Abstract
In this case study, Irish academics reflect on our involvement in a project – Transformative Engagement Network (TEN). This project aims to transform the nature of the engagement between the various stakeholders impacted by or concerned with climate change and to insert the voice and concerns of the most vulnerable food producers into climate change debates. Throughout the project, the Maynooth University team has become increasingly aware of the complexities of development and of the practical and intellectual challenges to the assumptions and beliefs that underpin our disciplines.

Introduction
In this case study four Irish academics from three disciplines reflect on lessons learned through our partnership between four universities in Ireland, Zambia and Malawi. The Transformative Engagement Network (TEN) aims to transform engagements between stakeholders impacted by or concerned with climate change and to insert the voices of vulnerable food producers into climate change debates. It aims to direct the knowledge, and power of universities to facilitate participative, inclusive engagements between stakeholders. The project includes (i) a Masters programme offered in three African universities to 36 students who work with rural communities vulnerable to food scarcity and (ii) a series of forums at local, national and international levels which guide the project.

1 Geography, Biology and Adult Education.

2 The four partner universities are Maynooth University (where the authors are based), Mzuzu University in Malawi, the Zambian Open University and Mulungushi University in Zambia. The project is funded under the Irish Aid and Higher Education Authority Programme for Strategic Cooperation.
In this reflection, we position ourselves as learners seeking to know our world differently. Our teachers are our colleagues in the interdisciplinary teams in each partner university, the small-holder farmers in communities where our partner universities work and staff of the NGOs and government ministries who work in these communities and are students on the Masters programme or members of the forums. We focus on the Irish perspective in this paper, with other publications involving collaborations and reflective insights of other team members. 

This case study is presented in three parts. Part 1 provides a rationale for the case study. Part 2 presents learning reflections from team members in Maynooth University. Part 3 explores the implications of our learning for on-going work within TEN and beyond.

**PART 1: Rationale for the Case study**

Two key assumptions underpin TEN. First is that the persistence of social and economic inequalities between and within countries indicates that the underlying thinking and actions sustaining how we promote equality, including development interventions, need to change. Second is that inclusive processes in all aspects of TEN, including how researchers, small-holders and agencies dealing with them, work together and how we create knowledge is crucial to well-developed judgments about the kind of changes that are pertinent to promoting and sustaining equality. Therefore, the ‘transformative’ agenda of TEN relates to how the different stakeholders involved in food security and climate change engage. The project seeks greater inclusiveness in decision-making and knowledge production. We believe that using participative processes will ensure that the perspectives of different players, in particular those living and working at the local community level, will inform decision-making at national and international levels.

TEN recognises that a major challenge for those based in universities, and in particular those in the global north, is to embrace alternative (and at times competing) ways of knowing the world and to utilise pedagogical and research practices that combine western socio-scientific knowledge of universities with the lived knowledge of small-holder farmers, who are among the world’s most disadvantaged. Through individual reflections below, we explore what we, as academics in the global north, have learned and the challenges we have encountered. In this process, we re-evaluate how we think about inequality and development, and the implications for us as academics and as global citizens.
PART 2: Individual reflections on learning from the TEN Project

Martin Downes, Emeritus Professor, Department of Biology, Maynooth University

In Malawi and Zambia, small-holders helped me understand some of their circumstances. Two things in particular startled me: first was how, on a farm stalked by hunger, a parent might abandon the family crop just as it ripens, going to work off-farm for hard currency to pay for schooling. Living on a farm calls for great balancing of conflicting demands. Second was a realisation of the extent to which children of dead parents are being raised by relatives: mortality from disease is very high and the strong bonds binding extended families was beyond my experience. It confirmed to me the Henrich et al. (2010) observation that “Western” populations (a minority to which I belong) are more likely to understand themselves in terms of their personality traits and are less likely to understand themselves in terms of roles and relationships than are non-“Western” peoples.

Focusing on improving crop yields without paying attention to farmers’ needs based on their roles, relationships and responsibilities is neither relevant nor realistic. These needs are integrated and resources apportioned to them at one place only: the farm. To me, this situates the farm family at the centre of decision making and makes it the crucial element in all judgements related to local food security: this should not be news to anyone by now, but somehow it still is news. This has and continues to lead to bad and fragmented decision making by well-intentioned but uncomprehending or inflexible agencies whose activities are poorly integrated with the efforts of others. This is a job for agencies to do in support of food production and resilience.

Behind this are two global anxieties: first is whether we can, even under the best conditions, produce enough food reliably to feed the world’s population: currently this focuses on an apparently looming shortage of phosphate, without which little crop yield improvement can happen. Phosphate conservation, and limitation of its use, would disrupt intensive Western agriculture: this becomes a job for developed countries to engage with. The second anxiety is about whom is to control our food supplies: governments or transnational companies, or simply free-trade forces? It is an anxiety mainly felt in developed countries, where, oddly enough, it has been delicately ignored by major actors: it has been a powerful influence acting against the proper evaluation of whether for example, technically improved crops could properly contribute to global hun-
ger problems in the agricultural systems in which hunger occurs, or whether food surpluses in the industrialised countries (where the production capacity is) could ever be delivered to poor regions without destructive consequences.

Neither developed nor developing countries can escape the impact of one another on the course of global food production and distribution. If everyone had an equal and equally-informed voice in decision-making, this mutual impact could generate positive outcomes: creating the conditions for this to happen is a job for politicians and universities.

**Bernie Grummell, Lecturer, Department of Adult and Community Education, Maynooth University, Project Coordinator TEN.**

The values and ways of working developed in TEN involve commitment and solidarity on the part of all to our overall objective of working to support vulnerable communities, to each other as TEN participants, and to the social justice values which underpin our actions. It requires collective human endeavour, critical reflection and a commitment to transformation on several levels which for me is the core function of education. Hence, it encapsulates many of my personal values and learning as an adult educator, as well as providing new perspectives.

My learning in TEN has been with the people involved, especially the team members and students on the masters programme. Students are mediators who translate the valuable knowledge and experiences of communities adapting to climate change.

Involvement in TEN has involved learning about knowledge and working across disciplines. It has enabled me to see and talk about adult and community education through the lens and language of others, especially the experience-based knowledge of communities, the policy lens of agencies and governments, and the scientific lens of climate change and agriculture.

Working with the universities involved in TEN has involved layers of inter- and intra-institutional cooperation as we seek to change practice from within. This collaborative venture requires creativity in adapting processes to fit TEN into what often seem fixed structures and routines, whether that be university practices or community traditions. It has forced me to consider how knowledge and communications are formed and maintained, and in whose interests? It draws my attention to the complex and invasive nature of global injustice between
north and south, between and within institutions and communities, different types of knowledge and communication. Most of all, it has clarified the lens with which I view the world in terms of how our actions impact the lives of the most vulnerable. It has developed a sense of responsibility to act in collaboration and solidarity with others.

Conor Murphy, Lecturer, Department of Geography, Maynooth University, Masters’ Coordinator TEN Project.

I came to TEN, perhaps as many (young-ish) western academics do, with a desire to provide services and skills I assumed were missing and needed to increase the ability of communities to adapt to climate change. I quickly reassessed this role. Of the many aspects I could write about here, I have chosen two key lessons. Firstly, I reflect on what TEN has revealed to me about my area of academic interest – climate change. Second and related, I reflect on the kinds of knowledge that are needed in tackling climate change at community level.

Beyond climate exceptionalism

One of the greatest limitations of climate change studies is that we tend to treat it as an exceptional problem and deal with it in isolation. Climate change will not occur in a vacuum but will unfold in tandem and interact with other social, economic and cultural changes that are happening across the world and are often place-specific and historically rooted. For climate change to be relevant to the most vulnerable communities, it needs to be relevant to daily life and the myriad transitions that are happening. This requires understanding the needs of communities in a more nuanced way. Rather than commencing with western-based science as represented by climate models and projections of temperature and rainfall decades, we need to start the process of adaptation by listening to and truly understanding the needs of the most vulnerable. Indeed, this is an inherent justice issue. At a global scale, distributional aspects of climate change are inherently unfair. However, dealing with climate change in a more just fashion demands a greater voice from communities in the procedures and actions taken in adapting to change.

A reappraisal of relevant knowledge

In understanding the voice of communities, research on climate change needs to be more interdisciplinary. Traditional reliance on the ‘natural’ sciences will not suffice in effectively adapting to climate change. The social sciences and humanities have much to add. Interdisciplinary emphasis is one of the greatest strengths of TEN, bringing together academics and adult learners from across
disciplines, backgrounds (and cultures) as diverse as geography, biology, sociology, and adult and community education. Where this can be done in an environment of mutual respect for the forms of knowledge required, the benefits for all (including communities) can be huge. However, the challenge of working effectively together shouldn’t be underestimated – there are ontological and epistemological bridges that need building between academics and communities and vice-versa that require risk-taking beyond the confines of the ivory tower and a willingness to be critiqued. Central to these differences is recognition of the constructed nature and power dynamics of knowledge, especially the privileging of western socio-scientific knowledge and lack of recognition of indigenous knowledge and lived experience. This is allied to the status of university knowledge as well as our individual biographies derived from our socio-cultural and environmental context. One of the great challenges unveiled by TEN is how to reconcile the knowledge that communities hold with western science. The former is often associated with spiritual beliefs and a close association of working with nature in surviving the vagaries of climate. However, traditional ecological knowledge is often qualitative in nature, informally held by community elders and difficult to penetrate. In meeting the challenge of climate change, knowledge in all its forms will be necessary, but will only work if an inclusive and respectful space for learning (by all involved) is negotiated. We have begun to attempt this through the TEN Masters programme which is built on a community of practice approach between university partners and in-post practitioners (as active mediators), policy-makers (as key decision-makers) and local communities.

Anne Ryan, Professor of Adult and Community Education, Maynooth University, Principal Investigator TEN Project

I would like to highlight two important areas of learning for me. First is the significance of ‘doing something worthwhile’ as a factor that influenced staff responses to the challenges posed by building networks of engagement across four universities. Second is the deeply embedded difficulties that have to be addressed in order to access knowledge in communities.

(i) Building networks of engagement

Each of the four universities involved in TEN collaborate with each other, with local communities of small-holder farmers, the local agencies that work with them, and with national and international agencies concerned with climate change and food production. To date, each institution has demonstrated a willingness and capacity to work together and with smallholder communities. The
inter-institutional nature of the Masters programme – a central feature of the TEN project – posed procedural challenges for administrative and academic support departments in the lead institution – Maynooth University. Staff in diverse areas of the university have demonstrated a striking determination to find ways forward. In informal discussion, staff gave two reasons for their support. First was a desire to circumvent technical and administrative constraints to create capacity within the system to support future inter-institutional initiatives. Second was a desire to contribute to a project that they saw as worthwhile because it was concerned with small-holder farmers who are at risk of hunger.

(ii) Accessing the knowledge in communities
Accessing knowledge in small-holder farming communities has proved challenging. The knowledge is not written down, and it is not discussed in an abstract form; instead it tends to be embedded in behaviours, rituals, proverbs, myths, and at times silences. It is expressed and validated within a community among those who ‘know’ because they are, or have been, community members. For outsiders to engage with this knowledge depends on the willingness of those who already ‘know’ to act as interpreters. This poses particular challenges. Interpreting generally requires ‘repackaging’ community knowledge within a western format thereby diluting its essential differences. The hegemonic positioning of western socio-scientific knowledge positions it as modern, forward looking and necessary for development and positions other ways of knowing the world as backward, anti-progress and part of the problem to be overcome. Holders of non-western knowledge are aware of the positionality of these different ways of knowing the world and are consequently cautious in how they locate themselves in relation to non-western knowledge. A substantial challenge for TEN is to find processes of engagement that can identify these barriers and contribute to transcending them.

PART 3: The implications of our learning for on-going work within the TEN project and beyond.
The reflections above emphasise learning that relates to our separate disciplines, our understanding of development and the constellation of values and beliefs underpinning these. The inherent link between each of these spheres is important in generating commitment to explore the learning the project has and can generate. The reflections also highlight how doing something that we value as worthwhile motivates and inspires us to do more than ‘just our job’. A challenge for the TEN project is to find processes that allow as wide a range of contributors as possible to participate in the project and to recognise that their contribution is both valuable and necessary for its success.
It is also evident that learning relating to the professional and the personal are inherently interrelated so that learning in one domain impacts the other. There is a realization that because our respective academic knowledge is partial, our understanding of the world, our engagement with others and other systems and what we assume to be priorities must be continuously open to revision. To varying degrees, the reflections refer to how the project has taken us outside our everyday activity and afforded us an opportunity to think afresh. The reflections also note the potential of being open to perspectives that are outside one’s everyday encounters as an important aspect of understanding the world from the vantage point of others and point to the significance of learning by ‘doing’. This in turn highlights the need to tolerate uncertainty and a level of vigilance to determine changes required as the project proceeds. This is very much in keeping with a Freirean idea of learning as an on-going cyclical process involving knowing, reflecting on knowledge, taking action, reviewing what we think we know, adjusting our actions accordingly etc. (Freire 1970).

In the reflections, there is a realisation that the quality of the engagement between the many players involved in the project determines the adaptive capacity of the project and the quality of learning outcomes. For us in the global north, there is need to ensure that the project seeks to be actively inclusive and recognises the pitfalls inherent in academic preference for western-scientific approaches to knowledge creation.

Revisiting and revising what we know does not require us to renounce what we already know in favour of a new type of dogmatic knowledge. Instead, it requires questioning the hegemonic positioning of western knowledge and to search for processes (in teaching, research and engagements) that include the knowledge and perspectives of those who are excluded. Moving from dogmatic to inclusive knowledge requires an openness to interrogate the values that underpin our world view – especially embedded values. Santos (2014, p. 17) claims that to do this effectively ‘calls for repeated exercises of self-reflexivity’ so that we can ‘untrain’ and ‘reinvent’ ourselves.

References