# Professor Paul R. van Gardingen FRSA

B.Sc. (hons.) Ph.D. (Canterbury, New Zealand) www.pvgglobal.uk

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Linked in paul-van-gardingen



# Global Leadership in Higher Education, Research and Innovation

A results-focused leader in global research and higher education with over thirty years of experience working in over 50 countries.

An academic focus inspired by research on global development, environmental sustainability and innovation has delivered activities in the research and higher education sectors as well as having extensive experience working for the public and private sectors and civil society.

- **Drives sustainable and resilient growth** within organisations whilst also valuing and building diversity within the groups I have led or worked in partnership with.
- **Builds high-value strategic relationships** to support business growth and delivery, whilst raising global profile and reputation, which in turn enhances global student recruitment and research income.
- **Promotes entrepreneurship and innovation**, growing the core business functions of research, education and innovation in the fields of higher education, research and innovation.
- Works in partnership, locally, nationally and globally to develop highly skilled students and researchers, who in turn deliver value to society and the economy.

# **Career History**

#### **Current Roles**

- Professor of International Development. School of Geography, Geology and Environment University of Leicester. June 2017 – January 2020: Honorary Chair February 2020 –
- Independent Researcher and Consultant. Sustainable Development and Higher Education

Deputy Pro-Vice-Chancellor, Global Engagement, University of Leicester	May 2018 – Jan 2020
Deputy Pro-Vice-Chancellor, International and Development Research,	Jul 2017 – May 2018
University of Leicester	
Professor of International Development. University of Leicester	Nov 2016 – Jun 2017
Director, Ecosystem Services for Poverty Alleviation (ESPA) Programme	Sep 2010- Sep 2016
Director: Research Into Results (RIR) Limited	2010 - 2016
(University of Edinburgh subsidiary company)	
UNESCO Chair of International Development, The University of Edinburgh	2008 - 2016
(Personal Chair)	
Senior Lecturer, (Sustainable Development) The University of Edinburgh	2003 – 2008
Lecturer (Crop Science), The University of Edinburgh	Aug 1991–2003
Ministry of Agriculture and Fisheries, Post-Doctoral Research Fellow, MAF	Nov1989–July 1991
Technology, Lincoln, New Zealand,	
AFRC Post-Doctoral Research Fellow, University of Edinburgh,	Nov 1986–Oct 1989

# **Key Capabilities and Skills**

- Academic leadership in global research, innovation and higher education.
- Experience of working as a member of institutional senior leadership teams.
- Academic excellence in global sustainable development.
- Last updated: 30 October 2020.
- High-level skills covering strategic leadership, management and change processes in higher education, research and global development.
- Experienced at building, empowering teams and mentoring senior team members.
- Outstanding communicator.

#### Research Leadership

All of my professional activities are led or inspired through the application of world-class research.

My career has been conducted as part of world class research-intensive organisations. Highlights of this include:

- Scientific leadership of ESPA, ITFMP and SYMFOR global research programmes.
- Work on innovation for development in low- and middle-income countries.
- My current research on innovation for development continues to track ESPA's research outcomes and impacts (using UKRI data in the public domain) with a publication currently being prepared to mark a decade of research since the programme commenced in September 2010.
- My leadership of global research at the University of Leicester helped to establish a research alliance with four major research intensive universities in Africa and I am currently co-leading research on the fate of plastics in the environment in Malawi and Kenya.

A common theme of my career has been the <u>application of data analytics</u> and working with complex datasets or developing new techniques. Each of these areas are supported by highly cited <u>publications</u>.

#### **Academic Leadership**

Leading global / multicultural teams for the delivery of world-class research and higher education. Delivered results working in the UK and in most major developing countries and regions, including China, India, Sub-Saharan Africa, the ASEAN region, South America and Oceania.

#### Major achievements include:

- Leading diversification of Leicester's global research portfolio, doubling global research income.
- Supporting the growth and diversification of the University of Leicester's global education portfolio with key areas of success in Sub-Saharan Africa and China.
- The establishment and delivery of the globally respected £43 million UK Ecosystem Services for Poverty Alleviation programme (ESPA).
- Support of UK partnerships with the African Union and Government of Rwanda to grow systems for research and innovation which led to the current system for HE and research in Rwanda.
- Leading delivery of the research component of the UK-Indonesia Tropical Forestry Research Programme (ITFMP) and associated SYMFOR project (both DFID funded).

## Innovation and Entrepreneurship

I have developed effective entrepreneurial skills during my periods working with or in, the private sector. At the University of Edinburgh, I established and led a development-focused subsidiary company "Research into Results (RIR)". RIR was designed to overcome the problems of traditional University management and financial systems to provide a more flexible and fleet-footed platform to deliver global research and development activities including hosting the ESPA Directorate.

- RIR had a 6-figure annual turnover and was effectively run as a social enterprise with substantive annual operating surpluses reinvested in the University in research and education.
- RIR provided an innovative management platform which was recognised by the level of additional funding that RIR was asked to administer on behalf of the UK Research Councils and DFID.

#### Strategic Leadership and Delivery

Highly experienced in the development of strategies for delivery of global research and higher education. Examples include:

- Developed the University of Leicester's GCRF Strategy, which was commended by Research England as being exemplary, one of only three research-intensive institutions in England to get this recognition.
- Enhanced strategic focus for the University of Leicester's global engagement supporting research and education. This had driven significant growth in global research during my tenure (over 100%) and provided a more strategic approach to support global student recruitment and transnational education that is now being implemented.

- Developing ESPA's Strategies which were highlighted by external reviewers of the programme as examples of global best practice.
- Highly experienced in leading processes of change management, including responding to major political
  processes including Brexit, and transitions including the establishment of DFID in 1997 and the major changes
  for public service delivery following the 2010 UK General Election.

#### Management for Results

I have held management roles with increasing levels of responsibility starting with work on the UK-Indonesia Tropical Forestry Management Programme (1991 onwards), leading the Director-level post in ESPA, and my role of DPVC Global Engagement at the University of Leicester.

I ensure the teams I responsible for are empowered to be successful; having a set of clearly defined strategic objectives, adequate staff and financial resources and plans for future development.

- My DPVC role at the University of Leicester included priorities supporting senior staff development through mentoring to enhance their delivery of results and management of teams and resources.
- ESPA consistently performed better than similar programmes in the UK and globally ESPA remains one of the few programmes globally that has comprehensive tracking of the research outcomes and human dimensions of research. See <a href="https://www.pvgglobal.uk/espa-ten-years-on/">www.pvgglobal.uk/espa-ten-years-on/</a>.

#### Global Education, Student Recruitment and Transnational Education (TNE)

As DPVC Global Engagement at the University of Leicester I had responsibility for creating a strategic approach for the growth of international recruitment and the revenue generated from the University's global education offer.

Working with Professional Services teams and academic Schools, an approach was developed that focused on a small number of high-value partnerships. Actions were then initiated to ensure that these were delivering high-quality education, enhanced student satisfaction, employability. I supported colleagues to build more sustainable business models forming part of a portfolio of activities designed to provide enhanced resilience through diversity.

- The work in Leicester focused on building productive partnerships and activities in China, India, Africa, South Asia and the ASEAN region by focusing activity on those with the potential to deliver value to both the institution and students.
- At the University of Edinburgh, I led the development of a very successful and popular PGT course on Environment and Development which very rapidly grew in popularity with both international and UK students.

#### Global Engagement

I have extensive experience of working in a wide range of professional and cultural contexts, having worked during my career in over 50 countries. Further details regarding these activities are available as an interactive map at www.pvgglobal.uk/partnership.

#### **Building and Enhancing Brand and Reputation**

Skilled at building and enhancing reputation for institutions and programmes of activity covering research, education and innovation / enterprise. There are three linked themes to the approach that I have used both for ESPA and the University of Leicester:

- **Collating evidence and examples of excellence** and delivery as appropriate for research intensive / research inspired organisations.
- **Building communication channels** that target those most likely to either influence or be influenced by brand and reputation. (e.g. prospective students, funders, government, industry)
- Acting as a local and global ambassador for institutions or programmes.

The ESPA programme is the best example of my success using this approach during my tenure as ESPA Director: I built the ESPA "brand" from its establishment in 2010 such that by RIO+20 (2012) ESPA was already being held up globally as an high innovative and productive model of how global challenge research should be used to support delivery the then proposed Sustainable Development Goals. I developed and grew the social networks linking UK and global partners acting as an Ambassador for the programme. This promoted application of lessons learnt from ESPA's research and extensive investment in follow-up activities valued at well over 200% of the UK's original investment.

## **Career Highlights**

Current Roles: (see www.pvgglobal.uk/acivity/current-activities)

- Honorary Chair in International Development, University of Leicester. February 2020 Present
- Independent Consultant (ongoing)

Since February 2020 I have held an Honorary Chair in International Development in the School of Geography, Geology and Environment. A core area of my research is the evaluation of academic impact and equity of partnerships in UK-funded development research (<a href="www.pvgglobal.uk/activity/devpubmetric/">www.pvgglobal.uk/activity/devpubmetric/</a>). Results from this work is being used to inform the next phases of the Global Challenges Research Fund and Newton Fund.

Through my private consultancy I am currently working on projects to build capacity for science, innovation and research in East Africa and Iraqi Kurdistan.

#### **University of Leicester**

- **Deputy-Pro-Vice-Chancellor. Global Engagement** (and previously DPVC International and Development Research. Strategic university leadership driving growth of global research and innovation and global engagement.
- Lead academic / PI responsible for circa £3 million of new development research funding (GCRF-QR)
- Designed and led delivery of Leicester's GCRF Strategy (commended as exemplary by Research England).
- PI for additional proposals to GCRF exceeding £19 million.
- Established and led Leicester's approach to managing Brexit risk and transition planning changing from a reactive to a much more proactive, engaged and active process working closely with BEIS and UUK.
- Led the development of the University's Global Engagement Strategy and owned the process to build a delivery plan and associated KPIs. Following the appointment of Leicester's new VC (November 2019), this work was integrated into the development of a new University Strategic Plan.
- Leading Leicester's approach to building a Duty of Care Policy and delivery systems for international working.
- Leading the development of a major new initiative to engage with the private sector to create opportunities for young people in Africa through education, research and enterprise. The work is now continuing independently of the University in partnership with the Baroness of Leicester.

#### **Previous Posts**

- Contributing to the conceptualisation, design and leading the delivery of the UK's Ecosystem Services for Poverty Alleviation Programme (ESPA). ESPA, valued at around £43 million, was the UK's largest research investment in global environmental science at the time.
- Major contributions to DFID's environmental science portfolios, commencing with research in Indonesia, and then expanding to a global remit and into science policy.
- Leading major change processes to respond to major external political drivers for research. These included responding to the creation of DFID and it's new priorities for poverty alleviation (DFID Forestry research in Indonesia), the establishment of the MDGs and SDGs (DFID and NERC/RCUK) and responding to the major changes for development science (ESPA) when the 2010 UK Coalition Government was formed.
- Creating a successful and profitable subsidiary company at the University of Edinburgh (Research into Results) with an annual turnover exceeding £1m p.a. Held the roles of Company Director and *de facto* CEO.

## Research Funding/Leadership (See Annex 4 for details)

- Acting as PI for over £12 million of UK Research Funding.
- Overall strategic leadership of the £43 million ESPA Programme.
- Supporting the award and implementation of over £4 million of funding for the private sector supporting global development activities.

## **Personal Details**

Place of Birth: Christchurch, New Zealand.

Nationalities: New Zealand, British (Previously also Netherlands).

Higher Education: PhD (Plant Physiology)

University of Canterbury, New Zealand (1984-1987)

Thesis: Environmental and Stomatal Physiology of Nothofagus seedlings.

BSc (Hons, 1st Class) Plant Physiology

University of Canterbury, New Zealand (1981-1983)

Languages: English (Fluent / native language)

Bahasa Indonesia (Advanced communicator, working language)

French, German, Dutch, Italian (Basic conversation)

## Referees

Professor Iain Gillespie	Professor Edmund Burke	Professor Paul Boyle
Pro-Vice-Chancellor Research & Enterprise, University of Leicester <a href="mailto:iain.gillespie@le.ac.uk">iain.gillespie@le.ac.uk</a>	Deputy Vice-Chancellor University of Leicester dvc@le.ac.uk	Vice-Chancellor Swansea University k.r.rauwerda@swansea.ac.uk (EA)
Line manager at University of Leicester NERC Director of Science and Innovation (ESPA)	Acting Vice-Chancellor University Leicester (2019) during my period as D-PVC Global Engagement	Vice-Chancellor at Leicester -2019 ESRC CEO during establishment of ESPA.
Additional Referees (if required)		
Professor Colin Grant VP International Queen Mary University, London vp-int@qmul.ac.uk	Professor Romain Murenzi Executive Director The World Academy of Sciences rmurenzi@twas.org	Baroness Sandip Verma Baroness of Leicester sandy906@hotmail.com
Worked together on global engagement activities through Universities UK International	Previous Minister of Science Government of Rwanda,	Local and global engagement with the University of Leicester (Leicestershire, India, Africa)

Additional information about my career highlights and achievements are provided as annexes to this document and from my professional website <a href="https://www.pvgglobal.uk">www.pvgglobal.uk</a>. This includes details on my <a href="https://www.pvgglobal.uk">current activities</a>.

#### List of Annexes

1. DPVC Global Engagement	2. <u>Strategy and Leadership</u>	3. Global Research
4. <u>Innovation and Impact</u>	5. Research and Innovation Awards	6. Results, Delivery and Impact (Examples of delivery)

## Annex 1. Deputy Pro-Vice-Chancellor University of Leicester

(<u>www.pvgglobal.uk/education</u>) (<u>www.pvgglobal.uk/development</u>) (www.pvgglobal.uk/innovation) (www.pvgglobal.uk/research/strategy)

## University of Leicester. October 2016 - January 2020

From May 2018 to January 2020 I held the role of Deputy Pro-Vice-Chancellor for Global Engagement and Professor of International Development. That role was created through the merger of the responsibilities of my previous role of DPVC International and Development Research and those of the previous PVC International. The post reported to Leicester's University Leadership Team through the PVC for Research and Enterprise and Chief Marketing and Engagement Officer. I first joined the University in 2016 as Professor of International Development in 2016 before taking on the more substantive role of DPVC International and Development Research in May 2017.

As DPVC-GE I was the strategic academic lead on the following priorities:

- Development of the University's strategy documents /delivery plans relating to international and development research, including the University of Leicester's highly commended GCRF QR Strategy.
- Strategic leadership to drive growth of international and development research, associated income, research outcomes and impact.
- Strategic lead for the growth, development and diversification of global partnerships to contribute to the University's core business activities, covering research and enterprise and education.
- Leading the University's planning on Brexit and chairing the Brexit Transition and Risk Management Group, reporting directly to Executive Board. The Group's main priority was to build resilience to potential changes in research and innovation income (Horizon 2020/Europe, ERC, ERDF) and student mobility (Erasmus +).
- Ensuring that Leicester's Global research and research partnerships contributed to a significant improvement in REF-2021 performance.
- Contributing as core member of the University's Global Strategic Development Board, reporting directly to the Executive Board and providing direct support to the PVC Research and Enterprise who now leads this group.
- Ownership of key corporate-level risks associated with Leicester's global engagement.
- Contributing to building an enabling environment to drive success through enhanced global engagement. (Influencing across multiple business units spanning both academic and professional service teams).

As DPVC-GE my priorities related to driving a process of positive institutional change to enhance the contribution of global activities to the University's core business.

Working to support members of the Executive Board, I provided strategic support on the development and delivery of Leicester's key global partnerships. This involved key stakeholders within the University (academic and professional services), our global academic partners (Education and Research) and relevant government agencies and private sector partners in the UK and globally. Within the UK I worked closely with Universities UK, the Association of Commonwealth Universities, the Departments of Business, Energy and Industrial Strategy, International Trade, International Development, Foreign and Commonwealth Office and a number of Embassies. Globally, I worked with the departments above, through a range of UK missions and relevant government and private sector agencies in a Leicester's key global markets. My professional career has been built upon my ability to build and empower strategic partnerships for research, enterprise and education and this was a major aspect of my work in Leicester.

My role as DPVC-GE required inspirational leadership and the ability to act as the champion for the University's global activities. I delivered the role through my ability to convene, inspire and encourage colleagues and our partners. I worked with a small group of colleagues providing a virtual secretariat function with staff seconded from key professional service and academic units. My experience as ESPA Director provided the skills and experience required to work successfully in this type of structure. I provided mentoring to senior staff including the Director of the Leicester Institute for Advanced Studies and members of the University's Research and Enterprise Division (Professional Services)

I continued to develop my experience of acting as an ambassador for an institution and its leadership team, representing the VC and other senior team members at a number of UK and international events and contributing to the development of the University's major international partnerships.

#### My key achievements at the University of Leicester included:

- Leading the development of Leicester's Strategy for GCRF QR funding. Research England has cited this strategy as an example of best practice in the sector, one of three from a research-intensive University in England.
- Representing and/or supporting the Vice-Chancellor in a range of external activities including with UUK, ACU and RCUK and missions to Colombia, India and Egypt.
- Representing the VC and University at UUK and British Council processes including the UUK PVC International Committee and British Council UK-China Joint Alliance Initiative and the more recent Jiangsu 20-20 initiative.
- Leading the development of a strategic research partnership in East and South Africa that emerged from the ODA Workshop I led in March 2017. I am now working on an initiative to create an empowerment fund to support this alliance driving growth of research, innovation and training, working with the Baroness of Leicester (a previous DFID Minister) and potential private sector and philanthropic partners.
- Leading the development of a major GCRF Hub bid in Resilient, Inclusive and Sustainable Cities (£18 million). Whilst this was not selected to be developed as a full proposal, the process continues the development of a set of smaller grants proposals.
- Developing a strategy to set priorities and strategic focus for the expansion of the University of Leicester's global education offer.
- Leading a major workstream to develop a more strategic approach to the way that Leicester designed and implemented international research (including in developed countries) and a shift to focus on capturing larger grants.
- Leading Leicester's response to Brexit and providing wider leadership on this topic to the sector working with UUK.

## Annex 2. Strategy and Leadership (Examples on pygglobal website)

#### **Global Leadership**

My career has been focused on promoting the role of higher education, science and innovation within an international context since I first joined the University of Edinburgh in my first academic appointment in 1991. My global leadership in this role was recognised in 2008 with the award of the first UNESCO Chair in International Development. My experience of undertaking research, education and building impact as a researcher and more recently as ESPA Director has provided me with the experience, contacts and track record that now allows me to play a significant leadership role in both the UK and on the global stage.

My role as ESPA Director required me to act as a global ambassador for the programme, provide strategic leadership of ESPA's research and its global impact. I set the strategic direction for the programme as outlined in ESPA's vision and associated strategies including annual operational plans. The nature of the ESPA programme meant that this was a highly collaborative process to ensure buy-in from ESPA's funders (NERC, ESRC and DFID) as well as ESPA's projects and external partners. This required strong leadership, diplomacy and influencing skills.

The success of my leadership of ESPA is evidenced through the very positive external Mid-Term Review of ESPA in 2015, which noted that ESPA was significantly exceeding virtually all of its Key Performance Indicators, including many set for 2017. Since leaving ESPA, I continue to be invited to share my experience from the programme by development, funding and research agencies and critically now to support academic colleagues in Leicester to grow their research income, publications and impact.

ESPA has also demonstrated very significant impact delivering benefits to people, the economy and the environment. This success is now seen as a key example of the type of interdisciplinary research and innovation programme required to support the SDGs and indeed implementation of new UK initiatives such as GCRF.

#### **Global Networks and Contacts**

#### (www.pvgglobal.uk/partnership)

I have developed a very extensive network of individuals and institutions that I work with in the UK and globally. This network includes key UK funders, research and education partners around the world and a growing number of government departments, research funders and institutions in key global research partners for UK Research. My personal focus has been to work with developing economies including India, China, Brazil, Kenya and South Africa. I have worked closely with the UKRI International Team and all of their offices as well as with a number of the FCO/BEIS Science and Innovation Network offices around the world and with both DFID Regional Research Hubs (South Asia and East Africa). Through this, I have been able to create opportunities for collaboration and, to some degree, influence future investment plans within HMG.

#### Leadership within the United Kingdom

As ESPA Director, I was frequently requested to provide guidance to DFID and the UK Research Councils on ways in which lessons from the ESPA programme can be used to enhance international research collaboration as well as the impact derived from research and capacity strengthening to support these processes.

I have worked with a range of departments and Research Councils. I have provided support and advice to previous Chief Scientists of DFID (Gordon Conway), HMG (David King) and the Scottish Government (Anne Glover) in relation to international development. This work now continues through my activities at the University of Leicester working at both UK and regional (East Midlands) levels.

Within the Higher Education sector I have worked closely with colleagues at Universities UK and British Council on Transnational Education (TNE) and growth of global research. This has involved significant inputs to the UK-China Joint Institute Alliance, the Jiangsu 20-20 Alliance and UUK International's work on risk management for international working.

## Annex 3. Global Research (www.pvgglobal.uk/research)

Academic Publications: www.pvgglobal.uk/publications/

**Current Research** 

My current research has three themes:

**Plastics in Africa**. Working with colleagues at the University of Malawi and University of Nairobi exploring the use and waste of plastics in Africa. The initial work in Malawi supported local stakeholders to reverse a legal challenge to the Government of Malawi's ban on single use plastic bags. Research is currently ongoing to assess the flow of plastics in all countries in Africa and a research proposal has been submitted to GCRF for a major research project on this topic led by Professor Sarah Gabbott at the University of Leicester.

**Equity and Academic Impact of Global Challenge Research.** This research topic is extending the quantitative evaluation methodology that had been developed for use by ESPA. It has been updated to use publicly available data sources to measure the academic impact (number of papers and citations) of research and the participation of developing country research institutions in this process. A comparative analysis will be delivered comparing ESPA and GCRF (UK) with the International Development Research Centre (Canada) and the United Stated Administration for International Development (USAID).

**Research and Innovation systems and delivery in developing countries.** Research continues to develop the concepts explored through the GCRF supported work on Innovation systems. The objective of this work is to provide further analysis and evidence to enhance the contribution of research and higher education to national development in developing and emerging economies.

#### **Ecosystem Services for Poverty Alleviation Programme**

As ESPA Director, I had the strategic responsibility for scientific leadership of the programme, driving the quality and relevance of one of the UK's largest integrated research programmes working globally. I led the development of ESPA's Science and Knowledge Strategies and the development of the academic content of ESPA's research calls. This work, combined with regular scientific discussions with PIs and field visits to projects meant that I had significant strategic influence over the full programme.

My work in ESPA contributed to the establishment of a new focal area for research in the School of Geosciences at the University of Edinburgh. At the same time that the ESPA Directorate was awarded to Research Into Results Ltd, I was successful in leading an application for a smaller ESPA research Programme Framework Grant.

## **ESPA Director** September 2010- September 2016

I was the first ESPA Director and led the programme from its establishment in 2010, through the period of research commission and most of the research delivery. I stood down as Director in September 2016 as the programme moved into a new phase of final synthesis and closure so that I could focus on the new leadership opportunities emerging from the UK's 2016 Aid Strategy, new funding schemes including the Global Challenges Research Fund, the Ross Fund and Phase 2 of the Newton Fund. During ESPA's design phase (2018-2019) I was a member of ESPA's Programme Advisory Group and made significant contributions into the programme's design.

My role as Director was to provide overall strategic leadership for the programme. I provided the strategic oversight of the programme which was then implemented by the Directorate working in partnership with a research management Secretariat at NERC and over 100 projects funded by the programme. This approach represented a complex but remarkably effective delivery mechanism for a multi-funder global interdisciplinary programme of ESPA's type.

In addition to having overall responsibility for the funds administered by the ESPA Directorate (nearly £10 million), as Director I had strategic oversight of the entire programme including all ESPA research projects. I met with the PIs of all active projects at least twice a year and visited a significant proportion of the major projects in the field. This helped to promote scientific excellence and impact, while also promoting links between projects to further enhance impact at programme level.

#### My key achievements at EPSA included:

- Director of the ESPA programme (£43 million global research programme).
- 9 Directorate staff working under direct reporting lines (some delegated to the Operations Manager).
- Leading ESPA Innovation staff located in New Delhi and Kenya.
- Directorate budget of up to £1.2 million *per annum*.
- Strategic leadership of over 1000 researchers working in over 100 projects, covering 52 countries.
- Acting as a global ambassador for the programme. Representing ESPA's funders and researchers in the UK and internationally
- Working with NERC and the Rockefeller Foundation to support implementation of the UN's SDGs

#### **Main Research Themes**

#### Science, Technology, Innovation and Development Policy

I led a contract awarded by DFID to support NEPAD's Office of Science and Technology. This work has involved an analysis of the role of STI in the economies of developed and developing countries. This analysis is being used to form policies supporting STI in development by regional groupings (African Union and NEPAD), African nations (Rwanda) and development donors (DFID and the World Bank).

## Sustainable Forest Management

I led a significant research programme was developed as part of the DFID-funded Indonesian Tropical Forestry Management Programme. This work then developed into broader aspects of research supporting the development and evaluation of sustainable forest management in SE Asia. The main activities are funded under a DFID Forestry Research Project (R6915) to develop tools supporting improved silvicultural management systems for tropical forests. This project has produced a silvicultural and yield management tool (SYMFOR) for Indonesia that is now being applied in Guyana, Brazil, Ecuador and Bolivia.

#### Conservation of Biodiversity

As Chair of the Technical Group of Defra's Darwin Initiative's (DI) Monitoring and Evaluation (M&E) Project, I was responsible for the monitoring and evaluation process that aimed to enhance the contribution of DI projects to the Conventional on Biological Diversity. This review process covered the experience gained from over 600 projects. A major component of the work I was involved in was to promote lesson learning within the programme and between projects to ensure that DI projects maximised their conservation benefits, through a holistic approach linking conservation and development.

## Annex 4. Innovation and Impact (www.pvgglobal.uk/innovation)

#### Science and Innovation

My initial experience in promoting integrated systems for science, technology and innovation came through the design and implementation of a portfolio of development interventions applied within the African context. This involved projects supporting the African Union and New Partnership for Africa's Development (NEPAD) between 2005 and 2007 and then direct support to the Minister of Science within the President's Office of the Government of Rwanda. This was a major emerging area of development activity supported by the UK's DFID and World Bank, and the work helped to establish a research and higher education infrastructure for the country.

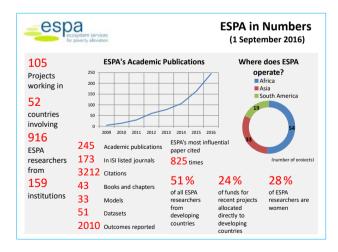
Within the ESPA programme I developed a series of new initiatives to promote both innovation and impact. From ESPA's inception, the programme was recognised as a global leader of new approaches to commission and deliver interdisciplinary science. Towards the end of the programme I led the development of the ESPA Fellowship programme and the ESPA Regional Opportunities Fund (2014) and created collaborative partnerships in East Africa and South Asia.

When I joined the University of Leicester I extended this work to support the development of work in East and Southern Africa, Colombia using the University's GCRF-QR strategic funding. This work has created strong partnerships with local academic partners, the Government of Colombia and the innovation team at OECD Paris.

#### **Impact**

The ESPA programme was established at a time when there were growing expectations of UK-funded research to demonstrate impact. From the earliest days of ESPA, I led the development of ESPA's approach to building, demonstrating and communicating impact. The approaches used by ESPA (<a href="www.espa.ac.uk/impact">www.espa.ac.uk/impact</a>) have been adapted for use by several other programmes and have clearly helped to influence change around the world, while also demonstrating value for money for UK taxpayers. ESPA has also conclusively demonstrated that there is no need to compromise scientific excellence to achieve impact. ESPA has shown both can be achieved simultaneously in the same programme.

The ability to describe ESPA's impact has been an important outcome for ESPA that I led. ESPA's impact is now described both in terms of a series of narrative impact stories (see <a href="http://www.espa.ac.uk/impact-stories">http://www.espa.ac.uk/impact-stories</a>) and in terms of concise summary statistics (see Figure 1) linked with the programme's Key Performance Indicators. This combination of narrative supported by quantitative evidence has been important to demonstrate the value of the programme to ESPA's funders. It has also been central to the success of the programme in attracting new funding from other sources which exceeded £70 million for a total projected spend on research just over £30 million at the time I left the programme.



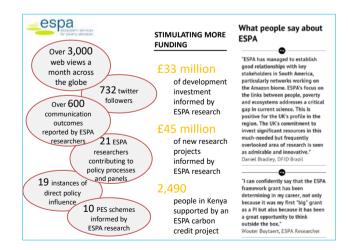


Figure 1 ESPA Infographic September 2016.

ESPA's reporting of impact provides one of the best examples of the use of public sector information and reporting systems at programme level within the research context. The approach I developed for ESPA integrated information extracted from a range of sources to derive a standard set of quantitative and narrative descriptors that highlights ESPA's achievements and the growing value returned from the significant investment made by UK taxpayers.

## Annex 5. Research and Innovation Awards

#### University of Leicester

2018-2019	GCRF Impact Accelerator Account.	£195k
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2018-2021 GCRF Research England QR Award. FY18-19 £739,399

(Estimated total over period in excess of £3 million))

#### Implemented through Research Into Results Ltd

2010-2017	£8 million Ecosystem Services for Poverty Alleviation Directorate (Global)
	£1.9 million ESPA Fellowships (Global)

DFID, NERC, ESRC

2010–2013 £450,000 Strategic Advisory Team for ESRC-DFID Joint Scheme on International Development

DFID, ESRC

## Implemented through the University of Edinburgh

1997-2002	£715,000 Modelling growth and yield of moist tropical forests (Indonesia, Guyana, Brazil)
	DFID Forestry Research Programme
2000-2002	£50,000 Multiple Objective Forest Management (Global)
	DFID Forestry Research Programme
2006-2007	£260k Implementing Africa's Science and Technology Consolidated Plan of Action (CPA)

# DFID Central Research Department Implemented through the Edinburgh Centre for Tropical Forests (ECTF)

I have acted as Principal Researcher (or Manager) for the following major projects undertaken by ECTF, a consortium of research organisations which includes the University of Edinburgh.

1992–2001	£3 million (approx.). <i>UK–Indonesia Tropical Forestry Management Programme (ITFMP)</i> ODA/DFID South-East Asia (total for research component only)
2006–2009	£1.1 million (approx.). <i>Darwin Initiative. Monitoring and Evaluation Project</i> Defra

2007–2008 £100k (approx.) Darwin Information Project Defra

## Annex 6. Results, Delivery and Impact (www.pvgglobal.uk/results)

Five case studies are presented here to demonstrate where my work has delivered results at scale with additional detail provided on my website.

I am currently working on a demonstrator project to explore new ways to use information technology to enhance and communicate the impact of higher education and research. This work will be showcased on my professional website illustrating how information from a range of global sources can be integrated to enhance impact and demonstrate the value of investments in higher education and research. The University of Leicester will also apply this analysis to support their more targeted approach to future partnership development. The approach being adopted builds on experience generated through the ESPA programme and Darwin Initiatives Information Projects.

Initial results will become available at <a href="www.pvgglobal.uk/outcomes">www.pvgglobal.uk/outcomes</a> and <a href="www.pvgglobal.uk/activities">www.pvgglobal.uk/activities</a>. Please note that this work is currently in its preliminary stage of data collection and integration.

#### University of Leicester: Growth of Global Research and International Education

As DPVC Global Engagement, I had three primary targets for delivery:

**Strategy**: I developed a strategic plan for the growth of international and development research that provided focus and direction for global research at the University of Leicester. I produced the University's <u>institutional strategy for the Global Challenges Research Fund</u>. The University's GCRF Strategy was one of only three submitted by an English research-intensive organisation to be assessed as exemplary.

Growth and Diversification of International and Transnational Education: My initial priority when I was given the expanded Global Engagement portfolio was to develop a more focused and strategic approach to setting priorities for Leicester's global education offer. Leicester's new approach was summarised in <u>a public lecture on TNE in December 2018</u>. These then fed into the University's draft global engagement strategy which has retained the core theme of building strategic and sustainable partnerships that are inspired by Leicester's research.

**Growth of Global Research:** Implementation of the global research strategies, combined with work to improve systems, processes and training of staff, together contributed to significant growth in global research income from around 20% of the University's research in 2016-17 to nearly 25% in 2018-19 (£13.5 million). Future projections based on the strategic approach that I developed suggest this should rise to around 30% by 2030, subject to the impact of Brexit and COVID-19 on future research funding. During the course of the period I was in post, the University received nearly £2 million of additional QR funding as a result of the GCRF Strategy I developed in conjunction with senior Professional Services staff from the University's Research and Enterprise Division.

#### **Ecosystem Services for Poverty Alleviation Programme (ESPA)**

In 2006 I was approached by the Natural Environment Research Council (NERC) to join the first Programme Advisory Committee for a new collaborative research programme <u>ESPA</u>. It was the first time that DFID had worked collaboratively with two UK Research Councils (ESRC and NERC) and at that time was the largest UK research investment in environmental science for developing countries. In early 2018 I started working intensively on the design of the ESPA programme supporting colleagues at NERC who were managing the programme on behalf of the funders. The resulting programme design was presented to funders and Ministers towards the end of 2009.

In 2010 I led the development of a successful tender for the ESPA Directorate; a contract worth £8 million out of a total £43 million. The total value of the contract subsequently was extended to almost £10 million, largely through the addition of a Fellowships programme that I also designed. By October 2010 I had established the Directorate and led work on the systems and strategies required for delivery. After the inaugural ESPA workshop held in Edinburgh I visited each of the ESPA regions (Africa, South Asia, China and South America) to present ESPA's vision and commence a process to build long-term partnerships for delivery.

Over the period that I was ESPA's Director, the programme's community grew to involve over 1000 researchers from 53 countries. The level of delivery from the programme was significant with citation rates at least twice the average of NERC's full portfolio at the time. The programme was also very successful in raising additional investment, which in value exceeded the UK Government's original investment. The science generated by the programme has been highly influential in the UK and internationally.

One of ESPA's most significant legacies was the influence it had on the design of the UKRI Global Challenges Research Fund (GCRF). During 2016 I was asked to present the main findings that had emerged from ESPA in a number of fora, including at an <u>invited public lecture at the London School of Economics</u>. A key theme of these presentations was how ESPA's research, and approach to research, would contribute to the delivery of the UN's Sustainable Development Goals that had been agreed in 2015.

## **Building Global Partnerships**

My approach to delivering success through global engagement has always been built on effective and equitable partnerships. In addition to the example of ESPA (below) it was an important priority of my work in Leicester. In 2017 I convened a workshop together with colleagues at the University of Nairobi. The main theme of this event was to seek new and more productive ways to build global partnerships for research and education to address growing global challenges. I delivered a provocation paper that then led into two days of intensive discussion. The outcomes of that event led to the establishment of an alliance between Leicester and the Universities of Nairobi, Rwanda, Malawi and Witwatersrand (South Africa). This work in turn made very significant contributions to the development of Leicester's GCRF Strategy and the subsequent growth of global research income. The work on innovation at the 2017 event has fed into work with OECD and the Government of Colombia.

#### **Building Innovation Systems**

In 2005, the United Kingdom hosted both the G8 and held the Presidency of the European Council. One of the major themes of the Gleneagles G8 summit was the contribution of science and technology to Africa's development. The 2005 Commission for Africa Report highlighted the need for investment to "improve Africa's capacity, starting with its system of higher education, particularly in science and technology". As a response to this report I proposed a programme of work to the Office of DFID's Chief Scientific Advisor and was commissioned to deliver a series of projects and reports on this theme. My work with the African Union and NEPAD reviewed international lessons for how education, science and technology can contribute to national development. After a few years, this led to the African Union's approach to regional collaboration in research and innovation. As a follow-up to the regional work, I was commissioned by DFID to design a process to build a national system of science and innovation in Rwanda, working out of the President's Office. The resulting project successfully completed a process that led to the establishment of the unified University of Rwanda and the establishment of the Rwandan National Commission for Science and Technology.

My work on the role of innovation systems to support economic and social development continues, working with OCED and the Governments of Colombia and the Kurdish Autonomous Region of Iraq. As an example in 2018 I was invited to present a keynote address at an event organised jointly by OECD and the Government of South Korea.

#### Monitoring, Evaluation and Learning Systems

In 2006 I took on a leadership role through the Edinburgh Centre for Tropical Forests (ECTF) in the development of a new results framework for the UK's Darwin Initiative. As a result of that work ECTF's lead agency for that framework, LTS International was awarded a new contract valued at over £1 million for monitoring, evaluation and learning for the Darwin Initiative. LTS has continued to hold that contract with several extensions and expansions of activity. In 2007 I was awarded an additional contract for an information system to deliver the monitoring and evaluation system. An early success of this approach was a review that I conducted of the <u>Darwin Initiative's research on biodiversity conservation on islands</u> which was then distilled into a <u>summary report</u> that the UK Government presented as input into the Convention on Biological Diversity in 2008.

The approach to measuring results that I developed for the Darwin Initiative in 2006 and 2007 formed a major component of the successful tender that I submitted to host the Directorate of the new Ecosystem Services for Poverty Alleviation Programme in 2010. This approach was fundamental to ESPA's approach to building and communicating the results that the programme was delivering. In 2012 I commissioned activities to adapt ESPA's approach to utilise a newer Theory of Change approach. ESPA's new approach described in the ESPA guide to working with Theory of Change for Research represented a step change in the way that impact was built into a major UK research programme. This approach has since been adopted by a number of other institutions and processes, notably UKRI for their GCRF programme and the University of Leicester for all their challenge-led research.