

## List of COALESCE and New Foundations Awards

### Impact and Publications

The Department of Foreign Affairs serves the interests of the Irish people abroad by protecting and promoting Irish values; ensuring maximum impact and influence for the Irish Government in international exchange; and promoting reconciliation, cooperation and economic advancement.

The Department published Ireland's policy for international development, [A Better World, Ireland's new Policy for International Development](#). Four policy priorities outlined therein encourage interdisciplinary approaches for knowledge generation that will produce rigorous and influential evidence and learning, with a view to impacting at a societal level in partner countries, as part of the implementation of A Better World.

### Contents

#### **Project Impact – Completed Projects and Publications ..... 4**

Dr Siobhan Mullally, University of Galway, **Human Trafficking, Forced Migration and Gender Equality in Uganda** ..... 4

Dr Ruairi Brugha and Dr Jakub Gajewski, RCSI University of Medicine and Health Science **The AKAZI Project**..... 4

Dr Anne Matthews, Dublin City University, **Enhancing evidence-based infant feeding policy implementation in Malawi** ..... 4

Dr Catriona Dowd, Dublin City University, **Network for Innovative Resilience-Building in South Sudan** ..... 4

Dr Debbi Stanistreet, RCSI University of Medicine and Health Sciences, **Applying a sanitation approach to the problem of Household Air Pollution in Malawi; The smokeless village project**..... 5

Dr Ricardo Simon Carbajo, University College Dublin, **HealthyAIR: Modelling the Impact of Air Pollution and Climate Change on Public Health in Ho Chi Minh City for Policy Making and Awareness Creation using Machine Learning**..... 5

Dr Wim Naudé, University College Cork, **Establishing the Data and AI for African Trade (DAIAT) Consortium** ..... 5

#### **2023 Award Cycle - New Foundations – Strand 4 ..... 6**

Dr Áine Travers, Dublin City University, **Developing a research network to prevent and respond to partner violence in Ugandan refugee settlements** ..... 6

Dr Danny Marks, Dublin City University, **Reducing Plastic Pollution in Ho Chi Minh City, Vietnam** ..... 6

Dr Edward Lahiff, University College Cork, **Building capacity in civil society and local communities for sustainable rural development in Vietnam, in the context of the EU-Vietnam Trade Agreement and Investment Protection Agreement** ..... 6

Dr Joanne Banks, Trinity College Dublin, **Synergies in Shaping Inclusive Educational Reform in the Global North and South: Policymakers and Academics in Ireland and South Africa**.. 7

## **2022 Award Cycle - New Foundations – Strand 4 ..... 7**

Dr Ashish Vashishtha, Institute of Technology, Carlow, **SynergyFuel: Techno-economic, Environmental and Social Impact Assessment of Waste to Synthetic Fuel Technologies in Circular Economy** ..... 7

Dr Owen McIntyre, University College Cork, **Doubling Global Hydropower Capacity by 2050: What About the Transboundary Dimension?** ..... 7

Dr Sarah Carol, University College Dublin **Well-Being in the Post-COVID-19 Era: The Impact of COVID-19 on Palestinian Refugees and Bedouins in the West Bank**..... 8

Dr Vincent Tawiah, Dublin City University, **Local directors in Multinational Companies (MNC) and sustainability in Africa**..... 9

## **2021 Award Cycle – COALESCE – Strand 2B ..... 9**

Dr Catriona Dowd, Dublin City University, **Gendered Dimensions of Hunger in Peacebuilding (GDHP)** ..... 9

Dr Christine Bonnin, University College Dublin, **SYNERGI: Mozambique (Socially iNclusive Edible uRban Green Infrastructure)**..... 10

Dr Eilish McAuliffe, University College Dublin, **Gendered Leadership Advancing Systems and Structures: Through Collective Leadership, Networks and Mentorship (GLASS)** ..... 10

Dr John Devaney, Maynooth University, **Future Proofing Senegal's Great Green Wall**..... 11

Dr Leo Casey, National College of Ireland, **What makes a good teacher? The challenge of enhancing teacher professional identity and capability in Cambodian schools.** ..... 11

## **2021 Award Cycle – New Foundations Strand 4 ..... 12**

Dr Cliona Murphy, Dublin City University, **Climate, Our Oceans and Primary STEM Education: Climate and Ocean Literacy Network Ireland and Mauritius (COLNIM) Project** ..... 12

Dr Denise O’Leary, TU Dublin, **A Sustainable Agenda for Gender Equality in Tourism and Hospitality: Promoting Entrepreneurial Pathways for Women in Central Vietnam** ..... 12

Dr Kristin Hadfield, Trinity College Dublin, **Building a partnership to understand and promote child refugee wellbeing in Uganda**..... 13

Dr Wim Naudé, University College Cork, **Establishing the Data and AI for African Trade (DAIAT) Consortium** ..... 13

## **2020 Award Cycle - COALESCE – Strand 2B ..... 14**

Dr Ali Khashan, University College Cork, **Kilimanjaro ULTRA 2020: A Digital Delivery Register for Reproductive Health in Low Resource Settings**..... 14

Dr Ann Nolan, Trinity College Dublin, **Engaging Adolescents in Sexual Health Services in Ethiopia (EASE)** ..... 14

Dr Ehiازه Ehimen, Institute of Technology, Sligo, **Community Based Decentralised Renewable Energy Systems and Supporting Structures for Improving Electricity Access in Low Income Countries (CEANGAL)** ..... 15

Dr Robert Gillanders, Dublin City University, **Corruption, Gender, and Sustainable Development (COGS)**..... 15

Dr Susanne Barth, Teagasc, **AVENA: Understanding winter-hardiness traits and photoperiod adaptation in oats (Avena sativa L.): a future food/feed crop for East Africa/Ethiopia** ..... 16

Dr Una Murray, University of Galway, **Migration, Climate Change and Social Protection in Ethiopia (MiCASP)** ..... 16

## **2020 Award Cycle Strand 4 – New Foundations ..... 17**

Dr Barry McDermott, University of Galway, **Novel low-cost, robust device for prevention and treatment of Post-Partum Haemorrhage in low-resource settings** ..... 17

Dr Danny Marks, Dublin City University, **Helping low-income communities adapt to climate change in Phnom Penh by reducing their risk of flooding through collective action** ..... 18

Dr Fredrick Ajwang, University College Dublin, **Markets, Electoral Competition, Norms and Ethnic Violence in Kenya** ..... 18

Dr Mathias Urban, Dublin City University, **Resilient Early Childhood Education, Care and Development Systems (RESYS)** ..... 18

## **2019 Award Cycle - COALESCE – Strand 2B ..... 19**

Dr Ricardo Simon Carbajo, University College Dublin, **DAI: Modelling the Impact of Air Pollution and Climate Change on Public Health in Ho Chi Minh City for Policy Making and Awareness Creation using Machine Learning** ..... 19

Dr Elaine Murtagh, University of Limerick, **Learning in Motion: embedding gender-responsive, play-based pedagogies in teacher education in Palestine** ..... 19

Dr Charles Spillane, University of Galway, **Resilience at the margins: Climate risk mapping and spatial decision support systems for strengthening the climate change resilience of the furthest behind in rural communities in Viet Nam** ..... 20

Dr Debbi Stanistreet, RCSI University of Medicine and Health Sciences, **Applying a sanitation approach to the problem of Household Air Pollution in Malawi; The smokeless village project** ..... 21

## **2019 Award Cycle - New Foundations – Strand 4 ..... 21**

Dr Catriona Dowd, Dublin City University, **Network for Innovative Resilience-Building in South Sudan** ..... 21

Dr Eithne Dempsey, Maynooth University, **Electrocoagulation and Electro-Fenton based approaches to Mitigation of Emerging Contaminants in water** ..... 22

Dr Frances Finn, Waterford Institute of Technology, **Work Integrated Learning (WIL) Industry Partnerships and Apprenticeships: Exploring WIL Management Models, Practices and Policy within Ireland and South Africa** ..... 22

Dr Mary McNamara, Technological University Dublin, **To Create the Ireland Vietnam Food and Biotechnologies Research and Innovation Centre (FABRIC)** ..... 23

Dr Siobhan Airey, University College Dublin, **Blended Finance for the UN SDGs – Towards Effective Governance by Developing Countries** ..... 23

## **2018 Award Cycle - COALESCE – Strand 2B ..... 24**

Dr Anne Matthews, Dublin City University, **Enhancing evidence-based infant feeding policy implementation in Malawi** ..... 24

Dr Edward Lahiff, University College Cork, **Social inclusion of rural migrants in Hanoi City, Vietnam** ..... 24

Dr Mac MacLachlan, Maynooth University, **APPLICABLE: Assistive Product List Implementation Creating Enablement of inclusive SDGs** ..... 25

Dr Ruairi Brugha and Dr Jakub Gajewski, RCSI University of Medicine **The AKAZI Project** ..... 25

Dr Siobhan Mullally, University of Galway, **Human Trafficking, Forced Migration and Gender Equality in Uganda** ..... 26

Dr Su-Ming Khoo, University of Galway, **B-CAUSE: Building Collaborative Approaches to University Strategies against Exclusion in Ireland and Africa: pedagogies for quality Higher Education and inclusive global citizenship** ..... 26

**2018 Award Cycle - New Foundations – Strand 4 ..... 27**

Dr John Lannon, University of Limerick, **CollabEdRes: Establishing Ways of Working to Advance Collaboration in Education and Research** ..... 27

Dr Elaine Murtagh, Mary Immaculate College, **Learning in Motion Network: enhancing classroom practice through enhanced teacher education** ..... 27

## Project Impact – Completed Projects and Publications

Dr Siobhan Mullally, University of Galway, **Human Trafficking, Forced Migration and Gender Equality in Uganda**

**Video Discussion Panel: The Identification and Documentation of Trafficking in Persons in Situations of Forced Displacement**

---

Dr Ruairi Brugha and Dr Jakub Gajewski, RCSI University of Medicine and Health Science **The AKAZI Project**

**Journal Article: Breast and cervical cancer screening services in Malawi: a systematic review**

---

Dr Anne Matthews, Dublin City University, **Enhancing evidence-based infant feeding policy implementation in Malawi**

**Final report: Research Report for Irish Aid and Nutrition Stakeholders on the use of Care Groups as a nutrition policy instrument in Malawi**

---

Dr Catriona Dowd, Dublin City University, **Network for Innovative Resilience-Building in South Sudan**

**Workshop Briefings: 'A Year of Change: Local and National Transformations in Peace, Conflict and Humanitarian Need in South Sudan' and 'Conflict, Hunger and Resilience-Building in South Sudan'**

---

Dr Debbi Stanistreet, RCSI University of Medicine and Health Sciences, [Applying a sanitation approach to the problem of Household Air Pollution in Malawi; The smokeless village project](#)

**Journal article:** [Improved cookstoves to reduce household air pollution exposure in sub-Saharan Africa: A scoping review of intervention studies](#)

---

Dr Ricardo Simon Carbajo, University College Dublin, [HealthyAIR: Modelling the Impact of Air Pollution and Climate Change on Public Health in Ho Chi Minh City for Policy Making and Awareness Creation using Machine Learning](#)

**Journal article:** [AI Based Air Quality Pm2.5 Forecasting Models for Developing Countries: A Case Study of Ho Chi Minh City, Vietnam](#)

---

Dr Wim Naudé, University College Cork, [Establishing the Data and AI for African Trade \(DAIAT\) Consortium](#)

**Github Repository:** [Working files and codes used to generate the 'Agriculture Growth Cycle and Trade' database](#)

Dr Áine Travers, Dublin City University, **Developing a research network to prevent and respond to partner violence in Ugandan refugee settlements**

Uganda currently hosts over 1.5 million refugees, more than 80% of whom are women and children. Displaced women experience greater risk of gender-based violence, including violence perpetrated by intimate partners. Available data suggests that 58.4% women in Uganda experience intimate partner violence (IPV) and that current response and prevention efforts cannot meet demand. Research on the causes of IPV specific to the Ugandan context is scarce. The VOICE project, a collaboration between Dublin City University and Makerere University, will bring together experts in a new consortium to develop evidence-based strategies for IPV prevention and response in Ugandan refugee settlements.

---

Dr Danny Marks, Dublin City University, **Reducing Plastic Pollution in Ho Chi Minh City, Vietnam**

Currently approximately 12 million tons of plastic enter our oceans annually. This global problem threatens wildlife, coastal ecologies, human health, and livelihoods. Therefore, we must reduce plastic pollution. Our project's concern is with the environmental governance of marine and riverine plastic pollution that emanates from Ho Chi Minh City (HCMC), Vietnam's largest city. Vietnam has been ranked the fourth-largest contributor of marine plastic pollution. Our study will be the first to identify the political-economic and behavioural drivers of plastic pollution in HCMC. After identifying these drivers, we will propose solutions to address them and share them in numerous ways.

---

Dr Edward Lahiff, University College Cork, **Building capacity in civil society and local communities for sustainable rural development in Vietnam, in the context of the EU-Vietnam Trade Agreement and Investment Protection Agreement**

For Vietnam, the development challenges are moving from meeting basic needs to boosting livelihoods through higher-value processes integrated to the global economy. The EU-Vietnam Free Trade Agreement of 2020 creates opportunities in areas such as coffee, timber and food products, and a range of NGOs are working with small-scale farmers to help them meet certification standards and create pathways to global markets. This proposal aims to engage with NGOs to understand their role and lay the foundation for a larger engaged research project that will develop new knowledge and build linkages between Vietnamese and Irish researchers, and grassroots organisations.

---

Dr Joanne Banks, Trinity College Dublin, [Synergies in Shaping Inclusive Educational Reform in the Global North and South: Policymakers and Academics in Ireland and South Africa](#)

Leading academics from Ireland and South Africa propose to explore the extent to which academia and policymakers share knowledge in inclusive education policy development. The project will involve a three-day visit by a researcher from the University of Cape Town and government official from the Western Cape Education Department, including a research/policy brokerage event with relevant stakeholders from the Global North-South. The network will disseminate its work through a publication, conference, and policy brief for both countries. We envisage the project will lead to the development of a COALESCE application focusing on synergies between academic experts and policymakers in education.

---

## 2022 Award Cycle- New Foundations – Strand 4

Dr Ashish Vashishtha, Institute of Technology, Carlow, [SynergyFuel: Techno-economic, Environmental and Social Impact Assessment of Waste to Synthetic Fuel Technologies in Circular Economy](#)

Synthetic Biofuels (from wastes and residues) have important role towards net-zero by 2050 pledge by 137-countries at COP26, including Ireland and Vietnam. Synthetic biofuels from non-crop resources should meet 45% total biofuel demand by 2030 against 7% in 2020. Among biochemical and thermochemical technologies, the later found advantageous for higher biofuel production in shorter time, co-produce electricity, flexible feedstocks, application of by-product for industries. The “SynergyFuel” project aims to develop collaboration between Global North-South for sustainable-strategies to use biofuels in heavy-transport-sector. Its findings will be used to inform different stakeholders to provide bioenergy circular economy pathway, beneficial to both countries.

“Most-common Agricultural Residues in Vietnam and Ireland: Characterization serving for energy Purpose”, Journal of Science & Technology, Vol. 59 No. 6C, pp. 85-90, DOI: <https://doi.org/10.57001/huih5804.2023.257>

---

Dr Owen McIntyre, University College Cork, [Doubling Global Hydropower Capacity by 2050: What About the Transboundary Dimension?](#)

The International Energy Agency and International Renewable Energy Agency estimate that to reach ‘Net Zero’ by 2050 the renewable energy transition will require global hydropower capacity to double. However, expansion of hydropower must consider that much of the existing hydropower potential is situated on shared international rivers. 153 countries depend upon transboundary rivers which account for 60% of global freshwater flow. Increased hydropower capacity must accommodate transboundary interdependencies. Joint transboundary projects offer opportunities to maximize shared



benefits accruing from inter-State cooperation. However, when conducted unilaterally on a shared river, hydropower projects may provide a source of tension amongst riparian countries.

**Transdisciplinary research workshop:** at the University of Bologna (9-10 March 2023), where a total of 21 (potential contributors to the special issue) presented their related research: [International Law and Transboundary Hydropower Workshop Bologna](#)

**Journal article:** [Transnational Governance Standards in Ensuring Sustainable Development and Operation of Hydropower Projects in Transboundary Basins](#)

Special Issue of Frontiers in Climate on ‘Doubling Global Hydropower Capacity by 2050: What About the Transboundary Dimension?’: <https://www.frontiersin.org/research-topics/30628/doubling-global-hydropower-capacity-by-2050---what-about-the-transboundary-dimension> This includes PI’s contribution: O. McIntyre, ‘Transnational Governance Standards in Ensuring Sustainable Development and Operation of Hydropower Projects in Transboundary Basins’, (2023) 5 Frontiers in Climate: [https://www.frontiersin.org/articles/10.3389/fclim.2023.1329076/full?utm\\_source=Email\\_to\\_authors&utm\\_medium=Email&utm\\_content=T1\\_11.5e1\\_author&utm\\_campaign=Email\\_publication&field=&journalName=Frontiers in Climate&id=1329076](https://www.frontiersin.org/articles/10.3389/fclim.2023.1329076/full?utm_source=Email_to_authors&utm_medium=Email&utm_content=T1_11.5e1_author&utm_campaign=Email_publication&field=&journalName=Frontiers%20in%20Climate&id=1329076)

Development of a Checklist for Assessing the International Law Applicable to Transboundary Hydropower (2023): <https://iwrmaactionhub.org/resource/checklist-assessing-international-law-applicable-transboundary-hydropower>; [https://researchportal.northumbria.ac.uk/files/122700314/check\\_list\\_v3.pdf](https://researchportal.northumbria.ac.uk/files/122700314/check_list_v3.pdf)

---

Dr Sarah Carol, University College Dublin **[Well-Being in the Post-COVID-19 Era: The Impact of COVID-19 on Palestinian Refugees and Bedouins in the West Bank](#)**

The COVID-19 pandemic has exerted greater pressure on vulnerable minorities who are on average in a more disadvantaged socio-economic situation. However, signs of a shift to the post-COVID era are on the horizon. Therefore, this project had the main aim to capture the transition to a post-COVID era for three groups: Bedouins, internally displaced Palestinian refugees and majority-group members (non-Bedouin, non-refugee). How did COVID-19 affect individuals’ well-being? As the rates of COVID-19 were very high in Palestine, what kind of long-term effects of COVID do we see? Overall, respondents trust public institutions and science, and feel that they have done a good job during the pandemic. Yet, subgroups of the population have lost trust into public institutions such as the health ministry. Major challenges arose with regard to the physical and mental health during the pandemic. Not all groups were equally affected by this. For mental well-being, we see that a substantial share of respondents report feeling more sad. Bedouins reported a perceived worsening of their mental health, as well as greater concerns about their access to food, medication and health care. This situation has not entirely improved since the return to “normal”. Overall, we see that the pandemic has affected outcomes differently, and varied by group: we are not all in the same boat.

Project partners presented research findings at Al-Quds University. Project partners visited the Ministry of Higher Education in Palestine to discuss our findings on vitamin B12 levels in Palestine and lobby for better support to understand the health situation of Palestinians using national versus international reference values. Project partners also visited the refugee camp Al-Arroub in Hebron and met with representatives to discuss project findings to understand the exclusion experiences of camp members in



surrounding areas. A working paper with the key findings is currently being finalized and planned to be published in a Working Paper Series

---

Dr Vincent Tawiah, Dublin City University, [\*\*Local directors in Multinational Companies \(MNC\) and sustainability in Africa\*\*](#)

Many multinational companies (MNCs) in Africa claim to support the sustainable development of the continent through corporate social responsibilities. Yet some of the projects misalign with the needs of the local people and are not used by the local community. Therefore, we aim to investigate the extent to which local directors help or could help MNCs channel resources to the sustainability needs of the community. We will use secondary and primary data to establish the relevance of local directors in firm sustainability actions. The project will serve as the basis for policymaking on local content requirements for MNCs in Africa.

Findings of the project are currently under review at Cogent Business & Mgmt. The project was also presented at the African Accounting and Finance Association (AAFA) conference in Ghana.

---

## 2021 Award Cycle – COALESCE – Strand 2B

Dr Catriona Dowd, Dublin City University, [\*\*Gendered Dimensions of Hunger in Peacebuilding \(GDHP\)\*\*](#)

According to the most recent Global Report on Food Crises, acute food insecurity is increasing around the world. Violent conflict and insecurity are the greatest drivers of food crises, and long after conflict subsides, the legacy of both violence, and extreme hunger, cast long shadows in societies seeking to build lasting peace. While devastating, conflict and hunger do not affect all members of societies, communities or even households equally: women and girls, and men and boys, experience conflict and extreme food insecurity very differently. When efforts turn to building peace, women and girls are often excluded or relegated to more minor roles in peace processes, despite their right to meaningful participation, and the unique insights diverse stakeholders can bring. They may also experience post-conflict food security very differently, typically playing a greater role in household food collection and preparation, with more limited rights in terms of land and livestock. While extensive research has documented the ways gender matters in conflict, peace, hunger and food crises, very limited research to date has specifically explored when, where and how women and girls' food rights and experiences of hunger have been integrated in peacebuilding from the local to the international level. The Gendered Dimensions of Hunger in Peacebuilding project seeks to fill this gap, by asking: how, when and why are gendered aspects of hunger and food rights integrated in peacebuilding in diverse peacebuilding contexts? Through a mixed-methods approach that combines i) study of key policy frameworks and international resolutions, with ii) content analysis of key peace agreements, and iii) stakeholder consultation in three peacebuilding contexts (South Sudan, Liberia and South Africa) the project aims to explain the inclusion of women and girls' food rights and experiences of hunger in

peacebuilding, and develop recommendations for more effective peacebuilding policy, practice and research.

---

Dr Christine Bonnin, University College Dublin, **SYNERGI: Mozambique (Socially Inclusive Edible uRban Green Infrastructure)**

Low income and vulnerable households, social groups, and communities living in rapidly growing cities across Africa face concurrent challenges of maintaining food security whilst coping with experienced impacts of climate change. The aim of SYNERGI is to investigate the potential for co-creating socially inclusive edible Urban Green Infrastructure (UGI) as a strategy to support food security and climate resilience in two such rapidly growing cities in the context of Mozambique: the national capital Maputo and Nampula city. Our focus is on socio-economically vulnerable communities whose access to sufficient and good food is limited, as is their participation in food system structures and outcomes. Our research team will work with CSOs and community groups, using participatory action research and citizen science to co-design, implement and evaluate edible UGI initiatives as practical ways to improve food security outcomes while enhancing climate resilience. Our research will be guided by the following questions: 1) How can edible UGI in Maputo and Nampula be made more socially inclusive? What is required for edible UGI in these cities to effectively address the practical and strategic needs of vulnerable groups? 2) What are the most effective edible UGI designs in Maputo and Nampula for addressing affordability, sustainability, social inclusion, food security and appropriateness? What aspects might be transferable to other city contexts in Africa? 3) What contributions do community UGI initiatives make to food security and climate resilience at micro (household and community) and meso (city) scales in Maputo and Nampula? 4) What governance and policy supports are needed to ensure an enabling environment for socially inclusive edible UGI at these city and local scales? 5) How do our co-produced, bottom-up, empirically-grounded understandings and conceptualisations of socially inclusive edible UGI in Maputo and Nampula advance scholarly debates on urban agriculture and climate resilience strategies in Africa's cities?

---

Dr Eilish McAuliffe, University College Dublin, **Gendered Leadership Advancing Systems and Structures: Through Collective Leadership, Networks and Mentorship (GLASS)**

The proportion of women compared to men in leadership roles in the health sector remains quite low, despite evidence that women leaders have a positive influence on access to healthcare and patient outcomes. The importance of having more women in leadership positions has received international attention from the World Health Organisation and other international agencies. Many governments have agreed to take action to address the gender imbalance in leadership in healthcare. The question is "What action should they take and is it likely to make a difference?". Research in this area has focused more on highlighting the barriers to women advancing to senior positions, rather than the solutions that might be put in place to help women advance. This project will work with 120 female health workers in Tanzania to understand the issues they face in applying for and obtaining leadership positions. We will use the best available evidence coupled with their real-life experiences to design solutions that will then be put in place alongside a mentoring programme. A novel aspect of the mentoring programme is that the

health worker will have 2 mentors, a senior male healthcare leader in Tanzania and a senior female healthcare leader in Ireland. Research has shown that male mentors who are in influential positions can help draw attention to the mentee's leadership skills and help advance their careers. In the Irish health system many nurses have advanced to senior leadership positions and sharing their experiences with the mentees may provide support and encouragement to these women. The primary aim of this project is to design and deliver a programme to address the barriers to the advancement of women to leadership positions in the Tanzanian health sector and to evaluate the influence on their leadership skills and actions they take to advance their careers.

---

Dr John Devaney, Maynooth University, **Future Proofing Senegal's Great Green Wall**

The Sahel is a semiarid region of western and north-central Africa that forms a transitional zone between the Sahara Desert to the north and tropical savannas to the south. Across the Sahel, unsustainable land-use management such as overgrazing and deforestation have caused widespread desertification. Climate change has worsened the destructive impact of desertification on ecosystems in the Sahel. This has heightened food, water, and energy insecurity and placed barriers to development in a region already experiencing widespread poverty. The Great Green Wall (GGW) is one of the world's largest and most ambitious restoration initiatives that spans 8,000 km across the Sahel. The GGW is a broad initiative (including reforestation) that seeks to restore landscapes and improve livelihoods. However, a recent report revealed that only 4% of the targeted restoration area has been achieved. Many challenges to achieving the GGW ambitions have been identified, including a lack of technical knowledge on reforestation and an absence of reliable monitoring programs. In Senegal, >18 million trees have been planted as part of the GGW, yet this represents <10% of the targeted restoration area. Replanting efforts have been hampered by low seedling survival rates and a lack of monitoring data. Our project aims to work with Senegal's National Forestry Research Center to address these challenges and improve the success of the GGW. The project will - 1) grow GGW seedlings in specialized growth chambers under future climate conditions to identify tree species that are best adapted to climate change, 2) meet with local communities and build capacity for monitoring GGW reforestation and associated benefits in Senegal, and 3) improve policy measures that can support GGW activities. This project will strengthen Ireland's development role in the Sahel and engage with the challenges facing communities in French-speaking West Africa.

---

Dr Leo Casey, National College of Ireland, **What makes a good teacher? The challenge of enhancing teacher professional identity and capability in Cambodian schools.**

This research addresses the question of teacher effectiveness in the context of early grade school education in Cambodia. In all education settings the challenge of enhancing teaching capability to achieve better learning outcomes is complex and multifaceted. In the context of early grade education in Cambodian schools, this is especially the case. Cambodian education is like the 'perfect storm' of challenges. This study will investigate how teachers in Cambodia and specifically the Battambang region, can be enabled to improve their teaching practice and engage in a path of professional development. It will

focus on the tasks and challenges of building teacher professional identity; how teachers see themselves and how this may change over time. Teacher professional identity is a core enabler for a wider framework of teaching capability and competence. Effective teaching requires a disposition for practice in a continuous cycle of professional improvement. This study combines field work with design based research to provide a learning path for enhanced teaching capability. A sample of 25 early grade teachers will be recruited as volunteer research participants. Two rounds of data collection, comprising in-class observation, teacher interviews and 'school and community' profiles, will take place one year apart. Workshops on teacher professional identity will be delivered to the participants, one following the first and one following the second data collection round. At each stage analysis of data will inform the learning design for the workshops. The data and the workshops will also inform the development of a Framework for Teacher Professional Identity in Cambodia and materials for an associated structured professional learning module.

## 2021 Award Cycle – New Foundations Strand 4

Dr Cliona Murphy, Dublin City University, [Climate, Our Oceans and Primary STEM Education: Climate and Ocean Literacy Network Ireland and Mauritius \(COLNIM\) Project](#)

The aim of this project was to initiate the development of a transnational network for collaboration on climate and ocean literacy (Climate and Ocean Literacy Network Ireland and Mauritius - COLNIM), to mobilise climate change education (CCE) expertise and resources within two island states, Ireland and Mauritius, and specifically within two institutions of higher education, Dublin City University (DCU) and Mauritius Institute of Education (MIE). It also aimed to further transformative educational research and educational practices in the area of climate change and science education and to support climate action for the common good. As part of this project, Dr Murphy has authored a research paper that will be submitted to the journal Environmental Education Research for publication.

---

Dr Denise O'Leary, TU Dublin, [A Sustainable Agenda for Gender Equality in Tourism and Hospitality: Promoting Entrepreneurial Pathways for Women in Central Vietnam](#)

This project focused on developing mentoring activities for women entrepreneurs in Central Vietnam, with a pilot in Hue City, as this is a province where, in comparison to their male counterparts, the number of women starting their own businesses is low. It encouraged, supported and promoted gender inclusivity through the implementation of a mentoring programme for aspiring and existing female entrepreneurs in the tourism industry in Hue. This project aspired to support the UN Sustainable Development Goals for 2030 and Ireland's Policy for International Development's agendas for gender equality, developing collaborative research and concrete actions to overcome challenges that women face. Women who took part in the pilot provided very positive feedback on the beneficial impacts to their businesses and their professional development. As an

outcome of this project, new pathways for female entrepreneurship have been promoted in the Hue region of Vietnam.

**Delivery of workshops by Vietnamese experts:** [Workshop on Activating SAGETH: Mentoring Program for Women Businesses in the Field of Tourism – School of Tourism – Hue University](#)

---

Dr Kristin Hadfield, Trinity College Dublin, **[Building a partnership to understand and promote child refugee wellbeing in Uganda](#)**

This project brought together academics and NGO representatives from the Global South and North to discuss how wellbeing and mental health can best be promoted among refugee children and adolescents in Uganda. Through this project, a team of researchers from Ireland, South Africa, Uganda, and the United Kingdom along with the NGO Tutapona met regularly online to discuss this issue and held an in-person meeting in Uganda in March 2022. In this in-person meeting, we visited Tutapona offices in Kampala and, to get a better understanding of the situation on the ground, we held meetings and attended two Tutapona's Heroes Journey sessions in Nakivale Refugee Settlement in southern Uganda. We met with representatives from multiple NGOs working with children in Nakivale, as well as with the representative of the Office of Prime Minister. Through these conversations, it became clear that there was a gap in knowledge about what interventions for displaced children and adolescents are being implemented to improve wellbeing, and so we conducted a scoping review to examine this. Dr Hadfield presented on that scoping review at the International Society for the Study of Behavioural Development conference in June 2022 and has submitted the paper for publication.

This project strengthened connections with NGOs working in Uganda and with academic partners in psychology, women's studies, and economics from the Global South and Global North. Additionally, it led to the preparation of a peer-reviewed paper on the state of promotion of well-being among displaced children and adolescents in Africa.

---

Dr Wim Naudé, University College Cork, **[Establishing the Data and AI for African Trade \(DAIAT\) Consortium](#)**

The Data and Artificial Intelligence for African Trade Consortium is a network of European and African-based scholars and practitioners who focus their research, teaching and policy making to develop and promote data-driven decision-making tools for expansion of inclusive and sustainable trade between the continents. The project's purpose was to establish this consortium, starting with UCC as lead partner and partners Machine Intelligence Institute of Africa, University of Johannesburg, Trade Advisory and Vrije Universiteit Amsterdam. During the project, further partners we engaged including researchers from UNCTAD, University of Ghana, University of Pretoria, Zindi Africa, University of Plymouth and Tilburg University. The consortium held an online workshop on 13 July 2022 and various bilateral (online) meetings.

**Github Repository:** [Working files and codes used to generate the 'Agriculture Growth Cycle and Trade' database](#)

---

## 2020 Award Cycle- COALESCE – Strand 2B

Dr Ali Khashan, University College Cork, **Kilimanjaro ULTRA 2020: A Digital Delivery Register for Reproductive Health in Low Resource Settings**

Every day more than 800 women die while giving birth. Most of these women die in low-income countries, where maternal healthcare services are very poor. Despite all the investment and initiatives in the past two decades to achieve gender equality and to ensure that women enjoy their sexual and reproductive health rights, this remains an aspiration in low resource settings. One challenge that delays progress in maternal healthcare services is the limited and poorly documented perinatal data, mostly paper-based, that have short memory and quickly become unusable, to inform decision-making and measure the impacts of interventions. In the past few years, we collaborated with colleagues at the Kilimanjaro Christian Medical Centre and the Global Pregnancy Collaboration and developed an open-source digital health system (ULTRA), implemented on the District Health Information Software (DHIS2) server platform and mobile application. Now, we aim to prove that we can use ULTRA in low resource settings to record perinatal data for home births and births at healthcare facilities. Throughout the project, we will engage with stakeholders through annual workshops and other means of knowledge exchange. ULTRA is designed to enable audit and quality control for maternal health services and can be exploited as a research function, mainly to measure the impact of interventions.

---

Dr Ann Nolan, Trinity College Dublin, **Engaging Adolescents in Sexual Health Services in Ethiopia (EASE)**

Engaging Adolescents in Sexual Health Services in Ethiopia (EASE) is a research collaboration between the Trinity Centre for Global Health, Trinity College Dublin, and the School of Public Health, Addis Ababa University that has been developed with the support and guidance of the Embassy of Ireland in Ethiopia. EASE has been designed to ensure that it respects international commitments that have been made by both Ireland and Ethiopia, including a promise to engage youth and adolescents in the development and delivery of sexual and reproductive health services. This project uses research methods that are conducted by and for adolescents in the Afar region such that adolescents play a central role in creating knowledge and understanding, and that they are encouraged and supported to take action to improve their own sexual and reproductive lives. EASE will work with adolescents to design and deliver sexual and reproductive services in the Afar region that they would want to use. The programme will take account of the different sexual and reproductive health needs between boys and girls, and how they might use sexual and reproductive health services differently. Ultimately, EASE will work to improve practices and policy for adolescent sexual and reproductive health and assist Irish Aid to expand their programmes supporting adolescent health in the Afar region.

---



Dr Ehiازه Ehimen, Institute of Technology, Sligo, **Community Based Decentralised Renewable Energy Systems and Supporting Structures for Improving Electricity Access in Low Income Countries (CEANGAL)**

The United Nations through its Sustainable Development Goals has targeted the provision of "Affordable, reliable, sustainable, and modern energy for all" by the Year 2030. Several issues have however hampered the achievement of this target especially in Sub-Saharan African Low Income Countries, which have the most populations without electricity access. The CEANGAL (Community based decentralised rENewABLE eNerGy systems and supporting structures for improving electricity Access in Low income countries) project directly addresses such issues and provides a means to support rural communities in acquiring, owning, installing, operating and maintaining renewable energy systems to meet their electricity needs. The project will be developed via collaboration between Irish researchers (IT Sligo) and Malawian researchers and stakeholders, putting forward a demonstrable process and supporting structures which can be used to achieve sustained electrification in low Income communities in Sub Saharan countries. The project outcomes will be demonstrated in four pilot rural community sites in Malawi, which by the end of the project will own and operate their own renewable energy systems. The involvement of other Sub-Saharan African research organisations, researchers and community stakeholders in the project exploitation activities, will further ensure the replication and use of the project solutions in other countries. This will be to meet the UN electrification goals and demonstrate Ireland's contribution efforts in supporting it.

**Journal Article:** [Exploring the potential role of decentralised biogas plants in meeting energy needs in sub-Saharan African countries: a techno-economic systems analysis](#)

---

Dr Robert Gillanders, Dublin City University, **Corruption, Gender, and Sustainable Development (COGS)**

Corruption, the abuse of public power for private gain, ruins economies, societies, and lives – especially the lives of the already disadvantaged or vulnerable. Corrupt countries grow more slowly, attract less investment, are more unequal and violent, and have higher rates of poverty and infant mortality. Corruption also blocks climate action by protecting elites and special interest groups and distorting policy. Therefore, to achieve the sustainable development goals, we must fight corruption. To fight corruption, we must understand it - in particular, how it excludes people from contributing to sustainable development and enjoying the benefits of progress. Corruption, gender, and sustainable development (COGS) will investigate previously unexplored ways in which corruption undermines gender equality, increases humanitarian need by closing off economic opportunity, and blocks climate action. We will explore how sexual extortion by those in a position of power, or "sextortion", acts as a barrier to female economic empowerment and innovation. We will examine how gender stereotypes related to corruption can stand in the way of women holding political office and test the fundamentally important hypothesis that corruption serves as a greater barrier to accessing healthcare and education for women. Climate change is a hugely complicated suite of challenges that requires input and coordination across government departments. Not surprisingly, corruption breeds mistrust. We will look at how corruption stops co-operation across departments by fostering mistrust and test ideas on how to overcome these barriers. COGS is solutions focused so all academic outputs will be accompanied by policy briefs and training workshops designed in conjunction with stakeholders and policy experts in sustainable development. Our focus on equality, education, and health aligns with the long tradition of



Irish involvement in social sector development – as does our focus on understanding civil service partnerships and reform as a pathway to enhanced climate action.

**Journal Article:** [Sextortion and Corruption](#)

**Journal Article:** [Police corruption and crime: Evidence from Africa](#)

**Journal Article:** [Smartphones and attitudes to intimate partner violence: Evidence from Africa](#)

**Policy Brief:** [Sextortion and Corruption](#)

**Policy Brief:** [Police Corruption and Crime](#)

**Policy Brief:** [Fighting for the Future: Women and the Fights for Ukrainian Independence in the 20th and 21st Centuries](#)

**Policy Brief:** [Health Sector Corruption and Access to Healthcare in Africa](#)

---

Dr Susanne Barth, Teagasc, **AVENA: Understanding winter-hardiness traits and photoperiod adaptation in oats (*Avena sativa* L.): a future food/feed crop for East Africa/Ethiopia**

It is forecast that the demand for meat and milk in Sub Sahara Africa (SSA) will be up to 150% greater in 2030 when compared to 2005, which offers an opportunity for livestock producers in the region. However, despite the heavy density of livestock herd in SSA, productivity, both milk and meat, is well below the global average causing rampant protein malnutrition among the general public and bringing detriment to cognitive development of millions of children in the region. Limited access to improved forages is one of the major reasons why the livestock industry in SSA has failed to meet the demands for animal-based products. Oat (*Avena sativa* L.) is a dual-purpose crop (grain and forage), cultivated in more than fifty countries, including in Ethiopia and Eritrea, growing in cool and high-altitude mountain regions with a mixed system cropping and animal husbandry. Oat contains proteins and oils of high quality, minerals and vitamins and can play a key role in reducing malnutrition challenges in the region, particularly among women and children and contribute towards improving livestock productivity in the region, due to improved forages. This action will identify and make available “best-bets” locally adapted highly productive oats originated from the region and encourage the global community to utilize these resources to advance breeding to contribute to eradicate protein malnutrition in SSA. Thus, this project will play a key role in supporting the economy and people’s welfare by developing information and tools for increasing food and feed supply in the region.

---

Dr Una Murray, University of Galway, **Migration, Climate Change and Social Protection in Ethiopia (MiCASP)**

Environmental change, and in particular climate change, is increasingly recognised as a driver of human migration. However, more research is required on who is left behind, who is migrating and why, to understand direct and indirect linkages between migration and climate change. Climate change adaptation measures are needed for living with climate change, where social protection can play a role in strengthening resilience to climate change of potential migrants, or by supporting migrants at their destination to establish their livelihoods. Indeed, those who are left behind in rural area will need to adapt to climate change if there are to be thriving rural economies. Two regions that are sources of

climate change affected migration in Ethiopia have been identified, namely Amhara Region (lowland Wollo and Waghimra districts) and the Southern Nations, Nationalities and People's Region - SNNPR (Wolayta Zone). Using focus group discussions, surveys, and keynote interviews, plus a review of policy instruments, the linkages between migration, climate change, adaptation and social protection will be investigated.

One of the papers resulting from this project was recently published in the prestigious Wiley Interdisciplinary Reviews: Climate Change (impact factor 10.3), Dr Murray was asked to present on this topic at the COP28 Climate Summit in Dubai, where she took on a leadership role in the Universal Social Protection (USP2030) group whose mission is to achieve SDG target 1.3, namely to: "Implement nationally appropriate social protection systems and measures for all, including floors, and by 2030 achieve substantial coverage of the poor and the vulnerable." At the COP28 Climate Summit session on Adaptive Social Protection Dr Murray delivered a live presentation which incorporated the findings of this paper. The paper was listed as 1 of 17 recommended globally in the master document prepared by the Loss and Damage advocacy community. As a result of this paper, at COP28, Dr Murray was asked to moderate a live discussion (Dec 9th 2023) on the theme at the UNICEF Pavilion, which was organised in collaboration with German Federal Ministry for Economic Cooperation and Development, World Bank, Red Cross Climate Centre, with the support of the USP2030 Working Group on Social Protection and Climate Change, with many senior figures in attendance.

**Journal Article:** [Turning climate justice into practice? Channelling loss and damage funding through national social protection systems in climate-vulnerable countries](#)

**Journal Article:** [Climate-related migration and the climate-security-migration nexus in the Central American Dry Corridor](#)

**Journal Article:** [Assessing the Evidence: Migration, Environment and Climate Change in Ireland](#)

---

## 2020 Award Cycle Strand 4 – New Foundations

Dr Barry McDermott, University of Galway, **Novel low-cost, robust device for prevention and treatment of Post-Partum Haemorrhage in low-resource settings**

Post-partum haemorrhage (PPH) refers to excessive bleeding after birth. PPH is the leading cause of maternal mortality, affecting 14-million women annually, with rates 15 times higher in the developing compared to the developed world. This project explored the development feasibility of a low-cost, portable, and robust device for preventing and treating PPH in low resource settings. A comprehensive needs-based assessment was performed to inform device design. State of the art devices and current treatment options were assessed looking at mechanism of action and device design. As well as technical aspects, more practical medical, legal, societal, economic, and infrastructural factors were examined and integrated into the analysis. The result was a comprehensive set of design constraints and human factors needed for such a device.

A manuscript based on the outcomes of the project has been prepared for publication and is currently under review: "Post-Partum Haemorrhage in Low-Income Settings: Strengths

and Weaknesses of Current Non-Pharmacological Interventions” - submitted to Medical & Biological Engineering & Computing.

---

Dr Danny Marks, Dublin City University, **Helping low-income communities adapt to climate change in Phnom Penh by reducing their risk of flooding through collective action**

Cambodia is one of the most vulnerable countries to climate change. One related impact is flooding, which already causes numerous problems, is expected to worsen. Most research has studied flooding in rural areas. However, flooding in Phnom Penh, the country’s capital, is already affecting large swathes of people and damaging property. In particular, low-income communities are affected due to their high level of exposure but also limited coping capacity. This research therefore examines the drivers of the flooding and what a wide range of stakeholders can collectively do to help these communities to become more resilient to floods.

As part of this project, Dr Marks delivered a seminar organized by the [Centre for Khmer Studies](#) as well as a seminar at the Royal University of Phnom Penh. An article has been submitted to the journal Political Geography and is awaiting publication.

---

Dr Fredrick Ajwang, University College Dublin, **Markets, Electoral Competition, Norms and Ethnic Violence in Kenya**

Ethnic conflicts remain a central problem in contemporary Kenya and a barrier to the formation of a cohesive state. Much of the violence has been about land, a substantive issue around which the concept of citizenship is contested in Kenya. Not all multi-ethnic areas in Kenya suffers from ethnic conflicts, yet we still do not know what causes such variations in violence. This fellowship aimed to consolidate impact from Dr Ajwang’s IRC Postdoctoral funded research on ethnic conflicts in Kenya through a research dissemination workshop and the formation of a research network to further analyse the problem of violent ethnicity in Kenya.

A report and policy brief were widely shared in Kenya as means of raising awareness to the problem of political violence. The Kenya Land Alliance has since adopted the report and the policy brief as internal documents, which they have since used in their community and policy programs.

---

Dr Mathias Urban, Dublin City University, **Resilient Early Childhood Education, Care and Development Systems (RESYS)**

RESYS established a Global South-South-North research collaboration between three centres of excellence in Cambodia, South Africa and Ireland, to investigate the resilience of early childhood development, education and care (ECD/ECEC) systems in contexts of disruption, crises and uncertainty, and to develop a future shared research agenda with global network partners. RESYS project was underpinned by the 2030 Sustainable Development Goals framework and addressed key priorities of A Better World. Ireland’s

Policy for International Development, in particular, C2 Gender Equality and C3 Reducing Humanitarian Need, with a specific focus on their application to early childhood.

This project established a Global South-South-North research collaboration between three centres of excellence in Cambodia, South Africa and Ireland, to investigate the resilience of early childhood development, education and care (ECD/ECEC) systems in contexts of disruption, crises and uncertainty, and to develop a future shared research agenda with global network partners. A co-authored paper for publication in an international peer-reviewed journal is currently under preparation.

---

## 2019 Award Cycle- COALESCE – Strand 2B

Dr Ricardo Simon Carbajo, University College Dublin, [\*\*DAI: Modelling the Impact of Air Pollution and Climate Change on Public Health in Ho Chi Minh City for Policy Making and Awareness Creation using Machine Learning\*\*](#)

Vietnam as a country is facing increases in air pollution, particularly in the megacities of Hanoi and HCMC. The HealthyAIR project seeks to address such problem in air pollution, greenhouse gas emissions and the resulting health issues in Ho Chi Minh City (HCMC). This project installed 6 real-time air monitoring devices, which will significantly enhance the understanding and visibility of air pollution patterns and sources. We will then develop machine learning models to predict air pollution levels in short, medium and long term timescales in HCMC. These predictions, in conjunction with the public health analysis will make a strong case for the development of new air pollution and greenhouse gas emissions policy. We will liaise with key policy makers in Vietnam to develop and implement these changes. A mobile app will be developed to enable the public to know insights into pollution levels, both current and forecasted. The learnings in this project will be far reaching, shedding light on air pollution in megacities. This project addresses the priority areas highlighted in the COALESCE call of reducing humanitarian need, climate action and strengthening governance. In addition, it will foster international collaboration, build research capacity and engage the public.

**Journal article:** [\*\*Ai Based Air Quality Pm2.5 Forecasting Models for Developing Countries: A Case Study of Ho Chi Minh City, Vietnam\*\*](#)

---

Dr Elaine Murtagh, University of Limerick, [\*\*Learning in Motion: embedding gender-responsive, play-based pedagogies in teacher education in Palestine\*\*](#)

This project will address the Sustainable Development Goal on 'Gender Equality' by examining how gender-responsive, play-based learning (PBL) pedagogies can be embedded in teacher education programmes in Palestine. Ongoing conflicts and political unrest in Palestine have had a detrimental impact on education. Teachers often lack the capacity to create safe and supportive learning environments and respond to the needs of

their students. This three-year project will explore how novel research-informed approaches can be used in teacher education to address a societal need. Gender-responsive pedagogies are teaching and learning strategies that pay attention to the specific learning needs of girls and boys through using gender-aware classroom practices. Data will be collected from teacher educators/lecturers and student-teachers through interviews, focus groups, surveys, observations, and reflective journals. The research will examine teachers', educators', and lecturers' perceptions of gender responsive PBL approaches. This will inform the development of a professional development programme for lecturers in order to incorporate gender responsive PBL into teacher education practice at four Palestinian universities. A community-based partner, 'Right to Play', will co-design and co-deliver the bespoke training programme. The research will then examine the effect on student teachers during their school placement experience. This project will support rights and needs of both girls and boys in the education system to contribute to greater gender equality in learning environments that are physically, socially, and emotionally safe.

**Journal article:** [Exploring teacher educators' perspectives of play-based learning: A mixed method approach](#)

**Journal article:** [Teacher educators' perspectives on gender responsive pedagogy in higher education](#)

**RTE Brainstorm article:** [School in a war zone: how war has destroyed Gaza's classrooms](#)

---

Dr Charles Spillane, University of Galway, [Resilience at the margins: Climate risk mapping and spatial decision support systems for strengthening the climate change resilience of the furthest behind in rural communities in Viet Nam](#)

Vietnam, with 65% of people living in rural areas, is among five countries considered by the World Bank as most vulnerable to impacts of climate change. Agriculture is one of the most important sectors in Vietnam, contributing 20% of GDP and employing 40% of the labour force. Despite major reductions in poverty in Vietnam, there remain cohorts of Vietnamese society that are economically marginalised and whose status could be further aggravated by adverse climate change impacts. These include ethnic minorities, peripheral poor rural households, female headed households and households with members who are disabled. Nong Thon Moi (NTM), as the Vietnamese government's strategic policy tool, has been underway as a large national initiative since 2010 to help improve sustainable development of rural areas, with a special focus on climate resilient agriculture for the period 2021-2025. The NUI Galway - VNUA "Resilience at the Margins" project will work with national institutions (MARD, DONRE) and NGOs/CSOs to generate an evidence base and develop new geospatial data analytics and risk assessment tools / knowledge to better target climate smart/resilience techniques and innovations towards the most marginalised households in rural Vietnam. Spatial decision support systems (SDSS) will support policy scenario-based integration of climate smart agriculture (CSA) practices for climate resilience and poverty reduction, through an initial focus on the NTM for Yen Bai province. The SDSS will harness and integrate existing available data, in particular integrating socio economic parameters with biophysical/climatic parameters to identify which marginalised households are most vulnerable to climate change. The SDSS will be iteratively developed in close consultation with national and provincial partners, so

that it can be integrated into national planning systems for improved targeting of CSA/CRA techniques and innovations to strengthen the climate change resilience of the most marginalised households in rural Vietnam.

[Homepage - CRAFS \(vnua.edu.vn\)](http://vnua.edu.vn)

---

Dr Debbi Stanistreet, RCSI University of Medicine and Health Sciences, **[Applying a sanitation approach to the problem of Household Air Pollution in Malawi; The smokeless village project](#)**

Household air pollution (HAP) is the world's largest environmental source of ill health. Almost four million people die each year from burning wood and charcoal on traditional stoves or open fires and the use of kerosene lamps for lighting. In addition, the practice of burning crops contributes to ambient or outdoor air pollution. Further, over 300,000 people die from fire related injuries associated with these practices. To date, research in the field has mostly focused on one source of HAP, namely cookstoves. This project aims to take a broader approach and use lessons learned in the sanitation sector, applying them to a village setting to develop the concept of a smokeless village in Malawi. The project will involve the community as active participants within the research process. We will evaluate a range of behaviour change approaches used in the sanitation sector and review the published evidence to identify cleaner methods for cooking, lighting, and agriculture. We will also measure indicators of household and ambient air pollution (HAAP) and using novel photographic methods, focus groups and a mapping process, we will identify community sources of HAAP and potential sources of injury with the community. We will share the knowledge gained with village members and help them develop an action plan to reduce HAAP, providing some financial resource to do so. The plan will subsequently be implemented over a six-month period before carrying out repeat measures of HAAP and repeat focus groups to identify any changes in exposure and behaviour change post-intervention. Findings will be integrated and shared with relevant stakeholders including policy makers, at regional and national level through a workshop in Blantyre. We will also develop a toolkit that can be used in similar settings to encourage expansion of the smokeless village concept more widely.

**Journal article: [Improved cookstoves to reduce household air pollution exposure in sub-Saharan Africa: A scoping review of intervention studies](#)**

---

## 2019 Award Cycle- New Foundations – Strand 4

Dr Catriona Dowd, Dublin City University, **[Network for Innovative Resilience-Building in South Sudan](#)**

After years of civil war, South Sudan is on the cusp of transition. The peace process has the potential to consolidate stability across a country devastated by conflict. However, a durable and truly inclusive peace depends on ensuring local and national-level peace are mutually reinforcing; women are not only represented but meaningfully engaged at every level; and urgent humanitarian needs are met in a way that builds longer-term resilience.



As South Sudan transitions, new challenges demand innovative solutions. This project brings together a network of academic, policy and humanitarian experts to share cutting-edge research; identify gaps; and propose innovative responses. The overall aim of the Network was to contribute to reduced humanitarian need, strengthened resilience and conditions for durable, inclusive peace in South Sudan through facilitating exchange of ideas, relationship-building and high-quality research among research, policy and humanitarian expert members working on violent conflict, humanitarian resilience, women's empowerment and political and economic transformation in South Sudan.

**Workshop Briefings: [‘A Year of Change: Local and National Transformations in Peace, Conflict and Humanitarian Need in South Sudan’](#) and [‘Conflict, Hunger and Resilience-Building in South Sudan’](#)**

---

Dr Eithne Dempsey, Maynooth University, **[Electrocoagulation and Electro-Fenton based approaches to Mitigation of Emerging Contaminants in water](#)**

Ineffective water treatment risks exposure to emerging contaminants, particularly pharmaceutical residues and their metabolites. Many of these compounds pass through conventional wastewater treatment systems without removal and accumulate in potable water supplies. In this networking and collaborating grant we have successfully engaged with African stakeholders in South Africa and Kenya in to study the feasibility of novel electroanalytical methods for targeted micropollutants. The proposal aligns with DTFA strategic areas of environmental sustainability and development and with UN Sustainability Goals 6 [Clean Water and Sanitation], being reliant upon scientific tools for water treatment/safety assessment in low-cost portable formats suitable for resource limited regions of the planet.

**Journal Article: [Copper-modified carbon nano-onions as electrode modifiers for the electroanalysis of the antiretroviral drug Efavirenz](#)**

---

Dr Frances Finn, Waterford Institute of Technology, **[Work Integrated Learning \(WIL\) Industry Partnerships and Apprenticeships: Exploring WIL Management Models, Practices and Policy within Ireland and South Africa](#)**

This project developed partnerships between Irish and South African Universities of Technology relative to the investigation and improvement of Work Integrated Learning (WIL). WIL combines academic study with work placements and has been associated with empowering young people to develop skills, knowledge and attitudes that equip them for the realities and challenges of work. South Africa is faced with high unemployment rates and WIL is vital in addressing this societal challenge. Through networking and engaged research activities, Ireland and South Africa are working together to develop effective WIL models and practices aimed at reducing unemployment. Networking and collaboration have occurred in a virtual environment between academics and researchers (8) from 3 Higher Education Institutes (HEI's) in Ireland (WIT; MTU, and GMIT) and 3 HEIs in South Africa (CUT, CPUJ, and UJ) over the duration of this project and will continue. Key activities undertaken by the group include the development and sharing of programme information and practices that incorporate WIL, to enable sharing of best practice. Case studies (detailed descriptions) of WIL programmes from Ireland and South Africa have been collected and learned from. Findings from the case studies have been submitted for



publication and presented at International Conferences. In addition, a broader survey of WIL processes and practices during the pandemic, in Ireland and South Africa, has been undertaken so that innovative practices, the use of digitalisation and new ways of working with industry could be captured internationally and applied locally.

**Journal Article:** [Enhancing work-integrated learning through North-South collaboration: a comparative contextual analysis.](#)

---

Dr Mary McNamara, Technological University Dublin, **To Create the Ireland Vietnam Food and Biotechnologies Research and Innovation Centre (FABRIC)**

Technological University Dublin (TU Dublin) and Hue University (HU), have come together to create the Ireland Vietnam Food and Biotechnologies Research and Innovation Centre (FABRIC), whose aim is to advance joint research activity through shared facilities, exchange of personnel and joint publication. Our research is user-inspired and challenge-based, generating new knowledge, and providing practical solutions to global challenges. Central to our research is the training of PhD researchers in entrepreneurship, supporting capacity development in both countries. PhD candidates are integrated into the innovation chain and with their research, are encouraged to address societal challenges requiring interdisciplinary solutions. TU Dublin and HU will progress to a new, deeper, sustained co-operation through joint research and innovation.

This award has facilitated the creation of the Food and Biotechnologies Research and Innovation Centre as a platform for research in core areas of Food Safety, Functional Foods and Nutraceuticals & Medicinal Products.

---

Dr Siobhan Airey, University College Dublin, **Blended Finance for the UN SDGs – Towards Effective Governance by Developing Countries**

Blended Finance (BF) is a new form of public-private finance to fill gaps in funding for development projects in support of the UN's Sustainable Development Goals, and to respond to climate change. Here, ODA (Official Development Assistance or development aid) is used to “leverage” or “de-risk” private investment and introduces new financial actors as ‘development partners’ with donors and aid-recipient states, and more complex development finance instruments to fund gaps in meeting the UN SDGs and to address climate change. This project examines the emerging governance challenges for aid-recipient states, and for donors, of this more complex, financialised model of international development finance, focusing on Tanzania. It links researchers in Ireland, Belgium, and Tanzania, from different fields of law, generate new research insights into the current legal and governance approaches to BF at international, and national levels, and to locate BF governance questions within wider legal and governance literature from an aid-recipient state perspective; to identify and create opportunities to translate these insights into pedagogy (classes, seminars), public policy and wider social impact (liaison with NGOs); and to generate the basis for longer-term inter-institutional collaboration on research, and identifying and planning future research funding and grant opportunities.

**Journal article:** [Rationality, regularity, and rule – juridical governance of/by Official Development Assistance](#)

---

## 2018 Award Cycle- COALESCE – Strand 2B

Dr Anne Matthews, Dublin City University, [Enhancing evidence-based infant feeding policy implementation in Malawi](#)

To address child malnutrition in Malawi, several policies have been implemented and these include the Baby-Friendly Hospital Initiative to support breastfeeding and Care Groups, a peer community health education approach. What we found overall was that many complex factors influence effective evidence-based infant-feeding policy implementation. These include government commitment and support, strong and sustainable organisation and practical supports and resources especially for mothers and their families. Challenges include how and where nutrition is managed in relation to health and other concerns, lack of health and nutrition workers in health facility and community settings and lack of follow-up to evaluate interventions over time. We have shared our findings with those in decision-making positions and in academic publications.

**Final report:** [Research Report for Irish Aid and Nutrition Stakeholders on the use of Care Groups as a nutrition policy instrument in Malawi](#)

---

Dr Edward Lahiff, University College Cork, [Social inclusion of rural migrants in Hanoi City, Vietnam](#)

This study – a joint initiative by UCC and the University of the Social Sciences and Humanities, Hanoi - aimed to contribute to an enhanced understanding of the needs of diverse groups of rural-to-urban migrants in Vietnam, and more effective policy responses by state and non-state agencies. A survey of 235 migrant workers, coinciding with the COVID-19 pandemic, shed valuable light on the daily lives of migrants and how they coped with severe social and economic shocks. Findings have been widely disseminated through a series of working papers, conference papers, policy-oriented workshops and publications in academic journals and books (including those in preparation). Through a diverse programme of collaborative work, it has also contributed to the building of capacity among a younger generation of researchers and established academics in Ireland and Vietnam.

The project has facilitated the creation of a dedicated panel at the EADI Development Conference in July 2021, convened by the PI. Papers from this project have already been presented at five international conferences. An abstract has been accepted for the EDESUS conference, 'Global Changes and Sustainable Development in Asian Emerging Market Economies', and an associated book, to be published by Springer. An abstract was also submitted to the EADI 2023 conference to be held in Lisbon.

**Book:** [COVID-19, the Global South and the Pandemic's Development Impact](#)

---

## [List Implementation Creating Enablement of inclusive SDGs](#)

The Assistive Product List Implementation Creating Enablement of inclusive SDGs (APPLICABLE) project was inaugurated in Malawi in December 2019 to propose and facilitate the development of a framework for creating effective national Assistive Technology (AT) policy and specify a system capable of implementing that policy in Malawi. Adopting an action and participatory approach, the team from Assisting Living and Learning (ALL) Institute Maynooth University and Centre for Social Research (CSR) Zomba worked with stakeholders in Malawi to achieve the project objectives. First, through a series of research that ranged from reviews, secondary data analysis and primary data collection, evidence and learning were generated to support the development of an AT component of the new disability policy in Malawi and Assistive Product List (APL). The project yielded eight research publications and four manuscripts recently under review. Second, the Assistive product list with 23 products was developed for Malawi in consultation with various stakeholders in Malawi and led by the Ministry of Gender, Children, Disability and Social Welfare. Third, the AT component of the new disability policy was developed and with an implementation plan, strategy, and budget. Finally, a Template for Policy Leading to Assistive Technology Enactment (TemPLATE): a Strengths-based Framework was developed from the project to support AT policy development projects ongoing throughout Africa.

**Journal Article:** [Age related increase in impairment across the life course: the use of Zomba curves to estimate assistive technology needs in Malawi](#)

## [Project](#)

Breast cancer is the third most common cancer in women in Malawi with low survival rates from time of diagnosis, yet Malawi lacks a national breast cancer control programme. In settings where screening is not possible, due to resource constraints, early detection through clinical breast examination (CBE) and early referrals are essential steps towards reducing mortality. Phase 1 of AKAZI completed cervical screening capacity-building activities. Phase 2 of the AKAZI research project aims to undertake a national assessment of current capacity for early diagnosis of breast cancer; identify enablers and barriers to the development of Malawi's first national breast cancer control programme; strengthen preparedness for early detection of breast cancer through establishing a national CBE training curriculum; and undertake a campaign to improve breast health awareness among women and communities in Malawi, which will empower rural women to take an active role in maintaining breast health. These activities will be complemented by work at the policy level to identify how best to ensure that cancer services for women are integrated into comprehensive reproductive health services. RCSI will partner with the Agency for Scientific Research & Training (ASRT), a local health consulting company experienced in health program implementation and research, which will undertake implementation support activities previously allocated to Medical Sciences for Health (MSH). The other partners, as before, comprise: Hope for Cancer Foundation, University of Malawi's College of Medicine and government ministries, building on SURG-Africa ([www.surgafrika.eu](http://www.surgafrika.eu)).

**Journal Article:** [Breast and cervical cancer screening services in Malawi: a systematic review](#)

---

Dr Siobhan Mullally, University of Galway, **Human Trafficking, Forced Migration and Gender Equality in Uganda**

The project analyses the operationalization of international and regional human rights standards on human trafficking in Uganda, focusing the gender and child rights dimension of human trafficking among refugees and internally displaced persons (IDPs). Uganda has taken several measures to strengthen the coordination of counter-trafficking policy and build capacity among law enforcement bodies. These specialized measures include multilateral and bilateral cooperation, and to a limited extent, engagement with UN human rights bodies. Moving beyond a criminal justice-centred response requires engagement with the positive obligations of prevention and protection found in evolving human rights standards on human trafficking and international protection. Legal and policy responses to sexual and gender-based violence among refugees and IDPs have highlighted the specific risk of human trafficking. However, as yet, the links between human rights standards and human trafficking responses in the context of forced migration have received more limited attention. In the specific context of Ugandan counter-trafficking law, policy and practice, the project aims to: (1) Apply international and regional human rights standards to analyse and evaluate legislative, policy and procedural measures taken to strengthen access to justice for victims of human trafficking, including access to international protection, unconditional assistance and legal aid, among refugees and IDPs; (2) Analyse how international and regional human rights standards and SDG targets on gender equality and women's empowerment are integrated into counter-trafficking law and practice by State bodies and international organisations working with refugees and IDPs; (3) Examine and recommend further legislative and policy reforms to strengthen a child rights response to trafficking of children, focusing in particular on human rights standards as applied to separated and unaccompanied migrant and refugee children.

**Video Discussion Panel: [The Identification and Documentation of Trafficking in Persons in Situations of Forced Displacement](#)**

---

Dr Su-Ming Khoo, University of Galway, **B-CAUSE: Building Collaborative Approaches to University Strategies against Exclusion in Ireland and Africa: pedagogies for quality Higher Education and inclusive global citizenship**

BCAUSE is an ambitious collaborative project connecting universities in Ireland and South Africa to answer the combined challenges of SDG4 – Quality Education and SDG10 – Reducing Inequalities. Its key integrative objective critically challenges dominant narratives of 'quality' in HE, rejecting misplaced conceptions of quality based on inappropriate standardization, unjust hierarchies, or market competition. Instead, BCAUSE advances alternative ideas promoting 'quality' in terms of HE's equality and public good missions. Under pandemic restrictions, Collective Intelligence (CI) methods were adapted to generate ideas, identify barriers and suggest options for equality-informed HE quality in three phases. Phase 1 scoped the project, using international experts' CI to generate insights and ideas about equality-promoting critical thinking, investments and pedagogies. Phase 2 used local CI design groups to identify operational

barriers and opportunities within University of Galway and UNISA. Phase 3 supported equality-focused curriculum/ practice redesign ideas locally, offering microgrants for innovative work and cross-organizational learning. 5 Microgrant projects were identified in Galway. Microgrants were not implemented in UNISA. Instead, the project developed wider Ireland-Africa university collaborations to advance Irish and African pursuit of equality and public good, while building a vibrant, global Critical Higher Education Studies community. BCause has contributed to Advancing Critical University Studies Across Africa (ACUSAfrica), informed Irish HE equality policy development, and connected leading Irish, South African, European and global scholars working on quality, equality, decolonial and digital HE transformations.

*Full details and abstracts can be accessed from Dr Khoo's [institutional repository link](#), under the heading of 'Conference Contributions'*

---

## 2018 Award Cycle- New Foundations – Strand 4

### Dr John Lannon, University of Limerick, **CollabEdRes: Establishing Ways of Working to Advance Collaboration in Education and Research**

Working with partners in Ghana, including University of Cape Coast & Padre Pio Rehabilitation Centre, the project aimed to establish and validate mechanisms to enable an Irish higher education institute to work collaboratively with partners in developing countries. Building on existing links between the University of Limerick and several geographically adjacent institutions and organisations in Ghana, it explored ways of working that have the potential to lead to sustainable engagement across a range of thematic areas and disciplines. These included clinical and special needs care; medical research; nursing and midwifery; education; management practice; and music and dance.

Partner: [Padre Pio Rehabilitation Centre](#)

---

### Dr Elaine Murtagh, Mary Immaculate College, **Learning in Motion Network: enhancing classroom practice through enhanced teacher education**

The Learning in Motion Network brought together researchers from Ireland (at Mary Immaculate College) and Palestine (at Birzeit University) to develop a collaborative research proposal that was submitted to the COALESCE 2019 call. The research addresses the Sustainable Development Goals by exploring how research-informed teacher education policy and practice can impact the classroom experience of children as they learn. By collaborating with the NGO “Right to Play”, this project will examine how movement-based and play-based learning can be incorporated into teacher-education and professional development curricula to enhance the educational experience of children in Palestine. This project directly led to the successful funding application to the IRC’s 2019 COALESCE call, “Learning in Motion: embedding gender-responsive, play-based pedagogies in teacher education in Palestine” which can also be found in this document.

