

## Impact template (REF3a)

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| <b>Institution:</b> University of Leicester   |
| <b>Unit of Assessment:</b> 17B: Geography, Environmental Studies and Archaeology: Geography   |
| <p><b>a) Context:</b> In RAE2008 the applied nature of our research was a defining characteristic of Geography at Leicester. Since then, we have achieved a step change in both the quantity and quality of our research activities and a commensurate increase in both the reach and significance of our research impact. Over 80% of our staff are involved in research that, one way or another, has impact and influence beyond academe. Beneficiaries include international organisations, national and local government, industry, business and community groups. Our impact ranges across all three research groups and involves staff at all stages of their academic careers, including our postgraduate research students. Impact is integral to our research culture.</p> <p>Much of our research has impact on policy making at various levels of government. Our research has influenced decision making in The Cabinet Office, DEFRA, DECC, DFID, Department of Media, Culture and Sport, the Environment Agency, the Home Office, Ofgem, Leicester City Council, Northamptonshire County Council and the Scottish Government. <b>Bradshaw</b> provided written and oral evidence to the UK Parliament, Select Committee on Energy and Climate Change, and House of Lords enquiries into shale gas development. In the case of our work with UK government and regional/local governments, these organisations are either the subject of the research or are involved in the co-production of research findings. In 2012, DEFRA sought our help by making critical contributions to Intergovernmental Panel on Climate Change reporting on wetlands and organic soils (<b>Kaduk, Balzter, Page</b>). In this case we are helping central government meet its international reporting responsibilities on key societal issues. Think-tanks have sought our opinions on a number of issues: for example, we have advised Chatham House; International Wildlife Consultants (IWC); the National Bureau for Asian Research (US) and the World Economic Forum (<b>Pickerill, Bradshaw, Upton</b>). Our case studies provide further examples.</p> <p>Our research has led to impact that has reach beyond the UK, for a range of beneficiaries. We have advised the Australian National Government on its management of Indonesian forests (<b>Page, Tansey</b>), the European Space Agency (ESA) on its future missions (<b>Balzter</b>), the Joint Research Centre—European Commission regarding the dissemination of environmental data to decision-makers (<b>Balzter, Tansey</b>), the Kurdistan Regional Government (Iraq) on cadastral mapping (<b>Balzter, Comber</b>), the Saudi Government on urban modelling (<b>Tansey</b>), the Mongolian Government's Ministry of Nature, Environment and Green Business on development (<b>Upton</b>) and a number of UN organisations on climate change issues. The general public are critical beneficiaries of many of these projects as we are helping to create the data and information infrastructures that may lead to improving the quality of life.</p> <p>We work with businesses and strive hard to exchange our knowledge, working on very challenging issues to achieve outstanding impact. We have worked with a large multinational paper and pulp manufacturer in Indonesia (<b>Page</b>) to improve their environmental responsibilities. We have worked with Swiss COOP Supermarkets to help bring in better sustainability practices in Africa (<b>Upton</b>). We have helped companies to make money or invest in R&amp;D. <b>Balzter's</b> and <b>Tansey's</b> work with Astrium has provided underpinning scientific arguments in their business case for the NovaSAR-S mission. Astrium have committed £23 million, plus several £m in precursor R&amp;D, securing multiple jobs in the value chain. Other companies include Bluesky (<b>Tate</b>), Logica, ECOPETROL (<b>Boom</b>) in Colombia, and the Shell Scenarios team (<b>Bradshaw</b>), while <b>Page</b> and <b>Tansey</b> have worked with Deltares, Euroconsult, International Council for Clean Transportation, and J P Morgan ClimateCare.</p> <p>Communities are at the centre of much of the impact that arises from our research. We have advised interest groups, community organisations and third sector organisations, including: the Australian Wilderness Society; Ecological Land Cooperative (<b>Pickerill</b>); Friends of the Earth (FoE); Game Conservancy; Glossop Heritage Trust (<b>Phillips</b>); High Peaks Community Arts (<b>Phillips</b>); Lammas Low Impact Development Limited (<b>Pickerill</b>); the Museum of Rural Life (Reading); the National Farmers Union (<b>Balzter</b>); the National Trust; Rain Forest Alliance (<b>Page</b>); and Worldwide Fund for Nature (<b>Brown, Pickerill and Kraftl</b>). Involvement is both local, such as <b>Brown's</b> work with the Lesbian Gay Bisexual and Transgender Centre in Leicester, and international, such as <b>Dickinson's</b> work with the Hindu Council of Kenya and <b>Pickerill's</b> work on low impact housing. We also offer training and workshops to communities: for instance, through an on-line research methods course that included medical professionals and those from the voluntary, central government and IT sectors (<b>Madge</b>). In the above cases, our research has had diverse impacts:</p> |

## Impact template (REF3a)

from bringing varied community members into dialogue with each other and policy-makers, to improving local skill-sets.

**b) Approach to Impact:** Much of our research aims to *influence policy to protect the environment* and *improve people's lives*. As a result of our long-standing interest in applied research questions, many of our current relationships with non-academic users have evolved over a period of time. Some relationships were established through a particular call for research that has resulted in on-going collaboration (e.g. work with ESA, Lammas). Elsewhere, specific relationships are part of wider networks developed at Leicester (e.g. SPLINT Centre for Excellence in Teaching and Learning, G-STEP – a downstream support service for use of satellite data) or national/international collaborative research programmes (e.g. Carbopeat, Geoland2, RELU). In other instances, relationships have developed because non-academic organisations are actually the subject of the research (e.g. Leicester City Council, Northamptonshire County Council, Shell) or because projects have involved cooperation with SMEs (FP7-EAGLE). In most instances, our success is due to our ability to *span the divide between basic research and the 'real-world'*. Our main approaches to impact are:

- *Sharing and enabling good practice:* As a large part of our research is RCUK funded, impact plans are commonplace and good practice is shared across the Unit. We use knowledge transfer funding to extend the reach of our research impact, such as the 'Pilot Survey of Leicester' with Leicester City Council, De Montfort University and the NHS. In addition, research group leaders monitor and discuss the effectiveness of impact activities with staff at annual research review meetings. Staff are supported by a departmental research administrator who collates impact evidence. Since 2011, impact activities have been a component of the Department's staff workload model, so that any such undertakings (even if un-funded) are recognised.

- *Strong links with non-academic users of research:* Our research impact activities have benefitted from the support of the University's Enterprise, Business and Development Office (EBDO) who help develop our links with non-academic researchers and users. Through EBDO, the University provides an all-encompassing service to support consulting work that is financially attractive to academic staff. The Department has been flexible in supporting leave of absence for staff to undertake consultancy or contract research, particularly where this is likely to yield impact. In addition, the Department has a number of honorary professors and research staff who provide links to the NGO, business and policy-making community. For example, Prof. Nick Veck was Head of UK Space Strategy at Astrium GEO-Information Services, and is now Head of Strategy and External Affairs at the new UK Government Satellite Applications Catapult. We work directly with Nick on the NOVASAR-S satellite mission.

- *Co-supervision and sponsorship of PhD projects:* The wider impacts of our research have attracted PhD students funded by government organisations and interest groups, while others are supported by working with industrial partners. For example, a PhD project examining the Sakar Falcon trade in Mongolia was first funded by the Mongolian Government and then by the consulting company IWC. The Kurdistan Regional Government is funding a PhD project on the management of oil revenues. The Nigerian Petroleum Technology Development Fund has funded PhD students working on the environmental and social impacts of oil development. Similarly, the Saudi Government has funded research on economic diversification, migration and urbanisation. The Department has benefitted from a number of CASE studentships, an example being the geography of school visits to museums with the Department of Culture, Media and Sport.

- *Knowledge dissemination:* Wide dissemination of our research findings is achieved in a number of ways, including radio and TV (e.g. **Bradshaw** has given interviews on national TV and radio on shale gas), writing for non-academic audiences, hosting of and participation in conferences, workshops and seminars, and a wide range of community events. The Remote Sensing and Photogrammetry Society annual symposium at Leicester (2009) attracted 30 industrial sponsors and exhibitors from the private sector, some of whom we now do business with (e.g. Bluesky). We have organised training courses for practitioners, e.g. the CarboAfrica project with direct funding from METIER led to the development of training materials for national greenhouse gas reporting requirements (**Balzter, Tansey**). The Department also uses social media to promote research impacts: Facebook (Geography@UoL) and Twitter (@LeicesterGeog), while a number of staff have blogs linked to their research activities, e.g. **Pickerill's** 'Green Building' blog and **Brown's** 'Anti-apartheid' blog. The University Press Office helps to promote our research to a wider audience through press releases and provides a point of contact for the media,

## Impact template (REF3a)

business or the public seeking our expertise. The Department has an academic member of staff working on marketing and impact as part of their administrative duties.

- *Fostering partnerships:* The University has a policy that returns a share of the income generated from research grants and contracts to the Department which are then distributed to research groups and project PIs. These funds are regularly used to maintain and develop new research relationships. The Human Geography Research Group has used this financial source to fund a number of events at Leicester that have brought together academic and non-academic users of our research including an Eco-Housing workshop which helped form a partnership with Leicester-based Saffron Acres Community Centre and a workshop on social values with Worldwide Fund for Nature and the Public Interest Research Centre. Within the Physical Geography group, **McLaren** used departmental funding to organise a meeting on loess and dust that attracted industrial partners. Other Physical Geography staff have organised several knowledge exchange workshops on carbon dioxide emissions from British lowland fen peat soils which attracted government agencies (DEFRA, DECC), land managers and conservation organisations (RSPB, National Trust) and supermarkets (Sainsbury's).

**c) Strategy and Plans:** The 'impact agenda' has always been important to Geography at Leicester, and throughout the assessment period we have been actively engaged in promoting research impact by fostering a research environment that values non-academic engagement (as funders, as research topics, as partners in the co-production of knowledge and as consumers of research findings and outputs). Our general direction of travel has been towards a more explicit formal strategy to promote these activities. Our recently appointed Chair in Human Geography, **Lees**, who has significant experience of inter/national engagement, for which she was recently awarded Fellow of the RSA, will shape this strategy as Department Director of Research. Our strategy has often matched the requirements of research councils and other funding bodies very well (e.g. **Kaduk & Balzter** convened a NERC stakeholder workshop on lowland peatlands in Leicester in 2013) although many of our impact-related activities are conducted without formal commitments, simply trying to make a 'real-world' difference. The Department recognises that these activities require time and financial support and, consequently, funding has been made available for travel and equipment to promote impact while study leave allows staff to develop working relations with non-academic partners. For example, **Boom's** recent visit to Colombia resulted in the establishment of a link with ECOJETROL. Systems are in place in the Department to document impact and record corroborative evidence.

At College and University level the development of relationships with public and private sector organisations is seen as an important part of our core business, along with teaching and research, and this has been reflected in enhancements to the EBDO and by College-level appointments to develop and support work that will be of societal benefit and generate business for the University, local, regional and national businesses and Government. At Department level, our research strategy document, which has underpinned our efforts since RAE2008, has been expanded to include specific goals for promoting impactful research and our annual research review process now includes research impact criteria. Thus, our strategy has evolved towards a more explicit and formalised recognition of research impact that is aligned with the strategies of the College and the University and which is supported by the allocation of adequate resources.

**d. Relationship to Case Studies:** The three case studies have emerged from the approach and strategies outlined above. All three case studies provide evidence of the vibrant, inter- and intra-disciplinary research culture fostered in the Department between Human Geographers, Physical Geographers and GIS experts (reinforced by joint grants, publications and workshops, outlined in REF 5). Both the 'peatlands' and 'sustainability' case studies exemplify the UoA's approach to factoring policy/consultancy visits into staff workload models, and encouraging early-career scholars (such as PhD students) to engage in impactful research. The 'communities' case study – specifically the Survey of Leicester – demonstrates the UoA's approach to providing financial support for impactful activities in so much that this work emerged from networking at a workshop co-funded by the Human Geography Research Fund. The Survey of Leicester work was also enabled through administrative support from the University's EBDO. The three case studies have (in some cases since 2002) also underpinned the UoA's strategy and plans for impact – for instance, RCUK requirements for monitoring and collating impact inform a formalised strategy for recording evidence, shared with all staff in the UoA.