish stocks change, altering the species that can be caught.

It is therefore not surprising that adapting to these changes has become a top priority for Governments. But securing widespread adaptation is a priority not just for Governments, but for many other organisations as well, and the recent Climate Change Acts provide a stimulus for renewed action, as do the longer-term interests of business and other organisations. Together, our marine industries are big business in the British Isles, so working and acting together to secure the future is an overall priority.

Despite the demands of this new legislation and policy requiring us to review our adaptation responses, it is widely considered that marine adaptation work is in its early stages in the British Isles. However, some businesses and other

organisations are already responding to the challenges that climate change presents. To help share and document experiences, ideas and achievements, and to 'fast track' development of adaptation, MCCIP is launching *Marine Climate Smart Working*. This new approach will provide a high profile vehicle to explore the issues, challenges, opportunities and achievements in putting marine climate change adaptation in place. We want to draw together experiences to produce a new report card on *Marine Climate Smart Working* that will be as informative and helpful as possible to everyone who has an interest in our seas. This is whether you are in Government, whether you earn a living from it, or if your interests are less direct.

We want to explain for the British Isles what we can do and should do to maintain, sustain and enhance our ways of life despite the marine climate change impacts that are occurring and will occur in the future. An important part of *Marine Climate Smart Working* will be to learn together about the scale of actions needed to make adaptation a reality. Sometimes it is the idea of big changes that becomes the problem, when in reality only modest changes to everyday activities are needed. Understanding where adaptation actions are really needed will be an important outcome of this work so that we develop the necessary capacity to achieve this, and so we can focus future plans and initiatives in an appropriate way.

We need your help!

We have already undertaken many discussions and have generated some great ideas on what may help foster and champion marine adaptation in the British Isles. Please become involved by commenting on our ideas at www.mccip.org.uk/csw-consultation.

By responding to the above consultation, you will be eligible to become directly involved for your organisation or sector at the British Isles first Marine Climate Smart Working meeting in York on 28th September. Registration for the meeting will be directly through the consultation pages on the

MCCIP website. Should this workshop be over-subscribed, we will select attendees with an eye to representation of different interests across the British Isles.

This will be a major opportunity to help influence, shape and structure what we can do to champion marine adaptation work in the British Isles.

The consultation will open on 15th July 2010 and close on 20th August.

www.mccip.org.uk/csw-consultation

- MCCIP is at a stage where we are well established in communicating **impacts** evidence, with **strong buy-in** from scientific and stakeholder communities
- Now we want to build on this platform to help stakeholders **build adaptive capacity**, no easy task!
- MCCIP Marine Climate Smart Working **officially launched** at same time as 2010-2011 report card

What have we already been doing?

1. Initial **consultation** exercise / **cross-sectoral workshop**

2. **Piloting CSW** at a **'manageable' sector level**, inc. with ports and marinas:

- Analysis of marine climate change risks
- Dialogue with key sector representatives about their needs, including :



Some key threats to ports / marinas from climate change

Business planning



1. **Sea-level** rise, leading to:

- Flooding of ports and road / rail links (esp. with storm surge)

2. Changes to **wind speed and storminess**, leading to:

- Reduced loads, route changes, restrictions for some ships
- Damage to infrastructure / port closures - higher insurance premiums
- More frequent pilot stoppages; delays to dredging / surveys
- Wave height increase, with safety implications



3. Changes in **sediments, water flow, wave climate, tides** affecting:

- Access to ports / navigation routes; more dredging / landfill needed

4. **Benefits** from warmer seas and milder air temperatures increasing watersport participation, **but more pressures** on infrastructure



5. Increased **Fouling**, especially with new non-native species.

Examples of work already undertaken by ports / marinas

UK



Felixstowe port

UKCIP / Felixstowe Port climate risk assessment (2008), resulted in:

- climate risk included in flood management / business continuity plans
- further examination of current high wind thresholds
- watching brief on climate change to ensure awareness of latest information



Brighton Marina

Study of future wave / sea level scenarios on marina's sea defences

Identified future options to reduce threats to breakwaters over next 120 years

Adaptation reporting power

What can we take from the experience of larger ports?



Management: Risks manageable with minor process changes or planned response

Staged response: Short term resilience (next 5 years) then longer term strategies (mostly 20 years +)

Key impacts: SLR, storm surges most important. Also wind / fog / rainfall / summer temp

Communication: Increase adaptation awareness inc. with other stakeholders and suppliers

Other parties: Port users aware of climate adaptation / resilience when applying for licences

Examples of work already undertaken by ports / marinas United States



2009 U.S. EPA / ICF review concluded:

- Climate change is **very likely to affect** ports but most are not even thinking about, let alone actively preparing for climate change.



- Ports **do not have specific information** about different types of impacts they can expect or probabilities of these occurring.

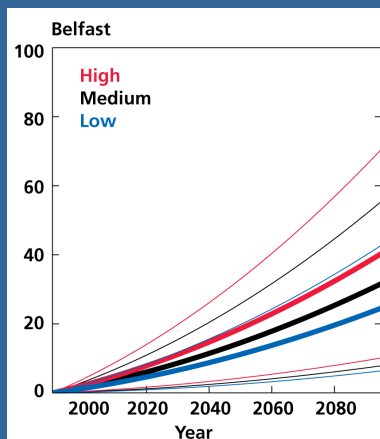
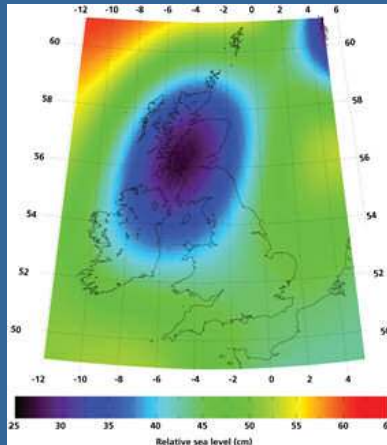
- Typical **planning processes are ill equipped** to respond to uncertainty, timescales and geographical scale of climate change.



- Some ports believe climate change does not pose an immediate threat but **others are taking action** (e.g. Miami; New York / New Jersey; Seattle).

Examples of work already undertaken by ports / marinas

United States



2009 U.S. EPA / ICF review recommendations include:

- incorporating **climate forecasts / adaptation options** in planning
- forming **alliances**
- studying **what others** are doing
- development of better **planning tools**
- undertaking a **national level study** on risks / adaptation options

...which is broadly what CSW is trying to do for the UK

The MCCIP CSW 'offer' Engagement

MCCIP will work with your organisation / sector to understand whether (or not) you need to adapt your business operations by exploring:

- How are you currently affected by the weather?
- What are the key threats to your operations?
- How is this likely to change in the future?
- What does this mean for your business?
- What needs to change?
- What responses are realistic and cost-effective?

The MCCIP CSW offer Other tools and advice

MCCIP CSW will also...

- Provide a **'one stop shop'** website for adaptation in your sector with:
 - Links to up to date climate projections
 - Free web-based support tools for decision making
 - Practical examples from other sectors
 - Opportunities for networking and sharing best practice
- Organise **(free) workshops** to help your sector develop the most effective approach to climate adaptation
- Produce a **report card summarising current progress** on marine climate change adaptation in your sector



Contact details and further information

Email: Office@mccip.org.uk

Website: www.mccip.org.uk

Mailing list: e-mail us to join up, stating your job role & organisation