





Dr Martin Battle is a PDRA in the Lawson Plant Physiology Lab at the University of Essex. Prior to joining the TIGR2ESS team, his PhD studies focused on circadian photobiology and green light responses in Arabidopsis thaliana. As part of FP2a, his current research involves improving understanding of water use efficiency and leaf hydraulics in Sorghum (Sorghum bicolor) and Pearl Millet (Pennisetum glaucum).

Martin Battle. Post-Doctoral Research Associate, Lawson Plant Physiology Lab, University of Essex. FP2.













Rekha Bhangaonkar. Post-Doctoral Research Associate, TIGR2ESS. **Department of Land** Economy. University of Cambridge. **FP6**.

My research focuses on understanding resource-use sustainability.

In TIGR2ESS, I assess agricultural communities' abilities in irrigation management. These communities are located in the semi-arid regions of India. Groundwater based irrigation is crucial to building climate-resilient agriculture, but groundwater depletion is already an alarming problem. I use economic theories and statistical data as the base for analysing resource-use behaviour and work towards applying a systems approach to understand sustainability.

I have a doctoral degree from the Centre of Development Studies, University of Cambridge and a post-graduate degree from the Indian Institute of Technology-Bombay.















Srikanth Bollam. Associate Scientist in the genomics, pre-breeding and bioinformatics cluster within ICRISAT, India. FP2. Srikanth Bollam is an Associate Scientist in genomics, pre-breeding and bioinformatics cluster within ICRISAT, India. Prior to his current role, Dr. Srikanth worked as Principal Investigator (SERB-NPDF) for DST Govt. of India funded project entitled "Identification and Characterization of Candidate Genes Associated with Nitrogen Use Efficiency (NUE) in Sorghum (Sorghum bicolor (L.) Moench)" at ICRISAT (2017 - 2018). Earlier, he worked in a multipronged project "Cambridge-India Network for Translational Research in Nitrogen" (CINTRIN) as a Post-Doctoral Research Associate at ICRISAT (2017). Before joining ICRISAT, he worked in numerous multi-disciplinary projects in rice crop improvement programs at ICAR - Indian Institute of Rice Research, India (2010-2017) as part of his doctoral and other research assignments. He worked for two crop science industries as a researcher, there he contributed for Jatropha improvement for total oil content (Biodiesel) and various bioinoculant formulations (2007-2010).











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Ajmer Singh Brar. Principal Agronomist & In-charge, Centre for Water Management and Technology, Department of Agronomy, Punjab Agricultural University, Ludhiana, Punjab, India. FP5. Ajmer Singh Brar is Principal Agronomist, Department of Agronomy and Incharge, Centre for Water Management and Technology, Punjab Agricultural University, Ludhiana, Punjab, India. He is working for the development of improved technologies for efficient management of irrigation water in field crops and involved in development of various technologies including subsurface drip irrigation and fertigation in maize-wheat-summer moong, cottonwheat cropping system and sugarcane. His areas of research interest include water management in field crops, crop modelling and statistical analysis of different design of experiments. Based on the research work, more than sixty research papers have been published in reputed journals. He maintains high science credibility as a highly cited researcher. He was also involved in preparation of state irrigation plan for the state of Punjab. He has handled nine adhoc projects as principal investigator (PI)/Co-PI/Associated scientist. At present, he is handling six research projects as a project leader. He has guided many postgraduate and Ph.D. students as major supervisor. He is also actively involved in advising farmers regarding efficient management of irrigation water through extension articles, TV/Radio talks and lectures.











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Sandeep Dixit. Director, Centres for International Projects Trust (CIPT). FP4.

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Sandeep Dixit is the Director at Centers for International Projects Trust (CIPT) – a research and development organization established by Columbia Water Center, Earth Institute, Columbia University, USA. Mr. Dixit spearheads the organisational efforts in developing the water and agriculture programme, with strong roots in research and advocacy with the view to promote the cause of water conservation in the agriculture and industry sectors.

Mr. Dixit's professional experience spans over 20 years in the development sector across India, Bhutan and Myanmar. He is engaged in the thematic areas of water-energy and agriculture nexus, climate change and vulnerability, food and livelihood security, sustainable agriculture, water governance, health and nutrition, and poverty. His areas of expertise include program development, implementation, research and policy advocacy, resource management, capacity building and knowledge management, monitoring and evaluation, partnership and alliance building, donor relationship and grant management, community engagement, and scaling-up of large-scale, multi-state flagship programmes. As a Co-PI, to the project FP4 he is working closely with the Cambridge University researchers in India. He is also leading the efforts with Research Institute for Humanity and Nature (RIHN), Japan, on a project called Aakash, toward Clean Air, Public Health and Sustainable Agriculture.

Mr Dixit is the recipient of 'Fellowship' from the Department of State, USA for the 'International Visiting Leadership Program' in USA.













Shailaja Fennell. **Professor of Regional Transformation and Economic Security** (Grade 11). **Department of Land** Economy. Fellow of Jesus College. **Acting Director Centre** of South Asian Studies. University of Cambridge. FP1, FP6.

Professor Shailaja Fennell is a co-I on TIGR2ESS, a research programme to study how to improve crop productivity and water use, identify appropriate crops and farming practices for sustainable rural development, with funding of £7.8 million from the Global Challenges Fund of UKRI. She is also a co-I on MillNeti, a sister research programme (2019-2021) that is focussed on how to improve iron nutrition status of people living in Ethiopia and The Gambia by assessing the bioavailability of iron from biofortified millet. Her work package focuses on the use of quantitative and qualitative tools to understand how millets are currently grown, processed, cooked and consumed in focus villages in The Gambia and Ethiopia.

Professor Fennell is also the PI on an ASEAN funded project (2019-2021), leading a core team responsible for designing the framework, commissioning experts and compiling the latest research to deliver the first ASEAN Development Outlook that focuses on policies to ensure inclusion and sustainability in South-East Asia.

She previously held a UGC-UKIERI grant, in partnership with Anglia Ruskin University, Indian Institute of Technology Madras and University of Punjab, Chandigarh (2014-16). The project focussed on understanding how bottlenecks that limit Internet access for rural diversification of livelihoods can be removed, using the Portolan application and android mobile phones, to collect upstream data and an innovative survey instrument to collect downstream data.











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Adam S Green.

Post-Doctoral Research Fellow, McDonald Institute for Archaeological Research, University of Cambridge.

College Research Associate, King's College, University of Cambridge. FP4. Adam S. Green is an anthropological archaeologist in the McDonald Institute for Archaeological Research, where he worked on the ERC-funded TwoRains project and now works on the Global Challenges Research Fund's TIGR2ESS project. He investigates the origins of inequality and social sustainability, and he has a collaborative fieldwork programme in northwest India that makes use of cutting-edge digital and computational spatial analysis techniques. He uncovers ancient cities and villages and reconstructs their past socio-economic relationships. Most recently, his research has appeared in the Journal of Archaeological Research and the Journal of Anthropological Archaeology, and his collaborative work has appeared in the Proceedings of the National Academy of Sciences.

Adam's interest in inequality in the past is closely tied to a desire to reduce inequality in the present. As a result, he emphasises communicating academic research to non-academic audiences through heritage-based initiatives that attract the interest of the public, government officials and interdisciplinary audiences alike. For example, in his current role on the TIGR2ESS project, he contributes to stakeholder consultations with policymakers from India. These collaborations are advancing our knowledge of the collective governance of surface water in the past that can help make Indian agriculture more resilient to climate change.











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Howard Griffiths. Co-Chair of Cambridge Global Food Security IRC. Professor of Plant Ecology, Department of Plant Sciences Fellow of Clare College. University of Cambridge. FP2.

Howard Griffiths is the Professor of Plant Ecology at Cambridge University and Fellow of Clare College. Griffiths is passionate about communicating the importance of plants, with over 150 primary research papers exploring their physiological ecology and associated molecular processes. His research integrates molecular methods, laboratory experimentation and fieldwork to define the distribution of natural vegetation, crop productivity and water use. His particular interest includes the enzyme Rubisco, fundamental for life on earth, and the requirement for carbon concentrating mechanisms such as the C4 and CAM pathways, and the algal CCM, to improve the efficiency of carbon assimilation. His Physiological Ecology Research Group has been investigating the impact of climate change on past and present plant distribution, with an emphasis on polar bryophytes and tropical epiphytes in Trinidad. They are also working on research into the molecular basis of algal photosynthesis, and the potential to increase crop productivity. He is the principal investigator on the UKRI GCRF-Growing research capacity TIGR2ESS and MillNETi programmes, funded to strengthen capacity for research in agricultural technologies in UK, India and key partners in Africa, focussing on health, nutrition and equal opportunities. He is currently Co-Chair of the University of Cambridge Global Food Security Interdisciplinary Research Centre, and has helped to establish Cambridge as a major centre for crop sciences, in collaboration with NIAB. He has been a regular visitor to India as part of ongoing collaborative programmes, and acts as an advisor to the Vice Chancellor at the University of Cambridge on developing strategic partnerships with India.















Robert Jackson. Post Doc Researcher, NIAB. FP3. Robert works as part of the phenotyping group within the Genetics and Prebreeding department at NIAB. Robert obtained a PhD. in molecular biology and phenotyping from the University of Nottingham and Rothamsted Research. Following his PhD Robert worked for a year as part of Malcolm Hawkesford's group at Rothamsted focusing on remote sensing methods to analyse grain quality and the nitrogen content of milled wheat grain and straw. At NIAB Robert is working with Eric Ober and Ian Mackay on highthroughput phenotyping of large scale field trials as part of the GplusE genomic selection project. Robert has a strong interest in field phenotyping by remote sensing and how it can contribute to solving the problems facing modern agriculture. In addition, Robert retains an interest in the genetic and hormonal control of plant growth and development.











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Ramanjit Kaur Johal. Professor of Public Administration at Panjab University (PU), Chandigarh. FP6.

Ramanjit Kaur Johal is a Professor of Public Administration at Panjab University (PU), Chandigarh. Her Masters and PhD from the Department of Public Administration, Panjab University. Chandigarh followed a BA Economics (Hons) from Lady Shriram College for Women, University of Delhi. Prof. Johal's areas of teaching and research interests include Public Policy and Administration including substantive aspects like environment and agriculture policy, social policy, education, health, urban development, civil society participation and administration of NGOs. She has held various administrative positions in Panjab University including Dean International Students, Director Research Promotion and two terms as Chairperson of the Department of Public Administration. Prof. Johal's international education and research involvements include leading the Panjab University research team as Co-Investigator for the UK Research Council's project (TIGR2ESS) led by the University of Cambridge (2018-22), Fulbright-Nehru Education Administrator Program Participant (2016), Fulbright Visiting Lecturer (2011-12), and a Shastri Applied Research Project awardee (2003-06). She is currently a consultant with the UNDP Cell, Department of Planning, Punjab Government and was also consultant to the Commonwealth Asia Youth Programme on participation of youth in governance. She serves on various committees and boards of the government, universities, bilateral agencies, not-for-profits and research institutions in India including the Indian Institute of Public Administration, New Delhi and Member, Executive Committee, Shastri Indo-Canadian Institute (SICI), New Delhi-Calgary.











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Sivasakthi Kaliamoorthy. Post-Doctoral Research Associate. International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), India. FP2.

I am Sivasakthi K, from Pondicherry, India. Before joining my Ph.D., I worked as a Junior Research Fellow in Plant Breeding & Genetics, Pandit Jawaharlal Nehru College of Agriculture and Research Institute, Puducherry (2012). I did my Ph.D. on 'Contribution of Water Saving Traits for Drought Adaptation in Chickpea (Cicer arietinum L.) through Physiological, Molecular and Genetic Approaches'. During my Ph.D. I worked extensively on phenotyping of large set of chickpea mapping populations and association panel using highly automated high throughput crop phenotyping platform (LeasyScan). Prior to my Post-Doctoral Research Associate (PDRA) position in the TIGR2ESS Project, I worked as a Research Fellow at Crop Physiology Laboratory in ICRISAT (2017) and mainly focused on 'Precision phenotyping for drought adaptive and agronomic traits in Stay-green chickpea'. I received two awards, the Best Research Scholar Award from Indian Academic Researchers Association (IARA) and the Doreen Margaret Mashler Team Award from Consultative Group of International Agricultural Research (CGIAR) for outstanding contribution in plant research. In addition, I have qualified Agricultural Research Service (ARS) - National Eligibility Test (NET) in Agricultural Biotechnology conducted by Agricultural Scientists Recruitment Board (ASRB).















Samanpreet Kaur. Associate Professor in the **Department of Soil and** Water Engineering, Punjab **Agricultural University** Ludhiana. **FP5**.

Samanpreet Kaur Baweja is working as Associate Professor in the Department of Soil and Water Engineering Punjab Agricultural University Ludhiana. She has developed an expertise on solving complex large-scale applied problems on water resource assessment, irrigation water management, climate change impact assessment and mitigation and adaptation through crop and groundwater modeling studies. In recognition of her research work on climate change, agriculture and water-energy nexus in Punjab State she had won a prestigious Jawaharlal Nehru Award-2014.

Dr Baweja is a Co-Investigator on the TIGR2ESS programme. As part of Flagship Project 5 (Supply Chains: Modelling Water Use for Sustainable Livelihoods), her research focuses on Groundwater Modelling for sustainable water resource management in Punjab State. Presently Dr Baweja is a visiting faculty at University of Guelph Canada.

Current Research Projects:

- surplus canal waters.



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Groundwater Modelling for Sustainable Water Resources in Punjab Development of filtration techniques for safe groundwater recharging of

Design and evaluation of urban blue green infrastructures Development of low-cost sensors for groundwater monitoring and canopy temperature based irrigation scheduling













Tracy Lawson. Professor, School of Life Sciences. University of Essex. FP2. Tracy Lawson is a professor in the Plant Productivity group and Director of Plant Phenotyping at Essex, with over 25 years' experience in photosynthesis research. She is also Deputy Head of School, Director of Essex Plant Innovation Centre, Director of Impact and Plant Group Convenor. She obtained her first degree in Applied Biology in 1993 from Liverpool and PhD from Dundee in 1997. Following postdoc positions in Dundee and Nottingham, Tracy moved to Essex in 1999 as a Senior Research Officer and, following a visiting fellowship at ANU, Australia, obtained a permanent research position at Essex in 2007 and was made Professor in 2016.

Tracy currently runs a group of 5 PDRAs, 6 PhD and 1 MSc students and two technicians. A major focus of the group's research is stomatal control of atmospheric gas entry into the leaf, associated water loss and the mechanisms that regulate this process. Recent research has paid particular attention to stomatal kinetics and the impact of dynamic environments on both photosynthesis and stomatal behaviour. She also has funding to explore lighting regimes for indoor growth environments and quantifying the impact of non-foliar photosynthesis on crop yield. Another main strand of her research is plant phenotyping including chlorophyll fluorescence techniques (for quantifying light use and photosynthetic efficiency) and thermal imaging (for measuring stomatal responses and kinetics). Lawson's lab developed the first imaging system for screening plant water-use-efficiency (McAusland et al., 2013).











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Srijit Mishra.

Professor at the Indira Gandhi Institute of Development Research (IGIDR), Mumbai. FP6. Srijit Mishra, PhD, is Professor at the Indira Gandhi Institute of Development Research (IGIDR), Mumbai, Deemed to be University, and was formerly the Director at the Nabakrushna Choudhury Centre for Development Studies (NCDS), an Indian Council of Social Science Research (ICSSR) institute set-up in collaboration with the Government of Odisha. He researches and teaches on development-related issues that intertwine between social philosophy, analytical measurement and applied development. During his secondment to NCDS, he was instrumental in spearheading the Odisha Millets Mission that brought together the Government, civil society and the Academia for a propeople action research initiative that works in four verticals - production, processing, marketing and consumption. His work on cyclone Fani, as part of a multi-disciplinary team involving the Government of Odisha and many multilateral agencies, dealt with macroeconomic and human impact that has important methodological and policy implications. His work on farmers' suicides in Maharashtra led to the setting-up of Vasantrao Naik Kshetkari Swabhilambhan Mission and other policy outcomes, including the deliberations leading to debt waiver. Some of his publications are on agrarian issues, measurement of development indicators, and poverty among others. He has been a Guest Scholar at Meiji University, Japan during June 2016, ICCR Chair Professor of Indian Studies at the National Chengchi University, Taipei, Taiwan, spring semester, 2015, and Subir Chowdhury Fellow on Quality and Economics, London School of Economics and Political Science, spring 2014. His M.Phil./Ph.D. on tribal agrarian economies were carried out at the Centre for Development Studies (CDS), Thiruvananthapuram and awarded by the Jawaharlal Nehru University (JNU), New Delhi.















Dr. Ravi Nandi is a Senior Associate Scientist-Socioeconomics/Agricultural Economics with the Research Program - Enabling Systems Transformation at International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), Hyderabad, India. Previously he worked as project manager for Feed The Future India Triangular Training program (FTF ITT) at National Institute of Agricultural Extension Management (MANAGE), agricultural field officer for priority sector lending at public sector bank, and Agribusiness manager at FMC in India. He has accepted new position from January 2022 as Senior Specialist for agriculture at NITI Ayog, the apex public policy think tank of the Government of India.

Ravi Nandi. Senior Associate Scientist-Socioeconomics/Agricultural Economics with the Research Program - Enabling Systems Transformation at International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), Hyderabad, India. FP1.















Dr. Krishnan Narayanan. India Value Fund Chair Professor at the Department of Humanities and Social Sciences, Indian Institute of Technology Bombay, Mumbai, INDIA. FP6. Dr. Krishnan Narayanan obtained his Ph.D in Economics from the Delhi School of Economics, University of Delhi, India, and carried out Post-doctoral research at Institute of Advanced Studies United Nations University, Tokyo, Japan. His research interests span the areas of Development Economics, Socio-economic empowerment through ICT, Economic impacts of Climate Change. The research journals in which he has published include Research Policy, Studies in Regional Science, Technovation, Oxford Development Studies, Journal of Industry, Competition and Trade, International Journal of Energy Economics and Policy, Water Policy, Foreign Trade Review, Current Science, and Economic and Political Weekly.

Few of his recent publications include edited books on Human Capital and Development: The Indian Experience, Technology: Corporate and Social Dimensions, and Globalisation of Technology. He is actively engaged in a web based research group, Forum for Global Knowledge Sharing, which interfaces Scientists, Technologists and Economists. He is currently Honorary Secretary of this forum. He is also a member of the study team which helps prepare India's National Communication to the UNFCCC. He also serves in the editorial board of journals like Springer Nature Business and Economics, Sarvekshana [a journal of the CSO, Government of India], and Asia Pacific Journal of Regional Sciences [edited from Japan].















CM Pratheepa. Researcher and Professional Social Worker. M S Swaminathan Research Foundation, Chennai, India. FP1. Dr Pratheepa is a researcher and professional social worker with over a decade of working experience in community development. She holds post-graduate and doctoral degrees in social work. She is qualified in the National Eligibility Test that determines the eligibility for the post of faculties in Indian universities. She has hands-on experience in designing and implementing various developmental programs for community wellbeing and capacity building of community based developmental organizations. Currently, she is working with M S Swaminathan Research Foundation, Chennai.











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Padmaja Ravula. Cluster Leader – Knowledge and Capacity Development. Senior Scientist - Gender Research, ICRISAT. FP1.

Padmaja Ravula is Senior Scientist – Gender research at ICRISAT, India with Markets, Institutions, Nutrition and Diversity (MIND) under Research Program on Innovation Systems for the Drylands (ISD). With PhD in Humanities and Social Sciences (Specialization: Sociology) from the Indian Institute of Technology-Bombay (IIT-B). A Gold Medalist for her Masters Degree in Human Development and Family Studies from Pandit Jayashankar Telangana State Agricultural University. A Sociologist by education and training with 20 years of interdisciplinary quantitative and qualitative research on issues related gender, nutrition, social capital and empowerment. A unique competence of training in nutrition research as well as sociological research. Has broad experience working in close collaboration with national and international research institutions, academic institutes, farmers, NGOs, donors and governments. Good team player in multi-disciplinary teams. Well versed with and practitioner of PRA tools and methods. Has more than 54 publications and contributed to development of several research papers and journal articles including impact series, policy briefs, conference papers, edited books, research bulletins and papers in edited books. A Creative thinker, and therefore also interested in bringing out nonconventional/non-academic but interactive products like timelines, video documentaries, visual tools for data collection and analysis. Notable contributions apart from publications, knowledge management and information dissemination include designing and developing methodological tools and frameworks for gender research, with an emphasis on empowerment of rural poor, nutrition and institutions (formal and informal); training and capacity building of student interns, research scholars and PhD students, field staff, researchers including partners to integrate gender and nutrition in social science research activities.



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Nitya Rao. Professor of Gender & Development, School of International Development, University of East Anglia. FP1, FP6. The focus of my work as a researcher, teacher, trainer and social activist is driven by a commitment to gender equality and women's empowerment, within broader issues of resource rights, social equity and rural development. Gender analysis underpins all my research, be it in relation to understanding changes in land and agrarian relations, migration, livelihoods and wellbeing, or food and nutrition security, especially in contexts of climatic variability and economic precarity. I have published extensively on these themes in international peer reviewed journals and books.

I am the inaugural Director of the Norwich Institute for Sustainable Development which seeks to enable equitable, food secure and sustainable futures through transdisciplinary research and innovation. This builds on my research as well as membership of the Steering Group of the High-Level Panel of Experts to the Committee on World Food Security. I am also a member of the Strategic Advisory Group to the Global Challenges Research Fund, involved in shaping the direction of UK aid for research and innovation in the future.











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Sumantra (Shumone) Ray. NNEdPro Founding Chair and Executive Director. Director of Research in Food Security, Health and Society (P/T), School of Humanities and Social Sciences, University of Cambridge. FP6. Sumantra (Shumone) Ray is a Licensed Medical Doctor as well as a Registered Nutritionist (Public Health), with special interests in Nutrition Education in Health Systems and Cardiovascular Disease Prevention. Since 2008 he has been Founding Chair and Executive Director of the NNEdPro Global Centre for Nutrition and Health, headquartered in Cambridge and working across twelve regional networks across six continents including a highly active Indian contingent. In 2018 he became the Co-Founder and Chair of BMJ Nutrition, Prevention and Health. Shumone holds Visiting Professorships in Imperial College London School of Public Health, Ulster University Schools of Medicine and Biomedical Sciences as well as further afield in Wollongong Australia. He is also Honorary International Dean for the Lord Rana Foundation Charitable Trust's Cordia Colleges in Punjab, India.

Within TIGR2EESS, Shumone is Co-Lead of Flagship Project 6 seeking to Impact Well being in Rural and Urban Communities by exploring the relationships between education and empowerment, lives and livelihoods, better food and nutrition leading to improved health and economic outcomes. FP6 evaluates theories of change spanning the assessment of needs through to piloting innovative intervention models. FP6 and the NNEdPro Global Centre for Nutrition and Health, led by Shumone has developed and adapted the awardwinning 'Mobile Teaching Kitchen' or <u>MTK intervention</u> for use in both urban and rural settings from West Bengal to Delhi and Punjab. MTKs can become a self-sustaining community-led cornerstone for nutrition education in marginalized populations and settings with very limited resources.















Lisa Rossi. Doctoral Student, University of Cambridge. FP5. Lisa Rossi is currently working as a part-time research assistant on TIGR2ESS Flagship Project 5, where she is looking at rice straw valorisation in Punjab. Lisa is a PhD candidate at the University of Cambridge. Her research focuses on the link between supply chain digitalisation and the circular economy. Lisa holds an MEng in Chemical Engineering and MPhil in Industrial Systems Manufacturing and Management. She has worked in the manufacturing and oil and gas industries during internships and consultancy projects.











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Narpat Ram Sangwa. Post-Doctoral Research Associate. Sustainable Supply Chain Management. Department of Mechanical Engineering, Indian Institute of Technology Ropar. FP5. Dr. Narpat is working as a Post-Doctoral Research Associate in Department of Mechanical Engineering at Indian Institute of Technology Ropar, India. The project is Transforming India's Green Revolution by Research and Empowerment for Sustainable food Supplies (TIGR2ESS). He has completed his Ph.D. on lean manufacturing entitled with 'Development of an Integrated Performance Measurement Framework for Leanness Assessment of Manufacturing Organizations' at Birla Institute of Technology and Science Pilani, India in 2019. He has worked on an industrial project, 'Productivity and quality improvement through leanness assessment as a tool of operations management', in Sona Koyo Steering Systems Limited, Sanand, Gujrat. He has also worked on Indo-German Collaboration Projects and actively participated to conduct various Indo-German conferences, workshops and seminars. As an academic, he has four years teaching experience. His research area includes lean manufacturing, sustainability, life cycle assessment, supply chain management, etc.















Indu Santhanagopalan. Post Doctoral Research Associate, Department of Plant Sciences, University of Cambridge. Affiliate of Newnham College. FP2. Indu Santhanagopalan is a Research Associate in the Griffiths' lab at the Department of Plant Sciences, University of Cambridge. Her research in Cambridge as part of TIGR2ESS is centered around studying carbon concentration mechanism(CCM) in the green alga Chlamydomonas reinhardtii. Studies on CCM are aimed at understanding algal photosynthesis and devising mechanisms to engineer crops with higher yields. During the course of her research in Cambridge, Indu has supervised several students in the lab, and organised the exchange of an Indian undergraduate student, Ms Tanya Mathur, for her final year research project. At Cambridge, she also has been involved in Science outreach programmes, and the RisingWise initiative for women entrepreneurs from Oxford and Cambridge.

Prior to Cambridge, Indu carried out her doctoral studies in the field of Biophysics focusing on protein folding and stability at Indian Institute of Science. She then carried out postdoctoral research at the University of Massachusetts, Amherst, studying the mechanism of plant chaperones called small heat shock proteins.















Achla Sharma. Principal Wheat Breeder, Department of Plant Breeding & Genetics, Punjab Agricultural University, Ludhiana, Punjab, INDIA. Institute Lead (FP3). Dr Achla Sharma is working as Principal Wheat Breeder in the country's most vibrant wheat breeding program. Achla's research interests address the development of high yielding, disease resistant varieties for timely sown irrigated, late sown and rainfed/restricted irrigation conditions. She participates in a highly productive and vibrant wheat breeding programme which caters to a responsive farming community belonging to a region in India (Punjab State) which has served for decades as the bread basket of the country. Her work is largely on the material generation using diverse genetic input covering the wide spectrum ranging from wild wheats to elite present day cultivars. The major techniques used regularly include wide hybridization, marker aided selection, doubled haploids and mutagenesis along with conventional breeding methods. Among the traits of interest, yield is paramount followed by disease resistance (mainly stripe rust, leaf rust, stem rust and powdery mildew), abiotic stress tolerance (tolerance to heat, drought, NUE and micronutrient deficiencies) and quality (processing as well as nutritional quality).

She see her work as a contribution (however small) towards assuring food for all my people (rich or poor) which gives her chance to delve into the word of knowledge and enables her to enlarge view point in interaction with the scientific community, farmers, researchers and students.











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Harpreet Singh. Professor, Department of Mechanical Engineering, Indian Institute of Technology Ropar. FP5. Harpreet Singh is currently working as a Professor at the Indian Institute of Technology Ropar (INDIA). He completed his PhD from the Indian Institute of Technology Roorkee in 2005. He has been doing extensive research work in several areas related to surface engineering and manufacturing since 2002. He has authored several book chapters and contributed more than 175 research papers in various international/national journals. He has completed and been pursuing several national and international sponsored projects with funding from MHRD, DST, CSIR, DRDO, EPSRC, IUSSTF, GCRF and UKIERI. He has two Indian and two US patents to his credit along with seven patents under processing. He has produced eighteen PhDs, whereas ten more are currently working under his supervision. He is a recipient of "Kansai Nerolac Excellence Award for the Excellence in Coating Research", "Young Scientist Award", "Career Award for Young Teachers (CAYT)" and "Maharashtra State National Award for the Research Work done by the Teachers of Engineering Colleges-2007". Dr. Singh is also an Adjunct Professor at Swinburne University of Technology, Australia. Recently his group has developed two sustainable manufacturing technologies which can be used to deposit a metal coating on metal surfaces and ceramics/glass.

He is the Co-Principal Investigator on the UKRI GCRF-Growing research capacity TIGR2ESS programme, funded to strengthen capacity for research in agricultural technologies in the UK and India, focussing on health, nutrition and equal opportunities.











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Shreya Sinha.

Lecturer, School of Agriculture, Policy and Development. University of Reading. FP1. Shreya is an interdisciplinary researcher drawing on debates across Development Studies and Human Geography to study the political economy and political ecology of agrarian change. Her work has been focused on India while being engaged with scholarship in other regions of the global South and is based on mixed methods research.

One area of her research is on the impact of economic liberalization of India on trajectories of agrarian change, with a focus on capital accumulation, commodity markets, labour relations and state policy. She undertaken this research through multiple rounds of multi-sited and mixed-method fieldwork in the north Indian state of Punjab.

Another area of her research is sustainable agriculture and food systems. This has been undertaken with academic and civil society partners across the UK and India as part of the GCRF-funded TIGR2ESS project at the University of Cambridge. Focusing on three agro-ecological regions of India, this work has focused on questions of environmental degradation, rural outmigration and the role of women in agriculture.

Strongly committed to public engagement, Shreya has also written for platforms such as The Conversation and Hindustan Times, been interviewed by media platforms like the BBC Radio and Business Insider and spoken at a number of public events on topics related to her research. Shreya is the Reviews Editor of the Journal of Agrarian Change and curates its companion editorial website, Agrarian Questions.













Rekha Bisht Sirola. Research Associate, IIT Bombay, Mumbai. **FP6**.

I have a PhD in Microbiology with emphasis on mycorrhizal fungi. I have researched extensively on the use of fungias biofertilizer for the improvement of crop plants. My work as a research associate has involved designing plant based vectors for alleviating both biotic and abiotic plant stresses using genetic engineering techniques. My research endeavours across premier research institutes such as GBPUA&T, ICGEB, IARI, IITB, and Columbia University have exposed me to working with various groups of farming and non-farming communities across regions in India. I have been a part of successful field trials consisting of large populations. My job as a project manager exposed me to liaising and coordinating with premier national research institutes and government agencies.

This experience has been invaluable in my taking up the TIGR2ESS responsibilities at IIT Bombay, Mumbai under FP6i. My TIGR2ESS initiatives have involved understanding the access and availability of various food crops and how this in turn affects the dietary diversity of the people in the region. My work also involves interacting with groups of individuals from both governmental and non-governmental agencies who are working relentlessly to improve the nutritional status of the section of tribal peoples in Maharashtra.

The collected data is being documented. We have organized workshops and presented posters based on this work at a conference in IITB. One of our interactions with the village community has been documented in the TIGRESS blog: https://tigr2ess.globalfood.cam.ac.uk/news/tribal-food-festivals-revivingforgotten-heritage













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Jagjit Srai. Co-Chair of Cambridge Global Food Security IRC. Head, Centre for International Manufacturing, IfM, Department of Engineering. University of Cambridge. FP5. Jag is a Director of Research, and Head of the Centre for International Manufacturing, Institute for Manufacturing, University of Cambridge where he completed his PhD in Engineering, Manufacturing and Management. His research work and that of his group involves working closely with Industry in the analysis, design and operation of international production, supply and service networks. Particular sector focus includes research on Food/FMCG and Pharmaceutical Supply Chains, and more broadly the Digitalisation of Manufacturing Supply Chains enabled by advanced production and digital technologies.

Prior to Cambridge, Jag had held senior executive management roles within Unilever, as Supply Chain Director and Technical Director of multinational businesses. He holds a BEng degree in Chemical Process Engineering (Aston, 1st Class Hons), MPhil and PhD degrees on Supply Network Design (Cambridge), is a Chartered Engineer (CEng) and a Fellow of the Institute of Chemical Engineers (FIChemE).













Gitanjali Yadav. **DBT-Cambridge Lecturer.** University of Cambridge. **FP2**.

Gita is a Lecturer at the University of Cambridge; forging new collaborations and setting up a research group.

She graduated with Honors in Botany, from the University of Delhi, India; where she developed an interest in Phloem loading and Carbon partitioning. Her post graduate degree (M.Sc.) is in Biomedical Science from the same university, with a specialization in Stereochemistry. Gita moved to Jawaharlal Nehru University, at the turn of the Millenium, to obtain a Ph.D. in Computational Biology, from the National Institute of Immunology (NII), New Delhi.

In 2006, Gita joined the National Institute of Plant Genome Research (NIPGR), New Delhi, as Staff Scientist, where she set up a research laboratory for plant computational biology, and successfully operationalized and implemented a Linux based IT infrastructure at the institute. Over the next decade, she expanded into experimental validations and large scale genomics.











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Anthony Whitbread is the Global Director of a research program 'Resilient Farm and Food Systems' and the Country Representative for Tanzania with the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), Dar es Salaam. With a PhD from the University of New England in Soil Science and Agronomy, Anthony leads a diverse team of scientists across south Asia and sub-Saharan Africa in an innovation systems mode devising strategies to manage climatic risk, soil fertility and identifying market led development opportunities. This role was preceded by a long research career in the croplivestock systems of semi-arid Australia, SE Asia and Southern Africa with CSIRO Australia and as a full Professor (W3) of Crop Production Systems in the Tropics at the Georg-August-Universität in Göttingen, Germany.

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