

Collaboration for  
Environmental  
Evidence

# Collaboration for Environmental Evidence

## ANNUAL REPORT 2014

*Serving Global  
Environmental  
Management for All*

[www.environmentalevidence.org](http://www.environmentalevidence.org)

# COLLABORATION FOR ENVIRONMENTAL EVIDENCE

## ***Board of Trustees during 2014***

Andrew Pullin (Chair) - Conwy, UK

Simon Gardner, Bristol, UK

Teri Knight - Conwy, UK

Rob Marrs - Liverpool, UK

Jennie Milward, London, UK

Gerry Post, Norwalk, CT, USA

## **E-Mail *contact*:**

**[info@environmentalevidence.org](mailto:info@environmentalevidence.org)**

**[www.environmentalevidence.org](http://www.environmentalevidence.org)**

**[www.environmentalevidencejournal.org](http://www.environmentalevidencejournal.org)**

---

***Editor: T.M.Knight***

***Illustrations: A.S.Pullin***

---

# CONTENTS

Foreword	4
What is a Systematic Review	5
Involvement in the Collaboration	
- the CEE community	6
- CEE Centres	7
- CEE Methods Groups	13
- CEE Thematic Groups	14
Strategic Plan	15
Systematic Reviews completed in 2014	16
Environmental Evidence Journal	21
Training	22
Securing our future	23
Governance of CEE	24
Acknowledgements	25

# FOREWORD



2014 was a year in which many governmental and non-governmental organisations used CEE resources to ensure their decision making is evidence based. The recognition of CEE's role is evident in many policy documents and working papers that support the use of systematic reviews and specifically the CEE Guidelines and Standards. CEE, working with its partners, has demonstrated the role it can play and we now have to concentrate on developing our capacity to cope with an increasing demand whilst constantly improving our service.

This year saw a fifth CEE Centre join our network. Based at Carleton University, Canada, and led by Steven Cooke, The Centre for Evidence-Based Conservation and Environmental Management is our first in North America and we look forward to their contribution to CEE activities (see page 8 for more details). A significant re-organisation and expansion of the our centre in Australia was also completed (see page 9). Rob Richards has done a great job in forming the Centre for Evidence-Informed Policy and Practice that includes a network of Australian universities.

One key step forward in improving our service to decision makers was the launch of our new and completely redesigned website. The new site contains updated pages on our key resources such as our Guidance on how to conduct CEE reviews and the Library of registered and completed CEE Systematic Reviews and Maps. More features will be available on the site as CEE develops its Website and Communications Team (see page 20).

Progress with our open-access journal 'Environmental Evidence' is on target with 24 articles published during 2014. The journal is now providing a steady income stream for CEE to support its editorial office and we are in a position to apply for ISI impact factor tracking beginning in 2015.

Two key research programmes have committed to undertaking CEE systematic reviews and maps and their first protocols have appeared in the journal this year. Both the EU-funded GRACE programme on the impact of GM crops and the Centre for International Forestry Research (CIFOR) Programme are examples of how research programmes and organisations can contribute to CEE processes to further their own aims for evidence-informed decision making.

CEE had a presence at many meetings in 2014. For example, CEE representatives attended the Campbell Colloquium meeting in Belfast. This signals the continuing and developing relationship between the two collaborations, the common interest in interdisciplinary issues and the sharing of skills across the social/natural sciences. The Ecohealth Conference in Montreal was also attended and represents a step forward in the development of the CEE Ecosystems, Health and Wellbeing Thematic Group (see page 19).

CEE is a rapidly growing, globally networked organisation and we recognised that 2014 was the time to plan more organisational structure with dedicated teams to maintain and develop our range of activities. The strategic planning conducted in 2014 provides a sound basis for further growth during the next 10 years.

Andrew Pullin, Chair of Trustees, CEE

# What is a Systematic Review?

**A systematic review has a number of features which distinguish it from a traditional literature review:**

- ✓ It compiles existing findings from the peer-reviewed scientific literature and grey literature (reports, theses...), in order to produce an objective synthesis of the accessible current knowledge on a specific issue.
- ✓ It allows identification of knowledge gaps or methodological problems and thus informs future decisions in terms of research priorities, policy or management practices.
- ✓ It has a clearly pre-defined methodology for the review process (set out in a 'protocol') which conforms to published standards (see CEE guidelines for systematic review at [www.environmentalevidence.org/Authors.htm](http://www.environmentalevidence.org/Authors.htm)).
- ✓ It includes structured consultation and discussion with stakeholders and experts before and during the conduct of the review.
- ✓ Each step in the review process is transparent, replicable and therefore, updatable.
- ✓ Each decision in the review process i.e. which articles to include, must be explained and justified.
- ✓ The conclusions of the review are informed and moderated by a systematic critical appraisal of the reliability of the methods used in each study included in the review.

**Are systematic reviews in environmental management different from other systematic reviews?**

Systematic reviews inform decision-making in other sectors such as Health, Social Care and Education. Whether using research from clinical trials, social science or field studies, systematic reviews face challenges particular to the type of primary research methods being used, or to the nature of the subject, intervention, outcomes or context. Systematic reviews in environmental management face specific challenges as the number of factors affecting an observation or measurement can be large and important, especially in field studies. Randomised Controlled Trials, considered a 'gold-standard' in healthcare research into effectiveness of interventions, are not often conducted in environmental research thus systematic reviews in environmental management face challenges related to the reliability of data and the variability of results. The critical appraisal stage of systematic review is therefore very important. Synthesis of data from studies with very different study designs, measurement tools and outcomes, can be challenging. CEE Methods Groups aim to develop CEE systematic review methodology in order to meet some of these challenges.

If you are interested in contributing to methodology development then contact us via [info@environmentalevidence.org](mailto:info@environmentalevidence.org).

**To read more about systematic review in environmental management visit:**  
**[www.environmentalevidence.org](http://www.environmentalevidence.org) & [www.cebc.ac.uk](http://www.cebc.ac.uk)**



# The CEE Community

The CEE is a global collaboration that works through its **CEE Centres**, which act as hubs of CEE activity within their region, **CEE Methods Groups**, which lead development of CEE systematic review methodology and **CEE Thematic Groups** which encourage, facilitate and coordinate systematic review activity across specific topic areas. Governance of CEE is the responsibility of the **Board of Trustees** acting under UK charity law.

First and foremost CEE is an open collaboration and its activity and impact is dependent upon a motivated community of contributors who support the key mission of developing a reliable evidence-base to enable more effective environmental management. **Review Teams**, who choose to register and conduct systematic reviews according to CEE guidelines and publish their protocols and reviews in the CEE journal, form the active core of the CEE community and engage with CEE from organisations and groups around the world. Review Teams can be commissioned or be self-forming and undertake a specific systematic review or mapping task, usually with input from decision makers and other stakeholders.

Alongside these formal structures is the **wider CEE community** who engage in active discussion and exchange of information and ideas. Previously called 'Joiners', this community of contributors now interacts as an active CEE discussion group using the LinkedIn platform. To get involved, please either email [cee.join@environmentalevidence.org](mailto:cee.join@environmentalevidence.org) or visit the CEE website and follow instructions for joining.

**You can propose a Methods or Thematic Group or ask to join an existing one by mailing us at [info@environmentalevidence.org](mailto:info@environmentalevidence.org)**



# CEE Centres



CEE Centres act as hubs of CEE Activity within their region. During 2014, a new Centre based in Carlton University, Ottawa (Centre for Evidence-based Conservation and Environmental Management) joined our four existing Centres in the UK (Centre for Evidence-based Conservation) , Australia (Centre for Evidence Informed Policy and Practice), South Africa (at the Centre for Anthropological Research, University of Johannesburg) and Sweden (Mistra Council for Evidence-Based Environmental Management).

Whilst the specific functions of CEE Centres vary somewhat from Centre to Centre they all engage in core CEE activity:

- ❖ Developing expertise in evidence synthesis in environmental management and liaising with other CEE Centres and Methods Groups to further develop CEE Systematic Review methodology
- ❖ Working with practitioners and policy formers to identify need for systematic review to address questions of importance to decision-makers, particularly those of relevance within their region
- ❖ Encouraging funding of, and supporting, systematic review and evidence mapping activity in their region
- ❖ Acting as a central contact point for systematic review and evidence mapping activity in their region
- ❖ Advising review teams on development of protocols and conduct of CEE Systematic Reviews and maps
- ❖ Liaising and integrating activities with other CEE Centres to develop the CEE library and maintain a common database of CEE Systematic Reviews in progress

Centres may also opt to become endorsed as a CEE Training Centre, delivering training in CEE Systematic Review methodology across their region. For further details please see the Training information Page.



CENTRE FOR EVIDENCE-BASED  
CONSERVATION AND  
ENVIRONMENTAL MANAGEMENT

## Canada: Centre for Evidence-Based Conservation and Environmental Management at Carleton University

Our centre aims to serve as a nexus for the synthesis of knowledge in support of environmental and conservation interests that is unique in North America and will have global implications for policy, conservation and environmental initiatives. The centre interacts and collaborates with other such centres around the world (i.e. Centre for Evidence Based Conservation, University of Bangor, UK) for the development and training of highly qualified personnel. Accordingly, our research and training activities will lead to formal standardised interdisciplinary techniques (e.g., helping with development of global standards related evidence synthesis) for using scientific evidence to generate original data syntheses (in the form of systematic reviews) to inform policy and decision makers in all levels of government as well as industry and NGO partners.

Our collaborators include an impressive group of professors from Carleton University, University of Ottawa and adjunct professors with primary appointments at Environment Canada (EC), Parks Canada and Fisheries and Oceans Canada (DFO) as well as thought-leaders in environmental non-governmental organisations (ENGOS; e.g., Canadian Wildlife Federation).

**For further information please contact Dr. Steven J. Cooke at Carleton University**

Twitter: @SJC\_fishy

[Steven\\_cooke@carleton.ca](mailto:Steven_cooke@carleton.ca)

[www.FECPL.ca](http://www.FECPL.ca)

## Australia: Centre for Evidence-Informed Policy and Practice

During 2014, the Collaboration for Environmental Evidence took an important step forward in securing its presence and capacity in Australia with the launch of the Centre for Evidence Informed Policy and Practice (CEIPP).

CEIPP is a collaboration between several leading evidence based decision making researchers and practitioners in Australia. These include researchers from the University of Melbourne, Monash University (Melbourne), the University of Queensland, the University of Canberra and staff from Evidentiary.

CEIPP will represent the CEE presence in Australia and will undertake a range of activities including research, development, application, promotion and training in evidence based decision making within the environmental, natural resource management and sustainability sectors.





The specific functions of the CEIPP which will be undertaken as an Australian Collaboration for Environmental Evidence Centre are to:

1. Develop expertise in CEE Systematic Review methodology
2. Encourage CEE Systematic Review activity in Australia – advice on forming review teams, formulating questions and preparing review protocols
3. Work with practitioners and policy formers to identify need for CEE Systematic Review
4. Work with potential review teams to identify funding and other resources for CEE Systematic Reviews
5. Run training courses in CEE Systematic Review methodology
6. Provide advice and be the initial contact for review teams in this geographical area
7. Liaise with other CEE Centres to develop CEE Systematic Review methodology
8. Liaise and integrate activities with other CEE Centres to develop the CEE library and maintain a common database of CEE Systematic Reviews in progress



The lead representatives of the collaborating parties are (clockwise from top): Richard Fuller (The University of Queensland), Susan Nichols (University of Canberra), Angus Webb (University of Melbourne), Rob Richards (Evidentiary Pty Ltd), Carly Cook (Monash University)

**Contact: Rob Richards, Director, Evidentiary [robr@evidentiary.co](mailto:robr@evidentiary.co) or [www.ceipp.org](http://www.ceipp.org)**

# South Africa: Centre for Anthropological Research, University of Johannesburg.

CEE's South African Centre (CEE Johannesburg) is hosted by the Centre for Anthropological Research, University of Johannesburg.

Our first in-house CEE Systematic Review was published in the Environmental Evidence journal in October 2014 (<http://www.environmentalevidencejournal.org/content/3/1/21>). We launched our website in early 2014 ([www.ceejoburg.com](http://www.ceejoburg.com)) which continues to be developed and updated as necessary.

Although no CEE Systematic Review training courses have started being offered by CEE Joburg, members of the Centre attended training sessions on CEE Systematic Review and stakeholder engagement in CEE Systematic Reviews presented by Dr Neal Haddaway.

We continue to build relationships with key decision-makers across the region to raise demand for evidence and promote the commissioning, production and use of CEE Systematic Reviews, in particular drawing on the work of our wide BCURE programme. At both a training session by Neal on Rapid Evidence Assessments and at the Africa Evidence Network's first colloquium hosted by the BCURE team, relationships with The Department of Environmental Affairs were strengthened.

**For more information contact: Natalie Rebelo da Silva**

**Email: [natalierds@uj.ac.za](mailto:natalierds@uj.ac.za)**

**Twitter: @CEEJoburg**

**[http://www.environmentalevidence.org/Centres\\_Joburg.html](http://www.environmentalevidence.org/Centres_Joburg.html)**



# UK: Centre for Evidence-Based Conservation, Bangor University

CEBC promotes evidence-based practice through the production and dissemination of CEE Systematic Reviews on both the effectiveness of management and policy interventions and on the impact of human activities on the natural environment. With support from a wide range of organisations in the environmental and academic sectors, CEBC acts as a source of advice on evidence-based practice both in the UK and internationally. CEBC acts as the central coordinating centre for the Collaboration for Environmental Evidence, providing the Environmental Evidence Journal editorial office and CEE website hosting functions.

During 2014 CEBC continued to act as the Editorial Office and played a co-ordinating role in the development of the new CEE website and continues to maintain and manage the site.

## **Key projects that started during 2014 include:**

*Emerging public health risks by from alien species under climate change.* In this project funded by the Austrian Government, CEBC will assist Austrian colleagues conduct a CEE Systematic Map and subsequent CEE Systematic Review of health risks from alien species and an evaluation of mitigation measures.

*The effectiveness of management measures in protecting the marine biodiversity in the Mediterranean Sea.* CEBC is collaborating with the Italian Institute for Coastal Marine Environment to conduct a CEE Systematic Review on this topic.

**The Centre for Evidence-based Conservation is based at Bangor University, UK and is led by Professor Andrew Pullin: [a.s.pullin@bangor.ac.uk](mailto:a.s.pullin@bangor.ac.uk); [www.cebc.bangor.ac.uk](http://www.cebc.bangor.ac.uk)**





## Sweden: Mistra EviEM

The Mistra Council for Evidence-Based Environmental Management (EviEM) was established in January 2012 with the aim to improve the basis for environmental decision-making in Sweden by means of systematic reviews of a range of environmental issues. EviEM has a Secretariat, based at the Royal Swedish Academy of Sciences in Stockholm, and is governed by an Executive Committee made up of International and Swedish researchers, experts and decision-makers in the environmental field.

EviEM is politically and financially independent, with funding from the Swedish Foundation for Strategic Environmental Research for the period 2012–2017.

Suggestions for topics to review comes from ministries, governmental agencies or NGO's. Teams of international scientists conduct the systematic reviews together with a project Manager from EviEM.



The Mistra EviEM Executive Committee.  
From left: Jerry Melillo, Eva Thörnelöf, Kjell Asplund, Thomas Rosswall (chair), Kathrine Richardson, Jacob Fant, Henrik Smith.  
Not pictured: Andrew Pullin



The CEE team in Sweden. From left: Claes Bernes, Matilda Miljand, Sif Johansson, Anna Metzger, Neal Haddaway, and Magnus Land



EviEM Presented a training course on important steps in a CEE Systematic Review for EviEM and the review team chairs. from left Matilda Miljand, Helene Bracht Jörgensen, Claes Bernes, Jon Moen, Per Larsson and Katarina Hedlund.



# Systematic Mapping Methods Group

Systematic mapping is a robust, repeatable and transparent scientific method used to identify, categorise and map available literature relevant to a topic. Like systematic reviews, CEE Systematic Maps use established searching protocols and have rigorous inclusion criteria, but unlike systematic reviews, they do not attempt a synthesis of evidence. Systematic maps can be integrated into the systematic review process or be produced as discrete pieces of work. The methodology was developed for use in social science and education but offers a useful tool for environmental management, where a topic is too broad for traditional systematic review, or where the evidence is too disparate or unsuitable for quantitative analysis. The CEE Systematic Mapping group aims to further develop the methodology for environment management systematic maps and ensure that CEE Systematic Mapping offers the greatest value possible to the evidence base.

Systematic mapping as a methodology has been growing in popularity; 4 protocols and 1 completed systematic map were published in the journal of Environmental Evidence during 2014. However, methodologies between systematic maps vary. Our main priority for 2014 was to produce CEE Systematic Mapping guidance to enable a more standardised approach. The guidance will help review teams decide when to use a CEE Systematic Map, and whether it should be used instead of, or in conjunction with, a CEE Systematic Review. The guidance will outline definitions and methods relevant to systematic mapping methodologies.

**For more information on CEE Systematic Mapping, or if you would like to join the Methods Group, please contact Nicola Randall: [nrandall@harper-adams.ac.uk](mailto:nrandall@harper-adams.ac.uk) and visit [www.environmentalevidence.org/MGroups\\_maps.html](http://www.environmentalevidence.org/MGroups_maps.html).**

## Statistical Methods Group

The methods used to conduct systematic reviews are constantly evolving. Systematic reviews in environmental management and conservation are faced with numerous challenges due to the large variety of ecological conditions and variables and the dispersed nature of the research data. The statistical methods group aims to bring together those with an expertise and interest in quantitative data synthesis, to meet these challenges.

Group members have started to think about Big Data in the context of CEE Systematic Reviews, both in terms of use of big data as part of the review process and what the evidence synthesis paradigm can export to big data problems. We held an informal group meeting to consider these issues at the end of the Research Synthesis Methods meeting in York, UK (July 2014).

The Group, with Andrew Pullin at the Centre for Evidence based Conservation, Bangor University, were successful in an application to the Natural Environment Research Council UK (NERC), for funding to conduct a 5-day Additional Training Short Course (ATSC) on CEE Systematic Reviews and meta-analysis. The course will be run at Royal Holloway, University of London, in January 2015.

**The Statistical Methods Group is led by Professor Elena Kulinskaya from the University of East Anglia (UK). For further information contact: [E.Kulinskaya@uea.ac.uk](mailto:E.Kulinskaya@uea.ac.uk)**

# Ecosystem Services, Health and Well-being Thematic Group

As policy interest in the human well-being benefits of ecosystem services increases, a growing number of systematic reviews are being commissioned which address the human health and welfare impacts of environmental management. These reviews cut across both disciplinary (environment and public health) and methodological (drawing from qualitative and quantitative research) boundaries. There is a need to ensure that resources for evidence synthesis are directed at the most important questions and for coordination of this 'cross-over' area of review activity. The 'Ecosystem Services and Human Health and Well-being' Review Group (ESHWeB) aims to coordinate this activity and to promote interdisciplinary collaboration in seeking funding for CEE systematic reviews and in developing and using 'fit for purpose' methodology.

Interest in the linkages between human health and well-being, and ecosystem services continues to grow. In 2014, a further four new systematic review protocols that relate to the ESHWeB remit were published in *Environmental Evidence* in addition to three completed systematic reviews. Health related outcomes under consideration are as diverse as poverty, food production and security and farmers' health. We have continued to promote the work of CEE and ESHWeB at a range of international health and environmental meetings, workshops and conferences. We have continued to link between more traditional public health approaches and the ecosystem services perspective, and also to promote systematic review and evidence synthesis to disciplines that may not have previously worked within these methods.

**Organisations, groups or individuals planning to commission or undertake systematic reviews which fit this brief are invited to get in touch with us via email to:**

**Dr Ruth Garside, Review Group lead: [R.Garside@ex.ac.uk](mailto:R.Garside@ex.ac.uk) ([www.ecehh.org](http://www.ecehh.org))**

**Dr Teri Knight: [cee.administration@environmentalevidence.org](mailto:cee.administration@environmentalevidence.org)**



# CEE Strategic Plan 2013-2023

In November 2013 CEE Trustees, Centre and group leaders came together to develop the strategic plan for the next phase of CEE's growth. Implementation of the plan began in January 2014.



## The purpose of the strategic plan is to:

- Define the goals for CEE in the next 10 years
- Articulate and communicate the activities that CEE will undertake in order to achieve its organisational goals
- Provide a framework from which CEE can measure and report on its progress
- Provide clarity of the direction of CEE in the short to medium term

## The plan is structured around three strategic foci:

- Increase the scope and application of evidence-based decision-making in environmental management.
- Build and maintain CEE organisational capacity.
- Demonstrate the value of CEE Systematic Review as a gold standard methodology for evidence synthesis through monitoring and evaluation of the review impact and effectiveness.

## Implementation of the strategic plan will be lead by teams:

**The Board of Trustees** (Governance)

**Guidelines Editorial Team** (producing the next version of the CEE Guidelines for systematic review)

**Journal Editorial Board** (management of the CEE journal 'Environmental Evidence')

**Website and Communications Team** (manage the CEE website, communications and publicity)

**Training Team** (development and coordination of training)

**Meetings Team** (organisation of CEE symposia, conferences and CEE presence at international meetings)

**Monitoring and Evaluation Team** (assessing the impact of CEE activity)

The CEE Strategic Plan is available on the CEE website at:

<http://www.environmentalevidence.org/wp-content/uploads/2015/01/CEE-Strategic-Plan-FINAL-060614.pdf>



# CEE SYSTEMATIC REVIEWS AND MAPS completed in 2014

## **Effects of Decentralized Forest Management (DFM) on Deforestation and Poverty in Low and Middle Income Countries**

***Cyrus Samii, Matthew Lisiecki, Parashar Kulkarni, Laura Paler, Larry Chavis***

CEE review 13-015a (<http://www.environmentalevidence.org/completed-reviews/effects-of-decentralized-forest-management-dfm-on-deforestation-and-poverty-in-low-and-middle-income-countries>)

This systematic review looked at studies of the impact of decentralised forest management (DFM) on deforestation and poverty in developing countries. The review was motivated by debates over whether the pursuits of conservation and poverty reduction in developing countries tend to conflict or whether they might be complementary. Eleven quantitative and nine associated qualitative evaluation studies were included. The methodological rigor of these studies varied widely, meaning that the evidence base for the impact of DFM policies is limited in both quantity and quality. Given the evidence available the authors found little reason for optimism about the potential for current DFM approaches to achieve both conservation and poverty reduction benefits jointly. They call for the production of much better impact studies, employing randomised field experiments when possible, to assess whether the apparent incompatibility of conservation and poverty reduction might be overcome through programming innovations. This systematic review is co-registered with the Campbell Collaboration.





## Effects of Payment for Environmental Services (PES) on Deforestation and Poverty in Low and Middle Income Countries

Cyrus Samii, Matthew Lisiecki, Parashar Kulkarni, Laura Paler, Larry Chavis

CEE review 13-015b (<http://www.environmentalevidence.org/completed-reviews/effects-of-payment-for-environmental-services-pes-on-deforestation-and-poverty-in-low-and-middle-income-countries>)

This systematic review looked at studies on the impact of payments for environmental services (PES) that set natural forest conservation as the goal of deforestation and poverty in developing countries. The review was motivated by debates over whether the pursuits of conservation and poverty reduction in developing countries tend to conflict or whether they might be complementary. Eleven quantitative and nine associated qualitative evaluation studies assessing the effects of PES were included. The methodological rigor of these studies varied widely, meaning that the evidence base for the impact of PES policies is limited in both quantity and quality. Given the evidence available, the authors found little reason for optimism about the potential for current PES approaches to achieve both conservation and poverty reduction benefits jointly. They call for the production of high quality impact evaluations, using randomisation when possible, to assess whether the apparent incompatibility of conservation and poverty reduction might be overcome through programming innovations. This Systematic Review is co-registered with the Campbell Collaboration

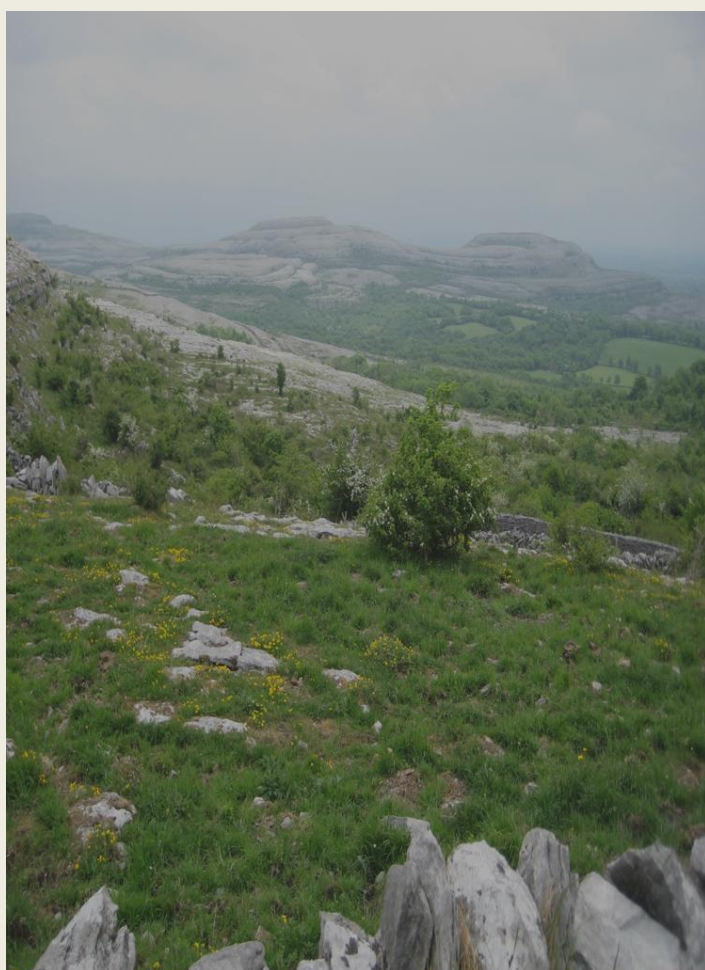


## Evidence on the environmental impacts of farm land abandonment in high altitude/ mountain regions

Neal R. Haddaway, David Styles, Andrew S. Pullin

CEE review 13-013 (<http://www.environmentalevidence.org/completed-reviews/evidence-on-the-environmental-impacts-of-farm-land-abandonment-in-high-altitudemountain-regions-3> )

This is the first systematic global mapping of evidence to inform stakeholders and policy makers of the potential impacts of farm land abandonment in mountain areas. Evidence was collated from a range of academic literature databases and grey literature sources. Relevant studies (165 across 189 articles) were mapped and a number of interesting themes in the evidence base were identified: the majority of research was undertaken in arable and mixed farming systems; large evidence bases were found in China, Spain and Italy; studies were mostly observational with spatial/successional comparators; biodiversity, soil and vegetation were most frequently studied. Several knowledge gaps were identified: including outcomes (socioeconomics and environmental hazards), regions (key mountain ranges including the Himalaya), and specific outcome-region groups (e.g. vegetation and soil measures in the UK).



Several methodological deficiencies were identified across studies: a lack random sample selection; lack of methodological detail (including details of spatial scale, replication, and sample selection).

The map identifies a number of potential areas for fruitful future synthesis, for example research on biodiversity, soil and vegetation in the Loess Hilly Plateau in China, and soil research in Spain. Such synthesis would be rapid given the effort expended here in identifying and screening relevant articles. It also points to several areas that were under-represented in the literature, such as natural hazards (avalanche, fire and flood risk), that would potentially benefit from increased primary research.



## Which components or attributes of biodiversity influence which dimensions of poverty?

Dilys Roe, Max Fancourt, Chris Sandbrook, Mxolisi Sibanda, Alessandra Giuliani, Andrew Gordon-Maclean

CEE review 13-008 (<http://www.environmentalevidence.org/completed-reviews/which-components-or-attributes-of-biodiversity-influence-which-dimensions-of-poverty> )

There is an explicit assumption in international policy statements that biodiversity can help in efforts to tackle global poverty. This systematic map was stimulated by an interest in better understanding the evidence behind this assumption by disaggregating the terms and asking - as our review question - which components or attributes of biodiversity influence which dimensions of poverty? A total of 387 studies were included in the final systematic map. Of these 248 met additional criteria that studies should include a measure of the contribution to poverty alleviation. The studies were widely distributed geographically. Ecological distribution was less well spread, however, with the largest number of studies focussed on forests. Studies addressed 12 different dimensions of poverty/well-being – although the most commonly studied was income. Studies addressing all levels of biodiversity from genes to ecosystems were also found. The largest number of studies was focussed on groups of resources – particularly non-timber forest products. In most cases, abundance was the attribute that made biodiversity important for poverty alleviation/well-being, while diversity was the least frequently noted attribute.

The map highlights a number of apparent gaps in the evidence base. Very few studies documented any causal link between use of biodiversity and an impact on poverty. In the majority of the studies biodiversity was framed in terms of its value as a *resource* – in the form of specific goods that can be used to generate tangible benefits such as cash, food fuel. Very few studies explored the underpinning role of biodiversity in ecosystem service delivery for poverty alleviation, and fewer investigated the benefits of diversity as a form of insurance or adaptive capacity. This is where research should be prioritised.





### **What are the impacts of urban agriculture programs on food security in low and middle-income countries?**

Marcel Korth, Ruth Stewart, Laurenz Langer, Nolzwe Madinga, Natalie Rebelo Da Silva, Hazel Zaranyika, Carina van Rooyen, Thea de Wet

CEE review 13-006 (<http://www.environmentalevidence.org/completed-reviews/what-are-the-impacts-of-urban-agriculture-programs-on-food-security-in-low-and-middle-income-countries-2> )

The aim of this review was to collect and analyse available evidence on the impact of urban agriculture in low and middle-income countries. Searching identified 198 articles but none of these met the review's inclusion criteria. The largest proportion of studies identified were excluded due to study design; they were not impact evaluations (did not have a comparison group and at least data points). Two observations were made: Firstly, searches yielded a range of studies that consider *associations* between UA and certain aspects of food security. Secondly, there is a large pool of cross-sectional studies on UA's potential to contribute to increased food security, particularly from west and east Africa.

The research currently available does not allow for any conclusions to be made on whether or not urban agriculture initiatives contribute to food security. The fact that impact evaluations are absent from the current evidence-base calls for increased efforts to measure the impact of urban agriculture on food security in low and middle-income countries through rigorous impact evaluations. With regard to systematic review methodology, this review alludes to the value of compiling a systematic map prior to engaging in a full systematic review.



# ENVIRONMENTAL EVIDENCE JOURNAL

[www.environmentalevidencejournal.org](http://www.environmentalevidencejournal.org)



CEE's open-access journal '*Environmental Evidence*' facilitates rapid publication of systematic reviews and evidence syntheses on the effectiveness of environmental management interventions and on the impact of human activities on the environment. In partnership with BioMed Central we have put in place a business plan for the journal to establish its reputation as a leading source of evidence to inform environmental management. The founding Editorial Board provides a good indication of the global support from leading scientists.

## Editor-in-Chief

Professor Andrew Pullin, Bangor University, United Kingdom

## Senior Editors

Professor Paul Ferraro, Georgia State University, United States of America

Professor David B Lindenmayer, Australian National University, Australia

Professor Rob H Marrs, University of Liverpool, United Kingdom

Professor Hugh Possingham, University of Queensland, Australia

## Editorial Board

Dr Péter Batáry, Georg-August University, Germany

Dr Ana Benítez-López, Research Institute of Game Resources, Spain

Dr Monique Borgerhoff-Mulder, University College Davis, United States of America

Professor Barry Brook, University of Adelaide, Australia

Dr András Báldi, Hungarian Academy of Sciences, Hungary

Dr Dominick DellaSala, Natl Center for Conservation Science and Policy, USA

Dr Erik Doerr, Commonwealth Scientific and Industrial Research Organisation, Australia

Dr Adam Felton, Swedish University of Agricultural Sciences, Sweden

Dr Geoff Frampton, Southampton University, United Kingdom

Dr Ruth Garside, Exeter University, United Kingdom

Dr Toby A. Gardner, University of Cambridge, United Kingdom

Dr Markus Gusset, University of Oxford, United Kingdom

Professor Jim A. Harris, Cranfield University, United Kingdom

Professor Elena Kulinskaya, University of East Anglia, United Kingdom

Dr Barbara Livoreil, Foundation pour la Recherche sur la Biodiversité, France

Dr Gabor Lovei, University of Aarhus, Denmark

Dr Alejandro Martinez-Abrain, University of A Coruña, Spain

Professor Adrian C. Newton, University of Bournemouth, United Kingdom

Dr Gillian Petrokofsky, University of Oxford, United Kingdom

Dr Cagan Sekercioglu, University of Utah, United States of America

Dr Nicola Randall, Harper-Adams Institute, UK

Since the journal does not accept primary research papers we do not expect large numbers of submissions. We aim for quality and rigour rather than volume. In 2014 the journal published 24 articles. Our **targets for 2015 are:**

Transfer to a new editorial platform (Editorial Manager) providing increased functionality and better service for authors and reviewers; Increase submissions so that we are able to publish a minimum of 30 articles ; Submit for tracking for impact factor by Thomson Reuters; Increase visibility through press releases for relevant articles of interest- these will also be highlighted via social media channels (Twitter and BMC's facebook page) and the BioMed Central blog.

# Training

There are two types of CEE Systematic Review training courses. One-day 'Introduction to CEE Systematic Review' courses provide an overview of the review process from identifying suitable questions with stakeholders, through searching, inclusion, critical appraisal and data extraction to synthesis and dissemination. These courses are not intended to equip participants with the skills and knowledge required to undertake a CEE Systematic Review, rather, to provide an understanding of what a CEE Systematic Review has to offer, how it differs from other forms of literature review, the demands of the process and the uses of CEE Systematic Review in policy and practice. The 'Introduction' courses are targeted at both commissioners and users of CEE Systematic Reviews as well as potential authors.

For more in-depth coverage of the CEE Systematic Review process, aimed at those who wish to acquire the skills and knowledge needed to undertake a review, two or more days 'methodology' courses are recommended. These are generally 'bespoke' courses designed and delivered for a specific organisation or group.

Training in CEE Systematic Review is delivered by the CEE centres or trainers affiliated with them. All centres, courses and trainers are required to undergo a formal endorsement process operated by the CEE Board. During 2014 training courses were delivered by the UK CEE Centre, the Centre for Evidence-Based Conservation, in Sweden and Canada. Demand for training in CEE Systematic Review methodology continues to grow and with the addition of new CEE Centres it is hoped that 2015 will see global training opportunities increase



If you are interested either in receiving training in CEE Systematic Review methodology or commissioning training for your organisation, then please either contact [cee.administration@environmentalevidence.org](mailto:cee.administration@environmentalevidence.org) or contact the relevant CEE Centre directly.

[www.environmentalevidence.org/Training.html](http://www.environmentalevidence.org/Training.html)

# Securing our Future

The Collaboration for Environmental Evidence was established in 2007 and is registered for charitable purposes within the UK. In line with legal requirements, the endeavors of CEE satisfy three 'charitable purposes':

- the advancement and improvement of environmental protection
- the advancement of science
- the advancement of education

and the two 'public benefit principles': the general public will benefit from more effective environment management and conservation action because those working in the environmental sector will be able to more easily access information to help them improve the effectiveness of their work. The CEE places no restrictions on who can benefit.

The CEE Constitution sets out how the CEE will operate within Charity Law. The CEE operates as a 'not-for-profit' organisation and has a Board of Trustees responsible for proper governance of the CEE, probity, adherence to regulations for 'not for profit' organisations and charity law. The CEE is open to all who wish to contribute to the conduct, or use, of CEE Systematic Reviews and who are committed to the principle of evidence-based practice. Maintenance of the CEE website, coordination of collaborative activity and general administration are functions currently provided by the Centre for Evidence-based Conservation, based at Bangor University, UK, which acts as the UK CEE Centre. As CEE activity increases through greater engagement in systematic reviews, Thematic Groups and Methods Groups and the establishment of CEE Centres outside of the UK, the demands placed the CEE infrastructure are also increasing.

**The continued success of CEE's 'open-access' strategy is dependent on adequate and sustainable funding of the core infrastructure. Many funding streams, such as environment research grants, do not fund infrastructure costs and environmental funding tends to support direct action. CEE therefore seeks donations to enable it to continue to support and coordinate environmental management systematic review activity worldwide.**

Potential donors are encouraged to contact us at: [info@environmentalevidence.org](mailto:info@environmentalevidence.org).

# The Board of Trustees

## Andrew Pullin, Chair



Andrew Pullin is Professor of Evidence-Based Conservation at Bangor University, UK and Director of the Centre for Evidence-Based Conservation (CEBC, [www.cebc.bangor.ac.uk](http://www.cebc.bangor.ac.uk)), which has the goal of supporting decision making in conservation and environmental management through the production and dissemination of CEE Systematic Reviews on the effectiveness of management and policy interventions. His research seeks to improve effectiveness of conservation and environmental management interventions by providing objective scientific evidence for the development of both policy and practice. He is an Editor of the journals *Environmental Evidence* and *Biological Conservation*, and an author of a textbook on *Conservation Biology*.

## Teri Knight, Secretary and Treasurer

Teri Knight is a public health specialist who currently works as a Consultant in Public Health for Public Health Wales. She has a particular interest in the relationship between the natural environment, ecosystem services and human health and well-being and has been involved in developing the CEE Review Group for 'Eco-system Services, Health and Well-being', ESHWeB.



## Rob Marrs



Rob Marrs is the Bulley Professor of Applied Plant Biology at the University of Liverpool. His main interests are in the fields of conservation and ecological restoration, where he tries to work out how to manipulate ecosystems towards specific endpoints. His research combines manipulative field experimentation (long-term), survey and modelling usually in British heathlands and moorlands. He is passionate about implementing conservation/restoration policy and practice based on evidence-based science.

**Jennie Milward** has a background in mathematics and statistics and a lifelong interest in climate and sustainability. In her current business role she is involved in reducing the organisation's impact on the environment.

## Simon Gardner

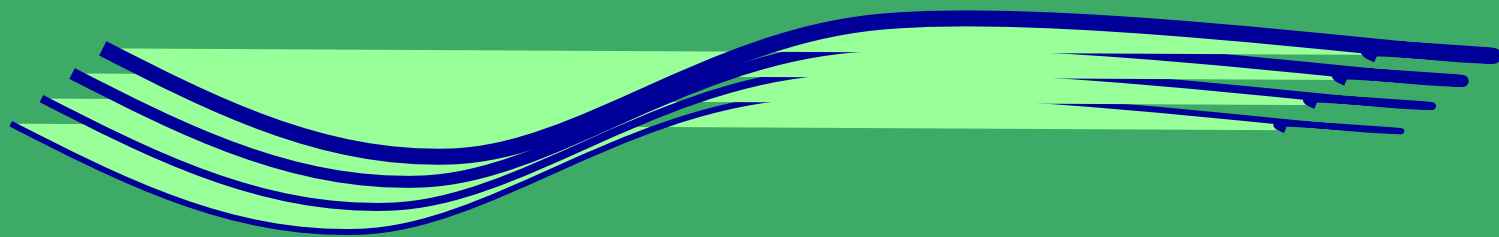
Simon has more than 15 years experience in environmental regulation, and has worked extensively with a wide variety of government ministries, arms-length delivery bodies, and research councils both within the United Kingdom and across the European Union. In his current role, as Manager of the Environment Agency's Evidence Partnerships and Engagement team, his goal is to bring together the best available knowledge and expertise to develop robust, evidence-based approaches, to meeting environmental challenges.



## Gerry Post

Gerald Post is one of only approximately three hundred board-certified veterinary oncologists in the United States. Dr. Post has devoted his life to animals and always had a strong interest in small animal oncology. He champions the field of comparative oncology every chance he gets. He is devoted to the concept of evidence based science, particularly as it applies to veterinary medicine and conservation biology and is incredibly proud to serve as a trustee of CEE.





## THANK YOU!

The existence and growth of the CEE is due in no small part to a wide range of individuals and organisations who have actively supported its vision and aims, either through funding, giving it visibility in key arenas, through giving their time to key CEE activity, or through active involvement in CEE Systematic Reviews. Particular thanks for 2014 are due to:

The Trustees

CEE Guidelines Editorial Board

Leaders and staff of CEE Centres

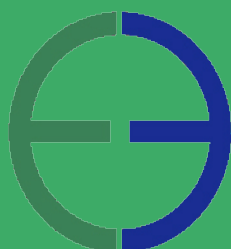
Leaders and contributors to CEE Groups

Commissioners and funders of CEE Systematic Reviews

Review authors, stakeholders and peer-reviewers

Volunteers and supporters

BioMed Central and the EEJ Editorial Board



Collaboration for  
Environmental  
Evidence

[www.environmentalevidence.org](http://www.environmentalevidence.org)  
[info@environmentalevidence.org](mailto:info@environmentalevidence.org)