

Focus on **CAWR**

Special Edition



Research Centre
for Agroecology, Water
and Resilience



Focus on CAWR

Special Edition

Today, the Centre is a thriving community of scholars and practitioners made up of 55 staff and 42 PhD students - roughly equal numbers of men and women from different parts of Africa, the Americas, Asia, and Europe. And from its initial location on the main campus of Coventry University, CAWR is now based at Ryton where its offices and laboratory facilities are surrounded by organic gardens, fruit tree orchards, and organically farmed land that supplies vegetables to nearby town dwellers.

CAWR is an intellectually challenging and stimulating place. Our transdisciplinary research brings together a unique mix of natural and social sciences, and combines them with the local knowledge of farmers, water users, and other citizens. We use participatory research methods, which recognise the value of citizen knowledge and expertise. Our research not only lives up to traditional academic measures of excellence such as rigour, originality, and reliability. It also aims to solve real-world problems and have a positive impact on environment and society.

Walking the talk of transdisciplinary ways of knowing and participatory research is certainly not easy, - more needs to be done in the future! But in the past four years, CAWR's community of practice has grown in confidence and started to make a difference through its transformative ways of working and thinking. Now the largest centre for agroecology research in the world, CAWR and its partners are generating a rich harvest of hope for the future.

Robert



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The History of CAWR

Since the 1970s, a handful of geographers and plant scientists at Coventry University had worked on a series of research projects on sustainable agriculture and food. Many of these were in collaboration with the International Programme of the UK's national charity for organic horticulture, Garden Organic at Ryton Organic Gardens. When, in 2009, the university announced the formation of research networks to address the grand challenges of the future, members of this group suggested a grand challenge of sustainable agriculture, and, in a farsighted move, the University supported them to establish the Centre for Agroecology and Food Security (CAFS). CAFS opened its doors in January 2011 in Coventry city centre with five members staff, and one of its first achievements was to develop the first MSc in Agroecology and Food Security in the UK.

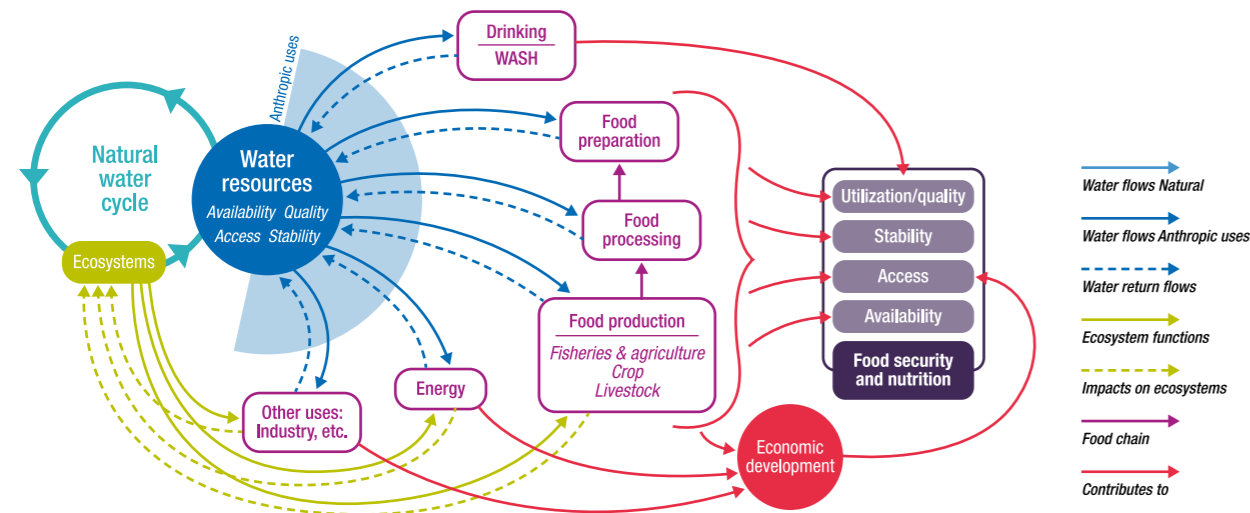
Two years later in 2013, Coventry University decided to significantly increase its research capabilities and visibility. As part of an internal competitive process, all faculty research centres were invited to submit their vision for research excellence and impact. This ultimately led to the creation of the Centre for Agroecology, Water and Resilience (CAWR), which then received significant university investments to recruit new staff and expand its activities in the UK and globally. CAWR was officially formed on 1 April 2014. However, at that point only the two Directors were in post and the majority of internal staff transferring into the Centre from other parts of the University joined on 1 August 2014, after which the Centre's recruitment strategy was mobilised. Given that the University's rapid expansion meant that office space in the city centre was at a premium, CAWR seized the opportunity to relocate to offices at Ryton Organic Gardens, - a natural home for agroecological research.

Research Vision

By 2021, CAWR will be an uncontested world leader known for its innovative transdisciplinary research on agroecology and water.

CAWR aims to be globally recognised for its research excellence and influence on policy and practice, and for contributing new knowledge to address key problems of the 21st century, - how and under what conditions, can the availability, access, and quality of food and water be ensured for all in an increasingly globalised and uncertain world. Working with research partners in Africa, Asia, the Americas, and Europe, CAWR will identify the policies, practices, institutions, and technologies needed to reverse destabilizing

processes that adversely affect food and water security, community and socio-ecological resilience, and human well-being. The Centre's transdisciplinary research enables co-inquirers to transcend their own disciplines to inform one another's work and create new intellectual spaces in the knowledge economy. Our emphasis on participatory processes ensures that the diverse knowledge of farmers, water users, indigenous peoples, and other citizens have a central place in our transdisciplinary inquiry. As such, CAWR's research is agenda setting and paradigm changing, with potentially major impacts on policy and practice.



The multiple linkages and reciprocal interactions between food and water systems that influence resilience and human security. Source: HLPE, 2015. Water for Food Security and Nutrition. HLPE Report 9. Committee on World Food Security. FAO, Rome.

Research Themes

Four complimentary research themes and a cross-cutting working group are used to understand and develop resilient food and water systems:

1: Community self-organisation for resilience

The emphasis here is on identifying processes that enhance community strengths and build resilience through people's agency and self-organisation in the face of adversity, natural and human induced disasters, instability and change.

2: Resilient food and water systems in practice

Research focuses on developing new theoretical, conceptual and numerical modelling of the processes which confer either system resilience or instability. Such knowledge also underpins the development of individual technologies (e.g. biochar for carbon sequestration) or as components of larger systems (e.g. water systems), as well as the resilience potential of whole systems and their communities in rural and urban settings (e.g. circular systems that combine food and energy production with water and waste management).

3: The fundamental underlying resilience processes and dynamics

This process-based research aims to substantially develop emerging resilience science through new insights generated by work on contrasting resilient and irresilient systems, including the impacts of short and long-term switches and fluctuations in key environmental drivers of change, such as water pollution, climate change and flood risks.

4: Enabling policies and institutions for resilient food and water systems

Research in contrasting situations seeks to identify enabling (inter)national policies and institutions (e.g. markets) needed to scale up, and mainstream equitable and resilient systems for food and water security.

People's Knowledge and Transdisciplinarity Working Group

This cross-cutting and transdisciplinary research group is based on the premise that all people, from whatever background, are capable of contributing insights to the production of new knowledge. People's Knowledge aims to break down the barriers that exist between those who work as educators and researchers, those who have gained skills through formal training as experts and those whose expertise come through their life experience.

Staff

With our 45 researchers including Professors, Associate Professors and Research Assistants, we are working towards a more transdisciplinary mixture of social and natural sciences as well as People's Knowledge and Transdisciplinarity Working Group. We are proud to showcase our balance of gender and nationality employment at the centre since 2014 who are all carrying out innovative, impactful world-changing research. The centre also invested in an Operations team in 2014 who continue to provide crucial support to the researchers and students as a 10-strong support team.



Honorary Research Fellows

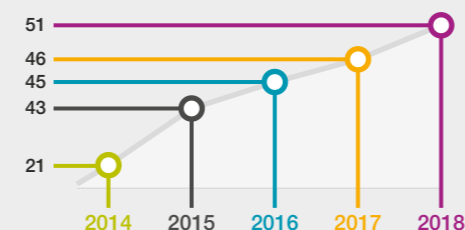
In addition to CAWR's staff who are based at Ryton Organic Gardens, 27 Honorary Research Fellows and Industry Associates contribute to the centre's research.

www.coventry.ac.uk/cawr/staff

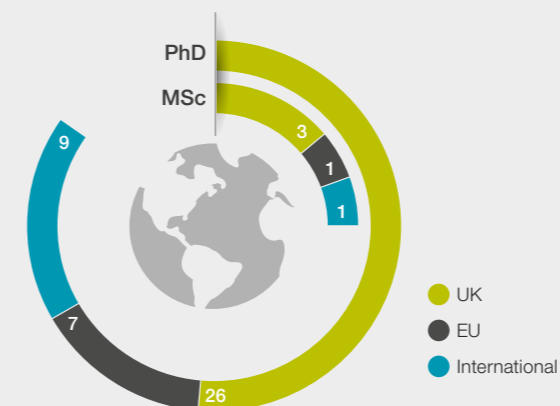
Students

Since 2014, over 60 postgraduate students have completed their study with us, including 14 PhD students who have gone on to work for a range of employers, from academia, government and non-government organizations to charities.

Total Number of Postgraduate Students



Current Student Origins



Achievements

We have been well represented at student events and competitions such as the 3 Minute Thesis (3MT) competition and the University's first Research Hootennany. Donna Udall won the 3MT in June 2016 coming 1st. She proceeded to compete at the National Vitae 3MT competition, coming in the top 10. Our students have also presented their research at national and international conferences and have published in journals.

Morwenna McKenzie was crowned Postgraduate Researcher of the Year 2018 by the University's Doctoral College, after being elected by CAWR to present her research in layman's terms and face a panel for questioning. Morwenna stormed through to victory!

Looking Forward

The 2018-19 academic year saw the launch for the new MSc Agroecology, Water and Food Sovereignty. This was an exciting new venture which continues to capture the growth of the centre, it's research themes and transdisciplinary approach.

If you are interested in joining us via one of our postgraduate courses then please visit our website for more information.

www.coventry.ac.uk/cawr-msc

Facilities and Resources

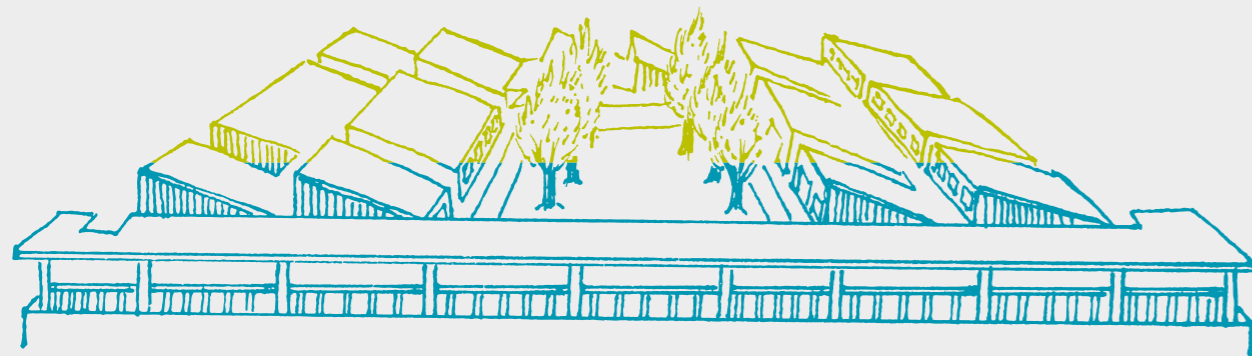
The Ryton site for CAWR provides a world-class intellectual and physical environment, supporting transdisciplinary research addressing sustainability and resilience issues at multiple scales.

The new physical infrastructure includes generous multi-purpose and specialised spaces and resources in which the Centre's staff, associates, visitors and postgraduate students can work. Coventry University has made a significant investment in buildings, including extensive creation of a suite of laboratory and research facilities.

CAWR facilities are specifically designed for environmental sample preparation, trace analysis of nutrients, metals and organic chemicals, microbiology, biological sample identification and analysis, telemetry for remotely running automated water samplers. A separate facility for agricultural sample preparation and analysis

and a new laboratory for conducting sustainable urban drainage system research has also been built in 2018 to which will incorporate green walls and roofs and assess their potential local ecological benefits. External facilities also include greenhouses, poly tunnels and access to farm land. CAWR also houses an editing suite which is fully equipped with the Adobe Creative Suite to create our extensive library of online media.

These facilities and instruments are used to support research in a diverse array of fields including: hydrology, environmental chemistry, ecotoxicology, natural flood mitigation strategies, rural and urban sustainable drainage, human ecology and agroecology.



Projects

Grants Awarded and Projects Underway

From small beginnings CAWR has built a robust and fruitful bidding strategy and plan which has resulted in a dramatic rise in funding grants secured by researchers in the Centre.

These include: small grants which provide seed funding for Early Career Researchers; medium sized funding pots, such as that granted by the Heritage Lottery Fund for the UK-based 'Blooms for Bees' projects; and, more recently, a number of multi-million Euro European Commission H2020 programme funded projects. The Centre has also been successful in securing grants from funders such as Research Councils, The Royal Society and The British Council as well as Knowledge Transfer Partnerships from Innovate UK.

CAWR has 32 live projects underway across the UK and internationally. Many CAWR researchers are involved in these, either as Principal Investigator, co-researcher or partner to another organisation. The Centre has also secured grants for projects

which fund PhD studentships and building networks of researchers for the future.

An exciting development in terms of CAWR projects, and indeed new funding proposals being developed, is the transdisciplinary nature of the activities being undertaken and proposed - with some involving both natural and social scientists and participatory research methods. This unusual, if not unique, mix makes CAWR an attractive offer to funders who seek innovation in the projects they support.

Forward Thinking

As our main funding routes are from the European Commission, British Academy and Newton Fund, we will continue to target these as well as smaller trusts and foundations to continue our research.

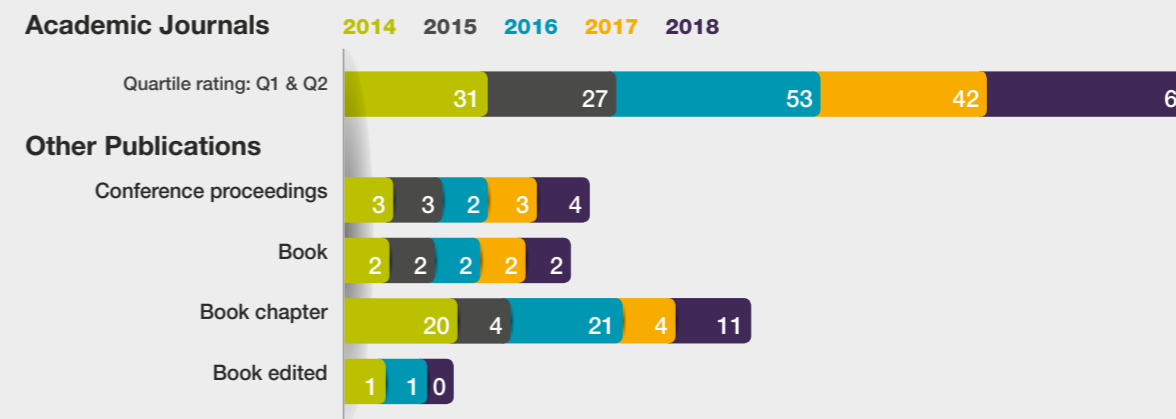
Project Funding Income



Research Publications

Publishing in peer-reviewed journals is fundamental to the life of an academic researcher and high on the agenda in CAWR. The Centre's researchers have been successful in publishing in high quality journals as the charts below show.

As a transdisciplinary community of practice, CAWR is also keen to use alternative channels of communication to reach multiple audiences - from policy makers to journalists and citizen groups. Over the last year, CAWR researchers have published numerous peer reviewed books and books chapters. They have also embraced new multi-media and digital technologies which provide excellent global opportunities for dissemination and impact.



Find out more about any of our publications by visiting the University's portal which hosts research outputs and activities of all our staff and students.

<https://pureportal.coventry.ac.uk/en/organisations/centre-for-agroecology-water-and-resilience>

Global Reach and Beyond

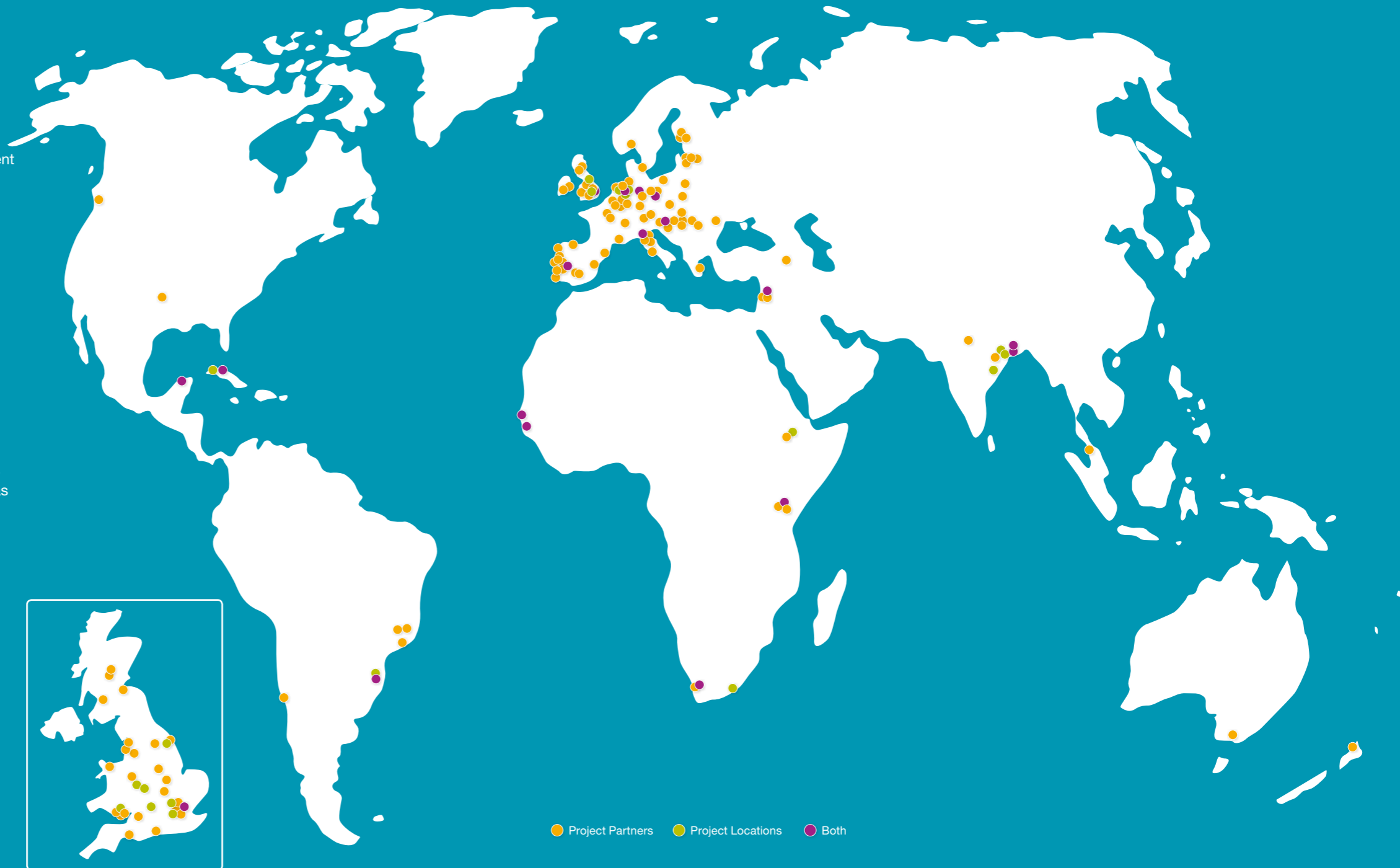
Live Projects

- AgriShort
- Austerity Retail in Britain
- Blooms for Bees
- Board Meetings for REAL
- BOND
- Carnell 2
- COST Action FA1404
- Creative Interruptions
- Darwin Initiative
- FAO Study on transition pathways
- Fine-scale aerial imagery
- Food Justice
- Hanson Formpave
- HIF
- HOMED
- Hydro power development
- KEEP FISH
- Model & Map Stat Zika
- Organic+
- Part funded industry PhD
- Quantum based agriculture
- RECOMS
- Resilient Food systems and community initiatives
- Resources of Hope: India
- Saferup
- SEL Environmental KTP
- Sub contract Wageningen
- Susplace
- Sustainable agro-hydro-health
- Tripura Agroecology Partnership
- TRUE
- Urban Food Markets Jordan
- Urban Food Production

Completed Projects

- Action Aid
- Agroecology, the UK Parliament
- BioAgr & Hort editorial
- Carnell 2
- DARA
- DARE Grundtvig
- Darwin Fellowship
- Ecodry
- Food Metres
- Good Food Jury
- Greening Manual
- Hozelock Field Trial
- Hydrogarden KEEN 091/A
- ICRA in Cuba
- Just Growth Project
- Legumes in soil fertility Indi
- New Field Foundation
- Power To Change
- Resilient Places-Resilient Peo
- Smart Competitive Rural Areas
- Susplace T Session
- Workshop "Cities and Food"
- Yes to Youth

You can find out more about our projects by visiting:
www.coventry.ac.uk/research/research-directories/



● Project Partners ● Project Locations ● Both

CAWR Research

CAWR's research is unique in its comparative focus on three different situations throughout the world:

1

Countries and environments affected by both natural and human-induced disasters and change.

Key priorities will be finding better ways of re-establishing agriculture and water after disasters, facilitation of agriculture and access to water in Western economies and developing nations (e.g. in refugee camps), transition from food aid to food production, enhancing local institutional capacity in managing natural resources and promoting sustainable food and water systems in "stabilisation countries".

2

Geographical areas where food and farming systems are potential causes of local, regional, and global instability.

The scale of the social and environmental instabilities induced by modern food and agricultural systems is unprecedented and increasing worldwide. Key priorities range from research on adaptation to agriculturally-induced stresses such as over-consumption of water, contaminated water and land to identifying enabling policies for socially just resilient systems that ensure the food and water security of vulnerable groups.

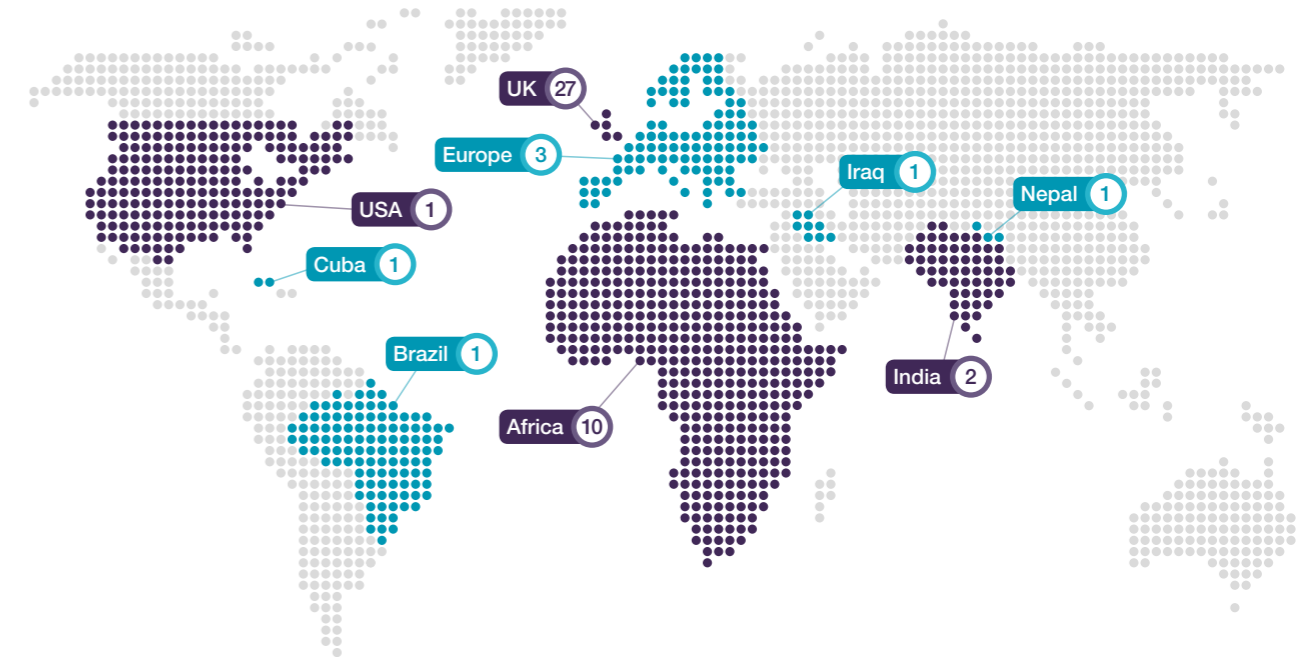
3

Natural and modified ecosystems/environments.

Throughout the world there are still substantial numbers of pristine, natural and/or modified ecosystems containing significant biodiversity, ecosystem services (e.g. pollination, regulation of water cycle) and cultural values that are voluntarily conserved by local communities. Much can be gained from the study of these natural/modified systems, many of which are naturally unstable, including practical knowledge on how to strengthen long term community and socio-ecological resilience in changing environments.

Students Across the Globe

Where are our students carrying out their research?



"The multi-disciplinary nature of the centre has really fostered my learning, but most importantly strengthened my ability as a researcher, and increased my confidence in pursuing an academic and practical career within the Agroecological community."

Sam Spickett,
MSc Student



"I share the commitment to use research as a tool to promote a wider socio-political change towards human-ecological well-being and resilience."

Gloria Giambartolomei,
PhD student



Driving innovative, transdisciplinary research on socially just resilient food and water systems internationally

Impact

An example of how one of our projects has made local impact.

Lopamudra Patnaik Saxena and Chiara Tornaghi undertook the research project ‘Austerity Retail in Britain’, funded by a British Academy-Leverhulme Small Research Grant 2016 - 2017. The project explored the rise of ‘social supermarkets’ (SSMs) which are becoming a part of Britain’s urban foodscape and particularly integral to low-income households. SSMs provide deeply discounted food (obtained from ‘surplus’ that is not considered sellable in mainstream supermarkets), while also offering support (such as debt, welfare advice and employment support) to their users/members. In addition to advancing the understanding of the rationale, operation, and potential of SSMs, their work illustrates the particular challenges and risks posed by a mode of intervention based on retail, surplus and waste and points out issues for further critical investigation and public debate.

The findings are being mobilised and shared nationally with Feeding Britain, an independent charity, established in 2015 by the All Party Parliamentary Group on Hunger. Feeding Britain works through city-wide projects which are coalitions of charities, community groups, local authorities, and social enterprises, amongst others. Lopa and Chiara have contributed to group discussions within the Feeding Britain Local Pilots network. They have also joined the Feeding Britain Evaluation Working Group – a team of

experts developing methodologies for the evaluation of pilot projects fighting food poverty across the UK.

Locally, the findings are contributing to the work of Feeding Coventry, a Coventry City Council initiated partnership and now a charitable incorporated organisation, which has adopted a multi-actor approach to tackle the alarming level of food poverty across the city. Chiara and Lopa are members of the Feeding Coventry Steering Group as well as the Board of Trustees. As part of their action-research and impact work in Coventry, their contribution to the group is helping - among other things - to shape plans for the establishment of a Citizens Supermarket in Coventry, which will focus on long-term strategies for building community food resilience and tackling the root-causes of poverty.

Given the lack of existing empirical research on austerity retail and particularly on SSMs in Britain, this exploratory research by Lopa and Chiara has highlighted a number of avenues for a research agenda in this field.



Events

Seminars

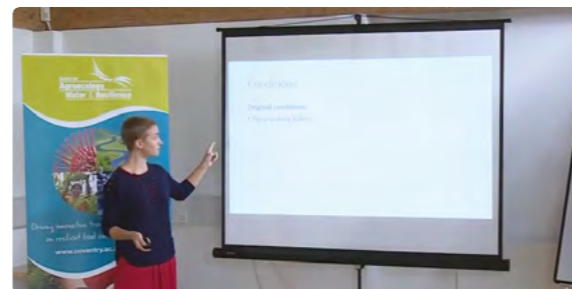
We have hosted over 100 seminars with topics ranging from 'Is rice sustainable?' to 'Food, Agriculture and Social Change'. These bi-monthly seminars are a pathway to engage and interact with like minded people in a similar field.

The introduction of a Facebook livestream of our seminars in 2017 has made interaction easier for our worldwide viewers and opportunities to be part of our events.

If you would like to host a seminar at our centre, do get in touch by emailing:

CAWRoffice@coventry.ac.uk

Seminars presented at CAWR



Pride and Responsibility: Participatory Video with (Female) Peasant Organisations in Senegal, West Africa with Carla Sarrouy Kay



Mediterranean organic greenhouses and the impact of introducing agroecological practices with Francesco Ceglie



Empirical methods for seasonal climate prediction with Jonathan Eden



AESOP

13th to 15th November 2017

CAWR hosted the 8th Annual Conference of the AESOP Sustainable Food Planning group: "Re-imagining sustainable food planning, building resourcefulness: Food movements, insurgent planning and heterodox economics".

The conference had 3 keynote speeches, including one from the chair of the AESOP group, and conference host, Dr. Chiara Tornaghi (CAWR), who with Prof. Michiel Dehaene (Ghent University) presented the position paper "Food as an urban question, and the foundations of a reproductive, agroecological, urbanism". Overall there were 120 presentations with national and international speakers, as well as workshops on cooking, performances, sensory experiences and film screening.



The 146 attendees also enjoy the Book Launch which showcased 9 publications from CAWR researchers and associates. Guests were able to meet the authors and discuss the highlights of each book.



SuDSnet (Sustainable Drainage Systems Network)

3rd & 4th September 2015

SuDSnet, a network of academics, stakeholders and practitioners set up with funding from the EPSRC, held its fourth conference. Professor Sue Charlesworth co-organised the conference with the University of Abertay for the 60 attendees.

The highlight of the conference, thanks to sponsorship from the faculty, were keynote speakers Dr Ignacio Andrés-Doménech from the Universitat Politècnica de València, Spain whose talk was on “SuDS in the Mediterranean: the successful experience of the Valencian region (Spain)” and Dr Kevin Winter from the University of Cape Town, South Africa who discussed “Living on the edge: socially responsive SuDS and other technologies in informal settlements, South Africa”.

Postgraduate sessions included “Sustainable Drainage: end-of-life” which included Professor Sue Charlesworth and Dr Steve Coupe. While mainstream sessions included topics on the hydraulic, water quality and biological performance of pervious pavement systems with novel sub-base designs also by Dr Steve Coupe and a paper discussing installing SuDS in informal settlements by Professor Sue Charlesworth and Dr James Bennett.

CAWR in the Media

Blooms for Bees



Blooms for Bees featured on BBC Midlands Today on the development of their bumblebee ID app. Users of this app having been piecing the information together on what flowers bumblebees like to visit. Judith Conroy from the Blooms for Bees project also spoke to Radio presenter Trish Adudu on BBC Coventry & Warwickshire Radio and other regional radios on promoting listeners to download the app and get involved.

www.bloomsforbees.co.uk



1384
Twitter
followers



951
likes on
Facebook



919
monthly newsletter recipients
over 32 countries



Brexit

Dr Julia Wright discussed what Brexit means for UK science on the Deutsche Welle TV, which was aired as part of the DW Science's Show. Julia also spoke about the detrimental effect that leaving the EU may have on universities in the UK.

www.dw.com/en/the-science-magazine/av-39273718

Edible Insects

Liliane Binego presented a seminar on ‘Edible Insects’ which grabbed the attention of local radio BBC Coventry & Warwickshire and regional tv broadcasters BBC Midlands Today and ITV. Liliane was able to encourage attendees to investigate whether edible insects can play an important role in tackling a growing global humanitarian problem.

www.coventry.ac.uk/research/edible-insects



"We seek to have a beneficial influence on the wider society"

"We are working on the most pressing social and economical problems associated with the future of food and water"

"The fundamental purpose of CAWR is to do research to improve the world"



Research Centre
for Agroecology, Water
and Resilience

Contact us

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