

UK-China Early Career Research (ECR) Links Project

ECR INFORMATION SHEET

Overview of ECR Application (Total N=41)

Country: China: 23 UK: 15 Others: 3 (Germany, USA, Canada)

Gender: Female: 19 Male: 21

Theme (group) division

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Group 1 Social Innovation

Name	Ying ZHENG	Institution	University of Glasgow
Title Social capital in stressed social-ecological systems of rural China			
Abstract How sustainable agricultural knowledge is co-produced, shared and used between farming communities, scientists and government has significant consequences for capacity building for agri-environment sustainability in stressed socio-ecological communities worldwide. This research presents the findings from case study analysis of smallholder farmers' social learning in three agricultural regions in China; this social research was carried out alongside a multi-million-dollar UK-China collaborative critical zone science project and was designed to help inform knowledge exchange activities for the wider project. Combining an existing framework of social capital with questionnaires and interviews with local smallholder farmers (questionnaires n=632; interviews n=30) and with officials (questionnaires n=77, interviews n=64), we provide insight into how farmers access and share farming knowledge through bonding, bridging and linking their learning networks.			
Short Bio I am an early career researcher specialised in biogeochemical carbon cycling in aquatic systems. My interests include understanding the characteristics and cycles of different carbon species in waters and the influential factors, which can help us address the current issue of			

climate change. I am also experienced in knowledge exchange (KE) delivery with publics for agriculture and environment management projects. I obtained my bachelor degree in Environmental Science at Hunan University (China) in 2012, and PhD degree in Physical Geography at University of Glasgow (UK) in 2021.

Name	Danshu QI	Institution	Southeast University
Title Sustainable Agriculture Transition: A Typology of Ecological Farms in Nanjing, China			
Abstract While China has been witnessing a significant shift towards ecological agriculture (EA) since the 1980s, there is a lack of more nuanced understanding of EA that is evidenced in farm-level practices. This study addresses the questions of what are typical farming practices and management practices of EA farms, and how do EA farms differ from each other. This paper reveals four types of EA farms, i.e., certified agribusinesses, post-productivist farms, farmers' cooperatives, and rural family farms. Each category exhibits distinct features on farming practices, marketing strategies, and employment relations between farm operators and hired farmers. This paper offers a typology of EA farms. The authors believe that the finding represents different transitional pathways to sustainable agriculture in rural China. It sheds lights on possible directions for sustainable rural revitalization.			
Short Bio My research investigates the ecological agriculture (EA) sector in Nanjing, and generates rich knowledge and experiences from Nanjing's case. It uncovers a typology of EA farms, two sets of supportive networks for EA farms, and two approaches for EA to engage with rural development. The research also identifies challenges for moving EA towards a stronger version of sustainability. The tensions and disconnections between new farmers and established farmers should be noted as a structural barrier. Furthermore, the current business model of promoting EA is associated with further commercialization of rural spatial and socio-economic patterns, which makes it harder for agroecological initiatives to grow.			

Name	Weikai WANG	Institution	University of Glasgow
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Title Grassroot governance reform and the cooperative way of knowledge exchange in rural China

Abstract Rural cooperatives in China have been flourishing and diversified, but their functions and roles in enhancing knowledge exchange and social learning is still unclear. This paper adopts an integrated framework for knowledge management to examine the intermediary role of cooperatives in knowledge networking. Three broader types of rural cooperatives, namely specialised cooperatives, land shareholding cooperatives and cooperative unions are investigated in terms of their governance structure, stakeholder relations, knowledge flows and the mechanisms used by cooperatives to span knowledge boundaries. The findings show that cooperatives play a role of knowledge broker in knowledge exchange between farmer and relevant actors, but the functions and knowledge management mechanisms are heterogenous depending on the governance structure. Cooperatives provide a range of service to members and perform as a mediator or broker between science, policy, market, and farming practice. However, agricultural cooperatives should enhance wider community engagement to promote the interdependency of stakeholders.

Short Bio I am an early career human geographer with proven expertise and interests in the fields of urban and rural governance, land use and urban form, social learning, and knowledge exchange. I have diverse experience working in academia, industry and government in the UK and China. I am currently a Post-doctoral Research Associate in Knowledge Exchange and Stakeholder Engagement in the School of Geographical and Earth Sciences at University of Glasgow, working on a NERC-Newton funded research project (MIDST-CZ). Outside academia, I worked as a planning consultant for Chinese government for two years. I hold a doctoral degree in Urban Studies at the University of Glasgow and a master's and bachelor's degrees at Peking University

Name	Siyuan XU	Institution	Northwest Agric. & Forestry Univ.
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Title From Socialist Cooperation to Joint Research: seed breeding, ecological agriculture and peasants' rights to seed

Abstract Seed is a key element of establishing and sustaining forms of agricultural production. How seed is bred and distributed/marketized affects peasants' access to the important means of production and their rights to breed, save, and replant seed. Yet, seed breeding has long been considered as a scientific and technological question. Socio-political analysis is inadequate. The central issue explored in this paper is the implications of seed breeding for agricultural sustainability. There are two interrelated underlying questions. First, should the purpose of seed breeding be handing over seed with appropriate agronomic values, or be generating the most profits? Second, is seed a public good or a commodity and how commodification of seed affects breeding methods and breeding results? Tracing the transitions of seed breeding in China in the past seven decades helps us better understand seed marketization and its implications for agricultural production and peasants' rights to seed through seed breeding.

Short Bio XU Siyuan received her PhD degree from Department of Applied Sociology, The Hong Kong Polytechnic University. Her dissertation is titled *The Political Economy of Seeds: Paradigmatic shifts of seed governance and seed marketization in China*. She is currently a faculty member at Department of Humanities and Social Development, The Northwest Agriculture and Forestry University. Her research interests include rural development, agrarian change, development studies, and food (seed) sovereignty.

Name	Qianjin ZHANG	Institution	Macau S & T University
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Title Government-Nonprofit Partnership as an Approach to Social Innovation in Rural China: The Case of Left-Behind Children Care

Abstract Government-nonprofit partnership has emerged as an increasingly popular approach to social innovation, which has a great potential to address the shortage of social service delivery and contribute to sustained social development. However, the related practices in rural China have received little academic attention so far. By using a multiple case study approach, this study investigates government-nonprofit partnership practices in Left-behind Children (LBC) care in rural areas of China. This research identifies four forms of government-nonprofit partnership in the provision of LBC care: government-directed collaboration, contract-based cooperation, informal partnership, and nonprofit-directed cooperation. By analysing the roles of different stakeholders and their interactions in sample programs, this research argues that diverse government-nonprofit partnership practices not merely show different types of cooperation modes but also reflect the extent to which the state and nonprofit sector players make a commitment to social innovation activities for the purpose of improving social benefit.

Short Bio Qianjin Zhang is Assistant Professor in Public Administration at the School of Business, Macau University of Science and Technology, Macau, China. She is an early career scholar in local governance, state-society relations, and voluntary sector studies with the empirical focus on China and beyond. Her recent academic works have appeared in Development Policy Review and Chinese Public Administration. Qianjin received her PhD and MA in Public Management from the University of Melbourne, MPhil in Public Administration from Renmin University of China, and BA (Hons) in Public Administration from Sichuan University. Prior to PhD, she worked for Beijing Volunteer Service Federation, coordinating two international volunteering and development programs.

Name	Punita BHATT	Institution	University of Nottingham
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Title The role of impact investment in facilitating sustainable rural entrepreneurship in China

Abstract In the past few decades, impact investment has emerged as a new source of finance that empowers marginalised communities through entrepreneurship. Impact investors unlike commercial banks aim to create impact in the form of social, and environmental returns alongside financial gains. This form of financing is particularly suitable for sustainable entrepreneurship in rural communities. However, our understanding of the emergence and adoption of impact investment remains limited. This paper aims to explore the nature of impact investment in China and how this influences the development of rural entrepreneurship. The paper adopts an exploratory qualitative/mixed method approach to study the emergence of impact investment in China. The qualitative interviews would include those with impact investors (investors) and rural entrepreneurs (investees) supported by them with questions exploring the nature of impact investment-different approaches, activities, and social impact. The implications for policy and practices for the development of sustainable rural entrepreneurship are discussed.

Short Bio PhD Award Date: February 2012, Oxford Brookes University. I have over ten years research experience as principal investigator on social innovation/community-based entrepreneurship to empower grassroot communities. I have published my work in leading four/three-star international peer reviewed journals in entrepreneurship and innovation (Entrepreneurship Theory and Practice, Entrepreneurship and Regional Development, Technovation).

Name	Yan JIN	Institution	Yunnan Agricultural University
Title Alternative livelihoods in in BRI countries: A case of Chinese agricultural investment in Lao			
Abstract With a focus on the impact of Chinese investment projects in rural communities of BRI countries, this paper brings a lens of sustainable rural livelihoods (SRL) to understand key factors and conditions of successful investment projects. In particular, we intend to address following questions: How can mutual trust between companies and local communities be built? What role can the company play in selecting, transferring and facilitate the diffusion of appreciate technologies for poverty alleviation and sustainable livelihoods? By what mechanisms can companies be deployed to recruit and train local talents for project management and innovation diffusion? The empirical evidence of this paper is based upon an international research project with theme “Economic and social impacts of Chinese agricultural investment in Northern Uplands of Lao”.			
Short Bio 2010-2014 Ph.D. at Yunnan University, Kunming, Yunnan. 2005-2008 M.A. at Beijing Administrative Collage, Beijing. 2000-2004 B.A at Yunnan Agricultural University, Kunming. Ecological agriculture and market linkage of small-scale farmers in Yunnan province, funded by Caritas Australia-Australia. PI. Close contact with ethnic communities in China-Myanmar and China-Laos border regions, enterprises, research institutions, local authorities, and NGOs.			

Name	Zhen WANG	Institution	Shanxi Agricultural University
Title Roles of small farmers in circular agriculture and rural transformation in Shanxi			
Abstract For circular agriculture, research attention is more likely paid to technical side than social side. Facing rural communities in reality, however, we face an awkward situation: the large number of small farmers obviously show a lack of motivation to involve government-led projects. This raises questions: what role do smallholders play in circular agriculture? What are the factors influencing their acceptance or rejection of circular farming methods? Empirical research will be taken in Linxian, a national poverty-stricken county in of Shanxi Province.			

Short Bio

2014.09-2018.06 School of Humanities and Development, China Agricultural University, PhD;
2012.09-2014.06 School of Humanities and Development, China Agricultural University, MSc;
2008.09-2012.06 Shanxi Agricultural University, B.S.

Name	Nian YANG	Institution	Hebei Finance University
Title Green finance and carbon emission in Beijing, Tianjin and Hebei Region			
Abstract This project evaluates the scientific and technological progress, green finance and carbon emission reduction to provide new ideas and ways for carbon emission reduction and green financial development in Beijing, Tianjin and Hebei. An evaluation index system of green financial development will be built to measure the maturity of green financial development in this region, calculate the green financial development index, investigate the intermediary role of scientific and technological progress in the process, determine the impact path, and analyse the heterogeneity in the impact path by the Threshold Regression Model.			
Short Bio Bachelor of Economics, Hebei University of Technology. 2004 Bachelor of Law, Hebei University. 2005 Master of Economics, Hebei University. 2009 Doctor of Management, Hebei Agricultural University. 2013 Post doctor, Chinese Academy of Agricultural Sciences. 2013-2016			

Name	Boli SHI	Institution	DBN Group Co., Ltd.
Title South-South collaboration for sustainable rural development in Africa			
Abstract South-south cooperation has become a very important in international development aid. Different from the western models, China's agricultural development experience can respond more effectively to the issue of aid effectiveness in Africa. The paper will start with the similarity between China's traditional agricultural transformation experience and the current development situation of Africa to explore the effective reference significance of China's agricultural development experience in the process of African development and its adaptability in Africa and other developing countries.			

Short CV

Rural development and management, Ph.D, 2021.

- Boli Shi, Gubo Qi. Technology Embedding and Flexibility of International Agriculture Cooperation——Case Study of Chinese Agricultural Technology Share Program in W Village in Tanzania[J]. World Agriculture, 2020(11):29-36.
- Boli Shi, Gubo Qi, Yanhua Yan, Yuding Shi. Poverty Management Experience and Countermeasures From the Perspective of Local Culture-Taking Z village in Henan Province as an example[J/OL]. Chinese Agricultural Resources and Regional Planning: 1-10[2021-07-23].

Group 2 Food System

Name	Christian REYNOLDS	Institution	University of London
Title Citizen science for the understanding and change of food system in China			
Abstract This project apply citizen science methods to co-design and recruit a sample of citizens across rural and urban China to understand what they are eating (food security/dietary data), wasting (food waste data), and how they engage/interact with the food system, and what changes they are currently prepared to make to move towards a healthy sustainable food system. Alternatively it can be used to engage with rural farmers and food producers about their practices and production methods to understand what can change, and what policies can help them. With this data we can then use economic/environmental models to examine the impacts of different food policies that have been tested for acceptability on the citizen science community we have recruited. This project give insight to regional/city/national policy makers as to how the citizens want to engage with the food system, and how we can best support food system change.			
Short Bio Main Focus: Quantifying the impacts of sustainable healthy eating and dietary patterns, and food waste behaviour change. This includes using new technologies and innovations, and deploying them in a food policy/food systems context. Methods include Citizen science and living labs. Have worked in the UK (City, University of London, University of Sheffield, University of Aberdeen), and Australia (University of Sydney, University of South Australia). PhD awarded 2014.			

Name	Rowan ALCOCK	Institution	China Agricultural University
Title Food Safety Concerns amid China’s Rural Transformation			
<p>Abstract This proposed paper will expand upon research undertaken during my DPhil project. The aim of this research is to gather more and new data to develop the theory put forward in my previous research which argues that there is evidence that consumers at vegetable markets prefer to purchase peasant self-grown vegetables for safety reasons. While the previous research concentrated on developing Polanyian theory through data, this research is concerned with gathering more and new data to be able to make evidence based conclusions on food safety issues in China that may inform policy. If the evidence is consistent with the previous research policy implications may include strengthening and potentially expanding peasant agriculture in China to deal with food safety concerns. The theoretical contribution will concern Polanyi’s understanding of ‘transformation’ – the current rural transformation and the potential for a different transformation to secure food safety.</p>			
<p>Short Bio Dr Rowan Alcock received his DPhil regarding China, environment and Polanyian theory from Oxford University in 2021. He is interested in using Polanyian theory to understand food and environmental issues in China especially with regards to rural China. His proposed project is ‘Food Safety Concerns amid China’s Rural Transformation’. This project develops on his theoretical work on Polanyi’s double movement and counter movement concepts as well as his DPhil work investigating ‘traditional’ and ‘alternative’ food production and consumption habits. Dr Rowan Alcock has previous degrees from Oxford University, an MPhil in Modern Chinese Studies, and from Essex University, a BA in Politics and Economics.</p>			

Name	Shuru ZHONG	Institution	Sun Yat-sen University
Title Food Safety, Consumer Trust, and Alternative Food Networks in Guangzhou			
<p>Abstract Alternative food networks (AFNs) had been regarded by social activists in the Global North as overarching promoters of sustainability, and ‘space of hope’ for urgent issues such as food security, environmental protection, and producer and animal welfare. The study asks how AFNs react to the food safety challenge in Guangzhou, China, and how AFNs attempt to build consumer trust, and with what limitations. The research team conducted in-depth interviews with 30 consumer households, and 42 stakeholders including government officials, organic farmers, retailers, NGOs, etc. We found that AFNs in Guangzhou has become one of</p>			

the most important solutions to the food safety crisis, representing a dynamic initiative of civil society, but currently faces various challenges. More efforts are needed to promote their local embeddedness and consumer proximity to expand impacts.

Short Bio Shuru Zhong is a distinguished associate researcher in the School of Tourism Management, Sun Yat-sen University. She received her doctoral degree in Anthropology from Texas A&M University. Her research interests focus on sustainable food systems and food ethics. Her recent work has been published in journals such as *Agriculture and Human Values*, *Urban studies*, and *Research in Economic Anthropology*. She is the principal investigator of an NSFC-funded project on food acculturation of transnational immigrants in China. She is also a research associate on the ongoing scholarly project “Sustainable Consumption, the Middle Classes and Agri-food Ethics in the Global South” funded by the Economic and Social Research Council, UK.

Name	Wenjin LONG	Institution	China Agricultural University
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Title Non-staple Food Crops Development in China

Abstract Non-staple food crops can help achieve SDGs in many ways, including promoting dietary diversity, maintaining biodiversity, and increasing farmers’ income, especially for vulnerable areas and vulnerable people. In China, there is a large gap between the recommended and the actual consumption of non-staple foods. The total output and the output per unit area of non-staple food crops are both lower in China, which indicates large potential productivity of non-staple foods in China. The reason for the delayed development of non-staple food crops in China are fourfold: (a) The government is not paying enough attention to the development of non-staple food crops industry, and public R&D investment is relatively small. (b) Non-staple food industry is unable to cope with natural disasters. (c) The development of non-staple food crops industry chain is low, and the market competitiveness is insufficient. (d) Residents’ knowledge of the nutritional value of non-staple food crops and their mastery of cooking methods are still insufficient, and the acceptance and recognition of non-staple food crops need to be improved.

Short Bio Dr. Wenjin Long is an Assistant Professor at the College of Economics and Management China and a member of the Academy of Global Food Economics and Policy, China Agricultural University. His research interests focus on Labour economics, rural development and gender, particularly on rural labour, rural human capital, poverty, agricultural subsidies and R&D policies related topics. He holds a Ph.D. in Industrial Economics from the University of Nottingham, UK. He received his BAs in Agricultural Economics and Sociology and MA in Agricultural Economics from Renmin University of China. He teaches labour economics and agricultural economics for undergraduate students. His works are published in China Economic Review, Asian and Pacific Migration Journal, Journal of Integrative Agriculture, China Agricultural Economic Review, China & World Economy and other journals. He has participated in many research projects related to labour, education, poverty, health and nutrition.

Name	Yun SHEN	Institution	Sichuan Agricultural University
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Title Interest Linkages between Small Farmers and Agricultural Cooperatives in Rural China

Abstract Based upon the primary data of field interview and questionnaire survey conducted among 7,200 rural householders in eight nationally-recognized poverty-stricken counties of four provinces in China in 2015 and 2016, this paper analyses the poverty alleviation effects of the interest linkages between small farmers and agricultural cooperatives including finance, agro-technology, sales and participation in decision-making. It is found that the higher interest linkages between small farmers and agricultural cooperatives, the more the poor rural households can gain to overcome the constraints in agricultural production and income growth. In particular, the rural poverty can be significantly alleviated by the services offered by the agricultural cooperatives to improve the credit availability, reduce the agricultural cooperatives' human capital expenditure, strengthen the sales channels for agricultural products, and mobilize the rural capable people to participate in the decision-making.

Short Bio I'm doctor of economics, distinguished associate professor, Sichuan Agricultural University. I have published more than 40 papers in core journals such as economic trends, financial research, China Rural observation, economic review and Journal of public management, and served as an anonymous reviewer of several core journals. I has been engaged in the research on Agricultural Economics and rural revitalization for a long time, accumulated rich research results, established the theoretical framework of rural financial anti-poverty and Rural Revitalization and development, and comprehensively and systematically released the National Rural Revitalization and development index report.

Name	Pan HE	Institution	Cardiff University
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Title Efficiency of dietary sustainability and its global transition

Abstract Global diets consume tremendous natural resources while cause multiple environmental and health issues. As the world faces challenges of adequate nutrition security with concomitant climate and environmental crisis requiring urgent action, policies need to improve the efficiency of devoting environmental input of the food systems for health benefits. Here we evaluate the global transition of such efficiency in the past two decades represented by health benefit obtained by per unit of 4 key environmental inputs (GHG emissions, stress-weighted water withdrawal, acidifying emissions, and eutrophying emissions) in 195 countries. We find that the efficiency of each environmental input follows an N-shaped curve along the Socio-Demographic Index (SDI) gradient representing different development levels. The efficiency first increases benefiting from the eliminated stunting with a larger abundance of food supply, then decreases driven by climbing environmental impacts from a shift to animal products, and finally starts to slowly grow again as countries shift toward a healthier diet. All the countries can achieve higher efficiency by following the recommendations of healthy diets, with a larger improvement coming from the countries in the first and the third phases.

Short Bio BS and MS degree in environmental science at Nanjing University; PhD study at University of Maryland in the United States; Postdoc at Tsinghua University; Lecturer at Cardiff University. Broadly interested in exploring how human behaviour affects the natural environment, and in examining how policy can lead to consumer behaviour change that improves sustainability. Current research concerns how food consumption patterns result in specific interconnected environmental and health impacts and what are the opportunities and challenges in realizing dietary sustainability, empirically examining the effect of climate change and air pollution on human activities such as driving and tourism, as well as the effectiveness of environmental and energy policies at the micro-level. She is keen to communicate with scholars and stakeholders for interdisciplinary collaborations and engagement of policy design support.

Name	Qian YANG	Institution	University of Nottingham
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Title Consumer understanding of sustainability and strategies for sustainable food system

Abstract Food production and consumption has detrimental environmental impacts and with the global challenges of population growth, global warming and water scarcity, there is a need to better understand consumers' opinions on sustainability and understand their motivations and barriers in developing a sustainable food system. Different consumer groups would have different motivations to adopt a more sustainable food system. It is also very important to help farmers in the rural areas to develop a sustainable production that can be commercialised. The sensory characteristics of these products will be one of the key factors determining its success on the market. In addition, sharing the right information is also believed to add commercial values. Thus it's important to understand different consumer group's needs (e.g. rural and urban, young and old), and help people in rural areas to develop products that fit into the sustainable food system. All these information would ultimately contribute to policy interventions.

Short CV

2018 – Assistant Professor in Sensory and Consumer Science, University of Nottingham;
2016-2018 Sensory Science Centre Manager, University of Nottingham;
2015 - Post-doctoral Research Fellow, University of Nottingham, fully funded by Unilever; 2011-2015 PhD in Sensory Science. (Vice-Chancellor's scholarship, with industry collaboration of Sensory Dimensions and Unilever)

Name	Xin YANG	Institution	Chinese Academy of Soc. Sciences
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Title Formation and mitigation mechanism of food consumption inequality

Abstract A large number of studies have shown that agricultural production capacity is sufficient to meet the reasonable food needs of the global population. As the total amount of food is sufficient, malnutrition or overweight is mainly caused by food consumption inequality, including unequal access to food, unequal food prices and so on. Therefore, I have been concerning about how to optimize the food distribution system in order to put forward constructive policy suggestions.

Short CV

2020- Assistant research fellow at RDI of CASS
2015-2020 Agricultural Economics, Ph.D. at China Agricultural University, Beijing.
2015-2015 Short-term visiting Kobe University, Japan.
2011-2015 Agronomy B.A at China Agricultural University, Beijing.

Name	Viachaslau FILIMONAU	Institution	Bournemouth University
Title Change of household food consumption rural China			
<p>Abstract The rapid economic development and urbanization have changed the pattern of global food consumption. This change can be particularly well observed when studying differences in food consumption among urban and rural residents. This study explores the temporal dynamics in household food consumption (HFC) in rural households of selected provinces in China. The study reveals that the inter-annual changes in HFC, starting with 2009, have brought about a substantial increase in meat and vegetable intake. Improvements in living conditions represent the key driver of this change. The intra-annual changes are reflected in larger consumption of fruits and vegetables in the summer being attributed to improved food supply and warmer weather. The variety of consumed food increases, especially on holiday, driven by increased visitation by friends and relatives and the influence of Chinese culture. Children's food preferences when visiting home result in increased consumption of meat, vegetables, and aquatic products. The findings will provide a scientific basis to enhance the food consumption structure and refine the dietary nutrition levels in rural areas of China. The findings can also provide a reference to be used in order to examine temporal changes in food consumption in other countries of the world.</p>			
Short Bio			

Name	Terri HOLLOWAY	Institution	University of Nottingham
Title Plant-based intervention to measure the overall well-being of cancer-diagnosed patients			
<p>Abstract Research studies show that interventions have a positive effect upon disease prevention and disease management. Evidence supporting the role of plant-based diets in preventing and reducing the severity of disease is also growing; however, there is a gap in the knowledge base of families regarding the role of diet in the recovery process, potentially leaving families and diagnosed individuals with added stress and depression, and most importantly, leaving patients with a lack of structured support mechanisms to promote the greatest results</p>			
<p>Short CV Dr. Terri Holloway is a qualified nutritionist who specializes in researching the health and environmental effects of plant-based diets. While studying at the University of Nottingham's School of Biosciences, Dr. Holloway conducted in-depth interventions during which she analysed consumer barriers toward reducing meat-intake as well as the most effective mechanisms for dietary behaviour change. She completed her PhD research portfolio with an exciting clinical trial. Dr. Holloway also holds a Master's in</p>			

Business Administration with a concentration in Management and a dual-major Bachelor's degree in English and Journalism. She has taught Business Communications courses and has travelled internationally presenting her findings on the benefits of plant-based nutrition. Dr. Holloway is also the founder of a plant-based nutrition company which promotes the disease-preventive properties of plant-based diets and specifically aims to help those within high-risk populations.

Name	Fei LUN	Institution	China Agricultural University
Title International food trade and impact on global land use and water consumption			
<p>Abstract Agricultural food trade bridges spatial unbalances between food demand and food production, associated with many environmental issues, including: global land use and water consumption. This paper aims first to calculate main agricultural food trade among countries, including crop food and livestock food, and second to identify its influences on global land use and water consumption, avoid their environmental issues and increase food security. More detailed, we aimed to solve all above issues, with the help of different methods, include MRIO, input-output analysis, land footprint and water footprint. Besides, our in-depth analysis also aimed to provide suggestions on possible policy pathways for different vulnerable countries, considering their land use, water storage, international agricultural trade and global food security.</p>			
<p>Short Bio</p> <p>Work Experience: Associate Professor (since 2019) and Assistant professor (2016-2019) in China Agricultural University; Post-doc in Beijing Forestry University (2014-2016).</p> <p>Education Experience: Graduated from Institute of China Academy of Sciences (Ph.D, 2009-2014) and Renmin University of China (Bachelor, 2005-2009); Exchange student in CSIRO, Australia and Kanazawa University</p>			

Group 3 Tech Innovation

Name	Lirong LIU	Institution	University of Surrey
Title Network analysis of Food-Water-Economy Nexus for Supporting Robust Agriculture			
<p>Abstract Robust agriculture is performed as an important issue, which is directly related to human survival, social progress and environmental protection. Food, water, and economy are inextricably linked. With the increase of water consumption in irrigation and food growth, water shortage has become an urgent issue. Meanwhile, food production and consumption are complex with the geological distribution caused by the economic flows. It is thus essential to comprehensively investigate the Food-Water-Economy Nexus (FWEN) in the socio-economic system under various policy interventions. First, a holistic and new food network model is developed, which is capable of exploring the nature of food flows in response to the regulation of sectoral activities from a practical perspective. Second, a Virtual Water-Food Nexus Model is developed to quantify the inter-provincial transfer of water embodied in food and to identify the complicated interactions between different provinces.</p>			
<p>Short Bio Dr Lirong Liu is a Lecturer in the Centre for Environment and Sustainability at University of Surrey. Her current research focuses on the development and application of systematic models for supporting climate change mitigation. She has recognized expertise in innovatively integrating methodologies at different scales to address scientific issues with consideration of conflicting environmental and economic objectives. Dr Liu has produced over 70 refereed journal papers with an H-index of 19 from Google Scholar. She has also participated in more than 15 research projects and built deep collaborations with policy makers, businesses and Non-Governmental Organizations.</p>			

Name	F.M. Safiul AZAM	Institution	Neijiang Normal University
Title Potato seed breeding, agro-tourism and rural sustainability in Liangshang of Sichuan			
<p>Abstract Liangshan prefecture is home to some 178,000 impoverished people, which is one of the poorest regions in the Sichuan province of China that is aiming to eradicate absolute poverty. According to the initiative of the Chinese government to increase potato production, one of the possible ways to increase the livelihood of these people in this prefecture. Liangshan Prefecture has a potato planting area of about 210,000 mu per year until 2020. To accelerate the production, we are proposing three potential activities that include: i) scale-up existing</p>			

micro tuber/seed tuber production; ii) molecular breeding to improve potato varieties for disease resistance, nutrient-use and photosynthesis efficiency; iii) promote potato and its sciences among kindergartens, primary and middle-schools, iv) Campaign on 'harvest together' and establish 'Potato park and Museum', an agro-tourism concept to visit farms, potato flower parks, harvest potato, enjoy potato dishes and contribute in promoting potato consumption. The proposed project ideas could play roles in different aspects of potato production and industrialization as well as poverty alleviation in Sichuan province.

Short Bio Fardous Mohammad Safiul Azam is Bangladeshi, an Associate Professor at Neijiang Normal University, China since July 2021 and did his Ph.D. from the Chinese Academy of Agricultural Sciences. He was also a faculty member at the University of Development Alternative, Dhaka, Bangladesh since 2008. He is extensively attached with his mentors, student groups, and collaborators which made an in-depth accruing of skills, expertise, and experiences in the field of crop breeding and genomics, sustainable agriculture, climate change and environmental pollution, traditional food plants and their nutrition, and conservation of rare medicinal plants. His enormous effort has resulted in more than 20 publications in international peer-reviewed journals, several conferences, and workshops. Mr. Azam is the Bangladesh Representative of YPARD (Young Professionals for Agricultural Development) which is a global youth networking movement in agriculture. Moreover, he is enjoying the journey as Liaison and Partnership Officer at YPARD Asia and Pacific. He is working on youth empowerment with several youth groups both nationally and internationally.

Name	Jan JOZWIK	Institution	Univ. of Nottingham Ningbo China
Title Adoption of environmentally friendly agricultural technologies: experimental evidence			
Abstract Yield-improving agricultural technologies such as fertilizers could contribute either positively or negatively to environmental protection, and substantially raise incomes of rural households. The aim of this lab-in-the field experimental study is to improve our understanding of factors influencing farmer's decision to adopt environmentally friendly crops. By conducting a series of laboratory experiments in the field, the current proposal seeks to provide both general lessons and specific inputs into the eventual field experiment. This research project is related to my doctoral thesis at Oxford University, partly based on two lab-in-the-field experiments with cocoa farmers in Ghana, which focused on behavioural factors influencing the take up of index insurance and. The empirical results based on the lab			

experiment, and the larger field experiment into which it would feed, will inform the policy makers and international organizations in the field of agriculture and environmental protection in order to promote the adoption of environmentally friendly agricultural technologies.

Short Bio I am Assistant Professor in Economics at the University of Nottingham Ningbo China. I obtained my M.Phil. and D.Phil. in Economics degrees from the University of Oxford. I am an experimental and development economics. Much of my empirical work is based on experiments, which I have conducted in the UK and China (lab experiments) and in Ghana (lab-in-the-field experiments). In my research, I have also used agriculture large panel datasets. My main research interests in development economics are related to adoption of new agricultural technologies.

Name	Fengjun YAN	Institution	Sichuan Agricultural University
Title Modelling the effects of potato seed vitality on tuber yield formation			
<p>Abstract Potato is an important food and economic crop in China with a high profit margin. This project will collect data from different treatments of potato seed vitality regulation methods, and the existing experimental data in our research group will be combined, to quantify the impact of potato seed vitality on potato seed tuber physiology and biochemistry, plant growth and tuber yield formation, by using systematic analysis method, extender fourier amplitude sensitivity test and dynamic modelling technology. Based on the APSIM, the simulation model of potato seed vitality regulation methods on tuber yield, and then the simulation model will be calibrated and validated based on the exiting experiment and literature data. Finally, by integrating with the scenarios of different regional climate and different potato vitality method, the impact of potato seed tuber vitality method on crop productivity can be quantitatively analysed. The expected results will provide a scientific basis and a quantitative tool for the development and promotion of tuber seed vitality regulation method, and its impacts on tuber yield in China.</p>			
<p>Short CV</p> <p>2020-now Post- Doc. Sichuan Agricultural University.</p> <p>2019-2020 assistant researcher. Sichuan Academy of Agricultural Sciences</p> <p>2015- 2018 Ph.D. Sichuan Agricultural University</p> <p>2012-2015 M. Sc. Agri. Sichuan Agricultural University</p> <p>2008-2012 B. Eng. Shenyang University of Technology</p>			

Name	Qirui LI	Institution	University of Bayreuth
Title Agricultural adaptation and rural transition in Loess Plateau			
<p>Abstract Rural areas have large size and potential in agriculture and food security, ecosystem and environmental conservation, and socio-economic development, playing a key role in achieving the Sustainable Development Goals. In China, rural revitalization and food security have been propagated with ecological cultivation and green economy as priorities for national development. As a response, interventionist policies and practices are implemented to improve food safety and quality and rural income and development while preventing ecosystem degradation and environmental pollution. The adaptation and transformation of food and farming systems are connected to the futures of hundreds of millions of rural residents in China. Thus, it is vital to explore appropriate practices and strategies for agricultural adaptation and rural transformation towards sustainable development. A case study will be applied to an Expertise Field Station in Yanan of Loess Plateau to understand innovation diffusion and farmer adaption in this region.</p>			
<p>Short Bio Qirui Li holds a PhD degree in politics and economics in rural areas. He has been a junior researcher at the Leibniz Institute of Ecological Urban and Regional Development (IOER), Leibniz Centre for Agricultural Landscape Research (ZALF), and the Chinese Academy of Science. He is working as a post-doc researcher in the Africa Cluster of Excellence at the University of Bayreuth and a guest researcher at ZALF. His research and publications concern livelihood resilience and sustainable development.</p>			

Name	Xuan YU	Institution	Zhongshan University
Title Understanding the role of agriculture transformation in coastal hydrological processes			
<p>Abstract Understanding coastal groundwater salinity and flow is important for managing limited fresh groundwater resources and protecting precious estuarine environments, especially in densely populated coastal areas. Coastal groundwater studies have shown impacts of diverse natural hydrogeological driving forces and settings. Recently, agricultural transformation has enforced compound environmental impacts along the coastlines, but less attention has focused on groundwater flow. I am interested in new measurements and numerical models of coastal groundwater salinity and discharge into nearby coastal waterbodies. My ultimate goal is to improve the understanding of human-induced saltwater intrusion with scientific implications for coastal groundwater practitioners and estuary management.</p>			

Short Bio Dr. Xuan Yu is an Associate Professor in School of Civil Engineering at the Sun Yat-sen University, China. He received the B.E. degree in water resources engineering from China University of Geosciences, Beijing, China, in 2006, the M.E. degree in department of water resources from the China Institute of Water Resources and Hydropower Research, Beijing, China, in 2009, and the Ph.D. degree in civil and environmental engineering from Pennsylvania State University, University Park, PA, USA, in 2014. From 2014 to 2018, he was a Postdoctoral Researcher with the Department Geological Sciences, University of Delaware, Newark, DE, USA. His research interests include watershed models, groundwater–surface water interaction, and coastal groundwater processes.

Name	Yanhua YAN	Institution	National Institute of Standardization
Title Logic and Dilemmas of Agricultural Standardization Demonstration Project in China			
Abstract Agricultural standard is not only an important guarantee of food safety, but also an important basis for agricultural sustainable development. Based upon many year research experience related to agricultural standardization practice in China, this paper aims to reveal the operation logic and dilemmas of Agricultural Standardization Demonstration Project (ASDP). Through two different demonstration projects, I will makes a systematic analysis of the interaction between local project subjects, especially the relationship between the government and the market, as well as the different project governance structure models.			
<p>Short CV</p> <p>Rural development and management, China Agricultural University, PhD, 2020</p> <p>Visiting student, Humboldt University in Berlin, Germany. 2019</p> <p>Researcher in the agricultural standardization research in Sub-Institute of Food and Agriculture Standardization, China National Institute of Standardization; 2014 to 2016</p> <p>International Commerce, China Agricultural University, Master 2014</p>			

Name	Kai CUI	Institution	Chinese Academy of Social Science
<p>Title Information capacity and digital technology use behaviour: Seeking inclusive pathway</p>			
<p>Abstract The rural-urban digital divide focuses not only on rural Internet access, but also on improving information capacity in rural areas by narrowing differences in group information literacy. Associated with the use of digital technology, the rural residents' information ability significant group differences, which can be seen from the individual cognition, behaviour, environment characterized by the multiple levels, the ability of information will affect production and living ways. Based on rural survey data, the study intends to establish the correlation between information capacity and different types of behaviours, pay attention to rural residents' demand and willingness for information, and try to construct the influence mechanism of information capacity on behaviours. The research aims to improve low information ability, esp. elderly group's ability to obtain, perceive and use information.</p>			
<p>Short Bio I received PhD from The Chinese Academy of Agricultural Sciences and studied as a postdoctoral fellow at the School of Public Administration (China Rural Research Institute, Tsinghua University). Presided over by national social science fund, Beijing social science fund, Tianjin social science fund and many national and the provincial subject research. Papers published in "Chinese rural economy", "Chinese rural survey" and other authority and core journals. Several internal references I have submitted were adopted by the General Office of the CPC Central Committee and the General Office of the State Council. The third prize of Excellent Countermeasure information of Chinese Academy of Social Sciences, the third prize of Beijing Science and Technology Award as rewarded.</p>			

Name	Qinghai LI	Institution	Nanjing University of Fin. & Econ.
<p>Title Understanding the impact of digital divide on the social network with Chinese rural households</p>			
<p>Abstract Using CSS 2019 data, this paper examines the impact of digital divide gap on the social network with Chinese rural households. The results show as follows: First, the access divide have negative effect on the level of social network, also the usage type gap and usage frequency gap. Second, for different usage scope, information acquisition usage, work usage etc., have significant effect on social network; online dating usage, entertainment usage etc., have significant effect on social network. For different use frequency, information acquisition usage frequency, work usage frequency, online dating usage frequency, entertainment usage frequency etc., have significant effect on the level of social network respectively. Third, the impact has obvious difference in different groups, and show the asymmetric effect in the different level of social network. Lastly, the impact is mediated by users' economic status, social stratum, and cognitive ability or non-cognitive ability etc.</p>			
<p>Short CV</p> <p>2017-now, Associate Professor in Nanjing University of Finance and Economics</p> <p>2016-now, Post-doctor in Beijing Normal University</p> <p>2013-2016, Assistant professor in Nanjing University of Finance and Economics</p> <p>PhD in School of Economics & Management from Beihang University (2013), MA in School of Mathematical Sciences from Capital Normal University (2007), BA in School of Mathematical Sciences from Shandong Normal University (2004)</p>			

Name	Yan GUO	Institution	Sichuan Agriculture University
Title Research on the sustainable development path and mode innovation of digital agriculture in undeveloped regions of China and the developing world			
Abstract Digital agriculture is an important part of the digital economy. The new producing mode with data as the core factor of production and digital technology as the driving force is providing great development opportunities for undeveloped regions of China and the developing world. In order to reveal the important role and status of digital agriculture in Rural Revitalization and construction of Digital China, this paper starts with the internal evolution of digital agricultural system, constructs the framework of digital agricultural ecosystem by comparative analysis, studies the evolution direction, evolution path and evolution mechanism of digital agricultural ecosystem by combining system theory, population ecology theory and evolutionary game theory, and finally verifies it by system dynamics simulation. So as to explore the sustainable development path and innovation mode of digital agriculture in undeveloped regions of China and the developing world, realize the practical basis of digital agriculture development, and provide theoretical basis for building digital agriculture experimental demonstration base.			
Short Bio Dr Yan Guo is an associate professor of Sichuan Agricultural University and core member of Sichuan Digital Agriculture Centre. In 2018, She received a doctorate in management science and engineering, and has been engaged in digital agriculture development research more than 6 years. She has published many papers in international journals and completed 5 research projects on the development of digital agriculture.			

Name	Kamal ALSKAF	Institution	University of Nottingham
Title The uptake of different tillage practices in England			
Abstract Reduced tillage systems have been argued to provide several potential benefits to soil, environment and to farm incomes. In England, while many farms have partially adopted such practices, a large proportion of arable farmers do not undertake reduced tillage in any form. This paper analyses the rationale for and uptake of different cultivation techniques, including analysis of the barriers to adoption of reduced tillage, aiming to benefit policymakers and researchers and increase the spread of smart agricultural practices. To effect greater reduced tillage uptake, greater communication between researchers and farmers is needed to facilitate			

the implementation of sustainable soil management solutions, supported by current legislation permitting responsible herbicide use in arable production. Adopting reduced tillage is a continuous learning process requiring ongoing training and information gathering; supporting a network of reduced tillage ‘farmer champions’ would facilitate practical knowledge exchange, allow farmers to observe soil improvements, understand transition phase barriers and ultimately encourage increased reduced tillage uptake.

Short Bio

Teaching associate, School of biosciences, University of Nottingham, 2019 –now;
 PhD in Agricultural and Environmental sciences, University of Nottingham, 2018;
 MSc in Sustainable Management of Natural Resources, the University of Leicester, Leicester, 2013;
 BSc in Agricultural Engineering, Al-Baath University, Syria, 2010.

Name	Victoria OUTRAM	Institution	University of Nottingham
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Title Co-operative Waste Management and Valorisation for Circular Agriculture in China

Abstract Biorefineries from agricultural waste have been widely studied and analysed in Europe. Several models have been proposed from simple anaerobic digestion (AD), to cooperative management, to more complex biorefineries. Utilising two-stage AD, along with modern day synthetic biology it is possible to create a wide product portfolio from organic waste, including agricultural residues. It is envisaged this is possible, in China, through localised co-operative waste management strategies, to convert solid waste into a liquid feedstock, which could be transported to a larger, more centralised biorefinery for processing to higher-value bio-based commodity chemicals/products, capitalising on China’s existing chemical manufacturing infrastructure. Liquid feedstocks provide easier routes of transportation, compared to the solid waste. Additionally, the local waste-based biorefinery will produce secondary products of biogas (for energy) and fertiliser, which can be utilised by the local farmers, creating a local value chain.

Short CV

Research Interests: Industrial biotechnology, sustainable manufacturing, fermentation process development, biomass utilisation, waste biomass, waste feedstocks, biorefineries

07/2018-Present: Research Fellow in Fermentation Engineering, Sustainable Process Technologies Research Group, University of Nottingham, UK.

06/2017-07/2018: Research Fellow – Anaerobic Fermentation, Water and Environmental Engineering Group, University of Southampton, UK

2018: Engineering Doctorate (EngD) in Biopharmaceutical Bioprocess Development, Newcastle University, UK.

2012: MEng (Hons) Chemical Engineering (1st), Newcastle University, UK

Name	Chunlin HUA	Institution	Southwest S & T University
<p>Title Estimating the ecological and economic value of controlling agricultural Non-point Source pollution: a micro-perspective from farmers</p>			
<p>Abstract The value of agricultural non-point source (ANPS) pollution prevention and control provides important economic incentives for the formulation of policies for reducing ANPS pollution. This paper intends to first estimate the reduction cost and environmental value of ANPS pollution by collecting GIS satellite data and relevant statistical yearbook data of China's agriculture and rural areas. The shadow engineering method of environmental economics, the hydrodynamic numerical model and factor analysis will be used. Secondly, based on field survey data and using the conditional value method, a dual-boundary dichotomy Logit model will be established to estimate the maximum willingness of farmers to pay for agricultural non-point source pollution and the minimum willingness to accept compensation. According to the results, the economic value of reducing ANPS pollution will be measured from a subjective perspective.</p>			
<p>Short Bio Dr. Chunlin Hua is an associate professor in the department of Economics and management, Southwest University of Science and Technology. She earned the Ph. D. at Northwest A&F University in 2013. Her research interests mainly are related to environmental and natural resource economics in Agriculture. She has conducted research on different measurements, including command and control policies and education programs, to address the issue of agricultural non-point source pollution. Her current research program is aimed to reducing the emission of agricultural non-point pollution from farmers' perspective including the analysis of the benefit linkage preference of different agricultural management entities, the benefit linkage of agricultural management entities and agricultural pollution control.</p>			

Name	Muhammad SAGHIR	Institution	Coventry University
Title Circular bioeconomy to produce bioenergy, biochar fertiliser and clean water			
Abstract Biochar can be blended from different agri-residues to produce a balanced fertiliser replacement. My proposal is to review the production processes of various agri-feedstocks and pyrolysis temperatures at which biochar is produced and their impact on agriculture sustainability via improving soil ecosystem functions and services. We will intend to help researchers globally in the selection of proper biochar produced at a certain temperature to improve agriculture and environment sustainability without compromising crop yield.			
Short Bio I have built my career working on advanced thermochemical conversion of wastes into energy and chemicals by working on technologies such as Pyrolysis, gasification, Trans-esterification, combined heat, power and cooling. In the past I have served as a Bioenergy Plant manager at European Bioenergy Research Institute (EBRI) in Birmingham UK. During this appointment I was one of the key resource person to setup UK's first fully integrated bio based cooling, heat and electricity production plant with further integration of Vehicle to Grid (V2G) charging and discharging system at EBRI. I played professional role in many EU funded projects such as European Regional Development Fund (£16.5m) for setting up the Bioenergy plant and laboratories at EBRI, Interreg Bioenergy NW IVB project (£11m), Pyrogas project from IAAP, Energy Harvest project in India to name a few.			

Name	Yan SHI	Institution	Fudan University
Title Hydrothermal conversion of dewatered sewage sludge: recovery of phosphorus			
Abstract The recovery of phosphorus from sewage sludge was critical due to the depletion of phosphate ore. The present research aims to identify the phosphorus speciation and reveal the phosphorus transformation mechanism of dewatered sewage sludge during hydrothermal conversion (HTC) process, as well as to achieve the high efficiency recovery of phosphorus. Multiple analysis of SMT method, VK diagram, XANES and NMR showed that most phosphorus (>80%) was transferred to the hydrochar and presented as inorganic phosphorus (IP) after the HTC process. A dehydration trend was observed of the HTC process with the increase of sub-critical temperature. Ca-associated phosphorus increased significantly as the temperature increased.			

Short Bio I am a postdoctor in the department of environmental science and engineering of Fudan University. My Ph.D. degree was jointly cultivated by Fudan University and the University of York, UK. I have obtained the support of Yangfan project of Shanghai Science and Technology Commission. I have been engaged in the disposal and reutilization of organic and inorganic solid wastes (including sewage sludge, crop straws, manure, steel slag, fly ash, furnace slag) for many years. I also have participated in a number of international, national and provincial scientific research projects, and have published more than 10 academic papers.

Name	Augustine IKPEHAI	Institution	Sheffield Hallam University
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Title Remote sensing data for digital transformation in food industry

Abstract Data has become the key enabler of digital transformation of the food industry. Nevertheless, digital maturity in the sector is still low. In particular, the inability to access data is the main barrier to digitalisation of the food industry. Today, an average farm/food processing facility is capable of hundreds of thousands of data points per day, including fertiliser/pesticide application rates, weather information, soil nutrient level, harvesting dates, energy consumed by machines, machines/livestock location, etc. However, most of these datasets are either unharvested or not actioned, due to lack of access. Therefore, remote sensing can be explored to address this issue in two ways; affordable data acquisition and cost-effective connectivity.

Short CV

PhD 2017, Manchester Metropolitan University, UK.

Jan 2019 - Sheffield Hallam University, UK, Lecturer:

Post-Doctoral Associate: Oct 2017- Jan 2019, Manchester Metropolitan University

Publications: 23 journal articles, 12 conference papers