

UNITED NATIONS UNIVERSITY - REGIONAL CENTRE OF EXPERTISE IN EDUCATION
FOR SUSTAINABLE DEVELOPMENT

RCE Scotland

Application document - 2012

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RCE Scotland Vision

Our vision is of a Scotland where sustainable and socially-just practices are the norm throughout society. We aim to develop our skills in the practices and processes of Education for Sustainable Development, and to work collaboratively with educators and other stakeholders in formal, informal and non-formal education to ensure ESD reaches its full transformative potential in society.

1. Introduction

This submission, made on behalf of a broad community of charitable trusts, civic bodies and formal educational establishments, seeks to establish a Regional Centre of Expertise (RCE), which will promote and support the concept and practice of Education for Sustainable Development (ESD) in Scotland. This bid follows two years of preparatory discussions and an extensive and intensive 11-month period of consultation, drawing on the collected experience of a wide community of practitioners who care about how education can serve society and prepare citizens for life in a complex world and uncertain future.

It has been guided by many parallel initiatives across the globe which have been developed in response to the UN Decade of ESD, 2005-14. However, it has also drawn upon rich Scottish liberal educational ideals and early innovations in what later became ESD, and been informed by recent changes in primary, secondary and tertiary education that respond to changing values and pressures in contemporary society. Scotland's natural resources, demographic, regional and economic circumstances demand reflection on our responsibilities and future opportunities as we strive to balance environmental, social and economic parameters.

The vision of our RCE is broad, and resonates with current Scottish Government educational initiatives and policy in sustainable development education, global citizenship education and outdoor learning. It is intended to play its part in helping deliver national priorities including improving attainment, achievement, inclusion and in supporting positive behaviour change, health and wellbeing.

Some existing agencies and networks will be incorporated into the RCE whilst others will collaborate according to their remit and function. All partner organisations believe the RCE will improve clarity of activities in the sector, through mapping initiatives, identifying gaps in current provision and facilitating joint funding bids for collaborative projects.

The proposed RCE is the product of the work of a broad and committed community of interest, and will serve all levels of education and all relevant forms of community engagement in all parts of Scotland. It is notable that all the key government and related educational agencies have been active in this process and provided letters of support. This includes the Scottish Government, Education Scotland, The General Teaching Council for Scotland and the Scottish Qualifications Authority.

Links to partners and letters of support can be found online at:
<http://rcescotland.wordpress.com/>

Whilst much of its work will be 'virtual' and in various locations throughout Scotland, the RCE will need an office base and funding. The University of Edinburgh has provided financial and administrative support for the development of this proposal and has offered to provide offices and facilities to establish the Centre. The Scottish Government is currently funding provision in this area and intends to transfer such funds, whilst considering additional support if the RCE is approved.

Terminology

Sustainable Development Education (SDE), Education for Sustainability (EfS) and Education for Sustainable Development (ESD) are terms that essentially describe the practice of learning and teaching about sustainability - the capacity for continuance.

This document will adopt the most commonly used of these terms, 'Education for Sustainable Development', to refer to the practice of learning and teaching in its broadest sense that supports learners in understanding the Earth as a closed and intimately interconnected system, the principles of global citizenship and social responsibility, and the role of the economy in promoting or hindering sustainable development.

In this context, 'social responsibility' is seen as the fulfilment of an individual's (or organisation's) responsibilities to society and indeed the planet for current and future generations. This is a key concept as it recognises that our actions 'here and now' may have an impact somewhere else and at some time in the future. This means that ESD is not value-free, and that as an educational process it must foster a positive values orientation towards sustainability, and encourage learners to take responsibility for their decisions.

In our local context (Scotland), in both formal and non-formal education, ESD employs means such as classroom and whole institutional/agency approaches, environmental education and outdoor learning to empower learners and teachers to develop the knowledge and values to live more sustainably.

2. Education for sustainable development: the Scottish context

The historical and contemporary context of ESD in Scotland has been well documented in the series of reports discussed below and in summary analyses by Lavery and Smyth (2003) for the period up to 1999, McNaughton (2007) for the period 1993 – 2007 and to 2012 by Higgins and Lavery (in press). This history is significant in both the Scottish response to this agenda and Scottish influence in international development.

The concept of ‘sustainability’ is in many ways quite natural to the Scottish ‘psyche’. Until the late 18th and early 19th century, Scotland was primarily a rural community with an agricultural and marine economy, with a strong emphasis on produce having subsistence rather than monetary value, promoting traditional values such as caution and frugality. Further, much of the social change both throughout and since this period has been driven by changes in patterns of ownership, land-use and marine-use, and these have been a driver of environmental change. Scotland’s native Gaelic language and local dialects, place names and much of its prose and poetry resonate with these themes. The quality and focus of Scottish education and its international reputation is another pre-occupation that pervades Scottish culture. These issues remain a contemporary journalistic focus and a strong feature of public discussion.

Scotland is home to scientists who helped develop our modern understanding of Earth-processes; for example James Hutton who (in 1785) first described the geological processes that shaped the surface of the Earth, and proposed the concept of vast geological timescales that allowed Darwin (in 1859) to develop his theory of evolution by natural selection). It is also the birthplace of founders of the international conservation movement: John Muir (1838-1914), who played a key role in establishing American national parks, and Sir Frank Fraser-Darling (1903-1979), an internationally respected nature conservationist and human ecologist. Scotland is also a place where, for at least the past century, the combined themes of environment and education have been linked; for example, through the work of and the Scots polymath Sir Patrick Geddes (1854-1932) and Professor John Smyth (1924-2005), a key influence of the education focus of the 1992 Rio declaration. Geddes, who is considered by many to be the founding philosopher of the concept of sustainability and the notion of ‘think global, act local’, spent most of his life in Scotland (in the city and the University of Edinburgh, ending his academic career in Dundee University), and identified many of the issues associated with sustainable development, having concern for environment and society, education and social planning.

In terms of formal education, Scotland made an early start in 1974 in considering ESD, with a ground-breaking report by Her Majesty’s Inspectors of Schools, ‘Environmental Education’. Yet, as a result of a combination of political ambivalence and major structural changes in the education system, this radical statement of the

importance of what is now called 'ESD' was not implemented in policy. However, it was effective in two ways: in having influence on developing international thinking in the field, and in stimulating the grouping of teachers, teacher educators and academics which formed into the Scottish Environmental Education Council (SEEC) in 1997.

SEEC was the centre point for the next round of developments, involving capacity-building and providing grass roots support for a growing number of schools, universities and colleges, experimenting with learning and teaching about the environment. It is worth noting that throughout this period the term 'environmental education' was used in a wider sense in Scotland than in many other education systems and was close to the current usage of ESD.

This period of development led, in 1990, to the formation of a government working group, chaired by John Smyth, to consider the need to implement ESD in all aspects of Scottish education. This widely participative group reported in 1993 with the influential 'Learning for Life', published by the Scottish Office in the immediate aftermath of the 1992 United Nations 'Earth Summit' where, as noted above, through John Smyth's influence internationally, education was a central feature. Due again to political ambivalence and conflicting policy drivers, the government response to 'Learning for Life', a Scottish Office paper 'A Scottish Strategy for Environmental Education', was delayed until 1995. This was not a fully developed strategy, but recommended a further advisory group be established to make new proposals for implementation. This group, the Education for Sustainable Development Group (ESDG), reported in 1999 in a paper 'The Learning Process' (Scottish Office, 1999), setting an agenda for the Scottish Parliament established that year.

Progress was again slow. In 2000, SEEC was disbanded following severe cuts in its government grant and ESD, seen in 'Learning for Life' as a process involving all aspects of education, formal, informal and non-formal, became more fragmented. However, considerable grass-roots support and action in all education sectors had been building throughout this period. The Sustainable Development Education Liaison Group (SDELG) was established by the Scottish Government in this period to advise on ESD for schools and was successful in influencing the direction of the Scottish Government response to the United Nations Decade of Education for Sustainable Development 2005-14 (UNDESD) and the development of ESD in the review that led to the new curriculum for Scotland – 'Curriculum for Excellence' introduced in 2010. Through this period there have also been UK and international ESD-related teacher education initiatives, and the Scottish response to these has also been variable (Higgins & Kirk, 2009).

Curricular context

Education for sustainable development is one of a group of curricular areas which emerged as claimants for a place in UK schools over a thirty year period. The group

includes, for example, citizenship, international education, financial education and outdoor education. They characteristically provide a new focus or context for teaching and learning across a range of traditional academic disciplines. They have been given a range of group titles, from 'adjectival' educations to 'cross-curricular themes', the current usage being 'interdisciplinary learning'.

ESD presents two distinct challenges to the curriculum, its interdisciplinary and its political content:

Interdisciplinarity. An interdisciplinary topic is difficult to place in a discipline-based curriculum. As this was one of the challenges Curriculum for Excellence was designed to meet, ESD's accommodation into the curriculum is perhaps no surprise but is worth noting as an achievement.

Political content. There is anecdotal evidence that much of the resistance to ESD, and its partial precursors 'environmental' and 'development' education, met with political resistance in the 1980s and 1990s. The very significant changes in societal and political attitudes to sustainability have made ESD acceptable to schools, though contested topics, such as climate change, continue to make parts of the topic controversial, relevant and potentially interesting to learners.

The current place of ESD

In 2006 the Scottish Government engaged with the UNDESD by publishing a five-year action plan for ESD, 'Learning for our Future'. This was followed in 2010 by the Scottish Government plan for the second half of the decade, 'Learning for Change'. These set ambitious plans for ESD in three sectors: schools, universities and colleges, and communities.

The place of ESD in the school curriculum

The development of Curriculum for Excellence within the timeframe of the UNDESD has led to a full integration of ESD into the curriculum. Sustainable development themes are prominent in the Experiences and Outcomes in many curriculum areas, particularly in Science, Social Studies and Technologies. For example, in Technologies an aim is to 'be capable of making reasoned choices relating to the environment, sustainable development and ethical, economic and cultural issues'. This aim is fully developed in the experiences and outcomes in the 'Technological Developments in Society' contexts.

In the senior stage of secondary school, the skills and content of the examination arrangements have been extensively revised at levels 4-7 (National – Advanced Higher) and the new syllabuses show a strengthening of sustainable development topics, again particularly in science and social subjects. For example Higher Biology

contains a unit 'Sustainability and Interdependence', covering the science of food production, of biodiversity and of interdependence in ecology.

Prior to the current round of curriculum review, most schools' work in ESD took place in interdisciplinary learning, often as informal or extra-curricular work. Most influential was 'Eco-Schools Scotland', with almost all schools registered and nearly 50% having achieved its highest award, the Green Flag. Other initiatives, such as the 'John Muir Award' and 'Rights Respecting Schools' have played a significant role in bringing a wider understanding of ESD to schools. However, as these are not curricular initiatives they are not available to all school pupils, and part of the challenge to schools in implementing the Curriculum for Excellence will be to bring the freshness of these and other ESD-related programmes into the framework provided by the new curriculum. In fact it could be argued that the success of integration of ESD into mainstream schooling might be measured by this transition.

Education for Sustainable Development in schools – campus and community

Sustainable development education is not confined to the curriculum. It encompasses all aspects of a school's work and can be conveniently organised as curriculum, campus and community. In schools, most recent progress has focussed on curriculum. The Scottish Futures Trust which supports the building of new schools has made some progress on sustainable aspects of the design and building of new schools. Whilst this is of little significance in existing buildings, government and local authority targets on carbon following the Climate Change (Scotland) Act 2009 have given energy use in schools a renewed impetus.

Attention to the sustainable aspects of school grounds, covering outdoor teaching, play and biodiversity, has achieved prominence through a range of initiatives, but support is patchy with some local councils (total 32 in Scotland) and government agencies being keen to maintain and enhance provision, whilst other areas are less supportive. The significance of play and education outside the classroom has increasingly been recognised by the Scottish Government and a number of measures have been introduced. These include financial support to help agencies such as 'Grounds for Learning' to encourage early-years outdoor play, and major policy and financial support for outdoor learning. In particular in 2010 the Scottish government published 'Curriculum for Excellence through Outdoor Learning'¹.

This was the first government document specifically to link a national curriculum with outdoor learning, and is a significant milestone as its intention is primarily to support teachers to deliver formal and informal curricula outdoors. Direct experience of nature and its value in helping young-people understand sustainability is a key theme of the initiative which is supported by a dedicated website. The result is of considerable significance both nationally and internationally.

¹<http://www.educationscotland.gov.uk/learningteachingandassessment/approaches/outdoorlearning/about/cfethroughoutdoorlearning.asp>

Education for sustainable development in higher and further education

Higher and Further Education Institutes in Scotland have a fundamental role in contributing to the understanding of sustainable development related issues - both nationally and internationally - through their research in the main disciplinary areas, e.g. climate and other forms of environmental change, in applied areas such as renewable energy and in more general overviews of sustainable development. They are also of importance for developing solutions to complex challenges that society now faces, and as such are crucial to the economic, social and cultural development of Scotland. Their valuable contribution is highlighted through strengthening institutional partnerships and linkages with industry, and other parts of the education system, seen throughout the Scottish HE/FE sector.

As a result, they are a natural destination for school graduates with an interest in sustainable development; Scottish universities and colleges have responded to the opportunities presented by SD, and to the interest of applicants, by developing specific SD-titled programmes of study and numerous optional and compulsory courses of study to complement other curricular areas.

HE and FE institutions also have a large part to play in preparing graduates for a changing future; demand for sustainable development awareness is not only coming from the students, but from potential employers and organisations, acknowledging the importance of SD skills in their employees to respond to changing markets and future prosperity. As a result, Scottish institutions are responding to this demand through increased emphasis on 'graduate attributes' and employability skills, whilst nurturing student-led initiatives, e.g. sustainability initiatives through societies or NUS "Green Dragons' Den", to develop critical thinking and better equip their graduates for the future.

In the present context, the role of Teacher Education Institutes (TEIs) in training teachers in ESD is the most imminent concern. There is no current requirement for Scottish TEIs to include any detailed coverage of ESD in their programmes, and those that do so include it as an option or as a part of another course. Without input into their training, the level of interest, knowledge and skills teacher graduates possess and are able to deploy in their teaching will always be a matter of chance. However, the General Teaching Council for Scotland, the body that accredits all teachers, is currently reviewing the 'professional standards' for all teachers, and their proposals set out new expectations of the profession to address sustainability in their teaching (GTCS, 2012).

Furthermore, although examples of innovation in HE/FE are seen throughout Scotland, the student experience is still largely mixed, with many academics still viewing ESD as 'another element' to include in the curriculum, rather than embedded as standard practice. Impetus from changes such as revision of teachers' 'professional standards' may influence HE teaching practice in university schools of education, but academic freedom remains a potential challenge to embedding ESD. Development of support for these educators is another aspiration of the RCE.

Education for sustainable development in non-formal education and the community

The importance of sustainable development in Scotland can be seen most evidently beyond the classroom, with a range of initiatives established to encourage local communities to engage with SD. These non-formal education streams have been successful modes of learning and embedding SD across the whole of Scotland, demonstrating a country-wide approach to becoming more sustainable as a nation.

The Environmental Protection Act 1990 specified establishment of the Scottish Government Sustainable Action Fund grant programme to fund research, demonstration projects and other relevant activities in support of sustainable development in Scotland. The Climate Challenge Fund (CCF) forms part of the Sustainable Action Fund which made funding of £37.7million available to communities across the four financial years 2008-12.

Since its creation, the CCF has supported 345 communities across Scotland to take action on climate change. This action includes a wide range of activities, such as increasing energy efficiency of homes and community buildings, helping communities to reduce, reuse and recycle their waste, encouraging the use of low carbon transport and active travel options, and the consumption and production of local foods.

The Scottish Government's spending review has confirmed that the CCF will continue to support communities, making a further £10.3 million available for each of the next three years, until 31 March 2015. A proportion of the future CCF will support projects run by and for young people; this activity will be titled the Junior Climate Challenge Fund.

In addition to Scottish Government funded initiatives, schemes to build sustainable communities have increased in strength over the years, embracing a 'for themselves, by themselves' philosophy, such as those supported through CADISPA (Conservation and Development in Sparsely Populated Areas). Since establishment in 1987, CADISPA has supported grass-roots community-led initiatives across rural Scotland and offered consultancy guidance on how to address sustainability issues in local areas. Their portfolio of projects range from establishing a youth-run Youth Café in Oban, to undertaking a 5-year community planning study in Strathdearn in partnership with Strathdearn Council to enable achievement of the community's strategic SD aspirations.

'Learner-led' ESD in Scotland

At the core of ESD is the learner, with all forms of education leading towards empowering the student or community to make positive sustainable development

decisions. Investment in active participation, peer-led and peer-supported initiatives is recognised in Scotland as crucial to achieving a more sustainable nation, and these core values can be seen throughout established ESD initiatives.

The Scottish Government's 'Learning for Change' action plan outlined the importance of these initiatives through adopting a 'working together' collaborative approach for the second half of the UNDESD, which places community capacity-building at its core. One action outlined was to better support student societies and associations, which led to funding for new student engagement posts located within the National Union of Students and in partnership with People & Planet (see below). These student engagement coordinators provide opportunities to share good practice nationally of both student-led activities and student involvement in estate development, curriculum development and the development of cultural and behavioural change within the communities of institutions.

Another example of grass-roots ESD development can be seen through the 'Learning for Change - Student Vision' 2012 student manifesto, written by students at the University of Edinburgh; the manifesto is a visionary document outlining how students wish to be included in their curriculum development and to further engage staff and students in sustainable development. This autonomous student movement has been well received by the University, and discussions are currently being held on developing next steps and implementation.

There has been an increased student-led SD presence on University campuses around Scotland over the last 5 years, with locally-sourced vegetable-bag schemes, bicycle surgeries, carbon reduction and energy efficiency projects, peer-led academic buddying systems, and language cafes, to name but a few examples.

Investment at the learner or community level is seen to have a positive impact on the overall sense of community, which is seen to improve knowledge transfer and embedding of ESD. Further, schools are seen as places where young people develop knowledge and values which they 'take home', potentially leading to change at the family level. Although currently momentum is high, there is a need for further and wider investment to ensure future longevity, and indeed research is needed to investigate the effectiveness of such processes in the broader transfer of values and actions.

Education for sustainable development in Scotland in a global context

In 1998 in Thessaloniki (Greece) UNESCO established an initiative: 'Reorienting Teacher Education towards Sustainable Development'. Because of Scotland's early progress in ESD a representative from Moray House Institute of Education in Edinburgh was invited to the initial meeting of 10 TEIs, and this involvement has been maintained. The international network has now grown to over 200 universities and teacher education colleges.

In 2004, Learning and Teaching Scotland published a research report for the Sustainable Development Education Liaison Group 'Sustainable Development Education in England, Wales, Northern Ireland and Scotland' (LTS, 2004). This was followed by 'Sustainable Development Education: an international study' (LTS, 2006)², describing progress in ESD in 10 countries and across five continents. Both the reports identify areas of good practice in many other education systems that could be adopted in Scotland and provided a benchmark for developments here. A prominent theme was that developments in ESD could be adversely affected by withdrawal of funding or by change in government policy. Overall, the studies placed Scotland in the leading group in international comparisons. No more recent formal comparisons have been made, but as both reports were carried out before the integration of ESD into Scottish UNDESD plans and the implementation of Curriculum for Excellence, it is likely that Scotland will have maintained its position globally as a leader and innovator. However, much will depend on Scottish Government support and the reviews of professional standards currently being conducted by GTCS (see below), and the conclusion of UNDESD in 2014 would be a suitable time for a further international review.

Notwithstanding this more general success, local processes have to date not been supportive of change in the specific task of re-orienting teacher education in Scotland, and progress has been slow in comparison to many other countries. However, as noted above the current initiative by the General Teaching Council for Scotland in proposing 'Professional Standards for Scottish and Global Sustainability' for all teachers may change this.

Future prospects

UNDESD has served as a stimulus for ESD, building upon both Scotland's rich tradition and the introduction of Curriculum for Excellence. However, as 2014 approaches there is the potential for loss of momentum to occur. There are several aspects of policy practice that should reduce the likelihood of this. For example, in 2011 the Minister for Learning and Skills established two Ministerial Advisory Groups with relevant educational remits:

- The 'Scottish Studies' group has culture, history and language as part of its remit. The Scottish landscape also features and this provides rich opportunities for helping students to understand issues central to climate change, biodiversity and community change in the context of Scottish culture³.
- The 'One Planet Schools' Advisory Group 'brings together sustainable development, global citizenship education and outdoor learning and is intended to help deliver priorities including raising attainment, improving behaviour, inclusion and health and wellbeing'. The clear focus will be on the

² http://www.desd.org.uk/UserFiles/File/new_articles/scotland/sdelg/SDELG%20international_tcm4-306104.pdf

³ <http://www.scotland.gov.uk/Topics/Education/Schools/curriculum/ACE/ScottishStudies>

development of 'whole school approaches to sustainability in schools and enable a sharper, more coherent approach within the context of Curriculum for Excellence', and reflect the general thrust of 'Learning for Change'⁴.

As noted above, whilst Scotland has had a significant role within and beyond the UK in developing a strategic formal education pathway for ESD, progressive educational work has not always been accepted by UK government officials. This will be clear from the outline above and has been emphasised by Borradaile (2004). However, this has gradually changed since the introduction of devolved government in the UK and establishment of separate Scottish Parliament in 1999 which has had both instrumental significance to ESD (through initiatives, resources, events and research) and presentational significance (it is clearly seen as important and mainstream). Throughout the UN Decade for ESD it has become a more significant educational priority, and this has both facilitated and been the result of improved communications between stakeholders and government.

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N.B. A number of government reports are referred to in the text but are not cited as reference sources. These are easily traceable through the title, year and government source.

⁴ <http://www.scotland.gov.uk/Topics/Education/Schools/curriculum/ACE/OnePlanetSchools>

3. Geographical scope - regional characteristics

Scotland is one of four distinct countries that form the United Kingdom of Great Britain and Northern Ireland, which occupies a total area of 78,387km². In addition to the mainland, Scotland comprises of over 790 islands, habitable and uninhabitable, with a total estimated population of 5.22 million (2010).

Scotland boasts a geographically diverse terrain, which can be divided into three distinct areas: the Southern Uplands, the Central Lowlands and the northern Highlands and Islands. Throughout Scotland, there is a variety of topography, spanning from the bed of Loch Morar (300m below sea-level) to Ben Nevis, the highest point in the British Isles (1,344m above sea-level).

The contrast of landscapes and a relatively low population density relative to region size facilitates some degree of alignment with the core principles of sustainable development - inhabitants are surrounded by natural diversity, even in urban areas, making personal connection with nature attainable. This is nationally acknowledged as important for personal and national wellbeing and Scotland's natural heritage is supported by a strong conservation culture. Legislation enacted by Scotland's parliament has recently enshrined in law traditional freedoms of access to the countryside and un-enclosed land (by far the bulk of the land area) for recreational and educational purposes. It has also enacted legislation to enable national parks to be designated and the first two of these have been established. These two measures both support and encourage engagement with Scotland's green spaces and this can only help in promoting an ethic of care and conservation for the natural heritage central to sustainable development.

There is a rich natural resource-base for renewable energy available in Scotland, with wind, wave, tidal and hydroelectricity being the most prominent potential sources. The current Scottish Government have committed to ambitious renewable energy targets, aiming for 50% of all energy generated in Scotland to come from renewable sources by 2020 and to reduce emissions by 80% by 2050.

As identified in the 1992 Rio Declaration, education is crucial in achieving a more sustainable future, and education for the nation is a principle priority in Scotland. This can be seen throughout Scotland's history, from the early Scottish Enlightenment to the current curriculum reform 'Curriculum for Excellence'. Scotland's educational landscape currently comprises of 19 Higher Education Institutions, 41 Further Education Colleges, 371 Secondary schools, 2,095 Primary schools and 151 special schools.

As already highlighted, ESD is culturally embedded within Scotland, with the Scottish Government, NGOs and institutions working together to develop the nation's ESD credentials for a better future. Most of these organisations and networks hold a remit covering the whole of Scotland, and as a result, ESD initiatives very often adopt a nation-wide collaborative approach, frequently supported by the government. A

number of distinct networks of ESD practitioners and educators who work closely on these initiatives already exist, and the aim of RCE Scotland is to build upon these, providing a support structure to encourage further collaboration.

In the case of Scotland, the scale of the country (size and population) and the already existing strong networks working co-operatively in the field make it only appropriate to establish a Scotland-wide RCE – anything other would go against the existing cultural ethos of ESD in Scotland. However, the geographic scale and regional diversity do require careful attention to ensure the RCE is effective. One way the existing Scotland-wide community will be strengthened is through establishing ‘regional satellite groups’. Centred around a community-defined sub-region, these community-led groups of RCE partner representatives will contextualise the development of ESD activity in response to local challenges. Partners in this application (CADISPA, University of the Highlands and Islands and others) are willing to lead and support these groups which will work collaboratively with the central RCE office.

Maps of the region and RCE context within the UK and Europe can be found in Appendix 1.

4. Major Sustainable development challenges of the region

Scotland has a long and successful history in environmental science, conservation and education stretching back to the towering figures noted in the introduction. We continue to be a nation with an international presence in both Environmental Education and Education for Sustainable Development. The tradition and current profile of Scotland is distinct and largely different to other parts of the UK.

Scotland differs radically from its larger southern neighbour, England, culturally, economically, educationally and politically. We have a regional government based in Edinburgh with devolved powers for Health, Education and Training, Local Government, Social Work, Housing, Planning, Tourism, Economic Development, Law and Home Affairs, Police and Fire, The Environment, Natural and Built Heritage, Agriculture, Forestry and Fisheries, Sport and The Arts, Statistics, Transport Sustainable Economic Development, Climate Change and Rural Affairs. There are currently moves for a national referendum to extend these devolved powers perhaps to full independence. This may, in time, pave the way for a less market-led economy to one with more socially oriented goals – a strong tradition in Scottish society and politics. A move to such an economy – preparing people for change – would form a key priority for the proposed RCE.

About 80% of the total Scottish population is based in the 'Central Belt' – the area that includes the two largest cities, Glasgow and Edinburgh (the capital). Here, employment is mostly within the public sector with contributions from financial services, tourism, manufacturing and creative industries. Although there are substantial areas of relative affluence within the region, many urban areas are characterised by high unemployment; dependence on social housing; fuel poverty; social exclusion; poor health, diet and overall life expectancy; urban degeneration, and; a poor skills-base. It is mainly within these specific areas that the future, post-UN Decade focus for Education for Sustainable Development will reside.

Rural Scotland covers more than 90% of Scotland's land mass and is home to approximately 20% of the population. Rural Scotland is diverse, with some areas relatively close to the centres of population in the Central Belt, Ayrshire and Lanarkshire, and around cities in the North East and Inverness, to more peripheral areas in Dumfries and Galloway, the Scottish Borders, the Highlands, Inner and Outer Isles and Northern Isles of Orkney and Shetland. There is diversity within these areas, in terms of population and economic structure, infrastructure and services, water quality, biodiversity, and the potential for adaptation to climate change. This diversity also poses uniquely different challenges in terms of Education for Sustainable Development compared to the Central Belt. The rural economy is based, by and large, on agriculture, forestry, fisheries and an emergent, increasingly successful, aquaculture industry. Due to the extraordinary landscape and the conservation value of the region, tourism, hospitality and nature conservation also make a substantial contribution. Sustainable tourism in rural areas is likely to form a

priority area for the Scottish Government in the short- to medium-term, and one challenge of such developments is to maximise the benefits to the local economy and indeed the learning potential of environmentally-focussed tourism whilst minimising the climate impacts of travel. Agriculture and tourism provide a range of seasonal employment opportunities and currently these are serviced, in no small way, by a flexible workforce recruited from eastern European states which have recently joined the European Union. One challenge common to such rural areas is how to provide attractive, sustainable, employment opportunities for our own, home-grown, school, college and university graduates and to maintain viable communities in some areas of population decline. Nevertheless, what it means to live and work in rural Scotland is very different to how it was even 20 years ago⁵. Traditional industries no longer employ as many people as they did, whilst improved transport links and technology are enabling people to live and work in rural areas where previously they would have had to live in cities. Some rural areas are thriving, whilst others are in demographic and economic decline, experiencing specific problems such as fuel poverty. Many rural communities are shaping their own future through policies and mechanisms that encourage participation and capacity-building, at local and national levels and there is a need to explore further the role of ESD in this process.

Scotland is self-sufficient in its energy needs and continues to exploit considerable, carbon-based oil and natural gas resources derived in the main from the North Sea. This sector provides a range of employment opportunities both in extraction and support (particularly focussed in and around the city of Aberdeen in the north east of the country). The challenge in this industry and a state that benefits from its significant revenues is to educate all concerned that this resource contributes to global warming, is finite and will shortly run-out.

Scotland has a huge potential for renewable energy generation, already leading the United Kingdom in this respect, and can take credit for world-leading technological developments in wave and tidal power and carbon capture and storage. As noted above, we have set impressive targets for reducing our carbon footprint further. Climate change mitigation, therefore, is already a Scottish Government priority. It is the role of ESD to convey this imperative to the population at large and bring about effective behavioural change.

It may be that Scotland may escape some of the more serious implications of climate change. Prolonged drought, as seen currently in southern England, seems a distant prospect - although, flooding is a growing problem in Scotland, as is the potential impact of rising sea-levels and tidal storm surges on sensitive coastal areas and the traditional farming and fishing industries they sustain. However, severe weather events appear to be an inevitable consequence to be borne by all. It is the role of ESD to prepare the population for such unexpected events in a rapidly changing world.

⁵ This was noted by the Rural Affairs and Environment Committee in 2011 (7th Report, 2011, Session 3 SP Paper 659: <http://archive.scottish.parliament.uk/s3/committees/rae/reports-11/rur11-07.htm>

Scotland has an impressive record of scientific research particularly in the environmental sciences. It would be one of the roles of the RCE to promote and share the work already taking place within our institutes in relation to sustainable development: climate change adaptation; green technologies and; climate change mitigation. Further priorities include maintaining established disciplines, enhancing existing areas of research, stimulating new ones and promoting internationally our work in the field of Sustainable Development in general and Education for Sustainable Development in particular.

Challenges for ESD

Harnessing the power of education is a key challenge for Sustainable Development, and bringing about effective institutional and individual behaviour change will form a priority objective for the proposed RCE and for all engaged in ESD in Scotland.

Traditionally Scotland's education system, primary, secondary and tertiary, has been broad-based with less emphasis on specialisation until post-graduate level. Our learners already receive grounding in Education for Sustainable Development and it would be the remit of the proposed RCE to learn from, and build upon, this existing benchmark and network our experiences to the world at large.

As noted earlier, 'Learning for Life' published in 1993, was a key contribution to the development of environmental education in Scotland, recommending that Scotland develop policies that encourage more sustainable lifestyles – locally, nationally and globally. Central to this was the recommendation for an education policy with a strong focus on education that might alert everyone to the importance of the environment in daily life and also to its vulnerability.

In the 1990s, a number of circumstances conspired to prevent many ESD ideas and strategies from being adopted in any more than a piecemeal way in the formal education sector. There were many examples of groups and individuals working towards the fulfilment of the ESD objectives. However, there was no overarching policy in place and no general consensus on the status or value of ESD, and curriculum reform proved slow. Post-2005, there has been a renewed focus on ESD in Scotland and establishing a national RCE would be a testament to the seminal contribution that 'Learning for Life' represented, and both harness this interest and reinvigorate the enthusiasm generated at the time of its publication.

Recent major curriculum reform in the new 'Curriculum for Excellence', has provided a vision for a single Scottish curriculum spanning the age range 3 to 18. In this vision, education would enable all children to develop four capacities to become: *successful learners; confident individuals; responsible citizens and effective contributors to society*. A more holistic, experiential and egalitarian, cross-curricular approach is emphasised, as is the provision of a coherent experience. However, challenges arise in the preparation and dissemination of appropriate ESD curriculum resources and in

the delivery of professional development and training for educational staff. The RCE would be in a position to co-ordinate and facilitate such provision.

It is important to note that ESD in Scotland extends beyond schools and traditional learning environments. It relates to education and learning in its broadest sense, incorporating all aspects of community and business learning. Here too is a challenge – in integrating ESD learning experiences in these contexts so that a coherent message is communicated, developing a sense of a true community of values embracing sustainable development. The RCE would be able to facilitate strategies that will address the challenges involved in focusing ESD throughout the public, private, voluntary and community sectors, thus helping to develop learning at all levels in ways that will help Scotland to move towards a sustainable way of living.

5. The process of RCE development and identification of stakeholders

As mentioned previously, Scotland is fortunate in possessing a strong ethos of Education for Sustainable Development within Scottish Government, much of the education sector (especially at primary level), and charitable bodies. However, despite many of activities being developed, members of the sector feel a distinct need to further connect the activities/organisations to ensure efficient practice and integration of initiatives. At present, there is no single centralised unit aware of all ESD activity, and so it becomes difficult to know what is already available in the sector and where gaps may lie. Most organisations are aware of other connected initiatives, but a true picture of ESD in Scotland is difficult to describe and present.

As a result, it has become increasingly apparent that a national initiative to establish a hub/facilitating unit for ESD would add worth to the sector, increasing understanding of how to develop ESD in the future.

The process of RCE development resulted from our historical involvement and a sequence of key events:

1. Scotland has a long-standing commitment to ESD - [identified in section 2]
2. As a result, The Moray House Institute for Education, which subsequently became the School of Education of Edinburgh University, was invited to join the UNESCO programme to Re-orient Teacher Education to Address Sustainable Development Scotland, and was a founder member in 1998. For many years this was the only UK college at programme meetings.
3. Awareness of the RCE scheme became evident through this involvement.
4. A decision was made to spend some years allowing contemporary Scottish ESD initiatives to develop and fulfil their potential, and to engage in an extended period of informal discussion amongst key stakeholders prior to the more formal consultation process that has led to the present application.

Timeline of recent RCE-specific developments

May 2011

Meetings were held between key ESD colleagues in Scotland, senior University of Edinburgh staff, Scottish Government officials and NGOs to discuss the prospect of a bid to establish an RCE for Scotland.

June 2011

Whilst Prof Charles Hopkins, UNESCO Chair of 'reorienting teacher education to address sustainable development' was visiting Scotland he met with colleagues to discuss ESD in our national context and the role and value of establishing an RCE. During the visit, meetings took place with senior University of Edinburgh staff (host institution), Scottish Government officials and NGOs, and the idea of establishing an RCE in Scotland was raised in a meeting with the Minister for Learning and Skills.

September 2011

University of Edinburgh allocated funding to develop a part-time, short-term post in exploring the idea of establishing an RCE in Scotland.

October-December 2011

Meetings were held among identified potential stakeholders to discuss RCE core objectives and to discuss whether they saw worth in establishing an RCE in Scotland, were interested in becoming a potential member and if so what ideas they had for shaping the RCE structure/potential activities.

December 2011

A Scottish Government-led conference on 'Values in Sustainable Development Education' was held, with over 80 representatives from across the sector, including HE/FE institutions. A presentation was delivered regarding the potential establishment of an RCE in Scotland. There was a positive vote to continue RCE discussions further, and acknowledgement of the potential for an RCE to ensure continued delivery of ESD in Scotland beyond the end of the UN Decade for ESD.

January-February 2012

Interested parties in the sector were contacted *via* email to update on progress and timescales. A call for contributions was issued and those interested were invited to collaborate further in application development. Further discussions were held with interested organisations regarding RCE establishment.

March 2012

Contributions were received from a range of organisations regarding current activities and expressing interest in becoming members of an RCE.

April 2012

An RCE writing group was established, involving 12 key partners, including 3 HE institutions and FE College representation.

A further commitment by the University of Edinburgh, extended the funding of the of the part-time support officer's post potentially to early 2013. The Sustainable Development Education Network (SDEN) allocated new short-term part-time post support for RCE activities.

April-June 2012

Application circulated to the wider ESD community for comment. After revisions put forward by members of the sector, the current application is submitted to the UNU.

August 2012

Confirmation that the University of Edinburgh will provide offices and facilities to establish the centre. The Scottish Government confirms that the funding of SDEN would transfer to the RCE (£10-15k p.a.), and is considering additional support for staffing and conferences if the RCE is approved.

6. Organisations involved and resources

The current formal partnership of 35 organisations includes seven higher education institutions, government agencies, educational bodies and voluntary organisations, with others expected to join in the future.

Current partnership includes official representatives and/or individual members of the following organisations:

Bucksburn Academy, Aberdeen
Co-operative Education Trust Scotland (CETS)
CIC Start Online [sustainable building design and refurbishment]
CIFAL Scotland
Conservation and Development in Sparsely Populated Areas (CADISPA) Trust
Crichton Carbon Centre
Education Scotland
Environmental Association for Universities and Colleges (EAUC)
Eco-Schools Scotland [KSB initiative]
Findhorn College
General Teaching Council (GTC) Scotland
Higher Education Academy (HEA)
International Development Education Association of Scotland (IDEAS)
John Muir Trust [owns and manages land in the highlands and islands of Scotland]
Keep Scotland Beautiful (KSB)
National Union of Students (NUS)
Natural Change [motivating sustainability through interaction with nature]
People and Planet
Planning Aid Scotland
Queen Margaret University
Royal Society for the Protection of Birds (RSPB) Scotland
Scotland's Colleges
Scottish Government
Sustainable Development Education Network (SDEN)
SusTrans [sustainable transport and pioneer of 'safe routes']
The Conservation Volunteers Scotland
Transition [supports community-led responses to climate change]
University of Aberdeen
University of Edinburgh
University of the Highlands and Islands
University of St Andrews
University of Stirling
University of Strathclyde
WWF Scotland
Young Scot [promotes citizenship education to young people]

Further organisation-specific information can be found in Appendix 2.

Categorisation of partners

Formal education:

[Schools] Education Scotland, GTC Scotland, Bucksburn Academy
[FE/HE] Scotland's Colleges, Findhorn College, Queen Margaret University,
University of Aberdeen, University of Edinburgh, University of the
Highlands and Islands, University of St Andrews, University of Stirling,
University of Strathclyde, Higher Education Academy
[Adult] Education Scotland

Non-formal education:

CETS, EAUC, IDEAS, NUS, SDEN

Informal and community education:

CADISPA, CIC Start Online, Findhorn College, John Muir Trust, Planning Aid
Scotland, SusTrans, The Conservation Volunteers, Young Scot

Mixed categorisation:

CIFAL Scotland, Crichton Carbon Centre, KSB, Natural Change, People &
Planet, RSPB Scotland, Scottish Government, WWF Scotland

(N.B. Training is offered by more than 10 of the RCE partners)

The RCE Scotland will strengthen existing networks and collaboration for ESD, incorporating these activities into the RCE remit for further awareness raising and sharing good practice. The RCE also allows for collaboration to be built on, by establishing new links between organisations and facilitating joint funding bids for collaborative projects. The RCE will provide clarity of activities in the sector, through mapping initiatives, whilst also providing a platform to identify gaps in current provisions for future exploration.

Although each member organisation of RCE Scotland has individual funding sources for their core activities, a Scotland-wide collaborative initiative provides opportunity to develop further collaborative initiatives, and therefore additional funding streams, to benefit the whole sector.

It is important to note that as the RCE seeks to engage in a positive manner with all partners to promote ESD it will not be a 'lobbying' body. Seeking to work with Government but remaining politically neutral.

7. Activities and achievements of partners

It is difficult to fully document the scale of ESD activity currently undertaken by partner organisations. Coordination, awareness-raising, and management of activities in a wider ESD in Scotland context are key motivators for establishing an RCE in Scotland.

The Scottish Government 'UN Decade of Education for Sustainable Development' website documents many of the sector's activities such as the Eco Schools initiative, ESD in 'Curriculum for Excellence', and awards schemes. Activities are categorised by education type: Schools, Universities and Colleges, and Community Learning and Development.

<http://www.scotland.gov.uk/Topics/Environment/SustainableDevelopment/UNDecade>

The section below provides a few examples of ESD in practice across Scotland:

- The Scottish Government has a strong commitment to renewable energy and 'green employment'. Their economic strategy includes six strategic priorities, one of which is newly included - the 'Transition to a Low Carbon Economy', which aims for all of Scotland's electricity demand to be met by renewables by 2020, and suggests that a greener economy could support 130,000 jobs by 2020.
- Universities and Colleges Climate Commitment for Scotland (UCCCfS) is a sustainability commitment initiative lead by the Environmental Association of Universities and Colleges (EAUC), which encourages higher and further education institutes to address the challenges of climate change and reduce their carbon footprints. In October 2011, the EAUC achieved 100% sign up to UCCCfS across Scotland. The EAUC also provides support to UCCCfS institutions through facilitating CPD programmes, the Sustainability Leaders Programme and Topic Support Networks, to promote opportunities for sharing best practice and networking.
- As noted in Section 2, the General Teaching Council for Scotland (GTCS) is currently revising the 'Professional Standards' which should soon become part of a national framework for teachers' professional learning and development. As well as teachers' knowledge, skills and abilities, appropriate values and dispositions will be considered in this review. Sustainable development education will be afforded special attention through the only specific subgroup in the review, which is charged with examining and promoting the concepts, principles and practices of sustainability throughout all the Professional Standards.
- The Crichton Carbon Centre works with schools in Dumfries & Galloway to help pupils calculate their school's carbon footprint and take action to reduce

it. To date pupils in 22 schools have reduced their carbon emissions by over 100tCO₂e through projects such as the Carbon Buster Cluster Project; a combination of lessons and activities, followed by practical experience of collecting carbon footprint data using the Schools Global Footprint Calculator.

- The Eco-Schools programme is an international award-based initiative designed to encourage whole-school action for the environment, accrediting schools that make a commitment to continuously improve their environmental performance. The initiative is managed and run through Keep Scotland Beautiful. So far 4,023 Scottish schools have participated in the initiative; 1,428 have been awarded the highest Green Flag Award with a further 2,286 achieving a Silver Award.
- The John Muir Award encourages people to connect with, enjoy and care for wild places. It is the main educational initiative of the John Muir Trust. In 2011, over 10,000 people of all ages and backgrounds achieved the award in Scotland, delivered through over 300 partnerships with a broad spectrum of organisations – from large organisations, such as the Cairngorms National Park Authority, to small local youth clubs. The award is also used to contribute towards the 'Curriculum for Excellence' as a resource highlighting sustainability and global citizenship themes across learning.

Further case studies and contributor-organisation specific information can be found in Appendix 2.

8. RCE Scotland vision and objectives

In Scotland, Education for Sustainable Development (ESD) is a mechanism to inform and encourage us to live more sustainable lives and to contribute to sustainability locally, nationally and globally. ESD encompasses the transmission of values, attitudes, knowledge and skills that enable people to transform their relationship with our planet and with others to ensure our resource use stays within the limits of our planet, and our societies are just and equitable.

Education is about transmission and transformation. The transmission of values, attitudes and skills associated with the ethical discourses of the day and action-learning that enables people to transform their relationship to society and which holds the potential to alter their role or position within it. ESD concerns learning as both transmission and transformation. In Scotland's schools, Curriculum for Excellence embraces all formal and non-formal learning between the ages of 3 and 18 and ESD permeates both within and across each discipline.

In non-formal, community education, learning is used as a 'mechanism to power'; helping people become critically informed and more deeply engaged in the politics of their lives. In such a context the purpose of knowing, of course, is action whether that learning stems from a transmissive or transforming philosophy. ESD, therefore, is about enabling people to act and thereby deliver an outcome that is less harmful to the world and future generations.

While there is good evidence to suggest that ESD activity in Scotland is succeeding in the transmissive aspects of ESD, there is less evidence that all ESD in Scotland is the truly transformative experience we would wish it should be. Our vision is to promote the development of transformative education activity across the wider education sector for the whole Scottish community. If tackled correctly, this will see Scotland working truly collaboratively together for a more sustainable future, with transformative elements (psychological, convictional or behavioural change) fully embedded into standard educational practice, rather than ESD seen merely as transmissive bolt-on.

Our mission, as a UN RCE, is to better understand the nature and form ESD must adopt to reach its full transformative potential. The RCE will work collaboratively with educators and other stakeholders to better understand the nature of transformative education and seek to apply this understanding to education – formal and non-formal – across Scotland.

The RCE will monitor, support, initiate, demonstrate and quality assure the ESD activities conducted across Scotland's institutions and communities; identifying good practice and disseminating the lessons learned to educational professionals and the wider community.

By the close of the first year of operation we will have:

1. Applied for and gained Scotland UN RCE status;
2. Established Scotland UN RCE governance and administrative systems
3. Established the Scotland UN RCE secretariat;
4. Established an effective communication network to exchange information, learning and practice;
5. Develop links with Global RCE Network;
6. Identified funding for 1.5 x FTE members of staff;
7. Developed a forward work plan with key stakeholders.

By the close of the second year of operation we will have:

1. Brought stakeholders together for national collaborative ESD events;
2. Established strategic partnerships with Scottish education agencies and organisations;
3. Begun dissemination of research findings, knowledge, experience and good practice;
4. Initiated Scotland UN RCE partnership projects – in both research and development.

Further RCE Scotland milestones and indicators, including time scales, can be found in Appendix 3.

9. Governance and Management structure

In order to ensure the RCE has future longevity, the Scottish ESD community acknowledge a prescriptive model of governance is restrictive to potential innovation and future unknown challenges.

There is consensus that the following underlying principles of RCE structure should remain constant, comprising two core elements: administration services, and task groups. The manifestation of these elements may change over time, based on the needs of the community. As a result, it is imperative the RCE Scotland can be agile in structure to respond to changing need.

In the first instance, the following government and management structure will be established for the RCE Scotland:

- A consultative group (representation from all member organisations)
- A general management group (smaller stakeholder group)
- Task groups - dependent on the priorities and projects identified by the community and facilitated through the management group
- RCE coordinator(s)

The wider consultative group will meet at least once annually. The general management group is responsible to the consultative group and should meet at least twice annually. Task groups will be established and managed by the general management group on behalf of the wider ESD community. The RCE coordinator will be responsible for general day-to-day activities, as identified in the RCE objectives, and responsible to both the consultative and general management groups.

The RCE itself is a participatory mechanism, largely shaped collectively by the ESD community. Although it is recognised that administration services are required for day-to-day delivery of RCE activities and aims, transparent oversight by the wider community is vital. The RCE should facilitate support needs, identified through wide consultation, rather than prescribe and govern internally.

RCE governance structure in context

In order to facilitate the agility sought for the RCE in terms of potential future growth and development, RCE Scotland will seek charitable status; adopting the infrastructure of the SDEN as its foundation, and transferring the governance and management structure terminology and principles onto the legal structural requirements of the charity.

This offers a very positive opportunity, as it will allow the RCE to avoid initial inevitable 'start-up' difficulties and delays, and save costs. It will ensure transparency of the RCE's structure and ultimate responsibility to the membership, whilst also allowing the RCE to conduct activities independently of the host University; ensuring the RCE is seen as a facility for the whole region and not

belonging to a single institution. This will also enable the RCE to consider rotating its office location amongst host universities or other institutions around the region.

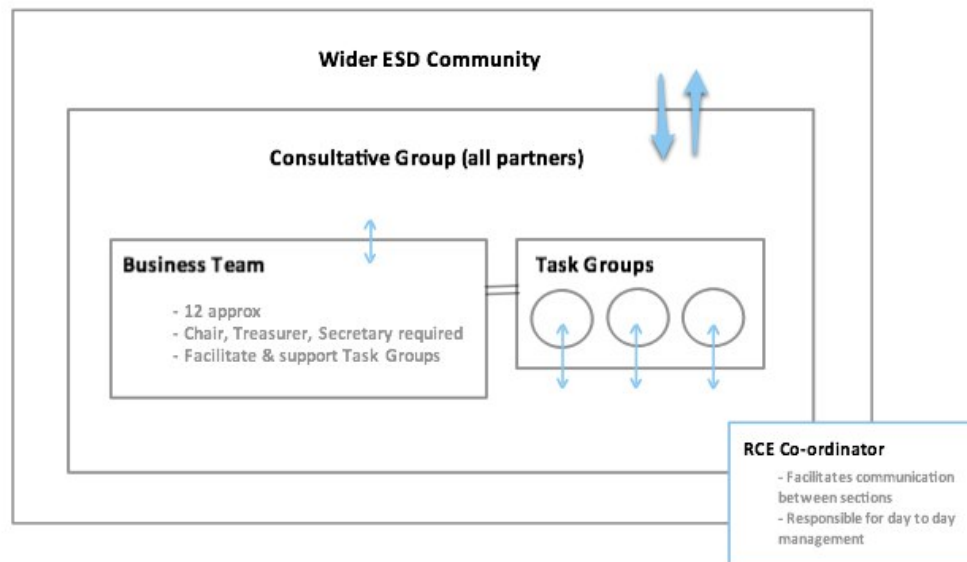


Figure 3: Visual representation of the proposed RCE governance structure with interactions between elements represented in blue.

RCE decision-making

Under UK charity law a board of directors is ultimately accountable for proper financial management of the charity, and its ‘management team’ (or business team) carries out the day-to-day management operations within an agreed budget. In the case of the RCE, establishing this within a university (initially the University of Edinburgh) will provide the structure and stability to allow this to take place.

Although administrative tasks such as payment of salaries and accounts will be maintained by central services of the host organisation, the management team will be responsible for the RCE restricted funds and associated projects. They will also be responsible for monitoring and evaluation structures of RCE Scotland activities.

The management team will initially be selected *via* the Consultative Group, and its initial task will be to establish a constitution that is in-line with UK charity law and the procedures of the University of Edinburgh. The management team will establish a wider ‘consultative group’ (initially those involved in drawing up the present application) and this group and the management team will work collaboratively with the wider ESD community.

Full details will be outlined in the RCE Scotland constitution, subject to successful UNU RCE status.

Development of local satellite groups

As identified in Sections 3 & 4 and in focused consultation with partners working in areas of the region away from main centres of population (e.g. CADISPA & UHI), RCE Scotland will facilitate and support the development of a number of community-identified local networks to respond to challenges identified at a local level, bringing together expertise from the RCE partnership base and wider ESD community, which will feed into wider RCE Scotland activities. These local networks will form a symbiotic relationship with other ESD networks and groups, coordinated through RCE Scotland – learning from and growing with one another to nurture transformative ESD practice across Scotland.

Within each local network, a liaison procedure will be established (e.g. by identifying an individual) to communicate emergent themes and identified activities back to the RCE Centre and *vice versa*. This will allow the RCE to develop responsive strategies, e.g. connecting additional partners with the groups as becomes relevant, identifying funding streams for activity development, or establishing a thematic RCE task group to tackle an emerging Scotland-wide challenge.

The RCE central management team will be responsible for managing and supporting these local networks. It is also envisaged that a representative from each local network, ideally the liaison person, will be a member of the central management team.

10. A portfolio of RCE Scotland projects

It is an ambition of the RCE to stimulate, support and bring about change on the ground. In order to achieve this, the community must be placed at the centre of RCE activities; enabling partners to shape activities based on their needs. This ethos has pervaded the initial project scoping activities, stimulating discussion about what the community needs or desires from an RCE.

RCE project scoping

Assuming our bid to establish an RCE is approved the Scottish Government has proposed that a project-scoping event is held in February 2013, which would also be the first Consultative Group (all partners) meeting of RCE Scotland. Outcomes of this meeting will form the basis of the RCE work-plan and identify initial task groups, in time for the second RCE milestone (March 2013).

However, to capitalise on the current momentum of RCE partners, an initial scoping has been instigated amongst the ESD community to identify any potential projects and activities likely to feature at the February meeting and these are as follows.

Initial RCE projects identified

1. Transformative education

As a core objective of the RCE is to empower further development of transformative education practice, the community must first define what it means by 'transformative education' and then identify examples of this practice to inform future activities. The RCE will facilitate this through building a repository from which the community can draw, e.g. RSPB youth clubs or as found in Appendix 4, to foster transformative education and develop future aspirations for ESD in Scotland.

2. One Planet Schools – future action

The 'One Planet Schools Advisory Group' will report to Scottish Ministers in November 2012. Whilst the recommendations will not be public until then and the Government will subsequently respond it is likely that this will precipitate more integration of these three areas in Scottish schools. In such circumstances significant research, programme development and other opportunities will arise. There is little doubt that this together with the focus on ESD in the GTCS review of professional standards has the potential to bring about significant and widespread change in the Scottish education system.

Given the close alignment of the RCE and One Planet Schools, both in membership and transformative education objectives, it is likely the recommendations submitted by the group will manifest outcomes as actions through the RCE.

3. Initial Teacher Education

One major research and development opportunity is presented by the revision of the 'professional standards' for all teachers, being conducted by the GTCS (proposals outlined on page 22). If teachers are indeed to be required to address sustainability in both knowledge and values in their teaching, this will become a feature of teacher training institutes pre- and in-service provision. Collaborative research across Scottish institutes will allow understanding of the processes and potentially the effectiveness of this work and its impact on schools and pupils. This may become the basis of a major bid to a national funding agency.

4. Teaching & teacher development resources

There are many educational resources currently in existence, which are under-utilised and/or not widely known about, but which would be of value to in wider educational use. This is largely because these resources are dispersed, originating from a large number of organisations and/or collaborations, and have not had the benefit of a central repository for hard-copy or electronic materials. Working closely with its partners, the RCE will initiate a pooling exercise of these resources into an open-access, searchable database.

The same applies to practitioner CPD resources. In addition to collating existing resources, the RCE will identify opportunities for development of additional CPD materials and courses.

5. Climate change & behavioural change

As identified in the Regional Challenges section, tackling climate change through transformative behavioural change education will be of upmost importance over the coming years, especially in line with Scottish Government priorities. Indeed it is a priority of the Government's 'Climate Change Division' which is fully supportive of this RCE proposal. Utilising expertise through this partnership, the RCE should lead research and educational resource development and dissemination in this area.

6. Industry links

Closely aligned with the project above, fostering business linkages for potential job creation, placement schemes and research development should form a thematic project for the RCE, with new industry partnerships identified within a second phase partnership-scoping exercise at the first meeting of the Consultative Group. It is also an aim of the RCE to support ESD experience through RCE partnership schemes, developing new volunteering, placement and research experience opportunities.

7. Research opportunities

The RCE provides a brand new opportunity to focus on ESD research – identifying gaps in our existing knowledge base, pooling existing research that could be of benefit to the wider ESD community, informing future ESD activities, and providing partners with linkages for future research collaboration. This unique opportunity will increase the impact of any research undertaken through increased awareness of existing reports, data-sets and research projects, openly accessible to the whole community. It is also acknowledged that every RCE project is likely to elicit or connect to research activities.

Systems required to support activities

The identified projects and objectives identified (outlined in Section 8) can only be achieved through a collaborative approach between RCE partner organisations and other stakeholders. In order to achieve these goals, mechanisms for information dissemination and current initiative mapping need to be established. The following systems and resources have been identified as crucial in the initial stage of the RCE establishment, on which projects, further collaboration and research can be based:

- Creating the RCE Scotland web-portal
- ESD Activities & Initiative mapping
- Establishment of ESD Community communication channels
- Development of online resources

With these tools as a basis, we aim to establish the following complementary activities to the initial portfolio of RCE projects:

- Development of Sustainable Development courses and programme of seminars/training/webinars
- Research activities
- Student engagement activities and events
- Annual Conferences
- RCE Scotland branding

Further details of these broad activities can be found in Appendix 5.

Additional RCE activities

In addition to these new and potential RCE initiatives, there exist a number of established activities and events which have been developed in a collaborative manner between RCE partner organisations with a view to promote in collaboration with the RCE Scotland, once established. These include:

- ‘Liberating the Curriculum’ - ESD event, 1st June 2012
Collaboration between: EAUC, NUS, People & Planet, and Scotland’s Colleges

- 'Common Cause: Values and Frameworks' - series of events
Collaboration between Common Cause Core Group and SDEN
- 'Student Engagement with Sustainable Development' - series of events
Collaboration between: EAUC, NUS, People & Planet, and Scotland's Colleges
- SDEN seminars, workshops, networking events, and current communication channels, e.g. mailing lists and newsletters
- Annual Scottish Government public seminar on ESD – planned for November 2012

11. Planning a monitoring system

As identified in the previous Governance and Management section, the RCE Scotland aims to adopt structures agile to change, based on the need of the ESD community. As a result, it is pivotal that a clear monitoring and evaluation system is implemented to ensure objectives are being met effectively. Both monitoring and evaluation processes will be seen as integral to everyday conduct of the RCE and viewed as an ongoing process: constantly learning and improving through activities and achievements. The RCE Business Team will be responsible for the management of these systems.

Monitoring through stakeholders, partner organisations, and the wider community will be sought continually, i.e. feedback on RCE activities and progress being made toward achieving objectives and goals, using mechanisms identified in our Governance and Management. Our vision of working collectively ensures ESD Community and stakeholder participation is at the core of our monitoring plan.

Additionally, the RCE Scotland will promote capacity development through utilising and augmenting existing systems and processes. This method aims to reduce duplication, ensuring the RCE complements and enhances existing ESD activity, whilst facilitating new developments if gaps in provision are identified.

Evaluation will be used to determine the extent to which the RCE has achieved its stated objectives, assessing the effectiveness of completed or on-going activities. This will largely be conducted impartially through the consultative and general management groups, with external input sought where required.

Research undertaken through or by the RCE could be used as a supplementary form of evaluation, due to contribution to knowledge of a particular topic.

RCE accountability will be clearly communicated to the ESD Community and stakeholders, ensuring transparency of the monitoring and evaluation system adopted.

12. Financial Resources

The RCE Scotland consists of partners that have their own budgets and human resources, with agreement from the partners to contribute resources in order to carry out the objectives outlined. Under the collective name of the RCE Scotland, member organisations can develop collaborative projects and collectively bid for funding.

The University of Edinburgh has secured initial funding for an RCE Coordinator [0.5 x FTE] for the period 2012 to April 2013. This post is based in the University, where additional resources, e.g. office space, have also been secured and the University has offered to continue to provide such facilities for at least the next two years. Scotland's Colleges have also pledged human resource through contracted arrangements.

The Sustainable Development Education Network (SDEN) has also secured funding for an RCE Administrator [0.3 x FTE] during the same period. The Scottish Government is currently funding the network and if the RCE is approved it intends to transfer such funds to the RCE. It is also considering additional support for further staffing and conferences for at least a two-year period from the beginning of the financial year in April 2013. A budget is being prepared and an announcement will be made in early 2013. Furthermore, due to the strong partnership with the Scottish Government and Scottish Funding Council (SFC) the potential for internal and external funding is promising, especially through identified projects for the RCE.

The strength of partnership between Scottish Universities through the RCE and collaborative initiatives will prove particularly valuable in applications for state-based or charitable trust funding for research.

The establishment of an RCE in Scotland will expand opportunities to apply for funding and obtain resources through an array of sources, currently inaccessible (predominately due to lack of human resources to coordinate) to RCE partners individually. Whilst this approach offers realistic prospects of success the process of seeking additional funding has already begun through SDEN which is currently identifying funding possibilities.

Appendix 1

Maps of the region

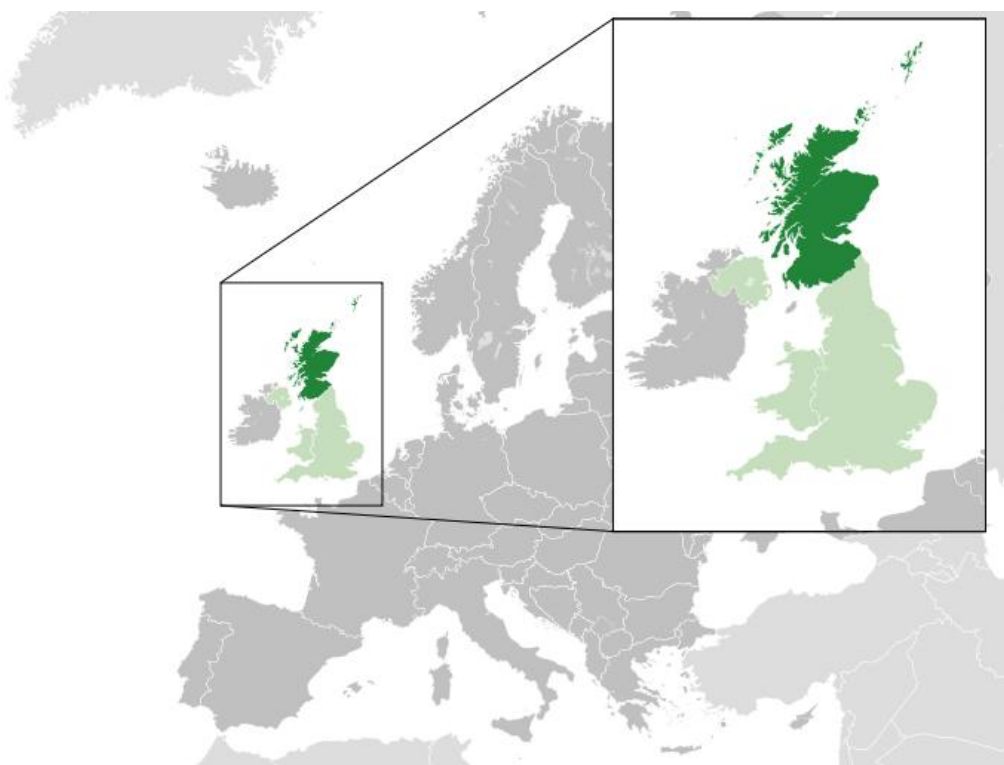


Figure 1: A map to show the location of the RCE Scotland region (dark green) in context of the United Kingdom of Great Britain and Northern Ireland (light green) and Europe (grey)



Figure 2: A map to show the geographical scope of RCE Scotland - the country of Scotland

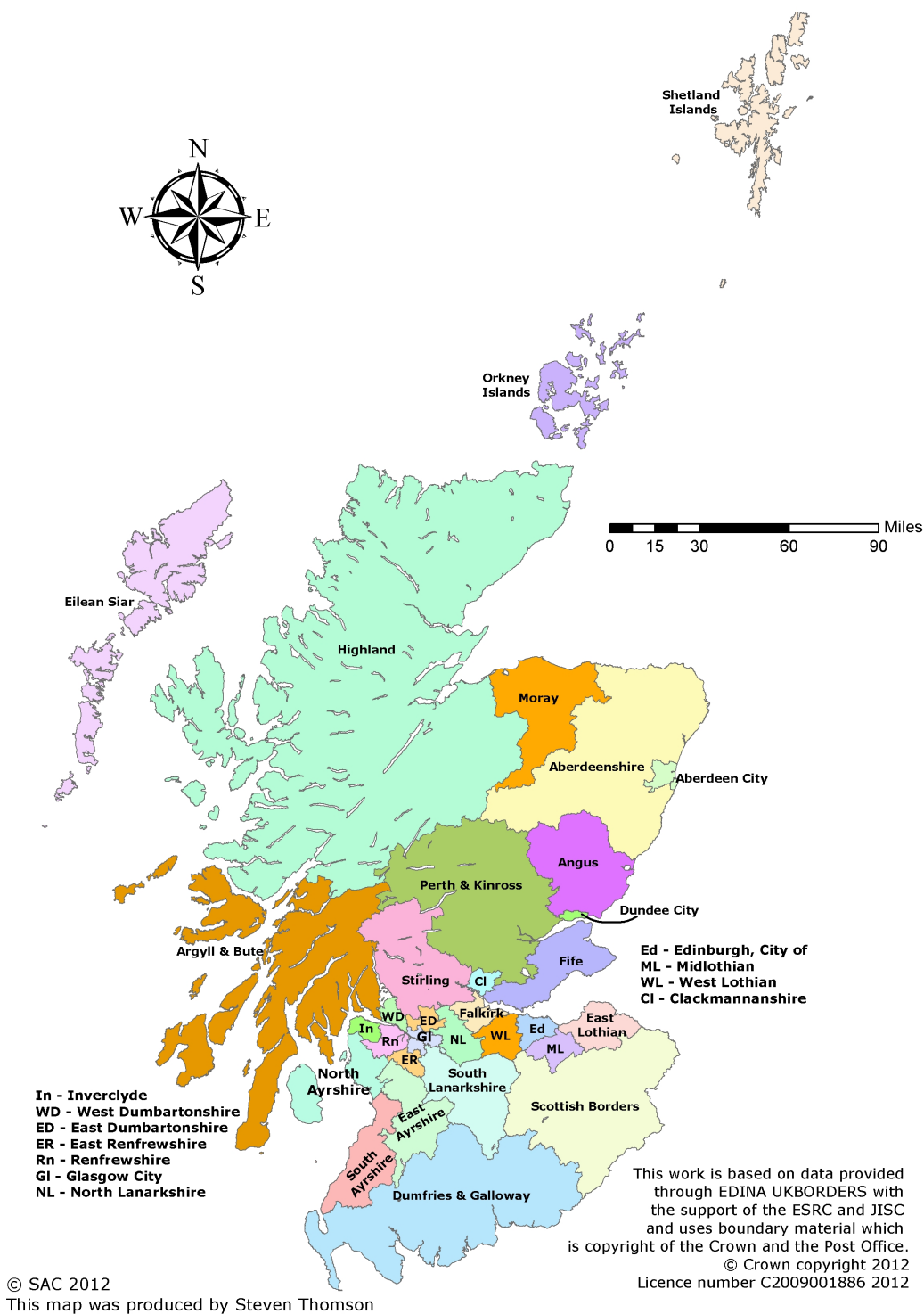


Figure 3: Scotland's Local Authorities
Image: Steven Thomson and SAC (2012). Rural Focus in Scotland Report, p. 8.

Appendix 2

Activities and achievements of partners

This is a continued but not exclusive documentation of achievements and activities of many of the RCE Scotland partner organisations.

As previously identified, core objectives of establishing an RCE are to improve clarity, awareness raising and knowledge transfer of the ESD activities undertaken by partner organisations in Scotland through mapping and communication strategies.

Activities and achievements of partners (continued)

Bucksburn Academy

<http://bucksburnacademy.org.uk>

Buckburn Academy has developed a strong partnership with Scottish Energy representatives, who have supported many of the SD activities undertaken by the academy; for example, The Re-thinking Energy conference held in March 2012 saw representation from many of the major Scottish Energy groups, and Aberdeen Renewable Energy Group sponsored Bucksburn Academy at the All Energy Renewables Conference in May 2012. In addition, several companies offered their expertise and support to the Re-thinking Energy conference, including offering work experience in renewables companies to students and potential Comenius project student sponsorship. Bucksburn Academy also hopes to lead a Comenius project with institutions around Europe, the 'Re-Thinking Energy Project'. These activities aim to increase the knowledge and skills of students and create renewable energy champions.

Co-operative Education Trust Scotland (CETS)

<http://www.cets.coop/>

CETS is an educational charity funded by the co-operative movement whose aim is to support educational establishments in embedding co-operative enterprise education into their curriculum. CETS interdisciplinary approach to Curriculum for Excellence offers thought provoking and practical resources to support teachers.

CIC Start Online

<http://www.cicstart.org/>

CIC Start Online is a joint project of seven Scottish universities, which provides free learning and teaching resources on innovations for sustainable building design and refurbishment in Scotland. The resources can be search through an online knowledge base, which contains resources related to Decision Making, Planning, Design, Construction, Refurbishment and Performance.

CIFAL Scotland

<http://www.cifalscotland.org/>

<http://green-dream.co.uk/>

The Green Dreams initiative encourages Scotland to ask 'What is my Green Dream?' as part of the Rio+20 'The Future We Want' global conversation. People from across Scotland, from academic staff and student to government representatives and local residents, are video recorded expressing their wish for a sustainable future.

Conservation and Development in Sparsely Populated Areas (CADISPA) Trust

<http://www.cadispa.org/>

CADISPA is a non-formal learning charitable Trust that uses transformational learning as the vehicle for sustainable local development. Critical questioning, place-based research and application to action outcomes enable local people to gain a more complete understanding of their community and the influences that impact on its sustainability. CADISPA is a network of over 60 communities all joined by a commitment to networking knowledge and collective problem solving. Knowledge exchange is the key to risk identification, project management and successful process.

Crichton Carbon Centre

<http://www.carboncentre.org/>

The Crichton Carbon Centre has been working with young people for over four years to inspire and empower them to take positive action to reduce their carbon emissions and to act as champions for sustainability in the future. They currently deliver three main projects in schools in Dumfries & Galloway:

- Carbon Buster Cluster Project runs as a combination of lessons and activities, followed by practical experience of collecting carbon footprint data using the Schools Global Footprint Calculator. To reduce their school's carbon emissions, pupils suggest ideas for a Carbon Reduction Action Plan, which they implement with teachers and other relevant staff.
- Carbon Heroes is a collaborative event with the RSPB at Mersehead which gives children an opportunity to explore and develop their climate change knowledge through outdoor activities, including games and wildlife investigation.
- Carbon Buster Workshops are adapted from the Carbon Buster Project, raising awareness of climate change challenges through hands on activities.

Education Scotland

<http://www.educationscotland.gov.uk/>

Education Scotland was established by the Cabinet Secretary for Education in 2011 as the key national body supporting quality and improvement in Scottish education. The new body resulted from the merger of the Government's existing education support agency (Learning and Teaching Scotland, LTS) and Her Majesty's Inspectors of Education (HMIE). As an executive agency of the Scottish Government the role of the organisation is to:

- lead and support successful implementation of the curriculum
- build the capacity of education providers and practitioners to improve their own performance
- promote high quality professional learning and leadership
- stimulate creativity and innovation
- provide independent evaluation on the quality of educational provision
- provide evidence-based advice to inform national policy

Environmental Association for Universities and Colleges (EAUC)

<http://www.eauc.org.uk/scotland>

The EAUC is the sustainability champion for universities and colleges in the UK. EAUC seeks to work with members and partners to drive sustainability to the heart of further and higher education.

Findhorn College

<http://www.findhorncollege.org/index.php>

Findhorn College deliver holistic education for sustainable living, engaging students in transformative education for sustainability and personal empowerment. Courses offered in FE and HE integrate experiential and academic learning within the context of the world renowned Findhorn Foundation community and Eco-village.

General Teaching Council (Scotland)

<http://www.gtcs.org.uk>

The General Teaching Council for Scotland is the world's first independent self-regulating professional body for teaching. It sets standards for teacher training, qualification and continuing professional development and registers those who teach in Scotland.

Higher Education Academy (HEA)

<http://www.heacademy.ac.uk/education-for-sustainable-development>

Education for Sustainable Development forms a core strategic principle of the HEA, responsibility for which is based within the HEA Scotland office (ESD Officer, HEA Scottish Chair). Their aim is to help institutions and subject communities develop curricula and pedagogy to give students the skills and knowledge to live and work sustainably, and enhance graduates' capabilities to contribute to sustainable and just societies. Some of HEA ESD activities include:

- Sustainability in Higher Education Developers (SHED) is the leading cross-sector community of practice for UK ESD, aimed at HEI and FEI staff members. SHED is a collaborative project between HEA and EAUC which disseminates information and stimulates discussion surrounding ESD.
- 'Green Academy: Curricula for tomorrow' was a 2011 collaborative project between HEA, EAUC and NUS, established to help institutions achieve sustainability in the curriculum goals.

International Development Educations Association of Scotland (IDEAS)

<http://www.ideas-forum.org.uk/>

IDEAS is a network of organisations and individuals involved in Development Education and Education for Global Citizenship across Scotland.

John Muir Trust

<http://www.jmt.org/>

<http://www.johnmuiraward.org>

Keep Scotland Beautiful

<http://www.keeptoscotlandbeautiful.org>

Keep Scotland Beautiful is one of Scotland's leading environmental charities. It works across Scotland, from Shetland to the Scottish Borders, cleaning and greening up communities, schools and businesses, and has been doing so since 1970. It works in partnership with all 32 of Scotland's Local Authorities, 1000+ community groups, 3,850 of Scotland's primary and secondary schools, over 100 businesses and empowers in excess of 200,000 individuals annually to assist in community action.

Keep Scotland Beautiful is a committed partner of Government and shares in the government's vision for Scotland to be a cleaner, greener, safer and more sustainable country.

- Eco-Schools Scotland

<http://www.ecoschoolsscotland.org>

The Eco-Schools programme is an international initiative designed to encourage whole-school action for the environment. It is an award scheme that accredits schools that make a commitment to continuously improve their environmental performance. The initiative also acts as a learning resource that raises awareness of SD issues through curricular linked activities, providing a 'vehicle' for the delivery of the Curriculum for Excellence. Currently, Eco-Schools Scotland is committed to develop actions supportive of the Scottish Government's plans for the second half of the UN Decade of Education for Sustainable Development (ESD), 2010-2014, and especially the public engagement strategy elements of the Scottish Government's Climate Change Act, 2009 – 'Low Carbon Scotland: Public Engagement Strategy, 2010'.

- The Climate Challenge Fund

<http://ccf.keepsotlandbeautiful.org/>

The Climate Challenge Fund (CCF) supports community groups, student associations and schools to reduce their CO2 footprint through creating behaviour change towards sustainable development issues, e.g. energy, food and transport. The Student Association of the University of West Scotland was supported to adopt a programme of Carbon Conversations, 'Your money, your planet' courses and a range of activities to encourage action.

Going Carbon Neutral Stirling (GCNS) is a four year project designed to test a model of community based voluntary carbon reduction by working with a range of grassroots community groups, businesses, schools and churches. GCNS is supported by the Scottish Government, the University of Stirling and Stirling Council. To date, GCNS has helped over 12,000 people reduce their carbon footprint with over 30,000 involved in the project. 'Cycle Stirling', a GCNS project, increased awareness and visibility of cycling as an alternative means of transport, encouraging individuals to replace short car journeys with cycle trips.

www.goingcarbonneutralstirling.org.uk

- The Sustainable Scotland Network (SSN)

<http://www.sustainable-scotland.net/>

SSN provides support to a network of sustainable development officers and advocates of sustainability from Scottish local authorities. The programme enables Keep Scotland Beautiful to provide the co-ordination, policy advice, infrastructure, and management support for the network to operate successfully across Scotland. SSN exists to improve local government's contribution to achieving a sustainable Scotland. We work toward this aim by providing an effective support and improvement service on sustainable development. We work to support delivery of the Scottish Government's Sustainable Development programme and the Scottish Government's Climate Change programme:

<http://www.scotland.gov.uk/Topics/Environment/SustainableDevelopment>

National Union of Students

www.nus.org.uk

Led by NUS Scotland, the 'Green Dragon's Den' event offered the opportunity for student teams from across Scotland to pitch their ideas to the 'Green Dragons' on how they aim to make their College more sustainable. From the applicants, 13 entries were supported with funds between £350-£100 and support from the Dragons to initiate the projects.

The Community Action Support Programme (CASP) was a project led through NUS Scotland and funded through the Climate Challenge Fund (CCF), established to build capacity in

Scottish HEIs and FEIs by expanding borders of environmental communities and sharing best practice. Through facilitated networking and training events, communities were empowered to initiate carbon reduction projects with over 29 Scottish institutions (15 colleges and 14 universities) participating. During the project, 145 Energy Ambassadors were trained to do energy audits in their homes and 15 new allotment food growing projects were established.

Natural Change

<http://www.naturalchange.org.uk>

The Natural Change Project motivates sustainability through direct interaction with nature, exploring how experiences of the natural world inspire people to live sustainably. The project was developed as part of WWF-UK's work on 'Strategies for Change' and is based in WWF Scotland. In addition to this personal process, Natural Change also equips participants with the skills, insights and motivation to lead others towards a more sustainable future.

- The programme consists of a series of workshops run over a six-month period. An orientation day is followed by two wilderness residential workshops, and mentoring support is offered through out.
- In 2010/11 a group of leaders from the Scottish education system participated in the project, leading the embedding of sustainability in (Scottish) education.

People & Planet

<http://peopleandplanet.org/scotland>

As part of the Scottish Government's UNDESD action plan, 'Learning for Change', it was identified a stronger sense of sustainability leadership was required in student communities and as a result funded establishment of two People & Planet Student Engagement Officers to be based in NUS Scotland. This has led to further development of collaborative ESD activities across Scottish student associations and unions:

- 'Sustainable Futures' is the main P&P project established to support student associations and societies in universities and colleges to share ideas for sustainability projects and activities on campus. It includes a portfolio of networking and sharing events, online resources and establishment of new volunteering opportunities.
- One such collaborative event is 'Greening the Curriculum' 1st June 2012, which encourages students and staff to discuss ideas of how to embed sustainability into the curriculum, supported by Scotland's Colleges & EAUC.
- Students have also participated in sharing best-practice online through the P&P established Transition Ideas web-forum, which allows students to upload resources on their own sustainability projects.

Planning Aid Scotland

<http://www.planningaidscotland.org.uk/>

Planning Aid Scotland works to help people shape their communities and improve the way people engage with planning.

Queen Margaret University

<http://www.qmu.ac.uk/>

QMU have established a 'Curriculum Working Group' of University colleagues to discuss how to embed sustainability across the University curriculum. The idea is to utilise existing formal channels, such as the Student Experience Committee, whilst identifying new mechanisms for establishing SD good practice and embedding.

Royal Society for the Protection of Birds (RSPB)

<http://www.rspb.org.uk/>

RSPB is Europe's largest wildlife conservation charity.

Scotland's Colleges

<http://www.scotlandscolleges.ac.uk/>

Scottish Funding Council

<http://www.sfc.ac.uk/>

Scottish Government

<http://www.scotland.gov.uk/Topics/Environment/SustainableDevelopment/UNDecade>

Sustainable Development Education Network (SDEN)

<http://www.sdenetwork.org/>

The SDEN is an enabling mechanism to enable more of the education sector to undertake sustainable development education and to support those who are already undertaking it. They also act as an umbrella body for the SDE community to enable members to engage with government on issues related to SDE.

SusTrans

www.sustrans.org.uk/

Sustrans makes smarter travel choices possible, desirable and inevitable. They are the leading UK charity enabling people to travel by foot, bike or public transport for more of the journeys people make every day. They work with families, communities, policy-makers and partner organisations so that people are able to choose healthier, cleaner and cheaper journeys, with better places and spaces to move through and live in.

The Conservation Volunteers (formerly British Trust for Conservation Volunteers)

TCV Scotland runs two projects that contribute to ESD in Scotland:

- Natural Communities: a 3 year project which provides 24 bursaried trainees in Scotland and Northern Ireland with the opportunity to learn and use community environment engagement skills, developed in partnership with a broad range of organisations, including councils, national charities and local community groups.
<http://www2.btcv.org.uk/display/naturalcommunities>
- The Sustainable Communities Mentor Programme offers training and support to individuals in Scotland who want to inspire their communities to take local action and become more sustainable. To date, 120 Community Mentors have been trained throughout Scotland.
<http://www2.btcv.org.uk/display/scmp>

They are also in the process of developing a Youth Workers Training Programme to support youth workers in their ESD delivery.

University of Aberdeen

www.abdn.ac.uk/

The University of Aberdeen recently developed an enhanced study programme to encourage students to develop critical understanding skills through interdisciplinarity and discipline breadth. Sustained study, e.g. new language acquisition or conservation and environment, Sixth Century Courses, and Discipline Breadth all provide students with the opportunity to enrol on sustainable development courses for credit, promoting global citizenship and SD skills development in their students.

University of Edinburgh

www.ed.ac.uk

The university has a long-standing commitment to sustainable development. It has had a strategic-level environmental committee since 1990 and through its planning purchasing and provision has increasingly sought to integrate improvements in energy use, ethical procurement and curriculum across the campus and community. It has a high proportion of research leaders with international reputations working in sustainability topics in both the natural sciences (wind, wave, tidal power, carbon capture and storage) and the social sciences (education, sociology, psychology, health etc.). The university has been recognised nationally for its work in energy management, ethical procurement etc.

Along with a range of sustainability-related undergraduate degree programmes there are many established Master's programmes in the field (e.g. Environmental Sustainability; Environment and Development; Culture, Ethics and Environment; Outdoor Environmental and Sustainability Education) all experiencing rising applications. A range of new programmes (e.g. Carbon Management; Carbon Finance) have also been successfully introduced. Further developments are likely to follow, some broadening the range of specialist degrees, others offering options across several existing programmes.

In 2011, the University of Edinburgh launched the 'Global Academies', a global network of experts developing innovative solutions for the world's most challenging problems, in three distinct areas: the Global Development Academy, the Global Environment and Society Academy (GESA) and the Global Health Academy. The Academies bring together experts from over 25 academic disciplines to engage in global collaborative research to improve the quality of life for people across the world. Establishment of the academies has led to increased sustainable development activity, such as development of interdisciplinary postgraduate degrees - MSc Global Challenges (via online distance learning) - and the undergraduate MA Sustainable Development.

Student engagement with increasing SD activity has been seen through the Student Manifesto, 'Learning for Change' (2012) which highlights the need for a holistic approach to ESD through curriculum development and embedding. The manifesto asks for students to be more involved in shaping their curriculum in partnership with academics and has been well received by the University Senate Committees.

University of Highlands and Islands

<http://www.uhi.ac.uk/en>

The University of the Highlands and Islands (UHI) comprises thirteen further and higher education colleges, specialist colleges and research institutions throughout the Highlands and Islands of Scotland. UHI is Scotland's newest university and is the only university based in the Highlands and Islands. UHI's campus is very different from those in other universities. Students can learn at colleges and research centres, at over 50 local learning centres, or online from home or work. The full partnership has 42,000 students across further and higher education, and the university is developing a strong reputation in certain niche research and teaching areas, many of which reflect the area's unique environment, culture and heritage. UHI delivers several sustainability-focussed courses, including a BSc in Sustainable Development, an MSc in Sustainable Rural Development and an MSc in Sustainable Mountain Development. These courses are delivered fully online and are available to students living anywhere in the world.

University of Stirling

<http://www.stir.ac.uk/>

From the early 1990's and in partnership with the Scottish Environmental Education Council (SEEC) which the University hosted, the University of Stirling have been committed to ESD seen through their research-led curriculum and governance arrangements. The University focuses on key areas relevant to Scotland, the European Union and internationally providing robust theoretical frameworks, high level skill sets and strong networks with key organisations that enhance employability.

Their programmes in *Sustainable Aquaculture* relate directly to food security and rural economic and social development agendas in Scotland, whilst also capacity building in some of the poorest areas of the world. The University is pioneering the idea of heritage in sustainable development – understanding long-term sustainability together with the role of heritage in economic and social development - through their curriculum in *Environmental History*, and working in collaboration with the UK Higher Education Academy and UNESCO World Heritage Site initiatives in developed and developing nations. Other examples include the BA *Professional Education (Primary) with specialism in the Environment* teaches practice to bring ESD directly to the classroom, and the *Environmental Science and Outdoor Education* programme brings hands-on experience of sustainable development to the formal and non-formal education sectors. Their long-standing flagship programme in *Environmental Management* has sustainable development at its core and has graduated hundreds of post-graduate students, the majority of whom have influential positions in key agencies, government departments, NGO's and businesses across the world. Recent developments include CPD programmes in *Environmental Regulation* developed in collaboration with national regulatory agencies, and a suite of postgraduate degree programmes focussed on the energy sector.

University of St Andrews

<http://www.st-andrews.ac.uk/>

The University of St Andrews is pursuing sustainability through a combination of excellence in research and teaching, sustainable operations through the Estates Team, a vibrant student body and support from the Principal's Office. The St Andrews Sustainability Institute has facilitated innovative interdisciplinary research collaborations. The Sustainable Development (SD) Undergraduate Programme at the University of St. Andrews is a unique, interdisciplinary, award winning Programme, and the recently development MSc in SD has also been applauded. The SD Programme is Scotland's flagship higher education sustainability degree programme. Estates are vigorously pursuing a programme to manage carbon and energy use, optimise biodiversity and undertake sustainable procurement.

The Transition: University of St Andrews initiative, led by students and staff, has built the University community around sustainability principles and action, and has reached out to the local town community, recently winning a joint grant for joint sustainability projects. The University has also won acclaim through, for example, the Times Higher Education Award for Outstanding Contribution to Sustainable Development and in the UK Universities that Count 2010 report.

'The end of the world as we know it: Moving forward with postgraduate research in sustainable development' Future Connections Conference 2012, led by the University of St Andrews, is an opportunity for PhD students in Scotland to share sustainable development research from across all disciplines.

WWF Scotland

<http://scotland.wwf.org.uk/>

WWF Scotland is at the forefront of campaigning to change legislation and policy to protect our environment in the UK and worldwide. In Scotland, WWF works closely with Scottish Government, organisations in the environment network Scottish Environment LINK and the coalition Stop Climate Chaos. In education, they change policy and provide support to ensure the education system equips learners to live sustainably, working closely with other environmental and development organisations to achieve this, through the Sustainable Development Education Network (SDEN) - www.sdenetwork.org - and the International Development Education Association of Scotland (IDEAS) - www.ideas-forum.org.uk.

Young Scot

<http://www.youngscot.org/>

Young Scot is the national youth information and citizenship charity for Scotland. They work in partnership with young people, aged 11-26, to give them access to information, ideas and opportunities, helping them to become confident, informed and active citizens.