

Institution: University of Nottingham

Unit of Assessment: UoA22 Anthropology and Development Studies

1. Unit context and structure, research and impact strategy

This is the first submission by the University of Nottingham to UoA22 and represents a significant step in establishing a Development Studies identity to bring together staff across the Faculty of Social Sciences (Panel C) whose research addresses developing countries and development-related issues. The submission supports the University's strategy with reference to its commitment to the United Nations Sustainable Development Goals (SDGs) and enhanced internationalisation, given its geographical location in the UK, China and Malaysia. Multi- and inter-disciplinary research underpins the commitment to addressing global challenges through six University-wide research Beacons of Excellence. The establishment of the cross-Faculties inter-disciplinary Rights Lab Beacon in 2017 (which has received University investment of over £3 million) motivated steps to create a Development Studies hub linking the largest existing groups.

The submission comprises staff from three groups: 13 staff in the School of Economics associated with the Centre for Economic Development and International Trade (CREDIT)¹; eight social science researchers associated with the Rights Lab (RL)², mostly early career researchers (ECRs); and eight staff in Nottingham University Business School (NUBS, mostly from the China Research Group, CRG).³ Although these groups are separate, and two are embedded in Schools (that return as units, Economics under UoA16 and NUBS under UoA17), they share a strategy committed to research on topics related to sustainable human development and developing countries. Submitting as a unit builds on existing development research across the Faculty, promotes interaction and collaboration between the groups (e.g. Lucas is based in NUBS but research is with RL; Eberhardt and Upward from CREDIT are members of CRG) and supports the longer term aim to integrate development research throughout the Faculty (incorporating Education, Geography, Law, Politics and Sociology).

The **Rights Lab** has the most focussed research theme, on modern slavery as SDG 8.7 (including labour exploitation, forced labour, and human trafficking), adopting an interdisciplinary approach with team members from all seven social science Schools including NUBS (e.g., slavery in supply chains) and Economics (relationships to trade and labour force dynamics). The **China Research Group (CRG)** has a country focus but addresses similar research issues to **CREDIT**. There is established collaboration between Appleton (**CREDIT**, seconded to the China campus since 2017) and Song (**CRG** but returned under UoA17). **CREDIT** research covers a broad range of development issues but has a strong regional focus on Africa (**Haile**, although in NUBS, researches on Africa and is a member of **CREDIT**). Both Economics and NUBS have teaching programmes and research links with the University of Nottingham China Campus in Ningbo and the Malaysia campus.

Covid-19 delayed in-country engagement and collection of evidence for two of the Impact Case Studies and some staff are reorienting research. The **Rights Lab** has developed a large-scale research agenda on Covid-19 and modern slavery with key government and NGO partners, and completed a FCDO funded rapid assessment of Covid-19 on anti-slavery in three industries in India and Bangladesh. Three researchers (**Brewster**, **Lucas** and **Schwarz**) have Covid-19 research grants totalling over £800,000 for work in 2020-21 (see Section 4 below). **Ruggieri** has a project with the United Nations Economic Commission for Africa (UNECA) investigating employment adjustments and productivity dynamics using firm-level surveys (pre- and post-pandemic) in Morocco, Tunisia, and Algeria. **Owens** is developing work with Ronelle Burger (Stellenbosch) exploring the changing nature of aid delivery in response to the pandemic through NGOs, the increased reliance on locals to deliver services and identifying how beneficiaries are

¹ See https://www.nottingham.ac.uk/credit/index.aspx.

² See https://www.nottingham.ac.uk/research/beacons-of-excellence/rights-lab/index.aspx

³ See https://www.nottingham.ac.uk/business/businesscentres/crg/index.aspx



now selected and how the sector will be monitored. **Bin Wu** maintains research collaboration with Chinese partners through online meetings.

Researchers adhere to high standards of research integrity, ensuring that ethical approval is secured where relevant (especially for overseas fieldwork), complying with the Institutional Statement (sections 2.3 & 2.4), and disseminate research findings by engaging with users and ensuring publications are openly accessible (e.g., publishing papers as open access and/or providing freely downloadable research papers). This section provides a summary of research activities, then outlines the future collaborative research strategy and concludes with impact activities.

Research Activities During the REF Period

The 13 staff in the School of Economics returned are mostly CREDIT Internal Fellows who work primarily on developing countries or on topics related to development issues, while others have a strand of research with development relevance (Riano's research is included but he left in 2019). They co-author papers, co-supervise Postgraduate Research Students (PGRs, of whom there were over 40 on development topics during the period) and interact in other ways, including at the Development Seminars (which had some 60 speakers, 40% female, since 2014) and other School seminars which are often by development researchers.⁴ Their research falls into four main areas: microeconomic analysis using household, labour and other survey data (Appleton, Bridges, Morrissey, Outes-Leon, Owens, Upward); long-run development and structural change (Bonfatti, Eberhardt, Rueda); macroeconomic policy and finance (Bougheas, Morrissey, Morozumi); trade and related international issues (Dijkstra, Garcia-Vega, Ruggieri, Riano). Some CREDIT Fellows are not returned but contribute to research activities and co-supervision. e.g. Barr (co-supervision and publications with Owens) returned under UoA16. Two Emeritus Professors remain active: Bleaney continues to research on macroeconomic policy (and cosupervises with Morozumi) and Milner continues work on trade policy (e.g., provided advice and a background paper for the Commonwealth Secretariat Flagship Trade Report 2015). Research addressed topics of policy concern, typically building on contacts with Southern (mostly African) associates in research and policy communities, with a focus on certain countries over a long period (e.g. Ghana, Tanzania and Uganda since the 1990s). CREDIT builds relationships with local Universities, research institutes, Government (e.g., Central Banks, Finance and Health Ministries) and NGOs. Regular visits to and PGRs from the countries maintains the relevance of the research to users, and members of the unit maintain contact with PGRs who have returned to work in Universities (e.g., five in Ghana, three in Uganda and two in Tanzania).

The microeconomics research, mostly for sub-Saharan Africa, includes: performance of local NGOs (Owens); health and education (Bridges, Outes-Leon, Owens, Rueda), such as interventions to improve student attainment and evaluating provision of orthotic equipment to disabled persons; labour markets, including youth unemployment, and household welfare (Bridges, Morrissey, Owens, Upward). Research involving fieldwork and data on human subjects must be approved by the School Research Ethics committee. One strand of growth research takes an historical perspective, such as **Bonfatti** on colonial trade and the effect of the location of mines on development in Ghana and Rueda on long-run effects of colonialism on health and education in Africa, while Eberhardt studies structural change and economy-level knowledge production (e.g., Chinese patents). Macroeconomic research addresses: effects of aid on fiscal policy and exchange rates (Morrissey); public spending, inflation and monetary policy (Morozumi); and financial economics (Bougheas), such as firm exporting during a currency crisis. Dijkstra is an environmental economist, specialising in theory but addressing environmental agreements; Garcia-Vega specialises in multinationals, technology transfer and innovation by firms (CRG research covers similar themes); and Ruggieri (appointed in 2019) works on trade and labour markets.

⁴ For CREDIT see https://www.nottingham.ac.uk/credit/seminars/index.aspx. For other School seminars see www.nottingham.ac.uk/economics/research/seminars-workshops/index.aspx (especially Senior Academic Seminars and GEP).



The **Rights Lab (RL)** has a world leading group of modern slavery researchers. Underpinning anti-slavery with an advanced research agenda, **RL** tackles a key challenge of global development and one of the great human rights issues of our time. Across all its research, it elevates survivor-informed research as a key part of knowledge production to help end slavery and support survivors to achieve a full freedom. Eight researchers (managed and mostly funded 100% by **RL**) are returned, although the multi-disciplinary team of 75 researchers draws from 17 Schools across all five UoN Faculties (about 90% are from the Faculty of Social Sciences). It is structured around five large research programmes: Data and Measurement; Communities and Society; Law and Policy; Business and Economies; and Ecosystems and the Environment. Each is led by an Associate Director (four are women and the fifth is an LGBT leader on campus) who manages a team of about 15 people, consisting of established members of Schools (returned under the respective unit) and ECRs. The Director is a woman, as are 80% of its postdoctoral researchers and 100% of its PhD students. It received a national award for inspirational female leadership in 2019.⁵

Eight ECR employees of **RL** (affiliated to a School or the Faculty of Social Sciences) are returned: Emberson (NUBS); Davy and Nicholson (Politics); Brown and Jackson (Geography); and Sparks, Brewster and Schwarz (Faculty). The total UoN investment in these staff was almost £1.9 million, including their salaries, often postdoctoral or Nottingham Research Fellow (NRF), and a PhD studentship for Jackson (2016-19). They contribute to research on where, how and why slavery occurs. First, identifying where activities associated with modern slavery occur. Brown and Jackson use remote sensing to identify areas with activities associated with forced labour (such as brick kilns in South Asia and deforestation in Sub-Saharan Africa); Brewster employs informatics methods to monitor social media to indicate modern slavery and organised criminal activities (such as sexual exploitation and recruitment into forced labour networks). Lucas (NUBS) contributes to this theme. Second, investigating how modern slavery enters supply chains. Emberson investigates slavery in public procurement (collaborating with Trautrims in NUBS) and Brazilian beef and timber; Sparks has a focus on anti-slavery and sustainable development in fisheries (Thailand and South-East Asia; forced labour in tuna fishing) and works with **Jackson**. Third, understanding why slavery occurs. **Davy** focuses on the factors that make migrants vulnerable to slavery and labour exploitation; Nicholson studies slavery survivors' experiences and is working with Davy on survivor support systems in Ethiopia and India: Schwarz works with **Nicholson** at the intersection of survivor voices and international legislation, and their analysis of survivor support legislation changed government policy (see the Impact Case Study). Schwarz has expertise on all countries' laws and policies and collaborates with the other seven RL ECRs (e.g., with Emberson on briefings for the UN Special Rapporteur about the impact of Covid-19 on slavery in low-wage, high-risk sectors).

Eight staff from NUBS are included, all but two of whom are members of the CRG, an international community of scholars undertaking evidence-based research on Chinese business, economics and entrepreneurship studies. The CRG provides a forum for policy analysis and research collaboration and a hub for PhD research students. Jing Zhang, Coordinator of the CRG, works on foreign investment, innovation, the environment, and human development; Bin Wu's research focuses on sustainable rural development and small farmers' empowerment, addressing rural innovation and entrepreneurship, poverty alleviation and rural revitalization in China. Jinmin Wang works on firms' international strategy, digital economy, rural entrepreneurship and the development of industrial clusters in China; Lin Wu works on approaches to corporate sustainability; Jian Chen focuses on corporate governance and Minjia Chen on firm productivity and finance. Appleton, Eberhardt and Upward are members of the CRG, along with some Economics staff (returned under UoA16).

Two NUBS staff are not members of the CRG. **Haile** is an Internal Fellow of CREDIT (he completed his PhD in the School of Economics) whose research on Ethiopia (intergenerational mobility and how school meals affect educational outcomes) aligns with the microeconomic work in CREDIT. **Lucas** is part of the Rights Lab's Data and Measurement Programme; he uses social

⁵ See https://blogs.nottingham.ac.uk/newsroom/2019/03/08/modern-slavery-abolitionist-wins-inspirational-women-award/



media analysis and data analytics for understanding the network structure of modern slavery discourse, for research and data visualisations on social movement theory and antislavery. He works with **Brewster** on social media monitoring and **Schwarz** on text analysis of her legislative database.

The Unit actively considered EDI issues and applied the principles of the San Francisco Declaration on Research Assessment (DORA) in the selection and evaluation of research outputs. This is particularly appropriate for UoA22 as most outputs are from a very wide and varied range of journals. All outputs were read in an internal review process overseen by **Morrissey**. The guiding aims were to return at least two outputs for each individual (with additional outputs from more senior staff), the proportion of outputs for each of the three groups would reflect their share in the unit, and the proportion of outputs would be in line with the gender and BAME composition of the unit. We have not sought reductions for ECRs, although a few had only one output to return, or any staff with special circumstances. Given the more senior profile of staff, the outputs returned has an over-representation of **CREDIT**. Some outputs are from staff no longer at UoN: Riano was in the School of Economics until the end of 2019; Appleton was seconded to the China campus from 2017.

Future Research Strategy and Collaboration

Whilst individuals will continue research in their established areas, the core strategy is to build collaboration between researchers in the three groups, with other disciplines in the University and with external networks and partners, to establish an identity as a development studies unit. This will be achieved by promoting research projects where shared interests from different perspectives already exist.

Researchers in **CREDIT** and **CRG** are collaborating with the Future Food Beacon on sustainable rural development. Morrissey is working on socioeconomic evaluations for adopting and promoting underutilised crops, extending a paper (with Boulay and Khan, who were PGRs) forthcoming in Oxford Development Studies on the contribution of Bambara groundnut to rural livelihoods in Tanzania. He is currently part of a pilot UoN GCRF funded project on African leafy vegetables in Southern Africa (with Dr Guillermina Mendiondo, School of Plant and Crop Sciences and collaborators in Universities of KwaZulu Natal and Zimbabwe). Bin Wu is leading a UoN GCRF funded project on Social Innovation in Rural China building on an established partnership between YouChange China Social Entrepreneur Foundation and UoN Hayden Green Institute for Innovation and Entrepreneurship to promote joint research, education/training and capacity building in social innovation for sustainable development and poverty alleviation in rural China and other developing countries. A larger initiative extending research collaboration on sustainable rural development is to establish a UoN Rural Innovation and Entrepreneurship Hub with partners including the Future Food Beacon, the James Hutton Institute (JHI) in Scotland, and organisations in China such as the Chinese Academy of Agricultural Sciences (CAAS), the Chinese Academy of Social Sciences (CASS), China Agricultural University (CAU) and Sichuan Agricultural University (SAU). Bin Wu and Morrissey (co-investigator) recently secured funding for Newton Fund Researcher Links Workshops on Food Security in China in partnership with the Chinese Academy of Social Sciences (CASS). This will support collaborative research over ten years from 2021 on sustainable rural development with implications for developing countries. Haile and **Zhang** (with Song.) have worked on early childhood education in China, India and Sub-Saharan Africa (SSA); Zhang contributed to an ESRC-funded project with Song (PI) on Chinese development lessons for SSA that included collaboration with Makerere University and work by Appleton revising the poverty line for Uganda.

CREDIT will collaborate with the **RL** in projects on cost-benefit analysis and work in developing countries, initially by setting up a series of workshops to share information in research activities. A specific aim is to identify a project for a PhD student co-supervised by somebody in **CREDIT**. There are links between the research of **Sparks** and **Jackson** on environmental degradation, induced migration and modern slavery in agricultural and freshwater ecosystems and the projects on sustainable development by **CRG** and **CREDIT**. The research using geospatial observation to map and measure 'Slavery from Space' (**Brown**) can identify 'hotspots' in regions covered by other projects in SSA; such sharing of information can promote collaboration. **CREDIT** research already uses, for example, location of mines and geocoded nightlights data, and it is usually



possible to geocode the location of households in surveys. Similarly, **Emberson's** research on forced and unpaid domestic work as a form of modern slavery can be linked to **CREDIT** work on household surveys (where presence of domestic workers is known) or migration, while her work on supply chains can be linked to trade and global value chains (Albornoz in Economics and Landman in RL have collaborated on slavery and trade links).

Collaborative research on improving school attainment in developing countries will be championed by **Outes-Leon**, a recently appointed NRF, whose work on 'Grow Your Mind' (GYM) interventions links with research in Economics (Albornoz) and the Schools of Psychology (Pitchford) and Education (McGrath), whose links to UNESCO are also relevant. As an NRF, **Outes-Leon** plans to develop his research in three areas of evaluation: the effectiveness of GYM in improving student attainment, especially for disadvantaged students; how self-control methods can help students stay on task and achieve goals; and psychosocial methods to reduce exam anxiety. Although Covid-19 prevents beginning any new projects in developing countries (or indeed the UK), established links with the World Bank and Ministries of Education will facilitate projects resuming when possible and he is currently analysing data from large-scale projects in Peru, Indonesia and Mexico.

Impact Strategy and Achievements

The CREDIT Impact Case Studies were chosen as examples of how two research themes evolved. Riano continued research on trade policy (Milner & Morrissey submitted an Impact Study on trade policy in Africa under UoA18 for REF2014) but shifted focus to the effects of export subsidies on firm-level export performance and economic welfare (via consumer prices). Building on research papers on China's export subsidies, Riano (with Defever) was invited to participate in a World Bank technical assistance project for the Ministry of the Economy of the Dominican Republic. This research influenced the design of World Bank technical assistance and advice and they were asked to participate in another World Bank project for the National Planning Commission (NPC) of Nepal. Although Riano left in 2019 he has been replaced by Ruggieri (appointed in 2019) who can continue trade research (with a focus on trade and labour markets in Latin America) and CREDIT collaborates with trade and migration economists in the Globalisation and Economic Policy (GEP) Research Centre in the School of Economics.

Morrissey & Morozumi build on previous research by Morrissey on the fiscal effects of aid and by Morozumi on inflation targeting to address current macroeconomic management concerns in Africa (with a focus on Ghana and Uganda), delivering impact through engagement with policymakers and presentations to Central Bank staff. Part of the research was supported by Morrissey's project in the ESRC-DFID Research Programme on 'Delivering Inclusive Financial Development and Growth' (Grant Reference: ES/N013344/1) which funded the employment of a Post-Doc (Roger, who was a PGR) and a Research Assistant (Spreng) for research on how Central Banks in Africa used policy instruments to manage the effect of foreign exchange inflows (aid and commodity exports) on the exchange rate and inflation. Another strand of the impact developed from work of Morozumi and Bleaney with Mumuni (PGR now with the Bank of Ghana) on inflation targeting and macroeconomic policy management. The research engaged with Central Banks in Ghana, Uganda and Zambia.

The **RL** embeds impact in research and supports ECRs to collaborate across disciplinary boundaries to achieve high-level impact, e.g., through participation in the University's Impact Leaders Programme and ESRC Impact Accelerator Account (IAA) funding. The case study by **Nicholson** and **Schwarz** was selected for UoA22 because their research was integral evidence to a judicial review that found the Home Office in breach of its obligations under the European Convention on Human Trafficking (ECAT) as a results of which UK-based survivors of modern slavery (most are trafficked into the UK from other countries) are entitled to extended provision of care from the UK government. It was used in a second successful case against the Home Office with the result that asylum seekers have the right to seek work if found to have been victims of modern slavery. Both legal cases relied on analysis from the research showing that the benefit of supporting victims, including with the right to seek work, would reduce demand on services and outweigh the costs of enhanced support.



RL ECRs in UoA22 will continue to deliver impact through engaging with users of the research. For example, Sparks' work with Port Chaplains on modern slavery in fisheries informed the Vatican's Migrant and Refugees Section in tailoring a Pastoral Orientations on Human Trafficking specific to the maritime industry in 2019 (including an audience for Sparks with the Pope). Nicholson has worked with the NGO Freedom Fund (the leading NGO focused on tackling slavery in developing countries) in India and Ethiopia on survivors' reintegration to inform how Freedom Fund approaches its large intervention programmes in both countries. Schwarz developed and launched an Anti-Slavery Legislation Database at the UN headquarters in early 2020 that showed for the first time that only half of all countries have criminalized slavery in their domestic legislation, cited in the UN Special Rapporteur's annual report on contemporary slavery and recommendations for action. She then worked with legislators to draft new legislation, including MPs from Malawi.

Other **CREDIT** research has impact through engagement with policymakers. **Outes-Leon**, in collaboration with the World Bank and the Peruvian Ministry of Education (MINEDU), developed a cost-effective, scalable and replicable 'growth mindset' intervention (GYM - Grow Your Mind). A 1.5 hour GYM session was administered by local teachers and randomly introduced across 800 secondary schools reaching 25,000 pupils. Analysis showed the intervention increased Maths test scores significantly at a cost of only 20 US cents per pupil. The research in Peru was extended to cover 2000 schools (up to 250,000 pupils) from 2016 and similar projects have been implemented with Ministries of Education in Indonesia and Mexico. Results are being analysed and once Covid-19 restrictions permit follow-up and dissemination fieldwork will occur.

Morrissey secured funding over 2017-18 for an ESRC-DFID project 'GCRF: Pseudo-Panels for Long Period Analysis of African Household Surveys' with a focus on Uganda and employed a PGR (Khan) as a Post-Doc. The research developed statistical methods to investigate how changes in household income diversification related to household welfare between 1992 and 2013. They engaged with the user community in Uganda throughout the project: an Inception Workshop in May 2017; a Dissemination Workshop in September 2018 (with a full page article in *New Vision* newspaper); and a seminar to researchers and policy community in November 2019 (hosted by the East Africa office of the African Development Bank). Analysis is continuing and similar research has begun for Tanzania (part of a project of the UONGOZI Institute, Dar-es-Salaam and UNU-WIDER) presented at a workshop in February 2020. This work aligns with the research theme on poverty and household welfare.

The **CRG** is active in knowledge transfer and promoting impact. **Zhang** (with Song) advised China's National Health Commission on healthcare reform and training hospital administrators. **Bin Wu** plays a leading role to promote grassroots innovation and entrepreneurship for sustainable development in China with Chinese partners including academies of science. This included organizing international workshops on sustainable rural development in May 2019 (Nottingham), November 2019 (Chengdu) and a two-day online workshop in December 2020.

2. People

Strategy and Staff Development

The three groups in UoA22 are committed to recruiting, supporting, developing and retaining excellent researchers, and ensuring equality of access and opportunities for all staff. All groups maintain a commitment to providing a context of equality and support for all research-active staff at any stage of their career. Staff are recruited and appointed by Schools, or by the **RL** in conjunction with a School or the Faculty; all adhere to the University's commitment to promoting EDI (institutional statement sections 3.5 & 3.6). For example, Economics aims to ensure that at least a third of candidates interviewed for positions are female and the number of female (and BAME) staff has been increasing over the past few years (at all levels); **Rueda** is a recent appointment included in this return.

Although composition inevitably varies within the groups, overall for the 29 returned there are 15 males and 14 females; seven are BAME (all in NUBS, largely reflecting the China focus). The staff in Schools (Economics and NUBS) and some **RL** staff also have teaching and administrative



responsibilities but, within the respective School, all benefit from the same basic conditions and are allocated similar workloads for teaching. For example, Economics has a policy whereby new staff (ECRs) are on a reduced teaching load (50% of the standard teaching hours in the first year and 70% in the second year). Where possible, teaching in the first two years is on modules close to their research interests and shared with a more experienced member of staff. **Rueda** (appointed September 2019) taught half of two development modules in 2019/20 (one shared with **Morrissey**, the other with **Bonfatti**). This reduces the preparation and administrative burden of teaching and provides support and mentoring. All members of Research & Teaching staff are required to obtain a recognised teaching qualification by completing the Postgraduate Certificate in Higher Education (PGCHE) or the Nottingham Recognition Scheme (NRS) of the Higher Education Academy (now Advance HE).

Promotion, Development and Mentoring

The groups promote a culture of continuous personal learning throughout a researcher's career through training and support for professional development, grant-writing, impact and publications. Training is essential for achieving the highest possible standards in teaching, research and administration to support the development of staff at all stages of their career, in line with University policy (institutional statement section 3). Staff returned have benefitted from professional development events including impact workshop and communication; research grant preparation; writing workshops and pathways to publication. In addition, NUBS introduced a Personal Research Planning process in 2016 to help researchers plan, support and recognise current and future research activities to support research and career progress. The **RL** has a dedicated ECR development programme which includes output workshops; a monthly ECR "salon" to discuss research; a peer review college on articles at the abstract stage; impact training workshops; media training; and stakeholder show-and-tell sessions where they can network with industry and NGO partners.

Schools operate a mentoring scheme for all new academic staff, and other staff if desired. Mentoring is an important vehicle for integrating and developing a sense of belonging, can help to establish professional and personal networks, and to support research and career development. The **RL** has an ECR mentoring scheme that includes one-to-one mentoring from professors, including **Schwarz**, **Sparks** and **Nicholson** by the Faculty Pro Vice Chancellor and Rights Lab Executive Director Todd Landman (submitted to UOA19).

Post-Graduate Researchers (PGR)

PGRs and Post-Doctoral Researchers (PDRs) are central to the achievement of a research culture and strategy and all Schools follow similar procedures and provide similar support (institutional statement section 3.4). The School of Economics and NUBS are part of the ESRC's Midlands Graduate School Doctoral Training Partnership (MGS DTP) and have doctoral programmes that provide supportive interdisciplinary, multidisciplinary and specialist research training. PGRs can also avail themselves of the range of research skills training opportunities in the Social Science Faculty Researcher Skills Programme, which combines core and optional training courses delivered by the Researcher Academy (formerly Graduate School). The programmes attract high quality students and entry requirements are high. Economics PGR students have a strong technical Economics background whereas NUBS students have diversified academic backgrounds, including business and management, psychology, geography and computer science. Many PGRs received funding through competitive scholarship schemes, including UoN Vice-Chancellor Research Excellence Scholarships and ESRC DTP studentships. During the REF period, some 40 PGRs associated with CREDIT and 10 associated with CREDIT have completed.

PGR students affiliated to **CREDIT** are admitted to and registered in the School of Economics; they meet School entry requirements and avail themselves fully of all School training, facilities and support for PGR students. All Economics and NUBS PGRs are co-supervised by two members of staff (equal weight), meet formally 10 times a year with both supervisors (with a written record of substantive discussion), but supervisors are available at other times and often meet informally, and have formal progress reviews in the first and second year (with an assessor other than the supervisors). Economics PGRs receive advanced research training with taught



courses during the first year, core Economics during the first term (examined in January) and specialist in the second term (examined in May), but also begin research to develop a full proposal and outline of the first essay (a theses typically comprises three self-contained essays, usually on related topics) by the Year 1 Review in early July, and a detailed research proposal (often with preliminary analysis) is presented at the School's Year 1 PGR Conference in September. Further research is presented at the School's Years 2 & 3 PGR Conference in April (for 2020-21 this has been replaced by weekly webinar presentations). PGRs can volunteer to be Graduate Teaching Assistants (for undergraduate tutorials) and if they do so are trained, paid and monitored to help develop teaching skills. Some students submit the complete thesis by the end of the third year or shortly after but are permitted a fourth year to complete (most submit by April/May of the fourth year).

PGR applicants who meet the entry requirements and for whom there are potential supervisors with a fit for their topic are interviewed before being offered a place. Usually the interview is by Skype but sometimes it can be in their home country if somebody is there (e.g. Morrissey has interviewed in Tanzania and Uganda). The major constraint to taking up offers is securing funding. especially for those from developing countries, and we provide support where feasible, especially with applications for Commonwealth Scholarships (some have been successful from the Caribbean, Tanzania and Uganda). CREDIT staff co-supervise PGRs, almost all working on development topics; including those who completed or started after August 2013, this amounted to some 45 PGRs during the period (including those still registered). Of these, 26 were male and 19 were female; 30 were from developing countries (14 female), most with Government or Commonwealth scholarships; and nine received ESRC Scholarships (supervisors supported the applications, four for +3 (two from our own MSc) and five for 1+3). Ten completions from developing countries returned to work in Universities in their home country (e.g., Ghana, India, Malaysia, Pakistan, Uganda, West Indies), others have gone on to work for Government/Central Banks (e.g. in Ghana, Pakistan and as an ODI Fellow in Eswatini), the World Bank and other organisations. Two European PGRs went to work for Government as ODI Fellows in Rwanda and Zimbabwe and two to the World Bank. Others took Post-Doc or Teaching Fellow positions at Universities (e.g. Nottingham, Oxford, Bristol, Groningen, LSE, Warwick) or non-University jobs (e.g. Oxford Policy Management, Cowater).

There is support for PGRs in disseminating their research by encouraging them to publish CREDIT Research Papers, disseminated and freely available online; of some 60 during 2014-20, 45 were authored or co-authored by PGRs (including some produced after completing the PhD) and are often the first version for submission to journals. Many PGRs have published directly from thesis essays, sometimes solo-authored (e.g., Dom in *Journal of Development Studies*), sometimes with another PGR (Dom & Roger in *International Studies Quarterly*), who may not be from Nottingham (Timmis with Mascagni in *Journal of Development Studies*), but most often with one or both supervisors (e.g. Dang in *Economic Development and Cultural Change*, Matta in *World Bank Economic Review*, Torrance in *Journal of Development Studies*). Not all publications with supervisors are included in the outputs returned (e.g. Pereira with Barr and Owens in *World Development*, 2020). PGRs are supported to present at prestigious international conferences; during the period these included the *Royal Economic Society Junior Symposium*, *International Association of Applied Econometrics* and annual development economics conferences held at the Centre for the Study of African Economies (CSAE), Oxford.

NUBS has very similar process for PGRs. The **CRG** staff returned supervised about 20 PGRs that completed since 2014 or are currently registered. Most were from developing countries and all worked on development topics. Eight completions returned to work in Universities in their home country (mainly China and Vietnam) and three are working in Universities in the UK (Nottingham, Northampton and King's College). The **RL** supports an active PGR community, and some staff returned completed PhDs supported by the RL, e.g. **Jackson** had a PhD scholarship from the RL and **Schwarz** was an AHRC-funded PGR on a RL grant. The PGRs are located in Schools and avail of the process and facilities common across the Faculty and professional development opportunities. PGR members of **RL** benefit from networks like the international Anti-Slavery Early

⁶ See https://www.nottingham.ac.uk/credit/research-papers/index.aspx



Research Association, led by a committee of RL PGRs but with members worldwide, which has hosted four international conferences for PGRs (2015-19) and RL PGRs co-edited a special issue of the *Journal of Modern Slavery* in 2018. Six postdoctoral fellows were actively supported by the **RL** in successful applications for NRFs (which are linked to a permanent post upon completion of a three-year research fellowship), including **Schwarz, Sparks, Brewster, Nicholson** and **Emberson**. A vibrant **RL** research environment is supported by regular visits from high-profile anti-slavery leaders who spend time with **RL** members including ECRs and deliver seminars and workshops. The **RL** runs a successful 'buddying scheme' with the modern slavery units in the UK Home Office and FCDO which pairs academics (including ECRs) with government officials to learn about each other's work and develop new projects together.

3. Income, infrastructure and facilities

Research grant income for the staff returned was about £500,000 over 2014-19 (as noted in Section 4 below some large grants have been secured by **RL** researchers in 2020). Most research by **CREDIT** and **CRG** staff was based on available secondary data, often with PGRs or external collaborators, and external funding was not required for staff research time. Some research was supported by small grants or internal funding (e.g. UoN GCRF awards). **Morrissey** did have ESRC grants and employed Post-Doc Researchers and Research Assistants. The **RL** staff in Development Studies benefitted from total internal investment of £1,863,701 that included postdoctoral, Nottingham Research Fellow (NRF) and ECR salaries for **Nicholson**, **Jackson**, **Brewster**, **Emberson**, **Brown**, **Davy**, **Sparks and Schwarz**, and a PhD studentship for **Jackson** (2016-19).

Organizational Structures to Support Research Activity

Support for all aspects of research involves personnel, systems and processes at varying levels within the organisation as outlined in the Institutional Statement (section 2). At the Faculty level, these functions are supported by the Associate PVC for Research and Knowledge Exchange (RKE) and the Centre for Advanced Studies in the Arts and Social Sciences (CAS). The CAS team includes a dedicated Research Development Manager, a Faculty Impact Officer who supports active RKE partnerships, a Digital Research Manager to support the development/inclusion of new digital approaches, and a Funding Office team to support the development of funding proposals. The CAS team also supports the development of interdisciplinary research networks and the delivery of platform grants to enable new research collaborations. The CAS team delivers support through a range of events including: Early Career Researcher events (2 per year) covering how to win a fellowship, advice on crafting funding applications and details of support available, what success looks like (award holder and reviewer perspectives), details of ongoing training and support for skills development from the Researcher Academy (formerly Graduate School), and the award winning ESRC-funded Impact Leaders Programme. Additional events include fellowship writing workshops, bid writing workshops and interdisciplinary network meetings.

CREDIT staff are part of the School of Economics, which has over 50 FTE staff and some 60 PGRs ensuring a vibrant research environment. All staff are associated with one or more of six research centres; CREDIT has the closest links to the Centre for Decision Research and Experimental Economics (CeDEx), incorporating behavioural research in developing countries; the Centre for Research on Globalisation and Economic Policy (GEP), with research on trade and migration and a centre in the China campus; and the Nottingham Interdisciplinary Centre for Economic and Political Research (NICEP), including work on politics and development. All centres run regular seminar series and host visiting academics.

CREDIT and **CRG** staff are supported by resources at the respective School level, and although details differ the principles are the same. Each School has a Director of RKE and School Research Committee to support strategic development. The Research Centres (CREDIT and CRG) receive financial and administrative support for the organisation of research seminars, workshops and network events, conferences and knowledge exchange activities.



Support for Impact and Knowledge Exchange

The Faculty of Social Sciences has held an ESRC Impact Accelerator since 2014, first securing £860K to support the development of social science KE and impact through to March 2019. Additional ESRC IAA awards of £263K were also secured in this period to support KE in GCRF contexts and in relation to the Industrial Strategy. A new award of £1.3M has been secured for the period April 2019 – March 2023, with an additional £100,000 NPIF award in 2020. The Development Studies groups have access to these funds and associated support. For example, **Brewster, Schwarz, Jackson** and **Emberson** were awarded IAA funding. The IAA programme also runs a popular Impact Leaders programme that trains academics and their external partners (**Nicholson** and **Schwarz** have participated).

Through CAS, support is available for each UoA in the Faculty to access internal funds such as UNICAS Interdisciplinary Sandpit Programme Funding; Birmingham-Nottingham Strategic Collaboration Fund; International Collaboration Fund (ICF); and the Nottingham Strategy for Development-focused Research (GCRF since 2018). For example, as noted elsewhere, **Bin Wu** and **Morrissey** each participate in UoN GCRF projects. **RL** staff are further supported in their knowledge exchange, impact and partnership development by three RL heads of Policy Engagement and Impact, Civil Society Engagement and Impact, and Business Engagement and Impact.

The impact strategy is implemented to ensure that researchers are fully informed of the evolving impact agenda and supported in responding to its requirements, has promoted the impact agenda through professional development workshops, highlighting best practices and emerging cases in its quarterly newsletter, raising awareness of the funding opportunities outlined above, and embedded impact into the performance and appraisal process.

Support in Applying for Research Grant Applications

Support for research grant applications and information and guidance about funding opportunities is provided through CAS and by Schools' Research Development and Support teams. **RL** staff are further supported on their grant applications by a dedicated Head of Research Development who focuses in particular on developing ECRs into PIs. The result of this focus has been that all **RL** ECRs returned to UoA22 have achieved their first grants as PI. Generic opportunities are publicised, while specialised topic calls are distributed on a targeted basis. Assistance with costing, application administration, and administrative compliance with funder requirements is provided by the Research Support Administrator in CAS. There is a system of peer review at Faculty level for all ESRC, University level for GCRF, applications and for other calls which are mid-high value, very prestigious, or require 'demand management' coordination. The **RL** and Schools have an internal peer review or mentoring for applications. Training workshops on grant applications are organised regularly, in addition to events organised at Faculty level for Fellowships and for Early Career Researchers. Gender composition is considered in the targeting of calls (especially GCRF) or for training and take up by women has been high amongst all types of funding support provided internally.

Physical Infrastructure

The **RL** has dedicated space across the ground level of Highfield House on University Park with several open plan offices for ECRs, four sound-proofed 'pods' for sensitive face to face meetings, administrative offices, additional offices for Associate Directors, and seminar rooms for workshops, planning meetings, research events, and the hosting of external visitors. This shared physical space enables active multidisciplinary collaboration and regular all-team meetings for brainstorming. The upper level of the building hosts CAS, which gives **RL** team members quick access to research development support. The building is opposite the Schools of Law, Politics and International Relations, Sociology and Social Policy, and close to the building housing Geography and Economics, giving **RL** team members easy access to collaborators in Schools.

CREDIT staff are all full members of the School of Economics and share the same facilities. The School is located entirely in the Sir Clive Granger Building with extensive IT and office facilities for all staff. **CRG** avails of the facilities in NUBS, located on the University's Jubilee Campus, with staff located in a cluster of adjacent buildings. All locations are equipped with state-of-the-art ICT



and facilities to support capability in data analytics, including the Neo-Demographic Lab (NLAB), which offers hi-powered secure computing facilities and data visualisation capability for data science and 'big data' projects. The Business School library offers comprehensive on-line access to research materials as well as a substantial collection of books, journals and other materials in hard copy. The School subscribes to a wide range of relevant databases (with investment of more than £200,000 over the REF period in research databases such as FitchConnect and Bloomberg) and has site licences for a broad set of software tools.

4. Collaboration and contribution to the research base, economy and society

Morrissey, the Director of **CREDIT**, held two ESRC-DFID research grants during the period: ES/P003389/1 (c£160K for CREDIT) and a project (c£50K for CREDIT) in ES/N013344/1 (which supported part of an Impact Case Study). He is Managing Co-Editor *Journal of Development Studies* (since 2006) and is on the Editorial Management Board of *Development Policy Review* (since 2002); ESRC reviewer (Peer Review and UKRI Future Leaders Fellowships scheme panels); African Economic Research Consortium (AERC) Resource Person (since 2006); Chair of the Centre Advisory Group (CAG) for the International Centre for Taxation and Development (since 2017, attended the annual conferences in Kampala 2018 and Kigali 2019; the Abidjan 2020 meeting was cancelled); and was appointed a WIDER non-resident Senior Research Fellow from 2020.⁷ He was Lead Editor for the African Development Bank *African Economic Outlook 2019* and a reviewer for the UNCTAD *Least Developed Countries Report 2020*.

Owens is a CI on two British Academy projects (on income sharing and saving behaviour in Kenya, and on collective coping in Sri Lanka), collaborates with University of Stellenbosch and Free University Brussels on transparency of NGOs in South Africa, and with Stellenbosch, University of Washington and Indiana University-Purdue University on NGO transparency. She also organised and led a team for a medical intervention with disabled persons in Uganda. She is on the Editorial Board of the *Journal of Development Studies*. Building on previous research on NGO accountability and transparency, with Canh Dang (PGR now at LSE) she is developing their work on identifying inaccurate financial reporting by NGOs in the UK to engage with the Charity Commission, which has a limited auditing budget, to target those identified and monitor the outcomes to provide a cost-effective way of regulating the sector.

Bonfatti has BA/Leverhulme grant for work on colonial trade policy and an IGC grant with European collaborators on the political economy of African roads. **Eberhardt** has begun research with Vanessa Boese (Gothenburg University) to investigate which elements of liberal democracy are empirically related to economic development and structural change. Ruggieri has two projects with UNECA and researchers at the Institute of Economic Analysis (Barcelona), one on resource allocation by Moroccan firms and the other on the effects of the pandemic on firms in Morocco, Tunisia, and Algeria. Rueda has small grants for research on gender disparities in academia and political mobilization of women voters. Garcia-Vega was a CI on grants from the Spanish government worth over £200K to study innovation and firm strategies. Outes-Leon has held grants, with the World Bank, worth over \$200,000 for his research in Peru. Upward is part of a large collaborative project on the role of firms in wage inequality in OECD countries, and another funded by the VW Foundation on the rise of populist parties in Europe related to globalization and technological change. He is also using data from Chile to investigate the effects of repeated student-teacher matches on academic achievement with Contreras-Gomez (PGR) and Albornoz (Economics). Bougheas has research with various collaborators on financial systems and patterns of international trade; systemic risk in banking; financial liberalization and banking crises. He has also written papers and blogs on Covid-19, albeit with a UK focus.⁸

⁷ See https://www.wider.unu.edu/expert/oliver-morrissey

⁸ For example, 'The Economy on Ice: Meeting the Economic Challenges during and after the COVID-19 Crisis', https://www.niesr.ac.uk/publications/economy-ice-meeting-economic-challenges-during-and-after-covid-19-crisis



Given the nature of their work, **RL** staff have many engagement and advisory activities and have been successful in securing grants for work on impacts of Covid 19. Two grants were secured under the UKRI COVID 19 Rapid Response Scheme: **Brewster** on Child Criminal Exploitation and implications for County Lines, (start June 2020 for 14 months, FEC £214,410) and **Lucas** on impacts and mitigations for Modern Slavery Victims (start July 2020 for 16 months, FEC £499,175). **Schwarz** secured a grant from AHRC Modern Slavery Covid 19 Strategic Priorities Fund for work on Sudan (3 months from January 1, 2021, FEC £107,915).

Nicholson is a member of the Advisory Board for the Anti-Trafficking Monitoring Group (since 2019), has provided advice to Office of the United Nations High Commissioner for Human Rights (2019) and Shoosmiths (law firm, 2018), served as a panel member at the Home Office Modern Slavery Unit National Referral Mechanism workshop (2018) and Modern Slavery and State Responsibility workshop at the UN (2018), and was a keynote speaker at the FCO and British Embassy, Venezuela (2018). She has received project funding from the NGO Freedom Fund (£83K, 2018), the UN Special Rapporteur (£15k, 2018) and the ESRC (£848k, 2020).

Schwarz launched her dataset on all countries' anti-slavery legislation at the UN (2020). She received a Policy Impact Rising Star Award from Nottingham Institute for Policy and Engagement in 2019 for her work to help change government policy on slavery survivor support and was a Visiting Fellow at the United Nations University in New York (2020). She was an invited speaker at the House of Lords (2019) and on a panel with the UN Special Rapporteur on Contemporary Forms of Slavery (New York, 2019). She has received project funding from the Foreign & Commonwealth Office (£60K, 2019), the Walk Free Foundation (£67k), the Global Fund to End Modern Slavery (£68k), the United Nations University (£20k) and the AHRC Modern Slavery Policy and Evidence Centre (£58K, 2020).

Emberson was an invited speaker at the British Academy Roundtable on Child Labour and Education (2020), the OSCE Conference on Public Procurement and Modern Slavery (2019), the Local Government Association (2018), and a seminar in Brazil on Combating Slavery in Productive Labour Chains (2019). She has received project funding from Anti-Slavery International (£4k, 2019) and Trust for London (£83k, 2020). **Sparks** was an expert advisor for the Vatican's Pastoral Orientations on Human Trafficking (2019), and an invited speaker at the European Justice and Peace Conference (2019). She has received project funding from the United Nations University (£23K, 2019) and Stanford University (£22K, 2020).

Brewster has advised Facebook on its approach to tackling the online advertising of trafficked labour (2019) and works with the National Crime Agency and Barnardo's to understand and tackle child criminal exploitation. He has received project funding from the ESRC rapid response scheme on COVID-19 (£214k, 2020) and from the AHRC GCRF Urgency Grants scheme (with Schwarz as Co-I) to tackle child exploitation in Brazil (£149k, 2020). Davy has delivered an evaluation of a project to provide free transport to survivors of slavery on Transport for London services (2019). She has received project funding from the Global Fund to End Modern Slavery (£70k, 2020) and the Salvation Army (£5k, 2019). **Brown** worked with Boyd (Geography) to secure the University's first British Academy Global Professorship for Harvard's Siddharth Kara, with whom Brown is the main collaborator on the fellowship's project to use remote-sensing to map forced labour in all cobalt mines in the DRC (£843k, 2020). She received project funding from the UK Space Agency (£352k, 2020), the FCDO (£61k, 2020) and the NGO Verité (£3k, 2019). **Jackson** has delivered seminars to the DFID Modern Slavery Unit on the connections between modern slavery and environmental destruction and published multiple briefings on the United Nations University's modern slavery knowledge platform (Delta 8.7). She has received project funding from the ESRC IAA (£9.5k, 2020) and the World Wildlife Fund (\$25k, 2021).

Schwarz, with **Davy** and **Nicholson**, will address disparities between States' legal frameworks and identify effective anti-slavery governance, law and policy. **Brown** and **Jackson** will contribute to the work using geospatial observation to map and measure slavery (the team estimate that more of a third of the world's slavery—trapping 40 million people—is visible from space). Brown and the Slavery from Space team will continue work with the UN on the Code 8.7 initiative to deliver a Global Antislavery Observatory. **Brewster**, **Emberson** and **Sparks** will be working on why slavery persists and what creates resilience against slavery, including with a network of



collaborators in cities in the Global South (with GCRF funding) to pilot place-based approaches to addressing slavery.

CRG aims to continue conducting word-leading research on the economy and business of China and improving its impact on policy making and knowledge transfer to user communities. **Zhang** with Song and Appleton in collaboration with Zhongnan University of Law and Economics has started a research project on income distribution and public finance using lab and field experiments. **Zhang** (also with Appleton and Song) is collaborating on the impact of children on Chinese household asset allocation (with PhD student Fan Zhang); and has a paper forthcoming in *Oxford Bulletin of Economics and Statistics* examining the impact of childcare choice on early childhood development in China. She also has ongoing research with colleagues in Oxford on cross-country innovation performance; with colleagues in Birmingham on carbon border tax adjustment and competitiveness of steel firms (reporting to Eurofer and the European Commission); and with colleagues in China on corporate environmental performance.

Lin Wu has ongoing research with colleagues in China on corporate sustainability and crossborder e-commerce. Wang studies the international strategy of emerging market multinational enterprises with scholars at Ningbo University in China; the development of digital entrepreneurship in rural China with scholars in the Open University Business School; corporate social responsibility of Chinese listed firms (with Appleton, Song and PGR Shuanggi Wu); and provided studies for organizations such as United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) and the South Centre. Jian Chen is working on political determinants of corporate finance in the context of the Chinese economy, market pricing of corporate governance, capital structure and cost of capital. As Coordinator of the UoN-China Rural Innovation and Sustainability Programme, Bin Wu has had funded projects from UoN's Global Challenge Research Fund (GCRF) and Global Challenge Collaborative Fund (GCCF) for cooperative development, small farmers' empowerment and sustainable poverty alleviation in Sichuan. With support from Sichuan Provincial Government and project partners from SAU he has successfully initiated three social impact projects in Sichuan: potato commercialisation and access to international markets for sustainable poverty alleviation; international cooperation for the commercialisation of high quality honey in Aba Tibet Minority Region; social innovation for community development and environmental protection in natural reservation parks. He is advisor to the British Consulate-in General in Chongqing for rural development in Southwest China, to Youchange Foundation for strategical planning and capacity building, and to China Agricultural University and Sichuan Agricultural University for PGR training on interdisciplinary research. **Zhang** is on the editorial board of the *Journal of Chinese Economics and Business Studies*.

Members of the group also transfer their knowledge to user communities through other events and media. For example, **Zhang** gave an invited speech at the 4th Oxford Sino-UK Innovation and Development Forum High-Level Workshop on 11 November 2019 at Oxford University. **Wang** held an ESRC Impact Acceleration Fund project on reaching consumers through digital marketing platforms in China in 2016, organised a UK-China Cross-Border E-commerce Forum in March 2017 (with 30 delegates from enterprises in the East Midlands), and two seminars on trade and investment opportunities in Bangladesh for local enterprises (with the Assistant High Commission of Bangladesh in Birmingham, May 2017 and February 2019). He has been a regular commentator on the industrial development in China and international strategy of multinational corporations in the emerging markets for some of the mainstream media such as *China Economic Review Journal*, *Xinhua News*, CKGSB Knowledge magazine. **Haile** is a Fellow of the Institute of Labor Economics (IZA, Bonn) and his research has been reported in media outlets including BBC Radio 4, Forbes Magazine, The Conversation and DW Radio.