A Bridge Over Troubled Waters: a dynamic, integrated assessment for enhanced social, energy and eco-systems

Main objectives and context

In the context of Scottish Government ambitions relating to community renewable energy schemes and related policies of Community Empowerment and Land Reform, this KE activity sought to produce and apply a cross-disciplinary methodology and tool kit for the integrated social, environmental and renewable energy assessment of rural and urban localities. Objectives: By engaging a transdisciplinary team and four community organisations in two workshops, structured 'walkshops' and a training activity, the initiative set out to*:*

(i)   Establish a new community of practice (CoP) towards community renewable energy schemes.

(ii)   Create a method to a) collectively identify the value on various physical, environmental, recreational, economic, social, cultural and spiritual spaces, or 'habitats', in the defined locality; (b) map the existing use of land and water resources in each locale, any conflicts over their use, quality and their governance; (c) facilitate a constructive dialogue between all CoP members that acknowledges power disparities and promotes alternative resource use towards enhanced environmental and social wellbeing.

(iii)   Apply this method in the assessment of the four study areas through creative walkshops

(iv)   Train eight community based participants, two from each locality, in the application of this assessment methodology in four locales

(v)   Collectively identify the appropriate public authorities and commercial stakeholders for an 'intervention' workshop to inform and transform the public policy and industrial practice of community engagement in productive spaces for renewable energy

(vi)   Produce the tool kit for the broader effective, integrated assessment of social, economic, environmental characteristics of rural and urban localities that promotes solutions to conflicts and inequalities in terms of renewable energy resource access, utilisation, economic benefit and governance.

An account of the insights resulting from the programme

The programme took us to three very different experiences and challenges relating to renewable energy schemes in Scotland and to Brazil. The contrasting capacities of the respective communities in relation to the natural and financial resources available to them, the extent of community participation, and the level of local control over key decision making present distinct challenges in developing models or templates for renewable energy assessment, planning and delivery. In this regard the provision of a tool kit, with a set of guidelines, materials and exercises that future communities can choose from and modify seems appropriate. It is clear, however, that unless there

is a meaningful 'empowerment of communities' in the sense of a redistribution of resources and decision making powers over how local resources are utilised then a transition from fossil fuel to 'greener' energy alternatives will be a missed vital opportunity for the country to address social disadvantage in relation to social class and geography.

Main outcomes and (expected) impact

A tested tool kit for the assessment of local renewable energy potential and suitability in relation to environmental and social aspirations has been created. This has been piloted and we anticipate will be suitable for communities to use in public tenders in relation to renewable energy projects at a community scale

Presentation to Scottish Parliament

Paper delivered to 23rd International Sustainable Development Research Society Conference

Invitation for Scottish Parliament launch of tool kit and briefing paper

Related funding from EPSRC Global Challenges Fund £36,000 (Paul Tuohy PI, B Garvey, E Joao, co-investigators) and from Impact Acceleration Fund £10,000

B Garvey, K Briken, M Danson, R Pepper and P Tuohy co-ordinated and presented at British Council Researcher Links Workshop Goiás, Brazil October 2016

Strathclyde member status of SUPERGEN bioenergy hub http://www.supergen-bioenergy.net/

Presentation of the programme at ENGAGE event with attendees from non-profit organisations and industries.

Follow-up application to Newton Fund British Council for £50,000 with Brazilian partners, submitted June 2017

Pending application to ESRC /FAPESP (Sao Paulo) £350,000 for integrated food and energy production

Establishment of a university–community–trade union research network with Galgael, Isle of Eigg Heritage Trust, Kinlochleven Development Trust, UNISON, Federation of Salaried Rural Workers São Paulo and the universities of Strathclyde, Heriot Watt, West of Scotland

Publications: Land, labour, food and renewable energy. Russell Pepper, Brian Garvey, Francis Vinicius Portes Virginio, Contracondutas Conselho Técnico Da Escola Da Cidade, Sao Paulo. http://www.ct-escoladacidade.org/contracondutas/editorias/trabalho-terra-e-globalizacao-desafios-nas-fronteiras-energeticas/terra-trabalho-alimentos-e-energia-renovavel/

'Landed commons/Terras comuns', Mike Danson, Kathryn Burnett, *Annals of the IV Workshop Production and Appropriation of New Energy Sources: Effects, Conflicts and Alternatives*, Universidade Federal de Goiás/Goiás Federal University, Instituto de Estudos Sócio-Ambientais, Goiânia-GO, 2016, pp. 290-292/209-211.

'Sustainable renewable energy: towards the energy autonomy of rural communities in developing countries', C. Silva-Plata, R. Pepper, M. Danson, B. Garvey, P. Tuohy, P. Stewart (all University of Strathclyde), *23rd International Sustainable Development Research Society Conference*, 14-16th June 2017, Bogotá, Colombia.

Key recommendations for end user / policy communities

1. *Scottish Government Policy for promoting community renewable energy projects is ambitious, but MUST be accompanied by a redistribution of economic resources, planning and decision making powers to communities who risk being ill informed, reluctant or passive receivers rather than drivers of this change.*
2. *Local Energy Scotland has provided important material and start up grants towards local energy schemes; however, more rigorous measures are required to ensure that community priorities will be addressed through new energy schemes, to ensure that consultation is not tokenistic. The 'community' emphasis on local energy projects indicates that profit is not the key concern of these initiatives, and so business as usual models for planning, development of natural and human resources are inadequate.*
3. *Community Renewable Energy policy and projects should not be separated from parallel initiatives towards Community Empowerment and Land Reform. These latter policies seek to address socio-economic disadvantage and inequitable distribution of land and resources. The work presented here indicates that there were will not be a successful attainment of community energy transition without progress across all three domains.*
4. *Training, advice and further support is required as a fundamental aspect of any community renewable energy scheme so that communities are in a position to carry out the assessments. These can be carried out effectively by interested parties from the community, replacing top down consultation exercises.*

Planned follow up activities

Application to Leverhulme for a value chain/carbon footprint analysis of Scottish Forestry November 2017 submission) £55,000

PhD project proposal on the theme above, in association with Scottish Forestry Commission

Project update on the website www.workandglobalisation.com

Three year project with Federation of Salaried Rural Workers of Sao Paulo and University of São Paulo on integrating and sustaining food and renewable energy production

Newton Fund 10 month project; 'Working through Food Sovereignty, Territory and Identity' with Strathclyde, Scottish Universities Insight Institute, Galgael, Heriot-Watt University, Federal University of Goiás as partners

Renewable energy project at MSc level regarding the craft brewery on Isle of Eigg

Supergen membership status towards EPSRC funding

Community forestry ownership research project in association with Galgael