

Welcome

This annual review presents some of the highlights of the CCRI's work in 2017, our research and the difference that it is making to those working with us.

Get more information about the work of the CCRI at www.ccri.ac.uk



Introduction by Professor Janet Dwyer



Dear Friends and Colleagues

2017 has been a year of growth and a broadening agenda for the CCRI, with increased involvement in events and large-scale projects at both local and global levels.

We extended our European-sponsored research in the environment-farming-food nexus, taking on three new projects, completing two, and continuing work on four, which began in previous years and will end in 2018-2021.

In addition, CCRI has championed global sustainability through John Powell's Presidency of the International Association for the Study of Commons, Julie Ingram's workshops in Africa, Dilshaad Bundhoo's Middle East partnerships and my own OECD-sponsored fellowship in Japan.

Our PhD student community has maintained enthusiastic engagement with a diverse range of topics and we celebrated one completion (Stephen Pritchard) and two new recruits during the year, including one under our new Doctoral Training Partnership with Cardiff University. We have also been teaching masters students in Applied Ecology and Landscape Architecture, leading GIS teaching within Geography and Environmental Science undergraduate courses, and hosting visiting researchers from the EU and Asia.

In parallel with all of this, we maintain active engagement with current policy and the Brexit process – writing reports, giving evidence to Committees, hosting debates and discussions at key academic conferences (e.g. RGS and AES), and supporting local initiatives in preparing for a future outside the European Union: in the Upper Thames, Exmoor, Marlborough Downs, the Cotswolds and the Forest of Dean, Manchester, and other communities up and down the UK.

Overall, we draw inspiration from our active and challenging work on sustainable farming and food in Europe and beyond, on heritage and landscape value, and in co-design and co-management of many local initiatives celebrating the inter-connections of people, nature and place.

I would particularly like to thank the CCRI Advisory Board for its active and supportive engagement with our forward planning and ongoing research in a number of areas; our dedicated, innovative and resilient team of staff and students who make the CCRI such a unique and creative environment; and our wider network of visiting researchers, supporters, sponsors and collaborators who ensure that our work stays engaged, relevant and fit for purpose in these challenging times.

2018 already promises to be another year full of new initiatives and positive development!

Tanet Ange





Policy Activities and Brexit

All members of the CCRI have been involved in range of policy-related activities during 2017. Many have been directly or indirectly linked to the 2016 referendum vote for the UK to leave the European Union, as devolved governments, stakeholder communities and academics have tried to assess implications and plan ahead. Following the general election in June, the UK government administration also began to consult and discuss more widely on the topic. We have contributed to many events, papers, analyses and consultations.

What is clear at present is that Brexit is, and will continue to be, a very uncertain process with a range of possible outcomes. Many areas of CCRI's research interests and expertise are likely to be significantly affected by it.

Much of UK agriculture is now heavily dependent upon the subsidies that it receives from the Common Agricultural Policy (CAP), and particularly those farms in marginal areas on less productive land. Across the UK, patterns of land use and management are influenced by a whole suite of aids, regulations and schemes operated under EU legislation. More broadly, rural resourcing has been influenced by EU Regional and Social policies and EU rural development policy under the CAP has been responsible for specific elements, like LEADER.

Considering the Brexit process and outcomes, three key areas have important rural implications:

- 1. Trade arrangements with the EU (and then with third countries) where the outcomes could vary between an 'almost free trade' deal with the EU and a relatively high agri-tariff default WTO situation;
- 2. Future rural policy/funding decisions i.e. how much will the UK public, as represented by its elected governments, wish to continue to support agriculture /

rural /environment actions and outcomes, once this is no longer heavily influenced by EU priorities?

3. The broader UK post-EU governance model and economic situation - will there be a shift to a more de-regulatory climate? What will be the agreed level of devolution in agri-rural policies? How would general economic conditions, influenced by the overall Brexit deal, affect the relative resourcing and priority given to food and farming, rural economies and communities, and the protection and enhancement of the rural environment?

We know that in the short to medium term there will be a process of 'roll-over' in respect of much environmental, food and rural policy. Close translation and adoption of many of the basic instruments of EU legislation is built into the draft EU Withdrawal Bill. However, this process will not cover agricultural support, and there is a longstanding view among influential UK bodies and commentators that the Common Agricultural Policy does not best suit UK interests and an emerging political consensus that its 'Pillar 1' Basic Farm Payments, in particular, have little clear rationale. It seems likely, in the post-EU scenario that there will be a move, perhaps gradually, to reduce this element of support. The UK Treasury has long been a proponent of the abolition of general farm support like this, within the CAP, although pursued as a multilateral EU reform strategy.

The CCRI is well-placed to make a substantial contribution to post-Brexit thinking and policy formulation, based upon the findings of its current and recent research. During 2018 we will develop a series of outputs considering the shaping of food, farming, environmental and rural policy for the next 20 years and attempting to meet some of the challenges ahead. We will also host a key expert and stakeholder workshop in Gloucester just before Easter: If you would like to receive more information regarding this workshop, please email ccri@glos.ac.uk

Across the Globe

Research activities in Japan, China and Egypt

For nine weeks between late June and mid-October, 2017, CCRI Director, Professor Janet Dwyer, was a visiting researcher at the University of Kyoto's Department of Landscape Architecture, within the Graduate School of Agriculture, in Japan.

She was hosted by Assistant Professor Katsue Fukamachi, whose research has long been dedicated to promoting better understanding of how people can 'live in harmony with nature' through research focused upon traditional cultures, practices and ecological interdependency in Japan.

Janet talks here about her research experience in Japan:

"My interest was to investigate how the ideas and principles behind Japan's internationally-promoted 'Satoyama Initiative' were played out within its own policies and in particular, how they were affecting, or affected by, evolving agricultural and rural development policies.

I hoped to see whether Japanese experience could offer new insights for promoting more sustainable agriculture and rural development in Europe and more specifically, the UK in the context of Brexit.

'Satoyama' – which literally means sato (里) - arable and habitable or home land, and yama (山) - hill or mountain, is a word used to encapsulate traditional cultural landscapes in Japan where centuries of agricultural and forest management have fostered biodiverse landscape mosaics. Satoyama was found originally at the interface between forested mountains and valley bottoms or plains, and was where small-scale subsistence farming in Japan was first developed.





Since the late 1990s, Satoyama has become prominent in Japanese thinking about sustainable land management. In 2010 at the Tenth Conference of the Parties to the Convention on Biological Diversity, in Nagoya, the Japanese government launched its 'Satoyama Initiative' (SI), promoting a global ideal based upon conserving biodiversity by sustaining active management of 'Social-Ecological Production Landscapes' (SEPL), wherever they occur.

The SI secretariat is based in Tokyo at the UN University and supported by Japan's Environment Ministry. It promotes international networking and good practice via events and publications, and has a growing membership from all continents, but particularly Asia and Africa.

The Satoyama concept: described as 'societies living in harmony with nature' and focused upon SEPL, was developed by Japan via a major national survey in 2007-2010. The survey's findings – that over 40% of Japan's biodiversity depends on SEPL and their continued management – fed directly into Japan's Biodiversity Strategy 2010, which calls for agriculture to 'utilise the circular function of nature, employing methods which put more importance on conservation of biodiversity', and to promote 'conservation-oriented agriculture, including organic farming'.

During my fellowship, I met a wide range of agri-rural actors, from national policymakers and academics to local community groups, NGO activists and officials. I visited areas and communities in the Prefectures of Kyoto, Shiga and Fukui in Southern and Central Honshu (Japan's main island) with some of the longest-settled and most traditional Japanese landscapes.

I also spent a week in Hokkaido, Japan's north Island, which was settled and developed for agriculture by Japanese colonists in the 19th and 20th centuries, where managed landscapes are newer, larger-scale and still developing.





Farm and community shop and restaurant, northern Hokkaido

I also explored a wide range of policy and academic literature, aiming to deepen my understanding of contemporary issues and policy priorities, and I participated in seminars and discussions on relevant topics at Universities and research institutes in Kyoto and Tokyo.

From this, I developed an appreciation that Japan, like Europe, faces many challenges in seeking to 'mainstream' the aspirations of the SI within its own agricultural and rural economic policies. Farm policy has responded to external pressures to open Japanese markets to international trade, and is trying to cope with an aging and declining agri-rural population and a younger, urban generation adopting increasingly western-style diets, by increased dependence upon an agro-industrial production model imported from the USA with large indoor, intensive dairy, meat and horticulture sectors.

And whilst rural development policies aspire to more bottom-up, innovative approaches echoing the Global Sustainable Development Goals, an extremely patchy performance based upon competitive and short-term funding packages is not yet sufficient to stem the degenerative cycles which continue to threaten the survival of active land management in many rural areas. Citizen action, in the form of pioneer students, village communities and NGOs promoting organic farming and sustainable forest management, and local Councils investing in farmers' markets, cultural festivals, environmental education and green tourism, provides inspiring and locally-successful examples.

The challenge is perhaps now to identify how these can become part of something bigger and more sustained, attractive to a much larger proportion of Japan's younger generation upon whom its future landscape management and biodiversity will ultimately depend. My plan, now, is to spend time developing ideas with collaborating partners in Kyoto, Hokkaido and Tokyo, writing papers and organising suitable events that could make a contribution towards addressing that challenge."



John Powell (2nd from right) at the Commons Workshop in China

John Powell at Commons Workshop in China

Following the award of the 2009 Nobel Prize in Economics to Elinor Ostrom for her work on commons, interest in the conceptual framework of commons as a means of exploring alternative management approaches to resource issues has widespread appeal, even in China.

John Powell presented a keynote speech at the First Commons Workshop in China. The workshop, hosted by Professor Yahua Wang (a former student of Elinor Ostrom), was held at Tsinghua University in October 2017, and focused on 'Enhancing Water Governance and Policy'.

China faces massive problems associated with water utilisation, especially in the northern part of the country. Mis-allocation and inefficient use, along with rapid economic development, high irrigation levels, and population growth, have combined to create huge demand for large scale water transfers from the south.

The visit included a field visit to Hebei province south of Beijing, where agricultural water use has resulted in significant impacts on local and regional ground and surface waters.

Exploring the notion of 'commons' in a country where the state lays claim to land and water, and property rights are limited, created some interesting discussion on the concept of 'common property', and how it might be applied.

Tri-lateral Workshop in Egypt

Following on from the success with the Newton Fund/British Council Researcher Links Tri-lateral Workshop (Egypt, South Africa, UK) 'Equipping early career

researchers with tools for
evaluating ecosystem services
which underpin food and water
security', held in Stellenbosch in
September 2016, a follow up
workshop was hosted by the
Egyptian participants at the
Research Institute for a
Sustainable Environment (RISE) at
the American University in Cairo.

Julie Ingram and Kenny Lynch (School of Natural and Social Sciences, University of Gloucestershire) co-ordinated this workshop, which provided support to early career researchers working on Ecosystem Services in informal areas in Cairo, particularly those managing community roof top gardening projects.



Julie Ingram in Egypt

Commons

The concept of the commons provides a valuable lens through which to explore a wide range of socio-ecological problems facing society from local to global levels. The significance of global commons and the need to design effective governance regimes for shared resources has become more apparent, particularly in relation to global climate change.

Recent reports indicate emissions from fossil fuels are expected to rise to higher levels than previously predicted. Increases in developing countries and China, and the announcement by President Trump of the departure of the USA from the 2015 Paris Agreement, threaten progress on a global commons problem.

Both factors will make it more difficult to achieve the objectives agreed upon only two years ago by almost every country in the world. On the positive side it is worth noting that at the UN Climate Change Conference held in Bonn (COP23) in November 2017, local and regional leaders from around the world, including the USA, got together to develop new ways to cooperate in tackling climate change. The group adopted the 'Bonn-Fiji Commitment' pledging their commitment 'to work in partnership with all levels of government, the community and private sector' in order to achieve the aims of the Paris Agreement.

The approach illustrates that governance of global, and other regional and more local commons, can be addressed through multiple avenues where communities and even individuals can play a part.

This was the theme of the recent 16th International Association for the Study of the Commons (IASC) Biennial Global Commons Conference entitled, 'Practicing the commons: self-governance, cooperation and institutional change'. More than

800 delegates attended the conference, held in Utrecht in July 2017, indicating the high level of interest across a wide range of organisations and economic sectors in commons issues. A series of 'practitioner labs' allowed exploration of commons issues from the perspective of those on the ground trying to find sustainable management solutions to cooperation, conflict, and legal regimes that create unequal power relationships.

John Powell, as President of the IASC, gave a presentation at the opening ceremony focusing on the importance of collaboration in governance of commons, which requires leadership, coordination, and a more polycentric



John Powell with Professor Yahua Wang from Tsinghua University, Beijing, at the IASC Global Conference in Utrecht

approach in the design of institutions that can build on differences, and overcome indifference, within society.

Foundation for Common Land

The Foundation for Common Land is a registered charity established to protect the public benefits from pastoral commoning. It was formed as a network of commons graziers' organisations in 2008 to promote, advocate and care for a unique and precious approach to landscape, farming and the management of common land.

Chris Short has been a Director and Trustee since 2010 and Chair since 2012. Over this time he has coordinated work looking at how payments from the Single Farm Payment Scheme have been distributed on common land, the development of a training programme (the Hill Farm Training Programme) to help policymakers and NGOS see how hill farming works in practice. The Foundation has also convened two Defra working groups on agri-environment schemes and the implementation of the single farm payment scheme. The Foundation is also a key member of the Defra's National Common Land Stakeholder Group that meets twice yearly.

Free Commons e-Book

In May 2017, the CCRI published a new Commons e-book, featuring a compilation of blog posts written at various international IASC conferences over the last ten years.

'A Companion to IASC Commons Conferences' was authored by John Powell, Kate Ashbrook and Chris Short and edited by Nick Lewis. The book is available from the University of Gloucestershire's repository in PDF format as a FREE download!

A COMPANION TO IASC COMMONS CONFERENCES



JOHN POWELL
CHRIS SHORT & KATE ASHBROOK
EDITED BY NICK LEWIS



Related activities and presentations

'Difference, indifference, and collaboration'. President's Address, International Association for the Study of the Commons (IASC) XVI Biennial Conference,

'Practicing the commons', Utrecht University, Netherlands, 10th-14th July.

'Commons – an international perspective'. Keynote speech at the 'Enhancing Water Governance and Policy' Workshop, Tsinghua University, Beijing, China, 14-15th October.

'Commons Governance in the UK and Europe'. Public Seminar, China Institute for Rural Studies, Tsinghua University, Beijing, China, 20th October.

'Governance of Commons: rhetoric and reality'. Keynote address: 'The Commons in Latin America: Struggles, Policies and Research Co-Lab'. Centre for Latin American Research and Documentation (CEDLA), Amsterdam, Netherlands, 12-13th December.

John Powell has been prolific this year in writing blogs relating to commons:

The 'centre of the universe' – reached at last! (Commons Workshop in China)

Reaching for the sky through rapid reform – not revolution (Commons workshop in China)

When is a bridge not a bridge? (Thames Garden Bridge project)

Conference dinner with a difference (2017 IASC Conference in Utrecht)

A short hop across the water makes a world of difference (2017 IASC Conference in Utrecht)

Glass half-full – reflections on an urban commons (2017 IASC Conference in Utrecht)

Practicing the Commons: IASC 2017 Conference - Utrecht

(Civil) War on the Commons (Civil war enactment on Llantrisant common, South Wales)

When a tree is not just a tree...who speaks for urban trees? (Management of urban trees)

Sustainable Agriculture and Resilience

LEAF

More and more people are engaging with environmental issues and demanding to know more about the origin of their food, wanting to help support a greener, more ethical and healthier food system.

Some food labelling can be confusing, but the LEAF marque presents an easy way of identifying produce that has been produced by farmers whilst caring for the environment

The LEAF (Linking Environment And Farming) Marque is an environmental assurance system recognising sustainably farmed products. Buyers can purchase LEAF Marque produce from farms that are fully certified and use the LEAF Marque logo and all the marketing opportunities to show they care about the environment. LEAF Marque certified produce can be found nationwide in supermarkets, farm shops and farmers' markets.

The CCRI carried out a research study, commissioned by LEAF, which evaluated the impact and added value to farmers of LEAF Marque certification. It built on previous work the CCRI carried out in 2010, which looked more broadly at the benefits to farmers of LEAF membership. Examining the financial, environmental and social benefits of LEAF Marque certification were key aims of this study, but we also heard from farmers, who explained in their own words, how LEAF Marque certification is making a difference to their lives and their businesses.

The study, undertaken by Matt Reed, Janet Dwyer and Nick Lewis, showed that businesses participating in LEAF Marque certification are gaining value from it. In

many cases, it reached beyond their initial, often financial motivations for joining and helped them develop their businesses in ways they would not previously have considered. Many are actively engaged in various forms of innovation as they reimagine their businesses to become more resilient in order to meet the demands of the present, and anticipate future opportunities.



37 farmers were interviewed for the study as well as a broad range of farm types, including arable, horticultural, livestock and mixed farms; these included family farms, estates, partnerships and limited companies.

The study revealed:

LEAF Marque certification provides valuable market opportunities. The majority of participants reported improved access to market opportunities, with some also receiving a price premium. Improved incomes and better quality products was also reported in a third of participants. LEAF Marque helped farms access other income streams, such as through agri-environmental schemes. Other reported reasons for becoming LEAF Marque certified were to demonstrate environmental credentials or to embed a dynamic of innovation into the business.

LEAF Marque Standard makes operations more efficient, often resulting in significant financial savings for members, for reasons including energy efficiency

and a shift towards more biological methods of pest control, improved biodiversity and a general decrease in the use of plant protection products.

LEAF Marque certification was seen by participants in the research study to lead to improved biodiversity with noticeable impacts on the conservation values of their land and the wider environment.

LEAF Marque certification provides opportunities for farmers and growers to network with their peers, to exchange relevant expertise and information, as well as opportunities for personal growth. For those who take up these networking opportunities, this is seen as a critical benefit to them and the business. LEAF Open Farm Sunday enables LEAF Marque businesses to showcase their activities, establishing and enhancing good-will and understanding in the local community, which results in practical benefits as well as building pride in the farm team.

A widespread appreciation of the role that LEAF Marque certification plays in improving the strategic planning of businesses was highlighted in the study.

The final report was presented to George Eustace, Minister of State at the Department for Environment, Food and Rural Affairs (DEFRA), at Cereals 2017, which was held at Boothby Graffoe in Lincolnshire on 14th and 15th June.

Matt Reed presented an online webinar on the LEAF study on 19th October, which can be accessed online.

The full report 'The effect and impact of LEAF Marque in the delivery of more sustainable farming: a study to understand the added value to farmers' can be downloaded from the LEAF website. The report summary is also available to download.

Enhanced Annual Implementation Report (EAIR)

Janet Dwyer worked with ADAS on a research project commissioned by Defra.

The aim of the research was to prepare and deliver the information required for the 2017 EAIR for the Rural Development Programme for England (RDPE) 2014-2020 in accordance with European Evaluation Helpdesk Guidelines. This was so Defra (the Managing Authority of the RDPE) could understand programme achievements to date and learn lessons about what works in delivery of the RDPE.

Janet provided expert input to the study, which evaluated early progress and concluded that crippling bureaucracy and Brexit-related uncertainty have significantly reduced its performance since 2015.



Sustainable Agriculture and Resilience

Inshore fishers' and dairy farmers' strategies to manage markets and regulations

Since the start of 2015, the CCRI has been working on a major EU Horizon 2020 project called SUFISA, an acronym for 'Sustainable finance for sustainable agriculture and fisheries'.

During 2017, Damian Maye, James Kirwan, Mauro Vigani, Hannah Chiswell, Dilshaad Bundhoo and Rob Berry have been working on two case studies, 'Inshore fishers in Cornwall' and 'Dairy farmers in Somerset', to examine farmers' and fishers' perspectives on market and regulatory pressures and the strategies employed (at farm-level and collectively) to manage these pressures.

This article summarises some of the key strategies that emerged from this analysis.

Inshore fishing sector, Cornwall

Cornwall represents one of the areas where inshore fishing remains a key part of the rural community, both economically and culturally. Analysis of SUFISA data revealed six key themes that fishers considered important in terms of their identify and future sustainability, each of which is now taken in turn.

- Reasons for going fishing. Fishers are passionate about what they do and do
 not want to do anything else. This is significant, in that they are likely to carry
 on fishing until the bitter end, enduring difficulties that those involved in other
 livelihoods might find too much.
- 2. What is distinctive about inshore fishing? Fishers are highly localised, tending to fish within 6 nautical miles of the coastline (notwithstanding that

those with a larger engine/deck size may venture further out). Because they are restricted to a relatively confined geographical area, the smaller inshore boats are effectively embedded in their local environment, giving them an incentive to look after the fishing grounds in their immediate area.

 Markets and marketing. Adding value was the most critical issue discussed, inextricably linked with the quality of the fish being sold. The catch of inshore fishers was recognised as having the potential to be of the very highest quality



available (in that it is usually landed on a daily basis), although this necessitates that the fishers involved look after their fish. Overall, approximately 80% of the fish caught in Cornwall is exported. There was a strong sense amongst fishers that you have to have a strategy in terms of marketing your fish. In this respect, a degree of entrepreneurship is critical and it is no longer enough to be simply good at catching fish.

- 4. Quota. Discussions around quota were the most vibrant and most heated, with access to sufficient quota being the single biggest issue, often related to the Common Fisheries Policy (CFP) and the opportunities presented by Brexit. There was a strong feeling that there are plenty of fish around and it is just a matter of allocating them more fairly and re-visiting historic 'grandfather rights' and Relative Stability. The monetisation of licenses and quota was another important issue.
- 5. Policy, management and representation. Legislation and bureaucratic necessities need to be better tailored to the needs of smaller boats. There are also concerns that the 'voice' of inshore fishers is not being sufficiently heard and that their access to policymakers is restricted. Of particular concern to the fishers is representation at the forthcoming Brexit meetings.
- 6. Resilience, succession and the future. The innate passion of fishers means that they are likely to be inherently highly resilient and to continue in fishing beyond the time that makes economic sense. In order to do this, they exhibit a range of different adaptive capacities, such as: carrying extra gear and leaving it to lie for an extra day (which means that there is even more gear on the ground, adding to the pressure on particular fisheries); putting more and more pots down (which requires more investment and adds to the pressure on stocks); going further out to sea (which is inherently more risky); fishing singlehanded (which reduces the opportunities for new/young fishers to gain experience); adding value and developing their markets (which requires new skills and perhaps additional investment, such as in IT equipment) and so on. Although there was optimism about those currently fishing, remaining in fishing, people

were much less sanguine about the ability of future generations to get into fishing.

Brexit and inshore fisheries

Any discussions about the future of fishing in the UK inevitably involve looking at what the Brexit negotiations will result in. As such, Brexit was discussed at length in both the focus groups and the workshop. Two of the workshop participants, in particular, were adamant that the CFP was not fit for purpose and that Brexit offered the opportunity for change.

Apart from access to more quota, the key issue discussed was to try and extend the limit of waters that are exclusive to UK fishers.



Damian Maye presenting at a Sufisa workshop

Dairy producers in Somerset

Dairy farms account for about 12% of Somerset's farms. Herd size numbers in the county have increased, but the county retains a profile of mostly smaller-scale, family run dairy farms. Analysis of the SUFISA data revealed six key areas, as well as Brexit, which are summarised below.

- 1. Milk price and price volatility. Participants argued that milk price volatility was a key characteristic of the dairy industry. Volatility was intensifying, resulting in more dramatic highs and lows, as well as becoming more frequent. Participants understood milk price volatility as the product of global issues, rather than an isolated national problem.
- 2. Arrangements for milk. A number of different arrangements exist for selling milk. These different arrangements represent different strategies that potentially help dairy farmers to manage market volatility. For dairy, these arrangements are essentially different types of contract. Some have been in place for some time but there are developments within these arrangements (e.g. new pricing mechanisms) in response to volatility. The analysis suggests contractual relationships in the UK dairy industry are highly developed. Dairy farmers can engage with the dairy industry through a variety of contract types. In general terms, it is possible to distinguish between collective (e.g. selling via cooperative) and individual arrangements (e.g. supermarket-aligned contract).
- 3. Contractualisation. Contracts are an increasingly important feature of dairy supply chains. There is some debate about offering future prices for milk. Most contracts examined were exclusive and evergreen and producers are usually notified 12 months in advance if a contract will be cancelled. In terms of price changes, the notice is usually 30 days. The biggest difference in contracts is in terms of the quantity supplied. There is debate about what mechanism is best, with some arguing no limit contracts were one of the reasons why oversupply happens.

- 4. Collective action (Dairy Producer Organisations (DPO) and co-operative models). Farmers participating in the Dairy Crest Direct DPO, the only one running in the UK, felt it was a beneficial model. Some argued it was the next best thing to a co-operative. It was recognised that the scheme was rather cumbersome (at least as implemented). Stakeholders and farmers recognised the need for greater co-operation to sell milk, including joint ventures at a farm level (to share capital, expertise, etc.). Although there is only one DPO, a number of milk pools set up by other dairies were effectively running as DPOs, but without the formalised governance structure.
- 5. Market data and futures. A wealth of market data and statistics exist to support dairy farmers and processors in their decision-making. Although this data is widely available, and can be used to improve farmers' bargaining power, a number of interview participants noted farmers' lack of engagement with such material. This is because a lot of dairy farmers are simply too busy. Interestingly, some dairies and processors that were interviewed were making efforts to get farmers to engage with such material. Dairy farming in a time characterised by such volatility will require, it was argued, a different set of skills particularly business skills which will require closer engagement with market data and futures.
- 6. **The future (succession and social drivers)**. There was significant concern that opportunities in dairy farming remained limited for young people without



familial connections to the industry because of the high start-up costs. Whilst participants recognised opportunities to be employed as a non-familial employee were abundant, they feared entry into the industry in any other way was typically impossible because of the capital required to do so.

Brexit and dairy

Participants had a range of views and responses to the Brexit vote and cited a range of potential implications for the dairy industry after the UK exits the European Union. Some respondents refused to speculate on Brexit impacts because of the uncertainties surrounding future trading options.

In general terms, focus group discussions identified three key concerns:

- Trade and a trade deal
- The availability of labour
- Subsidies and competitiveness

• Trade, and specifically whether a trade deal with the EU would be secured, was the biggest post-Brexit concern amongst participants.



Sustainable Agriculture and Resilience

SURE-Farm

Farming systems in Europe are facing a number of environmental, economic and social challenges such as volatile markets, higher risks of extreme weather events, increasing dependence on financial institutions, increasing urbanisation, political risks as well as changing societal concerns and consumer preferences.

These challenges trigger a series of dynamics in the agricultural sector, and the farming systems' ability to cope with such challenges largely determines the delivery of public and private goods by EU agriculture.

From June 2017, the CCRI is part of a newly approved EU Horizon 2020 project called SURE-Farm, an acronym for "Towards SUstainable and REsilient EU FARMing systems", which aims to analyse, assess and improve the resilience and sustainability of farms and farming systems in the EU. It will create scenarios and a novel and comprehensive framework in order to enable

agricultural resilience, develop advanced risk assessment and management tools, and improve the assessment of farm demographics and policies. The active participation of stakeholders will facilitate the co-creation and application of an integrated resilience assessment model and the co-design of implementation roadmaps.





The SURE-Farm project is a consortium of researchers from 16 research universities and institutes from 13 EU countries plus Norway and Switzerland, and it actively engages a large number of stakeholders.

The SURE-farm project comprises six interrelated objectives:

- 1. Develop a framework to measure the determinants of the resilience of current and future EU agricultural systems
- 2. Comprehensively understand farmers' risk behaviour and risk management decisions and develop and test a set of effective and usable risk management strategies and decision support tools.
- 3. Develop an improved farm demographic assessment tool.
- 4. Develop a policy resilience assessment tool to evaluate the strengths and weaknesses of the existing policy framework (in particular the CAP).
- 5. Develop an integrated impact assessment tool to make long-term projections towards the effective delivery of

private and public goods.

6. Identify pathways towards resilience and non-resilience, and synthesise lessons learned to design an enabling environment and construct roadmaps for implementation, co-created with public and private actors.

Concept and approach of SURE-Farm

The SURE-Farm project builds on concepts of resilience thinking and develops a comprehensive framework to identify the conditions that enable farming systems to become and remain resilient to a broad range of current and imminent challenges.

Resilience thinking is essentially systems thinking that emphasises the robustness, adaptability and transformability of farming systems as response to changes and shocks in their natural, social, economic and institutional environment. Systems are resilient if they have the capacity to adapt to changing circumstances and challenges while maintaining their core functions, including the delivery of their vital goods and services.

At the heart of resilience thinking is the concept of adaptive cycles which has been developed in ecology and which SURE-Farm uses as a conceptual metaphor to understand change in farming systems. Adaptive cycles consist of four stages: growth, equilibrium, collapse and reorientation.

The SURE-Farm's approach builds on eleven case studies - view here.

The CCRI team, in collaboration with Aberystwyth University, will focus on large-scale corporate and family farms producing arable crops located in the East of England, which is highly productive and contributes more to the UK's agricultural gross value added than any other UK region. Production includes cereals, industrial crops, potatoes and sugar beet, but cereals (especially wheat and barley) are by far the most important crops, covering almost half of the farmed area. Indeed, because of the high cereals productivity, this region is also known as the "bread basket of England".

The East of England also has a strong integration of the value chain among input suppliers, producers, traders, transporters, processors and retailers. The majority of farms are capital intensive with an average size exceeding 100ha. Farmers are mainly land owners and are highly market oriented. The level of specialisation and

of input use is high. The labour force comes mainly from hired full and part time employees and farmers invest heavily in seed and chemicals. However, about 35% adopt conservation tillage practices.

The East of England region has a long tradition of international exports of agricultural commodities, thanks mainly to the presence of large-scale infrastructure, but a process of concentration is taking place, with the number of agricultural holdings decreasing by about 44% over the last decade, while the farmed area has remained almost stable, demonstrating a progressive concentration towards bigger holdings. Moreover, every year farmers in the East of England must deal with diseases and climatic risks which provoke significant variations in yields and quality. To reduce the economic damages of such risks, farmers often adapt the market destination, for example bread vs feed wheat and malt vs feed barley.

CCRI's staff and involvement

Mauro Vigani, Julie Urquhart, Damian Maye, Rob Berry and Paul Courtney are the CCRI researchers involved in SURE-Farm. They are engaging in a series of tasks and research methodologies, both qualitative and quantitative, for the case study in East of England, but not limited to it, involving local stakeholders.

A farmer survey will be conducted to identify the determinants of farmers' risk perceptions, based on theories of risk communication, decision theory and psychometric models. The econometric analysis of the survey's data will assess how different farmers perceive risks, their vulnerability and capacity to adapt or absorb shocks, and their available options to adapt and increase resilience.

Individual and collective learning is integral to adaptive behaviour and adaptive capacity (long and short term) and has been identified as key to building resilience. The learning capacity of farmers will be studied by means of participatory workshops with East of England farmers, aiming to understand farmers' capacity and opportunities for collective learning and self-organisation.

The drivers of farm demographics will be identified and assessed through key informant interviews with farmers, farm workers and local experts from farmers' unions and regional authorities. These interviews will reveal the drivers of exit and entry decisions, including mobility decisions and assessments of expected demand trends for farm labour. Measures to improve the resilience of farm demographics and facilitate entry into the sector, for both farms and labour, will also be assessed and tested through economic modelling and co-creation workshops.

The CCRI team will analyse how the policy environment contributes to resilience through the development of a tool for assessing the impact of policies on resilient agriculture. Moreover, the resilience of farming systems and their delivery of public and private goods will be tested by developing ad-hoc indicators and simulations in future scenarios.

Finally, the Risk Management Toolkit (RMT) is a policy introduced in the CAP 2014-2020 with two components: the Income Stabilization Tool in the Rural Development Programs (Pillar 2); and the crisis reserve in the Common Market Organization. The different EU Member States have allocated different budgets to the RMT and can have adopted national risk management policies outside the CAP. Therefore, the CCRI team will study the socio-economic drivers of Member States' expenditures for the RMT and additional national measures, by collecting data on budget/expenditure at Member State level directly from the European Commission and/or national experts and testing the impact of different factors explaining expenditure on risk management policies with econometric models.

SURE-Farm has three expected impacts:

1 - The SURE-Farm project will help the European Commission, national governments and stakeholders to advance the delivery of the policy framework, in particular the CAP and its national and regional transpositions, by conducting a novel and comprehensive assessment of its capability to enable sustainable and resilient farms and farming systems. Based on the project's results, the SURE-

Farm consortium will develop innovative, comprehensive and feasible recommendations for improved policy design and delivery.

- 2 The SURE-Farm project will provide farmers with better risk management tools by conducting a comprehensive analysis of the determinants of farmers' risk perceptions and decisions and by developing a set of risk management tools and strategies to enhance farm resilience, which are better tailored to the specific needs of different types of farmers.
- 3 SURE-Farm will contribute to improved resilience of the agricultural sector through reflection and co-creation with stakeholders, building on a range of advanced analyses, comprehensive data bases and innovative tools. The tools, strategies and guidance from SURE-Farm will help to revitalize the EU agricultural sector, to increase its attractiveness and to maintain its capability to deliver private and public goods in the long run in the face of continuous change and uncertainty. The results and tools can also be used for decision making by a broad range of stakeholders and policy makers. SURE-Farm official website



The challenges Economic

- More volatile producer prices.
- New competitors in internationalized and liberalized markets.
- Upstream and downstream market power along the value chain.
- Increasing dependence on non-farm land owners and financial institutions.

Social

- Demographic change.
- Increasing urbanization.
- Changing policies and political risks.
- Changing societal concerns and consumer preferences.

Environmental

- Unusual weather patterns and higher risks of extreme weather events.
- Land degradation.
- Concerns on water and energy availability.

The objectives

- Identify the determinants of resilience.
- Improve farmers' risk-related decisions and management.
- Assess farm demographic changes and their links to labour markets.
- Evaluate the current policy framework and develop resilience enhancing policy options.
- Make integrated long-term projections of farming system resilience.
- Identify pathways to implement a resilience enhancing environment.



The Consortium

16 partners coordinated by Wageningen University

Universities

Universitetet i Bergen (UiB), Norway Sveriges Lantbruksuniversitet (SLU), Sweden Universidad Politécnica de Madrid (UPM), Spain Università degli Studi della Tuscia (UNITUS), Italy Aberystwyth University (Aber), United Kingdom Katholieke Universiteit Leuven (KU Leuven), Belgium Georg-August-Universität Göttingen (UGOE), Germany University of Gloucestershire (UoG), United Kingdom University of National and World Economy (UNWE), Bulgaria Eidgenössische Technische Hochschule Zürich (ETH Zürich), Switzerland Wageningen University & Research (WUR), Netherlands

Research Institutes

Instituut Voor Landbouw En Visserijonderzoek (ILVO), Belgium Institut National de la Recherche Agronomique (INRA), France Institute of Agricultural Economics (IEA-AR), Romania Instytut Rozwoju Wsi I Rolnictwa Polskiej Akademii Nauk (IRWiR PAN), Poland Leibniz-Institut für Agrarentwicklung in Transformationsökonomien (IAMO), Germany

The stakeholder involvement

- Local co-creation workshops.
- Virtual co-creation communities.
- Annual co-creation meetings.

How to achieve the objectives

- Defining scenarios of stressors.
- Developing improved risk management tools.
- Creating a farm demography assessment tool.
- Designing a novel policy resilience assessment tool.
- Building an integrated assessment tool.
- Designing an enabling environment.

- Intensifying dairy farming.
- Extensive beef and sheep farming.

production

Agricultural

demographics

- High-value egg and broiler farms.
- Private family fruit and vegetable farms.
- Extensive beef cattle systems.
- Intensive arable farming with large amounts of rented land.
- 7-8-9 Large-scale corporate crop farms.
- 10 11 Small scale farms.

Case studies





Soil

Working to protect and restore our soil

During 2017, CCRI researchers have continued working on protecting the soil and promoting soil-improving strategies through two EU-funded projects, RECARE and SoilCare.

This year the RECARE project, which aims to find and promote solutions to protecting the soils of Europe, was in its penultimate year. Jane Mills, Matt Reed and Nick Lewis continued their work on raising awareness of the issues related to this non-renewable resource and promoting some of the science-based solutions to the soil threats across Europe.

Work started this year with an interview by Jane Mills with BBC Radio

Gloucestershire on 1st January, talking about the importance of soil and how it is often forgotten and undervalued as a global resource.

At the end of May, Jane and Matt met with the project team in Iceland to discuss project progress and to review the results of the soil threat solutions being tested. During this visit, Jane and Matt had an opportunity to see the soil restoration work being undertaken by the Iceland Soil Conservation Service. Matt subsequently wrote a blog about halting the desertification of Iceland's fragile soils.

Jane Mills and Julie Ingram produced a Dissemination and Communication plan which aims to ensure that the outputs of the project have a significant impact both on the ground and at policy level. The review also contained key principles which need to be considered for advice and dissemination on soil improving cropping systems and agronomic techniques.

Jane and Julie attended a project meeting in Chania, Crete in March. A key part

The work of SoilCare is now in its second year of a 5-year project. During 2017,

Jane and Julie attended a project meeting in Chania, Crete in March. A key part of the week was to clarify the definition of soil-improving cropping systems and to identify the types of soil-improving cropping systems that the researchers from

the 16 study sites might select with their stakeholders for trialling.

RECARE plenary project meeting Iceland 29/05 - 02/06 2017

Jane was invited as an expert to talk about 'soil education and advisory services' at the fifth European Network of Soil Awareness – Joint Research Centre (ENSA-JRC) meeting 'Give Soils a Voice 2017' in Bratislava on 28th – 29th September. Jane drew on CCRI's research into sustainable soil management practices and advisory services from the three soil related projects; SmartSoil, RECARE and SoilCare.

Julie Ingram gave a presentation called 'Developing effective decision support for managing soil organic matter – stakeholder perspectives', at a mini-symposium in Wageningen on 4th October 2017. The symposium was entitled 'Soil organic matter in agricultural systems: challenges and opportunities' and Julie's presentation was based on her research under the EU funded SmartSoil project which finished in 2015. Julie also presented 'Best practices for soil organic carbon management in agricultural systems' at a workshop in Brussels in March, organised by Directorate-General for Agriculture and Rural Development and the Joint Research Centre, which was also based on research from SmartSoil.

The CCRI celebrated World Soil Day on 5th December 2017 by releasing two media releases. See Caring for the Brown Planet (SoilCare) and Solutions for a Brown Planet (RECARE). Matt Reed was subsequently interviewed on BBC Radio Gloucestershire about World Soil Day, the importance of soil, and how the CCRI is working on EU funded soil projects to help protect and improve our soil.

In November, Jane spent a chilly Friday morning on a market stall at the Cheltenham Farmers' market as part of the ESRC Festival of Social Science. She had many interesting conversations with passersby about the threats to our soil and therefore our food. As part of the event, she presented some of the work of RECARE and SoilCare, which aim to find science-based solutions to these issues.

PEGASUS

In 2017 the CCRI team entered into the final year of the PEGASUS project, an acronym for 'Public Ecosystem Goods And Services from land management: Unlocking the Synergies'.

We are one of 14 pan-European partners, covering ten member states, working as part of a consortia for an EU Horizon 2020 research project, which is being led by the IEEP – Institute for European Environmental Policy.

The highlights of this year have been the completion of the Case Study phase, with a total of 34 case studies investigating examples in ten member states, where initiatives were trying to improve the provision of public goods and ecosystem services from agriculture and forestry. Each case study had a different approach to unlock the synergies between economic and environmental benefits for society.

In March 2017, Janet Dwyer and Chris Short attended the 2nd PEGASUS Annual Steering Group Meeting in Reggio, Calabria at the very end of the 'foot' of Italy, where Chris presented the findings of the WILD case study. The key aspects recognised were the role of facilitation and the delivery partners (FWAG, GRCC, CWPT) in linking delivery of the Water Framework Directive with agri-environment initiatives and local development infrastructure, all relevant in terms of how land (urban & agricultural) and water interact. The focus on coordinated action to resolve integrated environmental challenges was noted as being particularly transferable to other situations. While ecological changes are difficult to record, there is evidence of behaviour change as a result of knowledge exchange and advice.

There was also time for a field trip, and the project team visited sites linked to Bergamot production, which is critical to the economy of this region – the most deprived in West Europe. Bergamot is a citrus fruit grown for its oils that are found in the majority of perfumes and fragrances, as well as being the critical element in Earl Grey tea. Over 80% of the world's Bergamot is produced in the Calabria region and much of this is sold to multi-nationals like Chanel and Prada. Some of this production is conventional and on a large scale through CAUPA, but there is a growing demand for organic Bergamot, started by the Body Shop. The team visited a producer with 7ha of organically grown Bergamot and producing their own essential oil for use in aromatherapy and other health products.



Bergamot trees in Calabria

The end of the year is now focused on the main outputs of the project, a series of maps that show the intensity of production methods in agriculture and forestry and the multiple benefits; a toolkit to assist new and existing initiatives to maximise the societal benefits arising from agriculture and forestry and a set of policy suggestions for enhancing the collaborative approaches developed in the project. These and the preliminary findings of the project have been shared and discussed in three workshops across Europe (The Hague, Lisbon and Vienna).

Preliminary findings were presented at the IASC conference in Utrecht. Chris Short lead a series of three panel sessions considering the use of the Social-Ecological Systems concept to understand the public goods and ecosystem services derived from agriculture and forestry. In total there were twelve presentations from six of the case studies. The key messages highlighted were the need to communicate with local organisations and networks in a way that enhances the multiple benefits that collective approaches can generate. Often the case studies were dealing with complex situations and these need to be embraced by policy makers as well as by those leading the initiatives. Generally, the relationships between agriculture



Chris Short presents at a PEGASUS workshop

and forestry and the provision of environmental and social benefits are influenced by multiple drivers and motivations. The key motivational, institutional and socioeconomic factors which have fostered the provision of these benefits includes: the diversity of the actors engaging in an initiative or action; the innovativeness of the actors; and, a carefully tailored, supportive role of the state and of public policies.

The end of the year is now focused on the main outputs of the project; a series of maps that show the intensity of production methods in agriculture and forestry and the multiple benefits; a toolkit to assist new and existing initiatives to maximise the societal benefits arising from agriculture and forestry; and a set of policy suggestions for enhancing the collaborative approaches developed in the project.

The key preliminary findings are the development of:

- A series of maps showing management intensity that link EUROSTAT data with different farming and forestry systems;
- Key messages for the CAP post 2020 to assist in the targeting of public goods and ecosystem service delivery;
- A demand-led toolkit to assist the development and delivery of projects and initiatives that help in the provision of environmental and socially beneficial outcomes;
- Messages for policy that show it to be one of a number of drivers in rural areas, alongside market issues and local context;
- Action at the landscape and territorial scale to assist collective action a more flexible policy framework is required.

The final project conference is in January 2018 in Brussels. The main CCRI researchers on the PEGASUS project have been Janet Dwyer, Chris Short, Peter Gaskell, Dan Keech, Katarina Kubinakova and Nick Lewis.

Nature Based Solutions to Flooding and Water

It is increasingly recognised that traditional engineering responses to storm and flood events is limited by economic, physical and social barriers. Predictions suggest that the weather will become more volatile, which means that the impact on society will increase with stronger, more intense and frequent rain events and coastal storms. As a result there is an increasing focus on mitigation and non-structural measures to provide additional and potentially more efficient and more sustainable solutions to water-related problems.

Nature-based solutions (NbS), such as natural flood management, are beginning to reframe the discussions and policy responses as national agencies and EU member states implement mitigation measures against extreme water-based events. The term NbS is used here to describe soft engineering approaches that are aimed at increasing the resilience of catchments and communities affected by meteorological events and therefore reducing the economic, functional, cultural and social damage disruption that such events can cause. The CCRI is involved in compiling the comprehensive evidence base on the social, economic and environmental effectiveness of possible NbS in a number of settings.

Because NbS are place-based responses, they also require working with local communities, landowners, land managers and risk management officers in order to achieve the cumulative effect of interventions that will reduce the risk from water-based natural disasters. Consequently it is important to incorporate local knowledge, associated areas of expertise and lessons from the past in any NbS projects. NbS and NFM projects all recognize the importance of nature and take a systems approach to environmental change based on an understanding of the structure and functioning of ecosystems, and the social ownership and context



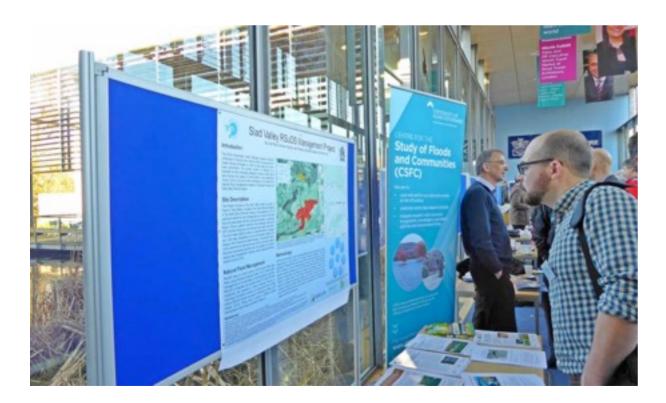
Natural flood barrier

within which they are situated. As a result there are a number of multiple benefits that can be associated with NFM projects aimed at reducing flood risk, this includes an increase in water quality, biodiversity and pollination as well as health and wellbeing benefits from those working on the projects many of which might have been directly impacted by flooding.

This year has seen an extension of our work with the Stroud Rural SuDS project, the preparation of Community Scoping Report for the Isbourne Catchment Group that resulted in them being included in the recent round of national NFM projects and a number of other related projects.

National Flood Management Conference

The CCRI organised a major conference on natural flood management, in collaboration with Stroud District Council, at the University of Gloucestershire on 25th January 2017.



Around 200 people attended the conference - Natural Flood Management: Enabling Partnerships and Action - which was aimed at building partnerships between local communities, flood groups, local authorities and land managers to enable them to deliver effective natural flood management at the local scale.

The conference recounted the real partnerships established to enable Stroud District Council to deliver the Stroud Rural Suds project in Gloucestershire, which is building Natural Flood Management in the catchment of the Stroud River Frome.

CCRI's Chris Short and Stroud District Council project officer, Chris Uttley, who led the event, were delighted with the positive feedback received and hoped that the conference would inspire other communities to follow their lead.

New Project - LANDWISE

Chris Short is working with other researchers in a new innovative collaborative project, led by the University of Reading, which will join forces with farmers, advisors, communities and local authorities across the West Thames area to learn how different land management methods impact on flood risk.

LANDWISE was one of only three proposals to be backed with funding from the National Environmental Research Council (NERC)'s £4.1m Understanding the Effectiveness of Natural Flood Management (NFM) program, and will receive £1.25m.

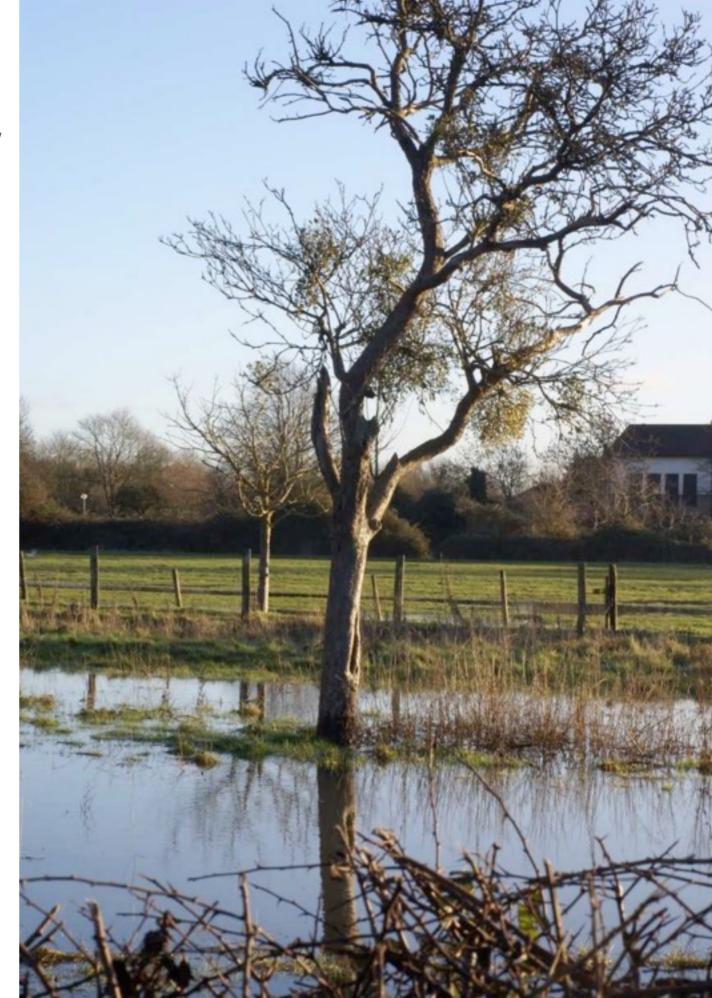
Recently, a lot of attention has been given to 'slowing the flow' within river channels, using wood to create leaky barriers. LANDWISE (LAND management in loWland catchments for Integrated flood riSk rEduction) aims to take a step back and look at how to reduce the volume of water entering river channels in the first place, and to 'slow the flow' by enabling water to move slowly below the ground surface. This can be done by increasing the amount of water that can be absorbed by land and returned to atmosphere through crops and trees, or stored in deep groundwater.

These natural methods, including crop choice, land preparation, building soil organic matter and tree-planting, can reduce the amount of water that runs off the land surface. They improve soil structure to allow more rainwater to infiltrate below ground.

The LANDWISE research focuses on the West Thames River Basin area, where around 112,000 properties are at risk of flooding if rivers burst their banks, almost 10,000 are at risk of groundwater flooding, and many more are in danger of surface water flooding. Work will initially focus on the Loddon, Pang and Upper Thames catchments, before being scaled up to the Thames river basin upstream from Oxford and Maidenhead. The project will explore whether broad scale changes in land use and management could have helped to reduce the severity of flooding events of July 2007 and the winter of 2013/14.

The research team will gather data to test how effective these measures are for small to large flood events and from local to large river basin scale. They will bring together local knowledge on current land management methods, record how they impact water infiltration and storage below ground using field measurement and new satellite technology, and run modelling experiments based on the data collected and local knowledge. This will be supported by workshops and further field visits, working together with farmers, communities and local authorities.

The team will aim to find realistic opportunities for future Government policy on land use and management changes after Britain leaves the EU. Natural flood management measures could also improve water quality, biodiversity and sustainable food production.



Knowledge and Innovation in Agriculture

Agridemo-F2F and VALERIE

CCRI researchers continue to be involved in projects which look at the Agricultural Knowledge and Innovation System in Europe, specifically the way farmers, advisers, researchers, supply chain actors etc generate, access and use knowledge, and how they innovate, learn, and tap into many different information sources and innovation support services. This is crucial work which is providing

tools, understanding and policy recommendations to help cross the bridge between research and practice gap.

Julie Ingram, Jane Mills and
Hannah Chiswell are leading
a work package in the EU
H2020 project Agridemo-F2F
- Building an interactive
Agridemo-Hub community
enhancing farmer to farmer
learning - which commenced
in January 2017. The project
will examine the experiences
of different stakeholders
involved in farm
demonstration activities, and
the role of these activities in
enhancing peer-to-peer learning.

The first step of the project involves creating an inventory of farms that host demonstration activities across Europe. This inventory details the sectors, themes and topics on which they provide expertise and describes the techniques they apply. It will be available online as an interactive FarmDemo hub with a clickable map for farmers (and other users) to search for demonstration activities

relevant to them and their

farming system.

Translation and adaptation of research results, the responsiveness of research to users' needs and improved access to results are all regarded as important in achieving a more sustainable European agriculture.



The Agridemo-F2F Research team (Photo courtesy of Agridemo-F2F)

Taking a different but equally important perspective on knowledge and innovation, the EU funded project VALERIE -Valorising European Research for Innovation in Agriculture and Forestry aims to improve access for practitioners and advisers to information from research in agriculture and forestry.

Julie Ingram, Pete Gaskell, Jane Mills and Janet Dwyer have been leading a work package in this project since 2014. The project has developed a smart 'virtual adviser' tool (ask-Valerie.eu) to enable this access; and to support communication among practitioners and advisers. This tool will provide free access to some 80,000 documents (research outputs such as papers, factsheets, reports) from sustainable agriculture and forestry sources in seven languages across Europe. This will have a direct impact for practitioners in the field.

The CCRI team has been developing a co-innovation methodology in ten case studies across Europe representing different farming and forestry systems. Working with advisers, farmers, processors, researchers, supply chain actors and decision makers has led to identification and testing of promising innovation solutions. It has also provided an understanding of how translation processes operate which will help to improve future research design.

A paper on translation process was published from this work in *Land Use Policy* (70, pp.38-51) "Reconceptualising translation in agricultural innovation: A cotranslation approach to bring research knowledge and practice closer together'. It was authored by Ingram, J., Dwyer, J., Gaskell, P., Mills, J. and Wolf, P. D.

Julie presented a paper, "Integrating innovation into Research Translation: Developing a Stakeholder-driven Methodology", at the 23rd European Seminar on Extension (and) Education in Chania, Crete, in July on behalf of a VALERIE team of co-authors, namely Julie Ingram, Pete Gaskell, Jane Mills and Janet Dwyer (CCRI) and Pieter de Wolf (Wageningen University). Julie represented the VALERIE project at the AGRI-Innovation summit Lisbon on 11th and 12th October 2017 where over 500 delegates shared experiences and visions of innovation in European agriculture. and also presented a paper at the final VALERIE Symposium



The VALERIE team at a meeting in Toulouse, January 2017

in Brussels in November, 'Case studies for stakeholder-driven innovation'

Still within the knowledge and innovation scope, two publications emerging from work from the SOLINSA project, which concluded in 2015, have been published:

Ingram, J. and Maye, D. (2017). The boundary between knowledge systems in alternative innovative networks and the regime's Agricultural Knowledge System: an analysis of the Permaculture network in England. In: Elzen, B., A. Augustyn, M. Barbier and B. van Mierlo. AgroEcological Transitions: Changes and Breakthroughs in the Making.

Ingram, J. (in press) Agricultural transition: Niche and regime knowledge systems' boundary dynamics. *Journal Environmental innovation and Societal Transitions*.

Julie Ingram was also in Johannesburg, South Africa, at the 4th Global Science Conference On Climate Smart Agriculture (CSA) in November, where she presented a poster "Scaling up conservation agriculture in Europe: enabling the integration of science- and farmer-based actions' authored by herself and Emilio J González-Sánchez, from the University of Córdoba, Spain and Secretary General of the European Conservation Agriculture Federation.



Marco Della Gala has been developing a Smartphone application to enable producers to provide information to consumers on who they are and what products they sell, as well as to consumers looking to buy local produce.

Marco is working under the supervision of James Kirwan, with support from Matt Reed and Rob Berry, on a project called SOFIA - 'Situated Learning Opportunities (SLOs) fostered by ICT applications in Alternative Agro-Food Networks'.

SOFIA is a training-through-research project funded by the EU Horizon 2020 program under the Marie Skłodowska-Curie actions – Individual Fellowship. It started in June 2016 and is due to finish at the end of January 2018, when the Smartphone app will be officially launched.

In order to foster the sustainable development of local food systems, the project has explored the use of mobile and ubiquitous services for helping people access local food and to facilitate the exchange of knowledge between farmer and consumer, who are engaged in Alternative Agro-Food Networks (AAFNs), thus enhancing the learning opportunities offered by the face-to-face interaction that is enabled in AAFNs.

The app will answer the question "where can I buy local fresh products?" as well as facilitate the sharing of experiences, preferences, and knowledge with other consumers and producers. The app will therefore be a tool helping consumers to research information on local products and where to find them. Consumers will be able to search the different local food sources in their area (farmers' markets, farms, box schemes, community supported agriculture, food hubs, pick your

own) and will be able to view details, such as description, distance, contact, pictures, social channels etc., for each of them. Consumers will be able to share pictures, messages and comments related to a local source and its products and will be able to find information regarding which farmers are attending a farmers' market and what products will be available. Information on special events, promotions and other related news will also be available on the app.



For producers, the app provides the opportunity to spread the word about their products. Through a dedicated web platform and also directly by the app, producers will be able to insert and update their own data, such as who they are, their production methods, contact information, where they are located, opening hours and at which farmers' markets they can be found and on which days. They

will be able to advertise special promotions on the app, update information on their products and use photos to demonstrate them.

The app will allow the re-connection and close communication among agro-food producers and consumers, thus fostering the creation of favourable conditions for cooperation and innovation within the agro-food value chain.

In the last months, the research team has been working on the project's public engagement, carrying on activities such as the development of the SOFIA website and social channels (Facebook, Twitter and LinkedIn). It has also presented some of the project's results at international conferences.

At the 18th Working Conference on Virtual Enterprises held in Vicenza, Italy, in September, Marco presented a paper titled "The Role of ICTs in Supporting Collaborative Networks in the Agro-food Sector: Two Case Studies from South West England", which was written by Marco and Matt Reed. Marco also presented "Sustainable development for rural areas: a survey on the Agritourism Rural Networks" written by him in collaboration with a team of researchers from the University of Calabria.

At the XXVIIth ESRS Conference held in Krakow, Poland, in July, Marco presented "Mobile applications fostering situated learning opportunities in alternative agrofood networks" in the working group looking at "Tap for change: ubiquitous ICT, food and rurality", which was chaired by Matt Reed.

In November, Marco gave a demonstration of the app at the Cheltenham and Cirencester farmers' markets, where CCRI researchers, as part of the 2017 ESRC Festival of Social Science, set up stalls to give short talks and chat with members of the public about our latest food and farming research and how it affects the products we buy.

The app attracted great interest from both producers and consumers, who showed great willingness to adopt such a

The app attracted great interest from both producers and consumers, who showed great willingness to adopt such a tool to help the re-localization of the food supply chain and who gave very positive feedback in terms of its usability, usefulness and value. Producers were happy to find a tool easy to use which provided the opportunity to improve the marketability of their products as well as provide more information to consumers about their produce, including where to buy it. Consumers were also happy to find a tool to help them to be better able to access local fresh products.

The final version of the app will be launched on 22nd January 2018 and will be available both for android and for IOS platforms. For more information about the Sofia project and to be updated on the launch of the app please visit the Sofia website.



Social Value and the Rural Economy

Paul Courtney has consolidated the CCRIs position as a centre of excellence in Social Value through a number of completed projects and peer reviewed publications in 2017 as he continues to pursue his research interests which cohere around health, happiness and resilience.

Social value is a way of thinking about how scarce resources are allocated and used. In simple terms, public sector organisations in the UK are required to consider the social and environmental value that can be generated through buying services, in turn ensuring that procurement decisions are influenced by the wider societal value that they generate, and not just by efficiency or cost.

For smaller voluntary and community organisations, it is considerably more challenging to evidence the change they produce for society and Paul's recent paper, published in *VOLUNTAS: International Journal of Voluntary and Nonprofit Organisations*, has sought to address this gap through development of a Social Return Assessment tool, underpinned by an original conceptual framework for Social Value as it relates to the third sector.

As Paul writes in VOLUNTAS, there are many technical challenges [for smaller organisations] to grapple with, such as how to assess the marginal difference that a project or organisation makes for society, or how to place a value on impacts which have no market price, such as health and well-being. And in pragmatic terms, smaller organisations are likely to require that impact tools be readily adapted into an accessible resource not over-reliant on expert or specialist input. See further information on this paper.

Paul has also enjoyed recent publishing success with fellow writing and research partner, Colin Baker, from the department of Health and Social Care. In the spirit of breaking new ground they elected to seek publication in *Research For All*, an innovative new open-access journal published by UCL Press, of which stakeholder engagement is a core interest. Focussing on research that involves universities and communities, services or industries working together, the journal aims to highlight the potential in public engagement for robust academic study, and development of involved communities and research that has impact – all of which lies at the heart of the CCRI's unique approach to co-produced, policy and practice relevant research.

In the paper, Paul and Colin take a Grounded Theory approach to conceptualising a Social Return on Investment (SROI) model designed to capture and measure the outcomes of community health programmes. The framework is illustrated by their evaluation of the Active Together programme in Gloucestershire, which they delivered to Gloucestershire County Council earlier this year. The journal paper will be available via open access in January 2018.

More recently, Paul and Colin have gained peer review of their work at two international conferences: Public Health England at Warwick University, and the European Public Health conference in Stockholm, as a precursor to seeking further journal publications to consolidate their position in the field of ecological approaches to community and public health. While peer reviewed publications have broken new ground conceptually and empirically, continuing projects have also broken through methodological boundaries. Paul and Colin's methodological journey with SROI has taken them deeper into the realm of health with the help of

some University seed corn funding to explore the wider psycho-social impacts of Orthnographic Surgery, an approach they will be rolling out to further patient cohorts during 2018. A publication to report these unique findings is currently in preparation.

Paul Courtney and John Powell have also adapted SROI to produce social estimates for use in a Cost Benefit Analysis (CBA) model. Their three-year evaluation of the Rural Community Energy Fund (RCEF) came to a close with the final report delivered to Defra and BEIS in July. The study involved an SROI model to demonstrate the wider social value of the fund, and was the first of its kind to incorporate SROI estimates into a Cost Benefit Analysis (CBA) model produced by their collaborators Ricardo AEA to ensure the formal capture and recognition of the social impacts. Findings from the report fed directly into a review of the RCEF and renewable energy programmes for rural areas, undertaken by Defra and BEIS. The project was led by Paul Courtney and involved John Powell and Matt Reed.

Early in the year Paul employed a case study approach to illustrate the economic impacts of the Village Agents programme in Somerset. The analysis distinguished between cost savings to the state and wider social value, demonstrating credible



value for money of the Village Agents initiative, especially around issues such as mental health and mobility. The findings were presented to the Community Council for Somerset in March, 2017.

Paul's application of social value to the field of community growing has continued its journey north this year from Manchester to Midlothian, with the help of the European Social fund (ESF) to assist community groups to understand and demonstrate the social value generated through food, growing and related partnership activities. The social outcomes tool, originally developed at Hulme Community Garden Centre in Manchester, is being developed and applied to community groups north of the border, further increasing the number of stakeholders who have used it to assess their own distance travelled as a result of community growing activities. These were shown by Paul to be largely centred around access to the environment and green space combined with opportunities for social interaction with fellow volunteers, many of whom are socially or economically excluded.

Closer to home, Paul and the University of Gloucestershire team, which includes Colin Baker, Leonie Burton and Wendy Russel, have just entered the second year of their evaluation of the Gloucestershire Going the Extra Mile programme, which runs to December 2019. The programme is helping to move people closer towards education, training, volunteering or work, including self-employment, through reconnecting people with their local services in their communities. The evaluation has revealed it to be helping many participants achieve their desired outcomes, whether through a working or educational related route, and GEM is evidently generating substantial social value for individuals and communities alike. There are over 400 participants on the programme to date, an achievement celebrated at Pittville Pump Rooms in Cheltenham in November, where Leonie and Wendy presented some of the success stories highlighted by the evaluation.

Comprising of an SROI and outcomes-based assessment of social value together with a process element, the GEM evaluation cycle also features a unique storytelling peer researcher model whereby participants on the programme are



Lower Severn Vale GIS Project

Chepstow

The Lower Severn Vale is a geography distinct and uniquely picturesque area of Gloucestershire, roughly defined as the area of lowland around the River Severn between Gloucester and the Second Severn Crossing.

Cwmbran

In 2012, the Campaign to Protect Rural England (CPRE) approached the University with an idea and funding for a project to focus on the Lower Severn Vale, which they consider an important but poorly-understood part of Gloucestershire (certainly in comparison to the more studied surrounding landscapes of the Cotswolds and the Forest of Dean). The area is subject to many development pressures and there is an interest in ensuring that new development is planned wisely. With this in mind, it is important to develop an understanding of the character and special qualities of the landscape that will inform debates over its future.

The project, led by Robert Berry, is aimed at developing a digital map database, or geographic information system (GIS), of the Lower Severn Vale using undergraduate student interns working with open source GIS software.

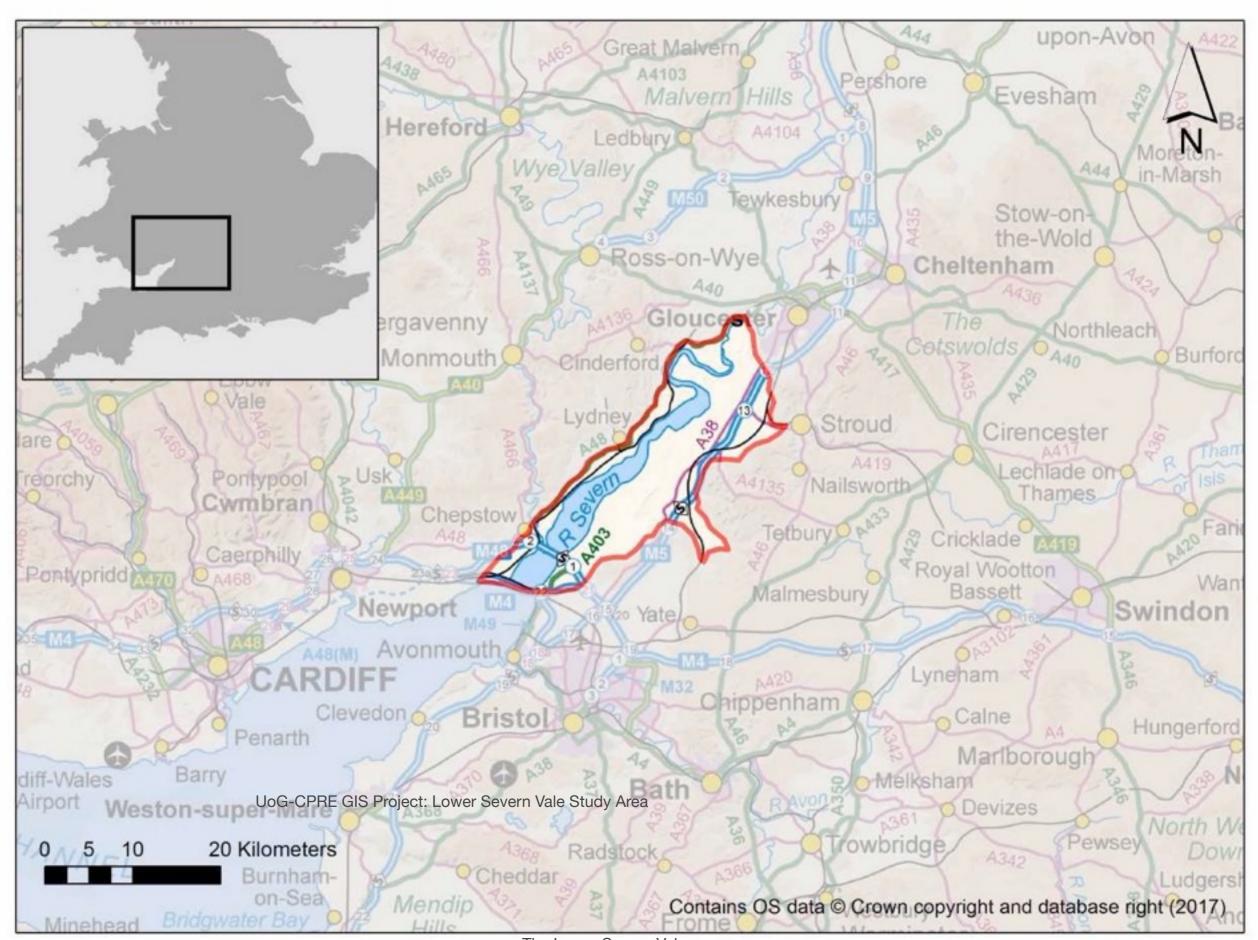
The main advantages of using open source GIS is that the software can be installed on any computer, without financial cost or licensing restrictions, allowing on-going resource sharing and active collaboration. It is hoped that the Severn Vale GIS will become a resource which will build up over time, providing a database of information for other research projects, a scenario planning tool, and a community engagement tool for both the University of Gloucestershire and the CPRE. on one of the annual study tours funded by the project.

Each year since 2012, between two and three students have completed internships on the project. In the early stages, interns focussed on data acquisition and cataloguing, but as the project has progressed, attention is now focussed on using the data for analysis and developing ways of publishing project data and study outputs in an open and accessible format. This year, for example, two interns began work on creating a public-facing online mapping system which will allow anyone to view and interact with the data collected on the project. This is due to be launched at CPRE Gloucestershire's Annual General Meeting in 2018.

A419



Students and staff surveying the Lower Severn Vale from Coaley Peak, Gloucestershire, on one of the annual study tours funded by the project



Rural Services Network Rural Survey THE POLICE ARE LOOKING FOR

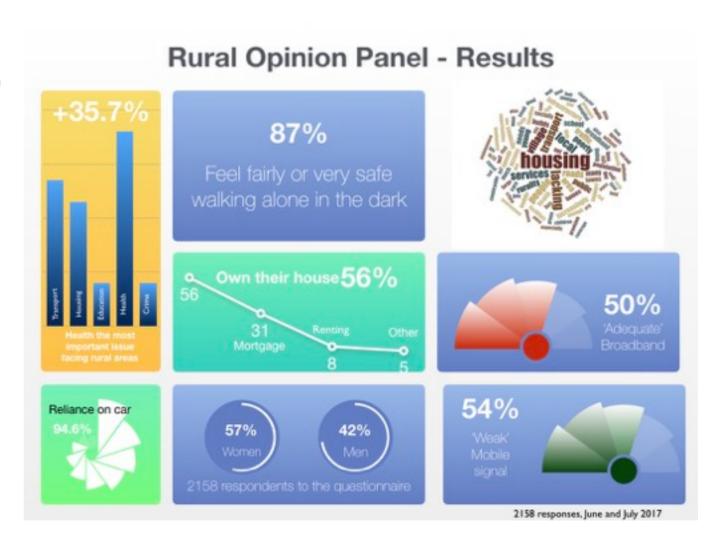
The CCRI has had a long relationship with the Rural Services Network (RSN) and during the summer conducted a short survey of rural residents in England.

The aim of the survey was to assess the current key concerns for those living in rural areas and aimed to develop an up-to-date agenda for such areas. The survey was particularly prescient given the snap General Election that occurred in June. It was also the first step in establishing what is intended to become a 'rural panel' that will be consulted regularly on issues facing rural England. The aim of the panel will be to provide an authoritative and representative voice for rural areas.

The survey was promoted primarily through Social Media platforms, by both RSN and CCRI. Over 2500 people responded to the online survey, which included significant numbers of people who did not live in rural areas, clearly showing how relevant the matter is to people.

The survey showed that declining healthcare services are the largest concern for rural residents throughout the UK, ahead of public transport, rural housing and rural crime.

At present the CCRI is finalising the report for the RSN, which is due to be completed by early 2018. Further details regarding the rural panel and the finalised report will be made available as soon as possible, however if it is something that you would like to be involved with, please contact CCRI by E-mail: ccri@glos.ac.uk



The City, Citizenship and Space

The CCRI continues to expand its interdisciplinary and international research alliances in the field of urban and food studies.

A range of articles authored by Dan Keech and Matt Reed, together with European partners, have been published, some of which are detailed in this section. These papers cover conceptual and empirical aspects of urban horticulture, spatial planning and governance, place-making and urban landscapes, and modes of network communication. They reflect our interest in analysing the dynamics of social change and contested land use in the city, the cultural porosity of the urban-rural boundary and the multiple functions of urban spaces.

Throughout the summer, Dan Keech worked with CCRI's close allies at the Baltic Studies Centre and the Latvian Academy of Culture to support the development of the conference 'Alternative Food Supply Networks in Central and Eastern Europe'.

This conference, held in October, was the first interdisciplinary food conference of its kind in Latvia and brought together around 50 researchers and practitioners for two intensive days of collaboration. Special regard was devoted to the influence of intangible cultural heritage in creating alternative food supply networks, as well as examining food in the context of creative industries.

As well as chairing paper and plenary sessions, Dan also co-presented, with Professor Marc Redepenning (OttoFriedrich University, Germany), a paper linked to their research on the cultural dimensions and spatial semantics of commercial horticulture in the city of Bamberg.

The on-going partnership with Marc continued in November via an Erasmus+ visit to Bamberg, where Dan led a seminar on urban agriculture as part of OFU's MSc in Social and Population Geography. The University of Gloucestershire's established links with the Hochschule Heilbronn in Germany were strengthened through Dan's participation in the annual meeting of the German Cultural Landscapes Association, to which he was invited to talk on local distinctiveness, tourism and changing cultural relations with landscapes.



Dan Keech leading a seminar on urban agriculture in Bamberg in November.

Photo courtesy of Claudia Kallning



Bamberg market gardens. Urban horticulture. © Zentrum Welterbe Bamberg: Jürgen Schraudner

In July, Dan presented a paper at the Critical Foodscapes conference at Warwick University. The paper - 'Urban Agriculture – charting new democratic governance for food production? The example of Bristol, UK' - was co-written by Dan and Matt Reed and suggested that the expectation placed on urban gardening is perhaps a bit too heavy. By presenting their analysis of interviews, social media traffic and print media reportage (the latter covering 2015 – Bristol's year as European Green capital), the paper suggested essentially three things:

- urban agriculture networks in Bristol aren't necessarily trying to tear down the system, so much as experiment with citizenship, in order to augment the constrained state (constrained by austerity, planning regulations, publicity considerations, and hierarchies of environmental priorities);
- the Bristol food networks conform to understandings of social movements suggested by Manuel Castells, and especially that their use of social media/ internet creates creates hybrid spaces where this citizenship is played out;

 that there is a big gap in the profile of food issues in the social media traffic compared to the print media, as demonstrated in almost no mention of food in press coverage of the Bristol Green Capital period, even though almost 20% of Bristol Green Capital's funding went on community food projects;

In September, Dan Keech and Janet Dwyer were at the Urban Futures 2 Symposium at Rousham Gardens, Oxford. The symposium was organised by the University of Gloucestershire's Landscape Architecture team, in collaboration with the CCRI, to research the territory between rurality and urbanity in the 21st century. This year's event welcomed academics from China, Hong Kong, Japan and Vietnam.

Janet chaired one of the sessions and Dan presented a paper on urban agriculture and place-making, which was published in the journal *Moravian Geographical Reports*. CCRI PhD student, Yao Guo and Joo-In Seong, who is from the Korea Rural Economic Institute and is spending a sabbatical year as a visiting researcher in the CCRI, also made contributions. Also speaking at the symposium was CCRI Advisory Board member, Judy Ling Wong.

Selection of publications:

Koopmans, M, Keech, D, Sovovà, L, Reed, M (2017) Urban agriculture as a placemaking tool: narratives about place and space in Ghent, Brno and Bristol. *Moravian Geographical Reports* 25 (3) 154-165.

Reed, M and Keech, D (in press) The 'Hungry Gap': Twitter, Local Press Reporting and Urban Agriculture Activism. *Renewable Agriculture and Food Systems*.

Reed, M and Keech, D (accepted 18th July 2017) Making the city smart from the grassroots up: the sustainable food networks of Bristol. *City Culture and Society* doi: 10.1016/j.ccs.2017.07.001

Grivins, M, Keech, D, Kunda, I and Tisenkopfs, T (2017) Bricolage for self-sufficiency: an analysis of alternative food initiatives structures. *Sociologia Ruralis* 57 (3) 340- 356 doi: 10.1111/soru.12171

Reed, M and Keech, D (2017) Gardening cyberspace - social media and hybrid spaces in the creation of food citizenship in the Bristol city-region, UK. *Landscape Research*. doi: 10.1080/01426397.2017.1336517

Koopmans, M, Mettepenningen, E, Kunda, I, Keech, D, and Tisenkopfs, T (2017) Creating Spatial Synergies around Food in Cities. *Urban Agriculture and Regional Food Systems* 2 (1) 1-9. doi:10.2134/urbanag2016.06.0003

ROBUST

A CCRI team, consisting of Damian Maye, Dan Keech, Matt Reed and James Kirwan, have recently begun work on a new 4-year Horizon 2020 project called ROBUST. The project started in June 2017, when over 60 partners met in Ede in the Netherlands to initiate this project.

The CCRI is working with 23 partner organisations across Europe, including Gloucestershire County Council (GCC) and Welsh Local Government Association (WLGA), and in particular will be looking at Gloucestershire as a case study.

Gloucestershire is expected to experience dynamic economic and social developments over the next 15-20 years including significant growth in the

number of residents over 65, expansion of investment in hi-tech industries and demand for rural housing. Not all of the county's predicted economic growth can be accommodated within the existing urban areas, and rural and semi-rural land will need to be considered for future employment and housing development.

ROBUST and all related processes are designed to advance our understanding of the interactions and dependencies between rural, peri-urban and urban areas. It will include exploring the potential for a possible county-level food strategy connecting urban and rural places within the county and outside, as well as looking at synergies between food and other functions (especially public services and ecosystem services). At the same time, decision-makers aim to protect the Gloucestershire's unique natural environment (including extensive AONB designations) and historic town centres.

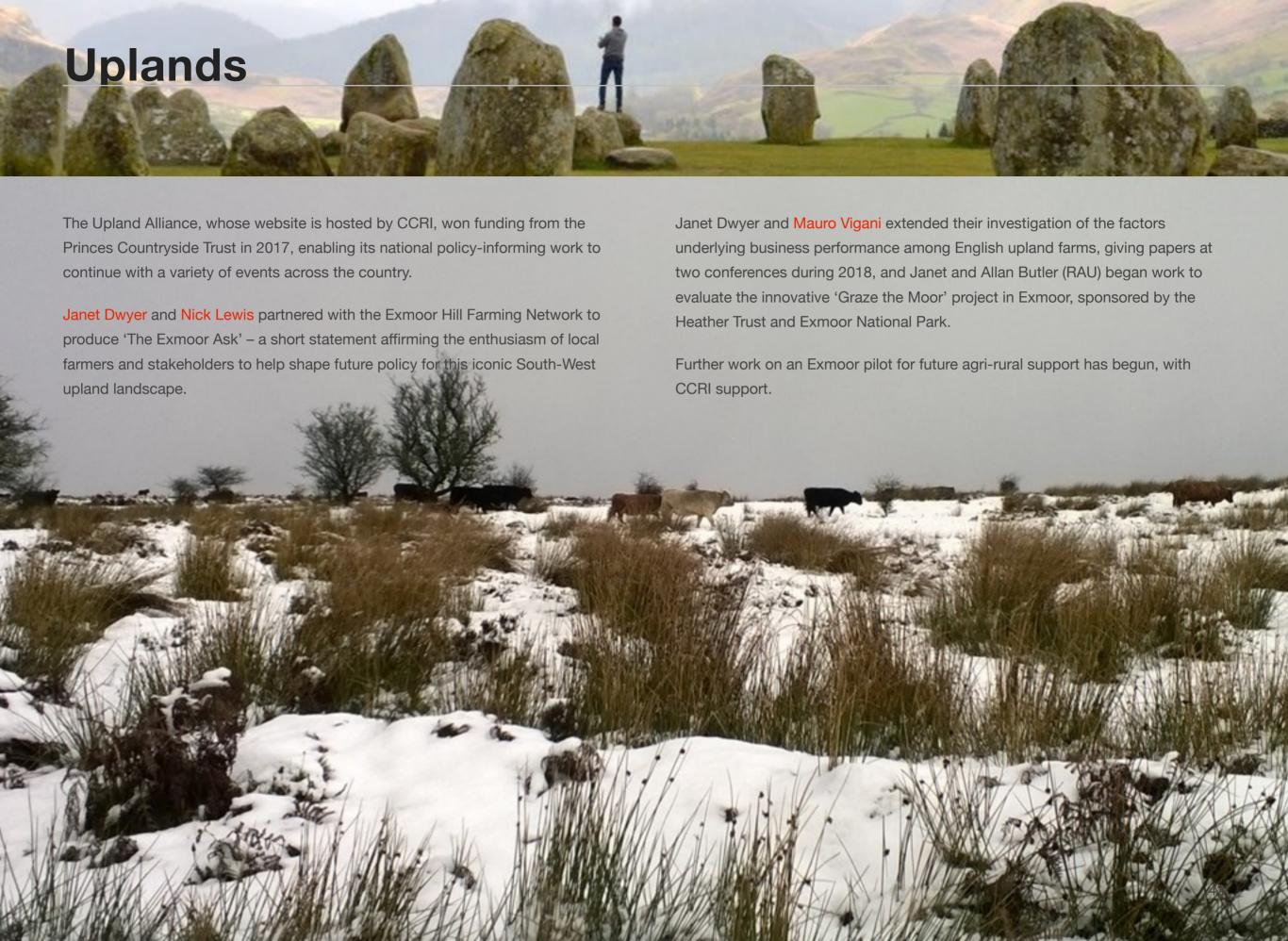
These dynamics all indicate a complex mix of both distant and local urban-rural relations in the future. How these can be positively managed is the subject of ROBUST. The project is distinguished by an approach which brings researchers and councils together to investigate questions such as:

To what extent can Gloucestershire offer waste, air pollution and flood management services within the wider region?

How can rural-urban functions (e.g. tourism, commuting, health care) be managed and integrated across different local authority levels?

How can the county's local food system become more sustainable and successful, given the political changes ahead?

ROBUST will provide an excellent opportunity to more fully understand the social impacts of such proposed growth and the linkages between the existing urban areas and the wider rural areas. Visit the official ROBUST webpage.



ESRC Festival of Social Science

Our app will help producers
to get the word out about
their products and consumers
to answer the question
"where can I find Local food?"



The CCRI was very much involved in the ESRC Festival of Social Science this year, running three events.

CCRI Research Assistant, Hannah Chiswell, was awarded funding from the ESRC to run an event called 'From Moo to You', which took members of the general public through the journey that milk makes from farm to shop and showed how social science plays a key role in understanding and responding to dairy farming issues, such as supply and price volatility.

Hannah was joined by Damian Maye and CCRI's placement student, Katie Hickford. The CCRI team was joined by Neil Derwent from Pasture Promise Free Range Dairy and Jenni Hobbs from Hobbs Dairy.

This event, which took place at Asda in Gloucester on 6th November, generated lots of interest with a colourful stall stacked with lots of information, games, cow balloons, banners, goody bags and even a life-sized cardboard cow.

Members of the passing public were invited to participate in a 'play your cards right' game. Whilst some members of the public were well informed, others were not and associated the massive reduction in dairy farmers due to diseases, such as Foot and Mouth and BSE, rather than the poor price they receive for milk. Many people were unaware of how many days a cow has to spend outside to be classed as Free Range Diary, and thought it to be a far higher number of days than it actually is (180 days).

CCRI researchers also set up stalls at the Cheltenham and Cirencester farmers' markets (on 10th and 11th November respectively) to give short talks and chat

with members of the public about our latest food and farming research and how it affects the products we buy.

Themes such as cheese, milk, beer, fish, water and the environment were all up for lively and friendly discussion. Other topics covered were how to use natural flood management to reduce the risk of flooding in the local area, how products travel from farm to table, and the importance of soil for healthy food production.



Hannah Chiswell and Mauro Vigani with Mooranda, the cardboard cow!

CCRI soil expert, Jane Mills, brought along some soil samples to the Cheltenham farmers' market and generated lots of interesting questions from the public, including how to improve the soil in one man's garden!

Chris Short took along some flooding materials to Cirencester Farmers' Market to show the research he has been involved with using natural flood barriers to prevent flooding.

People had the unique opportunity to see a demonstration of a smartphone app at both markets. The app is being developed by a CCRI research team with Marco Della Gala and aims to help people access local food. (See 'SOFIA – Situated Learning Opportunities (SLOs) fostered by ICT applications in Alternative Agro-Food Networks'). In addition to demonstrating to the general public, Marco was able to network with stallholders and local producers, all of whom showed great interest.

All three events were a great opportunity for the CCRI to reach a wider audience by taking its research into the public domain and to increase awareness about some of the issues currently being researched. The events were all streamed on our social media platforms and generated lots of interest, particularly a Twitter competition to name the cardboard cow. The winning name was Mooranda!

The ESRC Festival of Social Science 2017 took place across the UK between 4th and 11th November 2017, giving a fascinating insight into some of the country's leading social science research and how it influences our social, economic and political lives – both now and in the future. There were over 300 free events to attend – via public debates, conferences, workshops, interactive seminars, film screenings, exhibitions and much more.



CCRI's Katie Hickford and Hannah Chiswell, with Jenni Hobbs from Hobbs Dairy, at the 'Moo to You' event at Asda



CCRI research stall at Cheltenham Farmers' market



Built heritage is one of our most important cultural assets, encompassing historic buildings and other structures which influence our landscapes. This section provides an overview of our activities in the rural historic environment in 2017.

Peter Gaskell (pictured below) took part in a round table discussion on the potential repercussions for rural heritage resulting from the United Kingdom's exit from the European Union.

The meeting, which took place in July, was organised by Historic England, the government's statutory adviser on the historic environment, and Peter was one of 20 invited experts representing a range of public, voluntary and private sector organisations with an interest in heritage policy. The discussion centred on two

themes: the opportunities and challenges for rural heritage as part of future agriculture, rural development and environmental policy and the need to gain a deeper understanding of the role heritage plays in contemporary society and the benefits it provides.

In October, Peter delivered a presentation at the launch of Historic England's guidance on Traditional Farm buildings. The presentation was coauthored by Jane Mills and Paul Courtney and focussed on the

importance of rural farm buildings to local economies and communities.

Presentations on policies for traditional farm buildings we also given by Lord
Gardiner, Parliamentary Under Secretary of State for Rural Affairs and Sir Laurie
Magnus, Chair of Historic England. Presentations on the value of traditional farm
buildings to owners and land managers were proved Ross Murray, President of
the Country Land and Business Association and Guy Smith, Vice President of the
National Farmers Union.

During this year, Peter has been providing rural heritage expertise on behalf of the Heritage Alliance to The Programme Monitoring Committee of the Rural Development Programme for England and Natural England's Agri-Environment Stakeholders Group. Here the focus has been on the opportunities to integrate

rural heritage into post Brexit rural development and agri-environment policy.

Over the last ten years, the CCRI has undertaken a number of studies investigating the values associated with the rural historic environment and rural heritage. CCRI members will be presenting papers based on the our rural heritage research at the Annual Meeting of the European Association of Archaeologists in Barcelona in September 2018. The session is entitled "Making the Case: collating and using evidence on the value of rural heritage to influence EU and domestic policy".





New Staff

The CCRI welcomed Julie Urquhart, Hannah Chiswell and Katie Hickford to the team in 2017.



Julie Urquhart (left) graduated from the CCRI in 2010 after completing her PhD, which explored the opportunities for enhancing public benefits from private forests and woodland. Since then, Julie has worked for Forest Research, the University of Greenwich and Imperial College London. She joined the CCRI team as a Senior Research Fellow on 1st September.

Julie is an environmental social scientist with research interests in plant biosecurity, human-environment relationships, public engagement and ecosystem services. She is

an interdisciplinary researcher with a focus on research that has applied policy relevance and the public understanding of environmental challenges. Recent work involved exploring public risk perceptions in the context of tree pests and diseases and investigating the social and cultural value of small-scale fisheries. She is further interested in developing novel place-based approaches for understanding cultural ecosystem services.

Julie is currently working on the EU Horizon 2020 project SURE-Farm (Towards SUstainable and REsilient EU FARMing systems). The 4-year project (2017-2021)

aims to develop a resilience-enabling framework that can be implemented in the EU agricultural sector.

Julie presented two papers on her recent research on public, stakeholder and expert perceptions of tree pests and diseases at the IUFRO 125th Anniversary Congress, in September in Freiburg, Germany.

Hannah Chiswell joined the CCRI in March 2017 as a Research Assistant, after working as a Research Fellow at the Land, Environment, Economics and Policy Institute (LEEP), University of Exeter. Hannah is a rural social scientist, with a particular interest in farm family behaviour in response to policy, and the implications for land and the environment. Her main research interests include agri-environment schemes, intergenerational farm transfer and farmer learning.

She has a particular interest in the use of qualitative analysis software (NVivo), and she is an ESRI certified user of GIS. Hannah is an Associate Fellow of the Higher Education Academy (AFHEA).

Hannah won funding from the ESRC to run an event as part of their 2017 Festival of Social Science called 'Moo to You'. Hannah was interviewed by BBC Radio Gloucestershire about the event and explained that the idea of 'Moo to You' was to engage with the public and take them through the journey that milk makes from farm to shop. She also talked about how social science research is looking at the different ways milk travels from the farmer to the supermarket shelves.

Read more.

Hannah is currently working on Work Packages for two H2020 projects, Sustainable finance for sustainable agriculture and fisheries (SUFISA) and Building an interactive AgriDemo-Hub: enhancing farmer to farmer learning (AgriDemoF2F).

Katie Hickford is our Placement Student for 2017/18. Having completed her 2nd year studying Environmental Science at the University of East Anglia in Norwich. She is now completing her industrial placement sandwich year with the CCRI.

Instaframe Gloucestershire 10.5k Likes esrcfestival #socialscience research #UoG #teamglos

Katie has a wide range of interests and has studied various modules for her university course, including social science, ecology, geology and renewable energy. During the summer of 2017, she completed an internship with the Energy and Environment Team at West Suffolk councils and was responsible for locating suitable electric vehicle charging points across the county.

Katie assisted Hannah Chiswell with the organisation and running of the 'Moo to You' ESRC event. She has also just written a blog about her experience of her first few months in the CCRI. Read Katie's blog.



Student Community

In November 2017, **Stephen Pritchard** successfully defended his PhD thesis.

This was a remarkable achievement for Stephen, who faced several challenges on his way to success. He started off in 2008 as a full time student, but turned part-time when he had to juggle studies with working abroad. Later, he had to fit his studies in around farm management and the eventual sale of the farm, plus the renovation of his home. However, perhaps the most difficult challenge was the death of Stephen's father, which resulted in some health



issues for Stephen that left him very tired and only able to dedicate a few hours a day to study.

Stephen overcame all these obstacles and accomplished an impressive thesis that needs only minor corrections, which is an excellent outcome. The examiners found the thesis very interesting and have encouraged Stephen to write a journal article from it.

Stephen was supervised by Jane Mills and Peter Gaskell. His thesis was entitled: "The social construction of landscape scale conservation projects as delivered by The Wildlife Trusts movement in England". Stephen kindly supplied the following short abstract for our Year in Review:

"Wildlife conservation in England is in transition because nature reserve based conservation has three weaknesses. They have not reversed biodiversity decline, nor do they provide the means for species to move across the landscape in response to climate change, and most reserves are too small to be part of an ecosystem approach to conservation. Landscape scale conservation (LSC) addresses these deficiencies. Thus in the thesis the meaning of LSC as implemented in the Living Landscapes schemes of The Wildlife Trusts (TWT) movement in England is examined by exploring the governance and management of these schemes.

A constructivist approach is used to investigate the institutions and discourses of Living Landscapes. An email survey of the 36 Trusts in England produced documentation that describes Living Landscapes. This was supplemented with in-depth interviews with stakeholders associated with five Wildlife Trusts. These interviews probed into what Living Landscape schemes meant to these stakeholders.

The subsequent document analysis revealed the range and type of Living Landscapes across England. The analysis revealed that LSC is complex, suggesting that ecosystem services are too intricate a typography to assign to these schemes. However, exploring LSC through the lens of stakeholders in TWT's Living Landscapes revealed the discourses and formal and informal institutions of Living Landscapes. The important governance discourses and institutions are examined using Lockwood's governance framework (2009 & 2010).

The research examined TWT's approach to delivering LSC. Two types of institutions emerged from the analysis, informal institutions define the physical attributes of Living Landscapes, whilst formal institutions are characteristic of their governance and management. The key discourses of conservation, education and community engagement define Living Landscapes, whilst ecosystem services emerged as a new discourse to reflect the multi-faceted cultural and historical elements in the landscape. TWT's once insular approach to governance is in transition to a pluralistic model that encourages greater community involvement. Therefore, if LSC is to be a template for successful conservation it must embrace a wider definition of both conservation and governance."

New Students

Following the announcement in August 2016 by the ESRC of its support for a new group of Doctoral Training Partnerships (DTP), we announced in last year's Year in Review that the CCRI is part of the partnership led by Cardiff University. Since October 2017, students in the DTP partnerships benefit from funding and training provided by the Universities that make up the partnership, sharing expertise and experience.

Caitlin Hafferty is the first successful applicant for a CCRI collaborative studentship, offered under the Environmental Planning Pathway of the ESRC Wales DTP. Caitlin's studentship is entitled "QUALMAP: Qualitative Geospatial Methods for Active Participation".

Decision-making processes for rural landscape management are often reliant on the use of quantitative geospatial (i.e. map) data which is analysed and visualised within a Geographic Information System (GIS). However, this approach is limited in its ability to capture and represent the complexities of human-environment relations described by qualitative data (e.g. text, audio, video, images). A methodological gap therefore exists in analysing and spatially representing qualitative information alongside more traditional quantitative data in environmental decision-making processes.

In this PhD project, Caitlin will be investigating ways of addressing this methodological gap, using as a case study a community-led river catchment management project in Gloucestershire. Caitlin will be working closely with the external partners on this 'collaborative' ESRC studentship - Gloucestershire Rural Community Council and the Upper Thames Catchment Partnership.

The project will run for three years from October 2018 and Caitlin will be supervised by Rob Berry, Chris Short and Beth Brockett (Natural England).

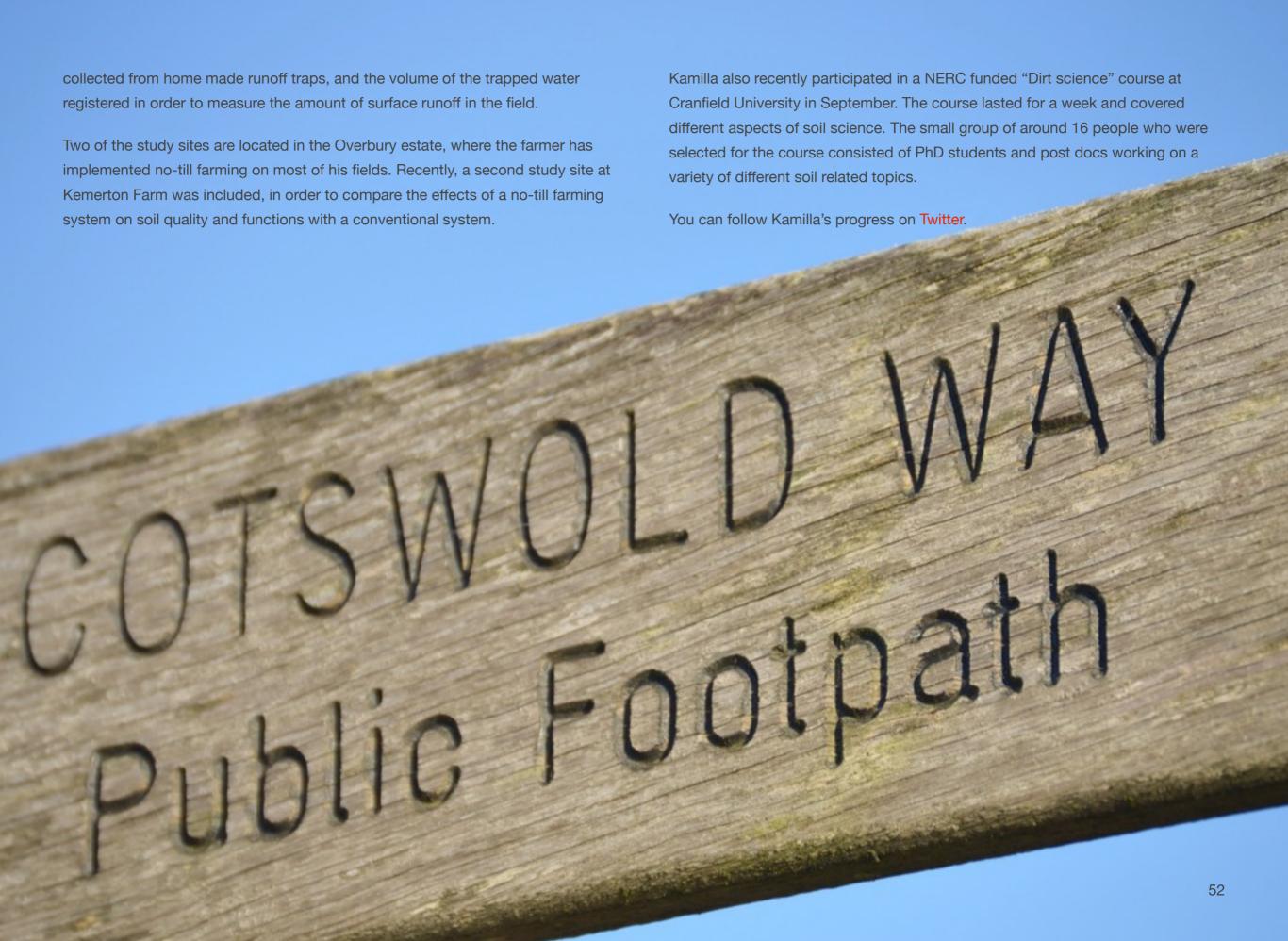
Kamilla Skaalsveen started as a PhD student at CCRI in February 2017. Julie Ingram is her first supervisor and Lucy Clarke is the second supervisor.

Kamilla is studying for her PhD on a full-time basis over 3 years as well as working part time at the Norwegian Institute of Bioeconomy Research. The project is partfunded by the Environment Agency and the University of Gloucestershire.

The working title of Kamilla's thesis is "Assessing the impact of farming practices on soil functions: achieving benefits for soil, water quality and flow" and it has both elements of social and natural science.

Kamilla has carried out field work monthly for sampling of soil and water. The soil samples are analysed for nutrient content (nitrate, ammonia and phosphate), bulk density and soil organic matter and collected from both topsoil and subsoil at nine different sites per field. Water samples are







Marco Della Gala continued his Marie Skłodowska-Curie fellowship in the CCRI in 2017, working on the EU Horizon 2020 funded 'training through research project' SOFIA. Marco has been creating a Smartphone app to help people access local food, which is due to be launched in January 2018. Marco is from the University of Calabria, Italy, where he is studying for a PhD in "Business models and ICT services to support the development of agro-food and touristic sustainable local systems".

In February, Marco gave a presentation on his work, as part of the CCRI Seminar Series. His seminar was called "Business models and ICTs supporting the development of local agrofood and tourism systems".



Marco Della Gala (left) with Matt Reed at Cirencester Farmers' Market in November, where they demonstrated the new phone app

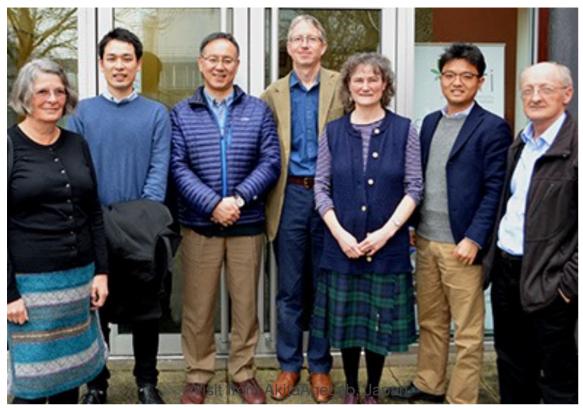
Joo-In Seong, from the Korea Rural Economic Institute, came to the CCRI in December 2016 to spend a sabbatical year as a visiting researcher.

South Korea is quite small – larger than Wales but smaller than England – and there is quite a high population density overall (50 million). But most people live in the city (Seoul) and the rural areas are in decline with an ageing population, declining economic and ecological situations and social fabric weakening. Some urban people are beginning to counter-migrate back to the rural areas, but quality of life issues are a real challenge.

Joo-In's interest is in understanding how to protect, build and enhance the quality of life in rural areas, learning from experience in the UK, which could be relevant to challenges faced in rural areas of South Korea. Joo-In holds a PhD in Urban & Regional Planning) from the Graduate School of Environmental Studies, Seoul National University.

Joo-In made a presentation for the CCRI Seminar Series in October on his research. His seminar was called 'Rural changes in Korea's modernisation and new rurality for the Rural changes in Korea's modernisation and new rurality for the future'.

Dr Shogo Kudo, Yoshitaka Ohara and **Professor Yoshitaka Kumagai,** from the **AkitaAgeLab in Japan**, visited the CCRI in March and gave a short presentation to demonstrate a project which is addressing ageing society challenges in rural Japan.



Jane Hart, Shogo Kudo, Yoshitaka Kumagai, Brian Wilson, Janet Dwyer, Yoshitaka Ohara and John Powell

The three visitors are core members of AkitaAgeLab, established in 2016 and based in the Akita Prefecture in the northern part of Japan. The Lab aims to create community designs for the ageing society through social experiments and through collaboration with social entrepreneurs and local government.

Their presentation focused on the rapidly ageing populations in Japan and suggested that an approach which focused on new social design was important. They perceive that the challenge of an ageing society is not limited to the well-being of older residents. Instead, it is more about fostering social transitions to a more inclusive society in which intergenerational relationship is ensured.

Fabio Carnelli has been studying with colleagues in the CCRI for much of 2017, joining us from the Department of Sociology and Social Research, Università degli Studi di Milano-Bicocca, Milan, Italy.

Fabio's PhD is looking at the link between public policies and the integration of local knowledges in flood risk governance with a focus on nature base solution initiatives in Northern Italy and South West England, where he has been looking at the Stroud Rural SuDS project.



Fabio has a strong international background, with academic experience in England, China and Germany. Over the last ten years he has attended and organized dozens of International Conferences and Workshops, mainly in Europe and China. He has almost 20 publications at national and international level in journals and edited books about flood and seismic risk governance and public participation, disaster management, social vulnerability, folklore and housing issues, and social media management in disaster contexts.

Fabio has a very strong commitment to find the most suitable way to disseminate his findings and engage with a range of stakeholders and the general public in risk-related issues. He founded the first blog in Italy dealing with risk and disaster in Italy (now in two languages), and is now editing more than 70 interdisciplinary articles. Social media engagement, and seminar and workshop organization over the last six years have been part of his mission.



Luca Lazzarini, a PhD student in Urban and Regional Development at the Inter-university Department of Urban and Regional Studies and Planning (DIST) at Politecnico di Torino, Italy, visited the CCRI from February to July 2017.

Luca's main research interest relates to inter-institutional cooperation and governance processes at the local level in the field of urban and peri-urban agriculture development.

During 2017, Luca gave two presentations as part of the CCRI Seminar Series entitled 'FOR RURAL SPACE. A scenario-based approach for readdressing planning practice' and 'The role of planning in shaping better urban-rural relationships in Bristol City Region'

Last, but not least, **Dan Marsh**, an environmental economist based at the University of Waikato, New Zealand, came to the UK in 2016 for a research sabbatical and to work on the PEGASUS project, specifically helping on the in-depth study of the Water and Integrated Local Delivery (WILD) project. For this he used a Social Return on Investment methodology.

During his stay, Dan gave a presentation to the CCRI Seminar series in February entitled "Natural Capital and Environmental Decision Making".



Dan Marsh (right) with Chris Short at the CCRI Seminar



Kate Walker, Photography Student CCRI supporting University of Gloucestershire students

The CCRI has been delighted to work in collaboration with young photographer,

She specialises in rural life and agriculture, this interest having been established through growing up on an organic arable farm in Wiltshire and being part of a

Once graduated, Kate hopes to continue photographically documenting the

In particular, Kate contributed the front page photo for this year's review and some more of her photography can be seen on the following pages:

Contact information:

Email: kate@kateewalker.com

Instagram: @kateewalkerphoto

Website: www.kateewalker.com











University of Gloucestershire Research Repository

The University of Gloucestershire has made a valuable investment to provide an open access resource that enables the CCRI to distribute a large part of its research in digital format, world-wide and at no cost to the reader.

Where compatible with the University's Green Open Access policy, published and unpublished works are available for re-use and adaptation, so enabling the rapid adoption and deployment of new ideas for the benefit of society. Open access removes subscription paywall barriers so enabling a much wider audience to access our research. Open access and repositories have the potential to narrow the gap between information rich and information poor communities and to accelerate research informed social and economic developments.

The University of Gloucestershire Research Repository provides a showcase and record of the intellectual and creative endeavour of the University's community of academic staff and research students. It also provides a core of research outputs for the Research Excellence Framework in which the UK HEI's research achievements are evaluated and ranked. Click on the links below to access publications with open access on the Repository.











Robert Berry Dilshaad Bundhoo Hannah Chiswell

Paul Courtney Marco Della Gala







Peter Gaskell



Julie Ingram



Dan Keech







James Kirwan Katarina Kubinakova



Nick Lewis



Damian Maye



Jane Mills



John Powell



Matt Reed



Chris Short



Julie Urguhart



Mauro Vigani



Agents for Change

Agridemo F2F

Economic analysis and project evaluation of the 'Molland Graze the Moor'

Effect and impact of LEAF Marque certification in the delivery of more sustainable farming

Enhanced Annual Implementation Report (EAIR)

Forest of Dean Landscape Partnership – Evaluation

GIS of the Lower Severn Vale

Going the extra mile (GEM)

LANDWISE

PEGASUS

RECARE

Rural Services Network (RSN) Rural Survey

Rural-Urban Outlooks: Unlocking Synergies (ROBUST)

SmartSoil

SOFIA

SUFISA

SoilCare

Towards SUstainable and REsilient EU FARMing systems (SURE-Farm)

Tri-lateral Researcher Links Workshop - equipping early career researchers with tools for evaluating ecosystem services which underpin food and water security

VALERIE

WILD

Selection of 2017 publications

Acott, T. and Urquhart, J. (2017) Co-constructing cultural ecosystem services and wellbeing through a place-based approach. In: Social Wellbeing and the Value of Small-scale Fisheries. MARE, 17. Springer International Publishing, Dordrecht, pp. 23-43. ISBN 9783319607504

Baker, C. and Courtney, P. (2017) Conceptualising the wider societal outcomes of a community health programme and developing indicators for their measurement. Research for All. ISSN 2399-8121 (In Press)

Chiswell, H. M. and Lobley, M. (2017) "It's definitely a good time to be a farmer": understanding the changing dynamics of successor creation in late modern society. Rural Sociology. ISSN 0036-0112 (In Press)

Courtney, P. (2017) Conceptualising social value for the Third Sector and developing methods for its assessment. Voluntas. ISSN 0957-8765 (In Press)

Gaskell, P., Ingram, J., Mills, J., Dwyer, J. C. and de Wolfe, P. (2017) Report on case study feedback on ask-Valerie.eu. Project Report. University of Gloucestershire, Gloucester, UK.

Grivins, M., Keech, D., Kunda, I. and Tisenkopfs, T. (2017) Bricolage for self-sufficiency: an analysis of alternative food networks. Sociologia Ruralis, 57 (3). pp. 340-356. ISSN 0038-0199

Ingram, J. (2017) Agricultural transition: Niche and regime knowledge systems' boundary dynamics. Environmental Innovation and Societal Transitions. ISSN 22104224 (In Press)

Keech, D. (2017) Social enterprises with environmental objectives: saving traditional orchards in England and Germany. Geographical Journal, 183 (2). pp. 164-174. ISSN 0016-7398

Kirwan, J., Maye, D. and Brunori, G. (2017) Acknowledging complexity in food supply chains when assessing their performance and sustainability. Journal of Rural Studies, 52. pp. 21-32. ISSN 07430167

Kirwan, J., Maye, D. and Brunori, G. (2017) Reflexive governance, incorporating ethics and changing understandings of food chain performance. Sociologia Ruralis, 57 (3). pp. 357-377. ISSN 00380199

Koopmans, M. E., Keech, D., Sovova, L. and Reed, M. (2017) Urban agriculture and place-making: Narratives about place and space in Ghent, Brno and Bristol. Moravian Geographical Reports, 25 (3). pp. 154-164. ISSN 2199-6202

Koopmans, M. E., Mettepenningen, E., Kunda, I., Keech, D. and Tisenkopfs, T. (2017) Creating synergies around food in cities. Urban Agriculture and Regional Food Systems, 2. pp. 1-9. ISSN 2352-0566

Maye, D. (2018 – in press) 'Smart food city': conceptual relations between smart city planning, urban food systems and innovation theory. City, Culture and Society.

Maye, D. (2017) Geography Matters: Farmer perceptions of a voluntary TB risk-based trading system. Veterinary Record, 180 (6). pp. 146-147. ISSN 0042-4900

Maye, D. and Duncan, J. (2017) Understanding sustainable food system transitions: practice, assessment and governance. Sociologia Ruralis, 57 (3). pp. 267-273. ISSN 0038-0199

Maye, D., Enticott, G. and Naylor, R. (2017) Using scenario-based influence mapping to examine farmers' biosecurity behaviour. Land Use Policy, 66. pp. 265-277. ISSN 0264-8377

Mills, J., Gaskell, P., Ingram, J., Dwyer, J. C., Reed, M. and Short, C. (2017) Engaging farmers in environmental management through a better understanding of behaviour. Agriculture and Human Values, 34 (2). pp. 283-299. ISSN 0889-048X

Naylor, R., Manley, W., Maye, D., Enticott, G., Ilbery, B. W. and Hamilton-Webb, A. (2017) The Framing of Public Knowledge Controversies in the Media: A Comparative Analysis of the Portrayal of Badger Vaccination in the English National, Regional and Farming Press. Sociologia Ruralis, 57 (1). pp. 3-22. ISSN 00380199

Potter, C. and Urquhart, J. (2017) Tree disease and pest epidemics in the Anthropocene: A review of the drivers, impacts and policy responses in the UK. Forest Policy and Economics, 79. pp. 61-68. ISSN 1389-9341

Powell, J. R., Short, C. J., Ashbrook, K. and Lewis, N. (2017) A Companion to IASC Commons Conferences. Countryside and Community Research Institute, University of Gloucestershire. ISBN 1-86174-228-2 978-1-86174-228-5

Reed, M. and Keech, D. (2017) Gardening cyberspace - hybrid spaces and social media in the creation of food citizenship in the Bristol city-region, UK. Landscape Research. pp. 1-12. ISSN 0142-6397 (In Press)

Reed, M. and Keech, D. (2017) Making the city smart from the grassroots up: The sustainable food networks of Bristol. City, Culture and Society. pp. 1-7. ISSN 1877-9166 (In Press)

Reed, M., Lewis, N. and Dwyer, J. C. (2017) The effect and impact of LEAF Marque in the delivery of more sustainable farming: a study to understand the added value to farmers. Project Report. LEAF / CCRI, Gloucester.

Schmitt, E., Galli, F., Menozzi, D., Maye, D., Touzard, J-M., Marescotti, A., Six, J. and Brunori, G. (2017) Comparing the sustainability of local and global food products in Europe. Journal of Cleaner Production, 165. pp. 346-359. ISSN 0959-6526

Urquhart, J., Potter, C., Barnett, J., Fellenor, J., Mumford, J. and Quine, C. P. (2017) Expert risk perceptions and the social amplification of risk: A case study in invasive tree pests and diseases. Environmental Science and Policy, 77. pp. 172-178. ISSN 1462-9011

Urquhart, J., Potter, C., Barnett, J., Fellenor, J., Mumford, J., Quine, C. P. and Bayliss, H. (2017) Awareness, concern and willingness to adopt biosecure behaviours: public perceptions of invasive tree pests and pathogens in the UK. Biological Invasions, 19 (9). pp. 2567-2582. ISSN 1387-3547

Vigani, M. (2017) The role of mass media and lobbies in the formulation of GMO regulations. In: Genetically modified organisms in developing countries: risk analysis and governance. Cambridge University Press, Cambridge, pp. 200-214. ISBN 9781107151918



CCRI researchers travelled far and wide in 2017 to attend, convene and present at various conferences. Many of these have already been mentioned in this review, including the Natural Flood Management Conference in January, the IASC Conference in Utrecht in May, the Urban Futures 2 Symposium in September and the commons workshop in China in October.

The following conferences also warrant a mention:

Annual International Conference of the RGS-IBG

Damian Maye, James Kirwan, Dilshaad Bundhoo and Hannah Chiswell were at the Annual International Conference of the RGS-IBG at the Royal Geographical Society in London, at the end of August where Brexit was very much on the agenda.

Damian co-convened a session about Brexit and the future of agriculture, together with Gareth Enticott (Caridff University). Damian also presented a paper about dairy farming and Brexit – "Dairy farming and Brexit: a market and regulatory perspective" – which was authored by Damian together with Mauro Vigani and James Kirwan and connected to their research on the EU SUFISA project.

At the same conference, James Kirwan and Dilshaad Bundhoo presented "Fishing for Leave: What can the inshore fishers of Cornwall hope for from Brexit?" This paper also derived from the SUFISA project and looked at the inshore fishers of Cornwall, in terms of the key issues they face and what they would like to see come out of the Brexit negotiations.

Damian and Hannah also presented a paper about Food Production Networks, as part of a session about the post-industrial countryside.

XXVIIth ESRS Conference

A CCRI team travelled to the historic city of Krakow, Poland, in July for the XXVIIth ESRS Conference, entitled 'Uneven processes of rural change: On diversity, knowledge and justice' and explored processes of rural change.

Damian Maye led one of the working group sessions "Farmers' strategies", together with Egon Noe (University of Southern Denmark). In this session, Damian, James and Mauro presented "How different farming systems respond to the continuously evolving European dairy market – a comparative case study of four different EU countries". Damian, Mauro, James and Hannah also presented "Living with price volatility: strategies of dairy farmers to manage milk price uncertainty" in a session entitled "Markets and governance".

Matt Reed chaired a working group looking at "Tap for change: ubiquitous ICT, food and rurality". Marco Della Gala, presented "Mobile applications fostering situated learning opportunities in alternative agro-food networks" and Matt and Rob Berry were involved in presenting "Failing to connect: superfast broadband, rurality and the failing governance of rural England".

Damian are James also co-convened a working group session, 'Ethics and food systems', with Gianluca Brunori, University of Pisa, Italy, and other colleagues. They also presented a paper with Gianluca, "Ethics in agri-food governance: responsibility, resilience and transparency".











Read the CCRI Blog



We welcome your feedback regarding this annual review. Please email ccri@glos.ac.uk with your comments and suggestions for future issues.

Please tell us what you would like to see in next year's edition!

Countryside and Community Research

Institute

University of Gloucestershire

Oxstalls Campus

Oxstalls Lane

Gloucester

Gloucestershire

GL2 9HW

Telephone: +44 (0) 1242 714122

E-mail ccri@glos.ac.uk

2017 Year in Review

published December, 2017

(PDF) ISBN 1-86174-235-5

ISBN 13 978-1-86174-235-3

© Countryside and Community Research Institute

All rights reserved