

‘Education for Sustainability’

The National Strategy on Education for Sustainable Development in Ireland, 2014- 2020



A N R O I N N | D E P A R T M E N T O F
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1. Introduction

This National Strategy on Education for Sustainable Development (ESD) has been developed by the Department of Education and Skills (DES), in consultation with key stakeholders. It provides a framework to support the contribution that the education sector is making and will continue to make towards a more sustainable future at a number of levels: individual, community, local, national and international.

This strategy is primarily influenced by the national strategy on sustainable development, *Our Sustainable Future - A Framework for Sustainable Development in Ireland* (hereafter referred to as *Our Sustainable Future*), which was published by the Department of the Environment, Community and Local Government in 2012. It is also framed within the current context of limited financial resources. The result is an ESD strategy that seeks to challenge individuals, organisations and society as a whole, but particularly in educational contexts, through recommendations that are pragmatic rather than aspirational in nature.

The development of the strategy was informed by a public consultation process that was facilitated by the DES, and by key messages from relevant policy documents and research literature, both national and international.¹ Important policy documents included the United Nations Economic Commission for Europe (UNECE) *Strategy for Education for Sustainable Development* (UNECE, 2005, 2009), the EU Council conclusions on Education for Sustainable Development 2010, and UNESCO's *Education for Sustainable Development – The Global Action Programme after 2014*. This strategy has also been informed by previous work that was undertaken in this area by the DES, supported by ECO-UNESCO, in 2007.

The consultation process, combined with the key messages from research and policy documents, assisted in the identification of the overall objective of the strategy, a set of key principles to underpin that objective, and eight priority action areas (Box 3 below) that are intended to facilitate progress towards achievement of the objective.

1.1 Objective, key principles and priority action areas

The overall objective of this national strategy is outlined in Box 1.

Box 1: Objective of National Strategy

The National Strategy on Education for Sustainable Development aims to ensure that education contributes to sustainable development by equipping learners with the relevant knowledge (the 'what'), the key dispositions and skills (the 'how') and the values (the 'why') that will motivate and empower them throughout their lives to become informed active citizens who take action for a more sustainable future.

¹ The public consultation process consisted of a call for submissions (47 submissions were received: see appendix 2 for full list) and a roundtable session with relevant stakeholders.

This objective emphasises the need for ESD to be an agent for positive change. ESD is therefore viewed as being proactive and transformational. It is education *for* sustainable development rather than education *about* sustainable development (Coriddi, 2008, p.1; Hargreaves, 2008, 69). The objective also envisages a role for those involved in 'education' outside of the formal education system: progress will depend on the participation of a wide variety of stakeholders and educational settings, beyond those which come within the DES remit.

Box 2 sets out the key principles that underpin the overall objective of this strategy. These key principles have informed the development of this strategy. They are relevant to each of the action areas that have been identified as priority areas and they have influenced the recommendations that are made in each of those areas.

Box 2: Key principles

ESD in Ireland will aim to:

- balance environmental , social and economic considerations;
- promote lifelong learning;
- be locally relevant while also linking the local to the national and international;
- engage all sectors of the education system, as well as the non-formal education sector;
- be interdisciplinary and recognise interdependence and interconnectivities across other sectors;
- use a variety of pedagogical techniques that promote active and participatory learning and the development of key dispositions and skills;
- emphasise social justice and equity;
- focus on values and promote active democratic citizenship and inclusion as a means of empowering the individual and the community.
- be an agent for positive change in reorienting societies towards sustainable development.

The eight priority action areas that have been identified as key leverage points to contribute towards achievement of the overall objective of this strategy are outlined in Box 3.

Box 3: Priority action areas

1. Leadership and coordination
2. Data collection and baseline measurement
3. Curriculum at pre-school, primary and post primary.
4. Professional development
5. Further Education and Training
6. Higher Education and Research
7. Promoting participation by young people.
8. Sustainability in action

1.2 Structure of Strategy

This strategy first outlines the policy context for ESD in Ireland. The eight priority action areas are then assessed in terms of challenges and potential opportunities. This leads to a set of recommendations in each priority area which are intended to put the necessary structures and measures in place to facilitate progress towards achievement of this strategy's overall objective. This will in turn contribute to the objective of greater sustainability as outlined in *Our Sustainable Future*.

2. Policy Context for Education for Sustainable Development

This national strategy emerges from a commitment in *Our Sustainable Future* (DECLG, 2012), the overall national strategy on sustainable development. *Our Sustainable Future* defines sustainable development in the following terms:

Box 4: Definition of Sustainable Development

‘Sustainable development’ can be defined as ‘development which meets the needs of the present without compromising the ability of future generations to meet their own needs.’ Sustainable development is characterised as a continuous, guided process of economic, environmental and social change aimed at promoting wellbeing of citizens now and into the future. To realise development of this nature requires creating a sustainable and resource-efficient economy founded on a fair and just society, which respects the ecological limits and carrying capacity of the natural environment (DECLG, 2012, 10).

The objective of *Our Sustainable Future* is to provide for the integration of sustainable development into key areas of policy, to put in place effective implementation mechanisms and to deliver concrete measures to progress sustainable development. It outlines seventy measures that are intended to achieve this objective, ranging from the sustainability of public finances, to climate change and clean energy, sustainable transport, social inclusion and sustainable communities, to education, research and innovation, and skills and training (DECLG, 2012, 21-22). Progress towards meeting these commitments is monitored by the Cabinet Committee on Climate Change and the Green Economy, which is chaired by the Taoiseach.

Our Sustainable Future emerged against a background of increased international awareness of the importance of sustainable development (Coriddi, 2008, 1). Key milestones in this process included the World Commission on Environment and Development (Brundtland Commission) in 1987, the UN Conference on Environment and Development (the Earth Summit) in Rio de Janeiro in 1992, the adoption by the EU of its first Sustainable Development Strategy in 2001, and the UN Conference on Sustainable Development which was held in June 2012 to mark the 20th anniversary of the Earth Summit (DECLG, 2012, 16-18; Hogan and Tormey, 2008, 10; Coriddi, 2008, 1; UNESCO, 2013, 4).

A consistent theme to emerge from these developments is an emphasis on the importance of education, encompassing both formal and non-formal education, as a means of achieving sustainable development (UNECE, 2005, 1; UNECE, 2009, 3; Nevin, 2008, 50; Coriddi, 2008, 1; UNESCO, 2013, 2). ESD has been defined by UNECE (the United Nations Economic Commission for Europe) in the following terms:

Box 5: Definition of Education for Sustainable Development

Education for sustainable development develops and strengthens the capacity of individuals, groups, communities, organizations and countries to make judgements and choices in favour of sustainable development. It can promote a shift in people's mindsets and in so doing enable them to make our world safer, healthier and more prosperous, thereby improving the quality of life. Education for sustainable development can provide critical reflection and greater awareness and empowerment so that new visions and concepts can be explored and new methods and tools developed (UNECE 2005, 1; UNECE, 2009, 15).

The list of policy areas that can be linked to ESD is extensive. These include:

- environmental issues (climate change; disaster risk reduction; biodiversity; environmental protection; natural resource management; urban decay; water security),
- socio-economic issues (economic growth; poverty; food prices; child labour; social exclusion; justice; debt-security; human rights; health; gender equity; cultural diversity; production and consumption patterns; corporate responsibility; population growth; migration) and
- 'political' issues (citizenship; peace; ethics; human rights; democracy and governance) (UNECE, 2005, 4 ; UNECE, 2009, 17).

UNECE compiled an overall strategy for ESD in 2003. In 2005, this strategy was adopted and the UN Decade for Education for Sustainable Development (DESD) was launched, to run from 2005 to 2014 (Nevin, 2008, 51). The DESD aims to integrate the principles of sustainable development into all forms of education and learning and to help realise a change in attitudes, behaviours and values to ensure a more sustainable future (UNESCO, 2012, 10). As part of the DESD, Member States are required to develop and implement a national strategy for ESD.

More recently, in *The Future We Want*, the outcome document of the UN Conference on Sustainable Development in 2012, Member States agreed "to promote ESD and to integrate sustainable development more actively into education beyond the UN Decade of Education for Sustainable Development". Building on this momentum, in November 2013, UNESCO proposed a follow up programme to the DESD, which is due to conclude at the end of 2014. This 'Global Action Programme' seeks to strengthen ESD in every aspect of education, defined in its broadest sense, in order to accelerate progress towards sustainable development (UNESCO, 2013, 4).

This National Strategy on ESD has therefore been developed against a background of growing recognition of the importance of 'education' in achieving sustainable development. It also emerges from a specific commitment in *Our Sustainable Future* and from Ireland's obligation to produce a national strategy on ESD as part of the overall DESD.

3. Priority action areas

Progress towards achieving the objective of this strategy will be pursued through eight priority action areas. These action areas are considered to be key leverage points to advance the ESD agenda in Ireland. They were identified through the public consultation process that informed development of this strategy, and also feature prominently in policy documents and research findings.

The challenges and opportunities in relation to each of these priority action areas are highlighted below. This process informs a number of recommendations in each priority area that are intended to facilitate progress towards achievement of the overall objective of the strategy. The recommendations are informed by the key principles identified earlier (Box 2).

3.1 Priority action 1: Leadership and coordination

There is a considerable amount of activity currently underway in relation to ESD in Ireland.² The view from stakeholders, however, is that there has been a lack of leadership in this area and that there is no ESD ‘champion’ within Government due to the fact that responsibility for aspects of ESD is shared between a number of different Government Departments and Ministers. Stakeholders also identified a need for more effective coordination of existing activity. This involves coordination at a number of levels: between government departments, between NGOs, between the formal and non-formal education (e.g. youth work and community education) sectors, and between all of these stakeholders, so that a consistent leadership approach to ESD is being adopted.

The development of this strategy allows the DES to signal more clearly its lead role in relation to ESD in Ireland. This complements the role of the DECLG in relation to its policy responsibility for the overall sustainable development agenda. Effective coordination could also facilitate the sharing of best practice, stimulate partnerships, and mobilise a wide variety of stakeholders, which have all been identified internationally as essential features of effective ESD (Commonwealth of Australia, 2007, 5; UNECE, 2005, 2, 5-6; UNECE, 2009, 20). The following recommendation is made:

Recommendation 1

An Education for Sustainable Development Advisory Group should be established by the Department of Education and Skills in 2014. The Advisory Group, which should be chaired by a senior official within the Department of Education and Skills, should provide a forum for:

- highlighting existing activity relating to ESD, new developments and resources, and sharing best practice;

² A brief summary of this activity is provided in the analysis document prepared by the DES for the ESD roundtable in November 2013, which is available at www.education.ie/ESD

- making the findings of ESD research available through the proposed ESD web portal (cf recommendation 3), and considering the issues arising from the findings of such research;
- building partnerships and mobilising stakeholders;
- contributing to the planning of an annual ESD forum which will invite a wide range of relevant stakeholders to consider issues arising from the work of the Advisory Group;
- monitoring progress on the recommendations in the National Strategy for ESD, and reporting annually to the High Level Group on Sustainable Development; and
- contributing to a mid-term review of overall progress on the National Strategy in 2017.

The Advisory Group and the associated annual ESD forum will provide an opportunity to coordinate the efforts of those working in areas that are closely related to ESD such as Development Education (DE) (UNESCO, 2012, 17; UNECE, 2009, 17, 40; Nevin, 2008, 56). While this strategy is focused on ESD, it is considered important that the links between ESD and DE should be strengthened. This should be done at a strategic level through the proposed ESD Advisory Group but the following measure is also recommended:

Recommendation 2

The Department of Education and Skills should be formally represented on key structures representing Development Education in Ireland, under the aegis of the Department of Foreign Affairs and Trade, including the World Wise Global Schools Network which aims to coordinate Development Education activities at post primary level, and on the Irish Aid grants committee. Opportunities for advancing Education for Sustainable Development should seek to build synergies with Development Education where this is appropriate.

A related issue that emerged from the consultation process is the need to highlight more effectively what is currently being done to support and promote ESD. The following recommendation is therefore made:

Recommendation 3

The Department of Education and Skills will provide a specific ESD portal on its website, or on the website of one of its agencies, in 2014. This portal should:

- comprise a platform for coordinating and sharing ideas and resources on ESD;
- contain information about the work of the Advisory Group on Education for Sustainable Development (recommendation 1).

NGOs, the youth sector, and other stakeholders may request to have their resources, or information about those resources, included on or linked to this portal. For the purposes of quality assurance, such resources may be reviewed by the Department of Education and Skills, or by an agency nominated by it, before they are accepted

onto the website. However, the Department should act as a facilitator for sharing resources rather than being held ultimately accountable for quality proofing resources. The portal will be maintained by the Department of Education and Skills or an agency nominated by it but the material on the portal will remain the property and responsibility of those who created it.

3.2 Priority action 2: Data collection and baseline measurement

While there is a considerable amount of ESD related activity underway in Ireland, there is a lack of data on specific provision in a number of individual policy areas.³ Data deficiencies arise for a number of reasons, including difficulties in relation to identifying educational and training programmes that are related to sustainable development but which do not have 'sustainable' in their title.

In the absence of a baseline measurement, it is difficult to set targets or measure progress. There is no overall recommendation in this strategy to address this issue. Instead, recommendations are made in a number of priority action areas in order to strengthen data collection, facilitate the establishment of a baseline, and support future target setting.

One existing data collection tool, the 'Lifeskills' survey, provides an opportunity to improve our knowledge of ESD in primary and post primary schools. The DES conducts this survey of all primary and post primary schools every three years. It provides data on a wide range of 'lifeskills' related issues⁴ which help to inform the policy making process. ESD is not reflected in the Lifeskills questionnaire at present. The DES intends to revise the questionnaire in advance of the next survey in 2015. It is therefore recommended:

Recommendation 4

The Department of Education and Skills should incorporate a specific section on sustainable development in the questionnaire that will issue to primary and post primary schools for the 2015 Lifeskills survey. The results of the 2015 survey, which will be published by the Department of Education and Skills, should help to inform future policy making in this area.

³ At the broader level of sustainable development, NESC (2014) have recently pointed to the need to strengthen data collection and data sharing of existing sources across the public sector.

⁴ Eg physical activity and healthy eating, the implementation of Social, Personal and Health Education and Relationships and Sexuality Education, road safety education, and anti-bullying, child protection, and substance use policies.

3.3 Priority action 3: Curriculum at pre-school, primary and post primary

A key objective of this strategy is to provide learners with the knowledge, dispositions, skills and values that will motivate and empower them to become active citizens and take measures to live more sustainably. This involves providing ESD related subject matter content (the ‘what’) but also supporting learners to develop the skills (the ‘how’) and the values (the ‘why’) necessary to empower and motivate them to make sustainable choices. It also prepares learners for the fact that they will often have to make difficult choices involving environmental, social and economic issues. It is not always possible to build consensus when challenging trade-offs are required between the various pillars associated with sustainable development.

The development of learners’ key skills, dispositions, knowledge and values is largely facilitated through the existing curriculum, as well as through the manner in which the curriculum is delivered in the classroom or other educational setting (which is dealt with in the next section).

The views that emerged through the public consultation process in relation to this area were broadly in line with international best practice which advocates: (i) the integration of ESD themes across relevant subjects, and (ii) the provision of ESD specific programmes and courses (UNECE, 2005, 2, 6). The two methods are complementary rather than mutually exclusive, and both methods are being adopted in Ireland.

3.3.1 Pre-School

In the Irish pre-school sector, issues relevant to ESD are reflected in the two key frameworks (*Aistear*, the curricular framework and *Síolta*, the national quality framework). This is particularly important given the potential for this sector to foster principles of sustainable development in young children when they are first learning to make sense of the world in which they live. Recognition of the importance of the early years sector to promoting ESD is still in its infancy internationally (UNESCO, 2012, 34, 37). There is an opportunity therefore for Ireland to be in the forefront in this regard given the existing emphasis on ESD in *Aistear* and *Síolta*.

3.3.2 Primary level

Aspects of ESD are reflected in individual subject areas at primary and post primary level such as Civic Social and Political Education, Social Personal and Health Education, History, Geography, Science, and others.⁵

ESD principles are integrated into the primary school sector where they are reflected in one of the three general high level aims of the Primary School Curriculum, namely

⁵ Eg, Agricultural Science, Business Studies, Home Economics, Religious Education, Engineering, Construction Studies, and Environmental and Social Studies.

“to enable the child to develop as a social being through living and co-operating with others and so contribute to the good of society” (DES, 1999).

The NCCA has initiated a phased review of the primary curriculum beginning with a new Primary Language Curriculum. This represents an opportunity to embed ESD principles into those subject areas, as they are reviewed, where it is most relevant.

An opportunity also exists to promote issues relating to active citizenship and political awareness at primary level through the Blue Star Programme which is supported by the Department of the Taoiseach. This programme is an education initiative for primary school students that seeks to foster better understanding and knowledge of the European Union and how it affects the lives of Irish citizens. A total of 103 primary schools are participating in the initiative in 2013/14.

3.3.3 Post primary level

The integration of ESD into the curriculum is more difficult at post primary level due to the silo-isation of subject areas, different teachers teaching different subjects (Nevin, 2008, 54) and a focus on state examinations, and in particular the CAO ‘points race’ at senior cycle.

However, a significant opportunity exists to promote ESD through the new Framework for Junior Cycle that is to be rolled out by the DES on a phased basis from September 2014 (DES, 2012). This new Framework is underpinned by eight core principles that are intended to be embedded across curricular and subject areas. A number of these principles are relevant to ESD. These include: *ensuring students’ engagement and participation in their learning; fostering creativity and innovation, and ensuring continuity and development, in teaching and learning, promoting inclusive education, as well as a focus on the well-being of the students, school and wider community.* The principles are defined further through twenty four ‘statements of learning’ which students will be expected to acquire during their Junior Cycle. Sustainable Development is prominent in a number of these statements, as highlighted in Box 6.

Box 6: Statements of Learning in Junior Cycle that are relevant to ESD

- Statement 6. [the student] appreciates and respects how diverse values, beliefs and traditions have contributed to the communities and culture in which she/he lives
- Statement 7. [the student] values what it means to be an active citizen, with rights and responsibilities in local and wider contexts
- Statement 9. [the student] understands the origins and impacts of social, economic, and environmental aspects of the world around her/him
- Statement 10. [the student] has the awareness, knowledge, skills, values and motivation to live sustainably

In addition, there is a major emphasis in the new Junior Cycle Framework on ensuring that students develop the type of key skills that have been identified as

being central to sustainable development. These include *critical thinking, analytical skills, creativity in addressing problems, communicating effectively, respecting diversity, and valuing heritage* (UNESCO, 2012, 11; UNECE, 2009, 17). The development of these key skills will enable young people to make informed decisions about issues that affect them and their world.

Another positive development associated with the Junior Cycle Framework is the new 'short course' format which will afford opportunities for NGOs in particular (but also schools and teachers) to develop ESD resources for junior cycle students. One of the first short courses to be developed by the NCCA is Civic, Social and Political Education (CSPE). The CSPE short course includes an emphasis on sustainable living and development. This short course will be available to schools to implement, should they wish to do so, from September 2014.

New opportunities also exist to promote ESD more prominently in the senior cycle of post primary education. For example, the review of senior cycle subjects by the NCCA focusses on five key skills – communicating, working with others, critical and creative thinking, being personally effective and information processing. Developing these skills is central to supporting learners to have the dispositions that will enable them to live more sustainably.

In addition, the NCCA has developed a draft syllabus for a new Politics and Society subject that is proposed as an optional examinable full subject in the Leaving Certificate. The Minister for Education and Skills has recently prioritised the introduction of this subject. Its availability would strengthen ESD in senior cycle and complement the Blue Star Programme at primary level and the CSPE short course in Junior Cycle . It would also appeal to post primary students who have shown an interest in political issues. The International Association for the Evaluation of Educational Achievement found that Irish 14 year olds ranked 7th out of 36 participating countries in an international study exploring young people's active citizenship (International Association for the Evaluation of Educational Achievement, 2011).

Opportunities are also provided through the Transition Year (TY) programme and the Leaving Certificate Applied (LCA) programme⁶. The TY programme in particular provides a means of strengthening the place of ESD in the curriculum through the Transition Units that are part of the programme. These units afford NGOs in particular an opportunity to work with the NCCA to develop resources that schools may choose to use as part of their TY programme. Some NGOs are already active in this area. For example, ECO-UNESCO have developed TY materials that focus on sustainable development related issues such as biodiversity, resource and energy use, as well as Community Development, Sustainable Enterprises and ECO Health and Well Being. It is also open to schools to develop their own TY materials.

⁶ The TY Programme, as endorsed by the DES, includes optional study areas that are relevant to ESD e.g. environmental education, peace studies, politics, community initiatives and voluntary work. The LCA Programme includes a Social Education Module which focuses on social, economic, political and cultural issues.

The extent to which ESD is currently reflected across and within a number of existing curricular areas is often not fully appreciated due to the absence of any mapping of existing ESD related provision. Such an exercise would assist in identifying opportunities for strengthening ESD in the classroom and would also promote linkages between different subject areas.

The following recommendations are made in relation to strengthening ESD principles into the curriculum:

Recommendation 5

The Department of Education and Skills should continue to work with the Department of Children and Youth Affairs to ensure that *Aistear* and *Síolta*, which have the potential to contribute to ESD in the pre-school sector, are mainstreamed into all early years settings.

Recommendation 6

The NCCA should be asked to audit, from a sustainable development perspective, the primary and post primary curriculum by 2017. The audit should identify opportunities for building on existing practice and should identify potential linkages between different subject areas in primary and post primary schools. The results of the audit should be published by the Department of Education and Skills.

Recommendation 7

The DES and NCCA should ensure that ESD principles are integrated into all relevant primary and post primary curriculum areas as the curriculum is reviewed, where this is appropriate. This includes the primary school curriculum, the new specifications for the Junior Cycle Student Award, and the senior cycle curriculum.

Recommendation 8

The Department of Education and Skills should work with the Department of the Taoiseach to support the expansion of the Blue Star programme at primary level and to explore the potential for introducing a similar programme at post primary level.

Recommendation 9

The NCCA should support schools, NGOs, and other interested stakeholders who wish to develop Junior Cycle short courses or Transition Units on issues relevant to ESD through templates, guidelines and other support material, and also promote awareness of existing materials that have already been developed.

Recommendation 10

'Politics and Society' should be introduced as a new Leaving Certificate subject when the NCCA has provided advice to the Minister for Education and Skills on a number of technical issues.

3.4 Priority action 4: Professional development

The previous section highlighted the importance of the curriculum in providing students with the knowledge and skills that will motivate and empower them to behave more sustainably. How this is actually achieved depends on how practitioners in early years settings and teachers in primary and post primary schools in particular deliver the curriculum in their respective educational settings. It is therefore essential to ensure that early years practitioners and primary and post primary teachers are equipped to facilitate this learning process (Hargreaves, 2008, 72; UNESCO, 2012, 22).

3.4.1 Early years practitioners

There are a number of different entry routes for those wishing to become early years practitioners. This encompasses a number of different programmes that are delivered through a variety of different educational institutions and organisations including private providers, County Childcare Committees, Educational and Training Boards, Institutes of Technology, and Universities. Those working as early years practitioners are also afforded opportunities to engage in professional development. However, in contrast to the school sector (see below) professional development in the early years sector is mainly undertaken at the individual's own expense and in their own time.

It is important that ESD is included as a component in the educational and training programmes that are delivered to early years practitioners by institutions and organisations working in this area. However, the absence of a regulatory body for the profession of early years practitioner is a significant challenge to progress in this area. Progress in relation to ESD in the early years sector will therefore be contingent on broader policy developments in this area in the future. This has an impact on the extent to which recommendations can be made in this area at the present time. It is recommended:

Recommendation 11

The Department of Education and Skills should consider the extent to which ESD is comprehended within existing early childhood care and education programmes, in the context of any future review of qualifications that is undertaken in this area.

3.4.2 Initial teacher education (ITE)

Teacher education is a continuum that comprises initial teacher education (ITE), induction, as well as continuing professional development (CPD). There are challenges and opportunities for ESD in all elements of this continuum.

Preparation of primary and post primary teachers in Ireland primarily occurs through the Colleges of Education, Universities and a number of Institutes of Technology. Approximately 3,500 students graduate each year through these institutions.

Some stakeholders expressed the view through the public consultation process that teachers are not adequately prepared to teach ESD in schools since teaching ESD often requires a more innovative and multi-disciplinary approach than other subject areas. Promoting knowledge of ESD and developing the relevant skills involves moving away from more prescriptive modes of teaching that focus on knowledge transfer towards teaching methodologies that facilitate more problem-based, interdisciplinary and collaborative student participation and learning where knowledge is co-created (UNESCO, 2012, 23-26; UNECE, 2009, iii; UNECE, 2005, 6-7).

The integration of ESD principles into ITE curricula has been identified internationally as important to ensuring appropriate teaching and learning in ESD in the classroom (UNECE, 2005, 10-11; Hargreaves, 2008, 71), and France has recently (July 2013) moved to reflect ESD in a new competency framework for teachers.

A number of agencies are already active in this area. The DICE project and Ubuntu network, which are both funded by Irish Aid, are supporting the integration of DE into ITE for primary and post primary teachers respectively. The Environmental Protection Agency has also worked with Marino College of Education to encourage student teachers (primary) to teach about environmental issues.

While there is significant activity in this area, it is currently focussed on the institutions delivering ITE. An additional approach to strengthening ESD in ITE may be to work with the Teaching Council. As part of its remit, the Teaching Council conducts programme reviews of ITE programmes in each institution every 5-7 years. Only those programmes that satisfy a set of criteria receive accreditation (Teaching Council, 2011a and 2011b). An opportunity exists to review those criteria to ensure that they equip graduates with the knowledge, skills and competences necessary to teach ESD. The following is recommended:

Recommendation 12

The Department of Education and Skills should engage with the Teaching Council to ascertain the extent to which the teaching of ESD is comprehended within existing criteria for accreditation of ITE programmes.

3.4.3 Continuing Professional Development for teachers

Continuing professional development (CPD) for teachers is funded by the DES and is mainly undertaken through the Professional Development support Service for Teachers (PDST) and the Education Centre Network. CPD addresses a range of priorities such as facilitating the implementation of new and revised curricular specifications, and supporting the needs of teachers and principals to meet emerging priorities including special needs, social inclusion, and school management expertise.

CPD for teachers currently working in the education system has considerable potential for mainstreaming ESD into the classroom. This is illustrated by the fact that while there are 3,500 graduates from initial teacher education programmes each year, there are 87,000 teachers currently registered with the Teaching Council.

The Education Centre network (comprising 21 full-time and 9 part time centres) also delivers an annual 'summer course' programme to teachers during the months of July and August. The principal objective is the advancement of teachers' pedagogic and management skills. The programme has traditionally been organised for primary teachers, but more recently has been extended to include post primary teachers. A number of summer courses are relevant to ESD e.g. 'Supporting Sustainable Development and Citizenship' (<http://www.intolearning.ie/summer-courses/>). The City of Dublin Education and Training Board's Curriculum Development Unit has also initiated a number of small scale CPD projects focusing on resource development.

However, as in other areas, there is a lack of data on the extent of ESD related activity in this sector. It would be beneficial to identify, in particular, what teachers themselves feel are their key knowledge gaps in relation to ESD in order to inform future CPD provision in this area.

One other important recommendation at international level is the need to create a space for teachers to share experiences in relation to sustainable development (UNECE, 2005, 6, 11). It is considered that this could be facilitated in an Irish context in order to integrate ESD best practice into the classroom.

The following recommendations are made:

Recommendation 13

The Education Centre Network should, in 2015, undertake a survey of current ESD related Continuing Professional Development (CPD) for teachers that is delivered through Education Centres. The Network should also use the opportunity to survey teachers about their training needs in relation to ESD. The results of these surveys would be used to inform future CPD provision for teachers in relation to ESD.

Recommendation 14

The Department of Education and Skills should provide a means for teachers to exchange views on best practice in relation to ESD in the classroom. This may be facilitated through the proposed ESD portal (cf recommendation 2)

3.5 Priority action 5: Further Education and Training

There is a considerable amount of ESD related provision underway in the Further Education and Training sector. There are strategies, structures and commitments in place to support this effort (especially via *Delivering Our Green Potential* (Government of Ireland, 2012), the *Action Plan on Jobs* (DJEI, 2012, 2013, 2014) and *Our Sustainable Future* (DECLG, 2012)). It is not the intention of this strategy to duplicate existing strategies. However, it is important to endorse the work that is underway and to restate the commitment of this sector to fulfil its commitments in this area.

The Further Education and Training sector can contribute to sustainable development in at least two ways. In the first instance, it provides learning opportunities for a cohort of learners who may have left mainstream education prematurely. In addition, this sector has a crucial role to play in developing the green economy which has been prioritised by Government through *Delivering our Green Potential* (Government of Ireland, 2012, 2; DECLG, 2012, 81). The Expert Group on Future Skills Needs estimated in 2012 that more than 10,000 additional jobs could be created in six sub-sectors of the green economy by 2015, provided certain conditions are met (Government of Ireland, 2012, 3). One of these conditions is the availability of a workforce with the appropriate skills required to take advantage of future employment opportunities in this area. As well as having the potential to create employment, the green economy can also contribute to the protection of the environment. It is therefore an important example of how economic interests and environmental concerns often coincide to complement the mutual benefit of both (Government of Ireland, 2012, 5; UNESCO, 2012, 86).

Those individuals who may not have benefited fully from the initial mainstream education experience or who are unemployed and require up-skilling are targeted by the network of Education and Training Boards through full-time programmes such as Post Leaving Certificate courses, the Vocational Training Opportunities Scheme for the unemployed, Youthreach for early school leavers, and part time programmes such as adult literacy, the Back To Education Initiative, and community education programmes. Accessing the potential to develop ESD related knowledge, skills and values among 'back to education' learners in the adult literacy and community education is particularly important in terms of complementing the work of the formal education system and reaching out to wider communities of learners.

SOLAS (formerly FAS) provides training programmes for jobseekers and unemployed persons across a range of sectors. An important element of this provision relates to sustainable energy, including up-skilling programmes in energy efficiency and renewable energy systems (such as domestic gas installation, solar photo-voltaic, biomass, small scale wind systems, and passive house insulation). These programmes are delivered through the ETBs or via the SOLAS managed training centre network.

Sustainable skills relating to energy efficiency and renewable energy systems, as well as the 'green' skill requirements of construction operatives, craftworkers and others,

have been or are being incorporated in the relevant national apprenticeship curriculum, as appropriate. Important training relevant to sustainable development is also being provided through Skillnets, which is funded from the National Training Fund. Skillnets works with groups of companies in the same region/sector in order to address their training needs. A number of networks are providing training relating to 'sustainability' including the Summit Finuas Network, the CITA Skillnet, the Wind Skillnet and the ULearning Skillnet.

The issue of data collection is relevant to this sector also. As in other areas, there is a need to provide an accurate measurement of current ESD related activity. This is difficult given the number of providers involved, and the fact that not all 'sustainable development' provision is clearly labelled as such. The following recommendations are made:

Recommendation 15

The Department of Education and Skills should continue to implement its commitments in *Our Sustainable Future* and other strategies that relate to the full spectrum of adult learners involved in full and part-time programmes in the Further Education and Training sector.

Recommendation 16

The Further Education, Skills and Training sector should continue to respond to the identified needs of the green economy as identified through fora such as the Expert Group on Future Skills Needs.

Recommendation 17

In order to establish a baseline of ESD provision, SOLAS should be asked to report to the Department of Education and Skills in 2015 on the extent of current sustainable development related provision in the Further Education and Training sector. The report should contain recommendations on how to build on existing provision. The report should be considered by the ESD Advisory Group with a view to setting targets for the future and monitoring progress towards their achievement.

3.6 Priority action 6: Higher Education and Research

The higher education system in Ireland comprises the university sector, the technological sector and the colleges of education, all of which are autonomous and self-governing, although substantially funded by the State, as well as a number of independent private colleges (Nevin, 2008, 16).

Some of the challenges that arise in relation to ESD in higher education are similar to those that were identified earlier in relation to the school system, especially at post primary level. These include the extent to which ‘silo-isation’ of subject disciplines prevents a holistic and cross disciplinary approach to be adopted for sustainable development, lack of subject specific ESD content, concerns about the preparedness of lecturers to facilitate the type of participatory learning that is most frequently associated with effective ESD, and the need for a whole institution approach to ESD. Further challenges have been identified in relation to third level research on sustainable development. The need for a whole institution approach at third level is addressed separately (see section 3.8.1). This priority area focuses on the issues of ESD related provision and research in third level institutions.

3.6.1 ESD subject specific content and cross disciplinary provision

As in the school sector, higher education should equip students with the knowledge, skills and values to motivate and empower them to live more sustainably (UNECE, 2009, 18; UNECE, 2005, 5). Two approaches can contribute to this objective: ‘bolt-on’ (adding new programmes and modules containing elements of ESD) and ‘built-in’ (integrating sustainability in and across existing programmes) (UNESCO, 2012, 48; UNECE, 2005, 2, 10). These two approaches can be complementary, as is the case in the school curriculum. At third level, Ireland appears to have been more successful in relation to the ‘bolt on’ rather than the ‘built in’ approach, a common characteristic also at international level (UNESCO, 2012, 49; Wade, 2008, 38-39; Scottish Executive, 2010, 10).

There is a growing body of programmes being provided by third level institutions in areas relating to sustainable development. This includes provision in disciplines such as engineering and architecture, development studies, environmental science, and geography.⁷ The DES is also supporting two PhD programmes relevant to sustainable development: the Earth Systems Institute PhD programme and the TCD-UCD Engineering Structured PhD Programme. Both programmes are intended to produce a critical mass of graduates with strong technical and entrepreneurial skills to drive economic growth and sustainability. In addition, through the Springboard programme, which provides free part-time higher education courses to the unemployed, more than 1,212 places have been filled on courses related to sustainable development.

⁷ A web search of the Qualifax database for third level ‘sustainable’ programmes identified 34 separate programmes from diploma to masters degree level on the National Framework of Qualifications. Data extracted from www.qualifax.ie on 27.02.2014.

While the public consultation process pointed to a lack of integration of ESD into existing third level curricula, progress is being made. Examples include the work of Dublin City University (DCU) through its involvement in the Tempus RUCAS project (Reorienting University Curricula to Address Sustainability). This international project, which involves eleven partner universities within the EU and Middle East, aims to infuse concepts, themes, principles and practices of ESD within programmes across a wide range of disciplines at undergraduate and postgraduate levels. This has resulted in the reorientation of over 150 courses towards sustainability, with a corresponding improvement in graduate competencies in ESD. University College Cork is also organising workshops to explore how best to incorporate more environmental aspects into all courses in the university (submissions to the public consultation process received from DCU and UCC respectively).

In addition, ECO-UNESCO is currently involved as the Irish partner in a European project called University Educators for Sustainable Development (UE4SD) which is being led by the University of Gloucestershire with over 55 higher education partners across Europe. The programme focuses on increasing the professional development of University Educators in ESD competencies and skills.

There is an opportunity to build on progress in the higher education sector. As in other areas, a survey of current ESD related provision would assist in informing future policy. It is also considered important that the growing trend among higher education institutions (HEIs) to introduce ESD related programmes should be supported centrally by the DES and the Higher Education Authority (HEA). Similarly, the efforts of some third level institutions to try and extend ESD principles into existing disciplines should also be encouraged. The following recommendations are made:

Recommendation 18

The Higher Education Authority should be asked to report to the Department of Education and Skills by 2016 on the extent of current sustainable development related provision in third level institutions. The report should be considered by the ESD Advisory Group with a view to setting targets for the future and monitoring progress towards their achievement.

Recommendation 19

Higher Education institutions should seek to introduce more undergraduate and post-graduate programmes that are relevant to sustainable development. They should also explore the potential for introducing principles of sustainable development into existing disciplines.

3.6.2 Research

Research is fundamental to informing policy development in relation to ESD (Commonwealth of Australia, 2007, 6; UNECE, 2009, 20-21). The Government has prioritised a number of sustainable development related themes through the Research Prioritisation Report, 2012 and *Delivering Our Green Potential* (Government of Ireland, 2012, 34-35). The importance of sustainable development related research is also emphasised in *Our Sustainable Future* (DECLG, 2012, 81-82).

Research funding in Ireland is channelled mainly through the Department of Jobs, Enterprise and Innovation, particularly through the Programme for Third Level Research and Innovation (PRTL). The DES also has a third level research budget, and other Departments fund sector-specific research relevant to their areas of responsibility. A number of agencies are also very active in relation to the research agenda. These include the EPA, the Irish Research Council, SEAI, IDA, Teagasc, Science Foundation Ireland, the Marine Institute, Enterprise Ireland and FORFÁS.

Despite Government commitments in this area and the active involvement of a number of Departments and agencies, the public consultation process identified a perceived lack of awareness of, and accessibility to, high-quality ESD-focused research, and a disconnect between ESD research and the needs of industry. These same issues are often raised internationally (UNECE, 2009, 36).

In relation to the perceived lack of ESD related activity, it may well be the case that, as in other areas, the activity that is underway is not being labelled as 'ESD'. The second point identified by stakeholders, about accessibility to ESD related research, is also relevant here. It is considered that what is needed is a forum for highlighting the findings from the research that is being conducted. The final issue, the perceived disconnect between research and industry needs, is increasingly being addressed through the emergence of strategic partnerships between academic institutions and industry. Examples include the Green Way, a Cleantech cluster established by industry, HEIs (DCU and DIT) and public sector agencies in the Dublin region. Its aim is to create jobs and unlock trade opportunities. A Limerick Cleantech Centre, involving the University of Limerick and Limerick Institute of Technology, is also being advanced (Government of Ireland, 2012, 18).

Separate to this, DCU is involved in the Regional Centre of Expertise (RCE) Dublin, which focuses on ESD in the Dublin region. RCE Dublin aims to raise public awareness of ESD through a number of innovative projects. Other examples of centres of expertise include the Dublin Energy Lab and the Environmental Science and Health Institute in DIT. It is important that such collaboration between academic researchers and industry, and other stakeholders, is promoted. Any scope for promoting international cooperation in this area should also be encouraged. The following recommendations are made:

Recommendation 20

The HEA should be asked to report to the Department of Education and Skills on the research that is currently underway, or has been conducted in the past three years, in relation to sustainable development, and the results of this research should be made publicly available. This process could be supported by a forum to disseminate research findings in this area.

Recommendation 21

The Department of Education and Skills should work with the HEA to ensure that sustainable development is one of the priority areas reflected in future calls for research programmes that are funded by the Department.

Recommendation 22

Third level institutions should continue to seek collaborations with industry and other stakeholders through strategic clusters and centres of excellence for sustainable development. Any opportunities for international cooperation between academic institutions at EU level or beyond should also be promoted.

Recommendation 23

The Department of Education and Skills should continue to implement its commitments in relation to research and development that are contained in *Our Sustainable Future*.

3.7 Priority action 7: Promoting participation by young people

ESD also has a key role to play in developing and enhancing participatory democracy, particularly among young people (UNECE, 2005, 5; UNECE, 2009, 18). This can be achieved by promoting greater involvement by learners and young people in the issues and policies that affect them.

The Department of Children and Youth Affairs (DCYA) is currently in the process of developing a number of strategies relating to children and young people. The first strategy is an overall Policy Framework for Children and Young People, 'Better Outcomes: Brighter Futures: *The National Policy Framework for Children and Young People (2014 – 2020)*'. This Strategy, published in April 2014, seeks to coordinate activities across Government for those aged between 0 and 25 years of age. It sets out the Government's objectives for improving children's and young people's lives over the period 2014 to 2020, and how it intends to achieve these objectives. The DES engaged with the DCYA to ensure that ESD is reflected in the over-arching Policy Framework. This overall framework is intended to be supported by a number of strategies that are targeted at particular age cohorts or groups. This includes an Early Years Strategy, a National Youth Strategy, and a National Strategy on Children and Young People's Participation in Decision Making (Participation Strategy)

3.7.1 Children's and Young People's participation

The DCYA has lead Government responsibility to ensure that children and young people are given a voice in the development of policies and services that affect their lives. 'Listening to and involving children and young people' is one of the six transformational goals in *Better Outcomes, Brighter Futures: The National Policy Framework for Children and Young People (2014 – 2020)*. The *Policy Framework* commits to the development and implementation of a National Strategy on Children and Young People's Participation in Decision-Making (2014-2020) and to the establishment of a Children and Young People's Participation Hub by the DCYA to become the national centre for excellence on children and young people's participation in decision-making. This Hub will support implementation of the Participation Strategy through the provision of information and training for Government departments and agencies and the non-government sector.

The Participation Strategy will focus on the everyday lives of children and young people and the places and spaces in which they are entitled to have a voice in decisions that affect their lives and will identify the following priority areas for action:

- Children and young people will have a voice in decisions made in their local communities;
- Children and young people will have a voice in decision-making in early education, schools and the wider formal and non-formal education systems;
- Children and young people will have a voice in decisions that affect their health and wellbeing, including on the health and social services delivered to them;
- Children and young people will have a voice in the courts and legal system.

There are existing structures in place to facilitate participation by children and young people in decision-making that affects their lives. The 34 Comhairle na nÓg are local councils for children and young people (aged 12-17) that give them a voice on the development of local policies and services. The Comhairlí na nÓg are run by local authorities and funded and overseen by the DCYA. The Structured Dialogue process, also supported by the DCYA, provides a national participation and consultation structure for young people aged 15 and 24 to feed into the development of European and national policy.

Participation by young people is also a fundamental element of the green schools and green campus programmes, as well as the energy in education programme (see next section). Another relevant structure is the network of student councils which have been established in 14% of primary and almost all (97%) post primary schools, under section 27 of the Education Act, 1998. The position at primary level has improved since 2009 when it was reported that 8% of respondent schools had councils in place (DES, 2012) but significant further improvement is needed. Student councils provide an opportunity for the voice of students to be reflected in their school environment. There is therefore an opportunity to build on this platform. However, it is first necessary to promote the establishment of student councils in more primary schools, and secondly to ensure that such councils are effective in providing a meaningful voice for primary and post primary students. This could also be complemented by the development of a Parents and Learners' Charter which will ensure that the voices of parents and learners are strengthened more generally in the school system.

The DES is also involved in a significant programme of curricular reform at present. This includes the roll out on a phased basis of the new Junior Cycle Student Awards as well as plans for the reform of the primary curriculum. There is an opportunity to ensure that the voices of students are included in this process.

It is considered important that the DES, in its leadership role in relation to ESD, is proactive in consulting children and young people about new policies and programmes within the education sector. An opportunity exists, through the development by the DCYA of the National Strategy on Children and Young People's Participation in Decision-Making, for the DES to formalise its procedures in this area. As part of this process it would be beneficial to consult young people about their needs, and to highlight their responsibilities, in relation to sustainable development. The Comhairlí na nÓg could be one means of facilitating this. Such a consultation would provide the DES with valuable information to inform future policy making. The following recommendations are made:

Recommendation 24

The Department of Education and Skills should implement where possible the actions and commitments relevant to its remit under the 'National Strategy on Children and Young People's Participation in Decision-Making' (2014-2020).

Recommendation 25

The Department of Education and Skills should encourage more primary schools in particular to establish student councils. It should also review the effectiveness of the existing student council model with a view to improving the involvement of primary and post primary students in the operation of their school. The expertise of the Department of Children and Youth Affairs in consulting young people may be utilised as part of this review.

Recommendation 26

The Department of Education and Skills and the National Council for Curriculum and Assessment should ensure that the voice of students is taken into account when new curricula and specifications are being developed, in particular in relation to the future revision of the Primary School Curriculum and the Junior Cycle Student Awards.

Recommendation 27

The Department of Education and Skills should introduce a *Parents' and Learners' Charter* as soon as possible.

Recommendation 28

The Department of Education and Skills should promote the inclusion of children and young people's voices to a greater extent in the development of new policies and programmes that affect them. It should draw on the expertise of the Department of Children and Youth Affairs in this respect.

Recommendation 29

The Department of Education and Skills (supported by the Department of Children and Youth Affairs) should consult children and young people directly on the issue of Education for Sustainable Development. This consultation process will take place before 2017. It will be used as an evidence base to inform the development of future policy in this area

3.7.2 Young People and Youth Work programmes

Youth (identified in the Youth Work Act, 2001, as those between 10 and 24 years of age) have been identified as key 'change agents' for sustainable development (UNESCO, 2013). The DCYA supports a wide range of youth work programmes and services that are provided by the voluntary youth sector. Youth work is an educational and developmental process, based on young people's active and voluntary participation and engagement. Programmes and services are delivered by the youth sector to approximately 380,000 young people by some 1,400 youth work personnel, who in turn support a volunteer base of some 40,000.

The youth sector is contributing to sustainable development in at least two ways. In the first instance the type of youth work (non-formal education) programmes supported by the DCYA are intended to develop young people's self-esteem and self-

confidence, build their capacity to make informed decisions, help them to develop social awareness and a sense of social solidarity, and enhance their role as active citizens. These programmes provide learning opportunities that enhance and complement young people's formal educational and training experiences and increase their employability. The acquisition of key knowledge and the development of key skills and competencies that will motivate and empower individuals to become more sustainably aware are as relevant in the youth sector as in the formal education system.

Secondly, some of the specific programmes provided by the youth sector have a central focus on sustainable development. These include the National Youth Council of Ireland's Development Education Programme, One World Week (OWW), ECO-UNESCO's Green Pathways programme, the Young Environmentalist Awards, and the 'Youth for Sustainable Development - Global Youth Leaders for Change' programme.

As is the case in other priority areas of this strategy, there is an opportunity to highlight the range of sustainable development related programmes that are currently provided by the youth sector. Given the extent to which ESD and DE can be interlinked in the Youth sector it is proposed that any proposals in relation to ESD should also consider, where appropriate, encompassing DE. This process will facilitate the identification of areas where the role of young people as change agents for a more sustainable future at home and abroad could be strengthened. The following is recommended:

Recommendation 30

The Department of Children and Youth Affairs should conduct a survey of existing programmes that are related to Education for Sustainable Development (ESD), and Development Education (DE) given the extent to which ESD and DE are interlinked in the Youth sector, and report the results to the proposed ESD Advisory Group in 2015. The report should include recommendations for strengthening the role of young people as change agents for sustainable development.

Arising from 'Better Outcomes: Brighter Futures': the National Policy Framework for Children and Young People, DCYA is currently developing a National Youth Strategy. There is an opportunity to ensure that ESD is reflected in this Strategy. The following recommendation is made:

Recommendation 31

The Department of Children and Youth Affairs should reflect the importance of Education for Sustainable Development in the new Youth Strategy that is currently being developed, as well as in the Early Years Strategy due to be published by that Department under the overall National Policy Framework for Children and Young People, 'Better Outcomes: Brighter Futures'.

3.8 Priority action 8: Sustainability in action

The DES and other educational stakeholders are involved in a number of practical measures that are intended to make the education system more sustainable. These include promoting a whole institution approach to sustainability, building sustainable infrastructure, and promoting sustainable travel patterns among students. These measures are assessed below in order to identify challenges and opportunities.

3.8.1 Whole institution approach in the education sector

A whole institution approach is one of the characteristics of effective ESD. It involves the adoption of sustainable development principles by an educational institution as a whole, including students, parents, teachers, managers and other staff as well as outreach to local communities (Hargreaves, 2008).

Ireland is adopting this approach in the primary and post primary school system through the green schools programme which is run by An Taisce, in partnership with the National Transport Authority (in relation to the travel flag) and supported by the DECLG. The green schools programme has been in operation in Ireland since 1997. Its aim is to engage students through classroom study, school and community action to raise their awareness of sustainable development issues. It promotes whole-school action for the environment through a focus on a number of key themes such as litter, waste, energy, water, school travel, biodiversity, Green-Home and citizenship. Some 2,700 primary and post primary schools (approximately 70% of all schools) currently participate in the scheme, and 1,116 of these have already been awarded a Green Flag in recognition of their efforts. Involvement in the programme results in significant benefits to participating schools who can reduce waste to landfill by around 45-50%, electricity consumption by around 17%, gas consumption by 13%, oil consumption by around 2%, water consumption by 38%, private car usage in school travel by around 20% (An Taisce submission to the public consultation process). There is potential to extend the green schools programme to all primary and post-primary schools with support from the DES and to promote the achievement of greater sustainable development in all educational institutions. There is also potential to examine the success of the green-schools programme, in integrating into the school system, in order to identify lessons for other ESD related programmes to follow.

An Taisce has sought to extend the benefits of the green schools programme into other sectors. Over the period 2011-2013 An Taisce supported a Green Pre-Schools pilot programme in conjunction with a number of County Childcare Committees. The potential of the early years sector to contribute to sustainable development was noted earlier and the green pre-school pilot project sought to build on this potential. The pilot project resulted in benefits for participating children in a number of ways including building their sense of citizenship, developing their sense of responsibility, as well as fostering opportunities for creativity. There were also practical benefits for

the participating early years settings in terms of waste reduction, financial savings, and an improved environment (An Taisce, 2013).

The 'green-campus programme' is being rolled out in the further and higher education sectors. At present 18 campuses are formally registered on the programme, with three already having been awarded the Green Flag: GMIT, Castlebar; Coláiste Dhúlaigh College of Further Education, Coolock; and University College Cork, which was the first university in the world to achieve green flag campus status.

There are other programmes available in the school sector, in particular, that complement the whole-institution approach adopted through the green schools programme. These include a number of programmes supported by ECO-UNESCO including the Young Environmentalist awards and the Learning to Change programme in post primary schools. It also encompasses the Yellow Flag Programme which adopts a whole school approach to celebrating diversity and inter-culturalism in the school environment. The Yellow Flag involves schools adopting a practical series of 8 steps that bring issues of inter-culturalism, equality and diversity into the whole-school programme and allows schools to apply them to the day to day running of the school and to build links to the wider community. On completing these steps, and being assessed externally, the participating school is awarded its "Yellow Flag" in recognition of its work in promoting diversity & inclusion.

This strategy affords an opportunity for the DES to forge closer links to the green pre-schools / schools / campus programme and support its extension, as well as exploring means of supporting other programmes that complement the whole institution approach of the green schools programme. The following recommendations are made:

Recommendation 32

The Department of Education and Skills should work with An Taisce, the National Transport Authority (in relation to the travel aspect) and the Department of the Environment, Community and Local Government to support the extension of the 'Green Schools' programme into all primary and post primary schools. The possibility of extending the green pre-schools pilot project on a phased basis to early years settings that are funded by the Department of Children and Youth Affairs should also be explored. As a first step in this regard, the Department of Education and Skills should examine the possibility of extending the green pre-schools pilot into the 40 'Early Start' pre-school units that it funds directly. The extension of the 'Green campus' programme to all further and higher education institutions on a phased basis should also be explored.

Recommendation 33

The Department of Education and Skills should explore the potential for supporting other programmes within the education sector that complement and reinforce the whole institution approach of the green-schools programme.

The introduction of the green campus model is part of a wider international trend to adopt a whole institution approach to sustainability at third level. Different models that have been introduced including the 'Ecoversity' initiative of the University of Bradford (Hopkinson, Hughes and Layer, 2008), or the 'Living Laboratory' model (submission to the public consultation process from the Environmental Pillar). A key characteristic of this development is the opening up of third level campuses to schools and the wider community (UNESCO, 2012, 44, 54). This can extend third level expertise in relation to sustainability issues to a much wider audience. The following recommendation is made:

Recommendation 34

Higher Education institutions should continue to form closer links with schools, the Youth sector, and communities in relation to sustainable development in order to exchange ideas and best practice and in particular to facilitate wider access to the specialist expertise and knowledge on sustainability that is available in third level institutions. The learning from this collaboration could be made available on a national basis.

3.8.2 Sustainable infrastructure

The DES has a significant capital budget (€546 million in 2014) to meet the infrastructural needs of schools and the higher education sectors that in recent years is particularly focused on the delivery of new schools and large scale extensions to meet demographic demand. The DES is at the forefront of design with respect to energy efficiency in school buildings and this has been recognised through several design awards at both national and international level.⁸

As well as designing new buildings that are more sustainable, the DES is also upgrading the energy efficiency of existing school building infrastructure. The summer works scheme is an important element in this work. This scheme devolves funding to individual school authorities to undertake small-scale building works e.g. for upgrading of Gas, Electrical & Mechanical window replacement and roof works that are usually undertaken during the summer months. The scheme also provides that school authorities identify and decide the project that they regard as being a priority to address necessary and immediate works. Over 770 projects have been approved under the 2014 Summer Works Scheme with a total projected expenditure of almost €71 million.

The DES is also partnered with the Sustainable Energy Authority of Ireland (SEAI) on the *Energy in Education* project. It provides a one stop shop based on an energy web portal designed to help school boards of management, principals, teachers, administrators, caretaking staff, pupils, parents, architects, engineers and

⁸ In 2012, DES won 3 awards for Colaiste Choilm in Tullamore including Green Building of the Year award.

contractors to improve energy use practices and to reduce school operating costs along with helping to protect the environment for future generations.

The www.energyineducation.ie website is supported by the Energy in Education Pack, audits, mentoring and SEAI training which provides practical guidance on managing energy in schools, information on involving pupils in the process, case studies and training opportunities. The delivery of the programme, including SEAI training, is supported and promoted by the school patrons and management organisations.

Since the 1st of January 2011 all public sector bodies, including educational institutions, are required to report annually to SEAI on their energy usage, and their actions taken to reduce consumption. The data collated by the SEAI provide an opportunity to monitor the energy efficiency of the education sector. This data could be used to complement the efforts of the DES to strengthen the sustainability of educational infrastructure. The following recommendations are made:

Recommendation 35

The Department of Education and Skills should continue to strive improve the sustainability of new and existing educational infrastructure.

Recommendation 36

The Department of Education and Skills should continue to work with the Sustainable Energy Authority of Ireland to promote the 'energy in education' programme in an effort to improve energy efficiency in schools.

Recommendation 37

The Department of Education and Skills should continue to use the data collated from educational institutions on their energy usage to monitor performance in this area and to inform the development of future measures to strengthen energy efficiency.

3.8.3 Role of DES

This strategy affords the DES an opportunity to underline its commitment to becoming an ESD champion. This can be done by including sustainable development in the mission statement of the Department, its agencies and all of the educational institutions it supports. The DES could also set an example by reporting publicly on its annual energy usage with a view to monitoring and improving its performance in this area. The DES should also aim to make itself as sustainable an organisation as possible. Progress has already been made in this regard, including a number of energy efficiency projects in its main offices and a staff awareness raising campaign on energy usage. The following recommendations are made:

Recommendation 38

The Department of Education and Skills should work with the Sustainable Energy Authority of Ireland and the Office of Public Works to reduce its energy use by 33% by 2020 (from a 2009 benchmark). As a first step, technical assessments should be undertaken in 2015. The results of these assessments should inform the development of a number of projects to further reduce, monitor and manage energy usage in the Department's offices.

Recommendation 39

The Department of Education and Skills should ensure that sustainable development is reflected in its next Statement of Strategy, and that annual energy usage is reported in future annual reports. Sustainable development should also be reflected in future mission statements of the agencies under the aegis of the Department, including all further and higher education institutions. From 2016, each primary and post primary school should reflect sustainable development in its school plan and review compliance with those commitments as part of the normal school self-evaluative process. Inspection reports should, where appropriate, comment on the actions taken by schools to promote sustainable development principles.

Recommendation 40

The Department of Education and Skills should undertake a survey of its employees in 2014 to identify the number who travel to work by sustainable means of transport. Following the results of this survey, the Department should encourage sustainable travel among its employees with a view to increasing the proportion of travelling to work by sustainable means by at least an additional 10% by 2020.

3.8.4 Sustainable school transport

The transport sector in Ireland is a significant contributor to unsustainable practices through emissions of greenhouse gases and air pollutants and increasing congestion on roads. The national policy on sustainable travel is set out in *Smarter Travel - a Sustainable Transport Future*, the National Cycle Policy Framework and the Road Safety Strategy. These policies are aimed at reversing current unsustainable transport and travel patterns, with a key focus on encouraging modal shift by private car (DECLG, 2012, 57-62; Government of Ireland, 2012, 30).

The DES has an important role to play in supporting national policy in this area through the operation of the School Transport Scheme. This scheme provides transport for more than 1140,000 students every school day by using a mix of Bus Éireann and private contractor vehicles, and Dublin Bus, Irish Rail, DART and LUAS. While the primary aim of the scheme is to provide transport to and from school for pupils living at a distance from their nearest school, it also contributes to a reduction in private car journeys during the 'school run' hours and thereby reduces carbon emissions by parents transporting their children to school (DES, 2011).

Efforts are being made to make school transport even more sustainable. Bus Éireann, which operates the scheme on behalf of the DES, has partnered with the SEAI to introduce eco-driving and other energy efficiency methods in order to benefit the environment and make energy savings. Bus Éireann has also become a member of SEAI's Energy Exemplar Partnership Programme, which will see it introduce a number of energy management initiatives as part of the public sector target of a 33% improvement in energy efficiency by 2020.

Parallel to this development, An Taisce supports the 'Green-Schools Travel Theme', funded by the DTTAS through the National Transport Authority (NTA). To support the initiative the NTA produced a "Toolkit for School Travel". As part of this initiative, schools set their own travel targets with the aim of increasing the number of students who are not driven to school. More than 1400 schools have participated in the programme since its introduction in 2008. These schools have reported an average 22% reduction in car journeys to school, and an average 32% increase in walking and cycling rates (www.greenschoolsireland.org).

3.8.5 Sustainable school sites

The DES is also working to ensure that sustainability is built into the planning process for new schools. This is one of the actions in the *Smarter Travel* policy (Department of Transport, 2009, 32). Actions include collaboration with the DECLG to produce the Joint Code of Practice on Provision of Schools and the Planning Process (2008).

The Department has also published technical guidance documents on the "Identification and suitability assessment of sites for Primary and Post-Primary Schools" which sets out the criteria to be used in assessing potential school sites. Mobility and access form part of the criteria used in assessment of site suitability, with reference to Government policy on Transport.

In addition to this guidance on site suitability, the DES is also working with the National Transport Authority and the DECLG to produce guidance on integrated planning and transport for schools. The intention is to supplement the technical guidance on the location and development of schools. It is envisaged that the guidance will refer to the fact that school site location should be considered with a view to promoting the use of a greater variety of modes of transport such as walking or cycling, as well as public transport and car-sharing for trips to and from school.

The following recommendations are made:

Recommendation 41

The Department of Education and Skills, in conjunction with Bus Éireann, should continue to promote the increased energy efficiency of the school transport fleet.

Recommendation 42

The Department of Education and Skills, An Taisce and the National Transport Authority should aim to increase the number of children and young people who travel to school by sustainable means by 20% by 2020.

Recommendation 43

Each school and educational institution should have a travel plan to encourage students to take more sustainable alternatives to the car.

Recommendation 44

The Department of Education and Skills, in conjunction with the National Transport Authority and the Department of the Environment and Local Government to produce guidance on integrated planning and guidance for new school developments by end 2014.

4. Conclusion

This is the first National Strategy on ESD. The development of the strategy in itself signifies progress in this important policy area. It has challenged the DES to assume leadership for the first time in relation to ESD. It is hoped that the leadership of the DES will help to support and coordinate the activities of the many stakeholders that are currently active in this field.

A number of key messages are evident throughout this strategy. These include the need for the following:

- greater leadership and coordination;
- more specific baseline data;
- a clear focus on the need to support learners to acquire the knowledge and develop the key skills and dispositions to enable them to make informed sustainable choices and also prepare them for difficult trade-offs which are often required when hard choices have to be made,
- greater progress in a number of priority action areas, and
- acknowledgement of the progress that is already being made in relation to ESD.

These key messages are relevant to a number of the action areas identified in this strategy. It is intended that the recommendations in each of these action areas (which are extracted in appendix 1) will provide practical means of making progress towards the strategy's overall objective.

Each of the recommendations made in the action areas have been informed by the overall objective of the strategy and the set of nine key principles (Box 2) that underpin that objective.

A particular emphasis is placed on facilitating baseline measurement of existing ESD related provision across the education sector and beyond. This includes specific recommendations for improved data collection in the school sector, the Further Education and Training sector, the Higher Education and research sector, and the Youth and Community sector. The provision of this data will be complemented by data collated from pupils and teachers about their ESD related needs. The collation of such data will inform future policy making in this area, and ensure that future provision is targeted at learners' and teachers' needs. It will also facilitate target setting and the monitoring of progress towards those targets over the lifetime of this strategy and beyond.

The strategy also puts in place key structures that will play a crucial role in relation to monitoring progress under this strategy but which will also provide the leadership and coordination that has been requested by stakeholders through the public consultation process. In particular the establishment of the ESD Advisory Group, chaired by the DES, will strengthen partnerships, information sharing and best

practice in relation to this policy area. It will also signify the importance that the DES attaches to ESD.

It is also anticipated that the measures for highlighting and publicising existing ESD activity and third level research through the specific ESD portal will assist in disseminating key messages about ESD to as wide an audience as possible. Another significant element in this regard will be the encouragement given to third level institutions to continue to reach out to and share the benefits of their expertise with their local communities and to engage in further collaboration with industry in Ireland and with other academic institutions at international level.

It is important to acknowledge that the obstacles to effective ESD are significant. This is the first national strategy which seeks to implement the necessary measures to remove or diminish those obstacles. The scale of the task should not be underestimated. This strategy does not purport to have all of the answers. In particular, it needs to be considered in conjunction with a number of other key policy documents. These include its parent strategy, *Our Sustainable Future*, which is the overarching framework for sustainable development in Ireland as well as *Delivering Green Efficiency*, the *Action Plan for Jobs*, the *National Efficiency Plan*, *Smarter Travel*, and the *National Cycling Framework*.

The number of policies and strategies that complement and support this national strategy on ESD is also a timely reminder of the number of stakeholders with responsibilities in this area. The DES is willing to provide leadership in relation to ESD but it is reliant on the support and cooperation of other Departments, agencies, NGOs and the wider community in order to implement this strategy. It is only by working together that progress will be made towards a more sustainable future. This strategy is intended to provide a framework to facilitate that progress.

Appendix 1: Summary table of recommendations

No.	Recommendation	Responsible
1	<p>An Education for Sustainable Development Advisory Group should be established by the Department of Education and Skills in 2014. The Advisory Group, which should be chaired by a senior official within the Department of Education and Skills, should provide a forum for:</p> <ul style="list-style-type: none"> • highlighting existing activity relating to ESD, new developments and resources, and sharing best practice; • making the findings of ESD research available through the proposed ESD web portal (cf recommendation 3), and considering the issues arising from the findings of such research; • building partnerships and mobilising stakeholders; • contributing to the planning of an annual ESD forum which will invite a wide range of relevant stakeholders to consider issues arising from the work of the Advisory Group; • monitoring progress on the recommendations in the National Strategy for ESD, and reporting annually to the High Level Group on Sustainable Development; and • contributing to a mid-term review of overall progress on the National Strategy in 2017. 	DES
2	<p>The Department of Education and Skills should be formally represented on key structures representing Development Education in Ireland, under the aegis of the Department of Foreign Affairs and Trade, including the World Wise Global Schools Network which aims to coordinate Development Education activities at post primary level, and on the Irish Aid grants committee. Opportunities for advancing Education for Sustainable Development should seek to build synergies with Development Education where this is appropriate.</p>	DES / DFAT
3	<p>The Department of Education and Skills will provide a specific ESD portal on its website, or on the website of one of its agencies, in 2014. This portal should:</p> <ul style="list-style-type: none"> - comprise a platform for coordinating and sharing ideas and resources on ESD; - contain information about the work of the Advisory Group on Education for Sustainable Development (recommendation 1). 	DES
4	<p>The Department of Education and Skills should incorporate a specific section on sustainable development in the questionnaire that will issue to primary and post primary schools for the 2015 Lifeskills survey. The results of the 2015</p>	DES

	survey, which will be published by the Department of Education and Skills, should help to inform future policy making in this area.	
5	The Department of Education and Skills should continue to work with the Department of Children and Youth Affairs to ensure that <i>Aistear</i> and <i>Siolta</i> , which have the potential to contribute to ESD in the pre-school sector, are mainstreamed into all early years settings.	DES / DCYA
6	The NCCA should be asked to audit, from a sustainable development perspective, the primary and post primary curriculum by 2017. The audit should identify opportunities for building on existing practice and should identify potential linkages between different subject areas in primary and post primary schools. The results of the audit should be published by the Department of Education and Skills.	DES / NCCA
7	The DES and NCCA should ensure that ESD principles are integrated into all relevant primary and post primary curriculum areas as the curriculum is reviewed, where this is appropriate. This includes the primary school curriculum, the new specifications for the Junior Cycle Student Award, and the senior cycle curriculum	DES / NCCA
8	The Department of Education and Skills should work with the Department of the Taoiseach to support the expansion of the Blue Star programme at primary level and to explore the potential for introducing a similar programme at post primary level.	DES / Dept of Taoiseach
9	The NCCA should support schools, NGOs, and other interested stakeholders who wish to develop Junior Cycle short courses or Transition Units on issues relevant to ESD through templates, guidelines and other support material, and also promote awareness of existing materials that have already been developed.	NCCA
10	'Politics and Society' should be introduced as a new Leaving Certificate subject when the NCCA has provided advice to the Minister for Education and Skills on a number of technical issues.	DES / NCCA
11	The Department of Education and Skills should consider the extent to which the teaching of ESD is comprehended within existing early childhood care and education programmes in any future review of qualifications that is undertaken in this area.	DES
12	The Department of Education and Skills should ascertain the extent to which the teaching of Education for Sustainable Development is comprehended within existing criteria for accreditation of ITE programmes.	DES / Teaching Council
13	The Education Centre Network should, in 2015, undertake a survey of current ESD related Continuing Professional Development (CPD) for teachers that is delivered through Education Centres. The Network should also use the	DES / Education

	opportunity to survey teachers about their training needs in relation to ESD. The results of these surveys will be used to inform future CPD provision for teachers in relation to ESD.	Centres
14	The Department of Education and Skills should provide a means for teachers to exchange views on best practice in relation to ESD in the classroom. This may be facilitated through the proposed ESD portal (cf recommendation 2)	DES
15	The Department of Education and Skills should continue to implement its commitments in <i>Our Sustainable Future</i> and other strategies that relate to the full spectrum of adult learners involved in full and part-time programmes in the Further Education and Training sector.	DES
16	The Further Education and Training sector should continue to respond to the identified needs of the green economy as identified through fora such as the Expert Group on Future Skills Needs.	DES / SOLAS / ETBs
17	In order to establish a baseline of ESD provision, SOLAS should be asked to report to the Department of Education and Skills in 2015 on the extent of current sustainable development related provision in the Further Education and Training sector. The report should contain recommendations on how to build on existing provision. The report should be considered by the ESD Advisory Group with a view to setting targets for the future and monitoring progress towards their achievement.	DES / SOLAS
18	The Higher Education Authority should be asked to report to the Department of Education and Skills by 2016 on the extent of current sustainable development related provision in third level institutions. The report should be considered by the ESD Advisory Group with a view to setting targets for the future and monitoring progress towards their achievement.	DES / HEA
19	Higher Education Institutions should seek to introduce more undergraduate and post-graduate programmes that are relevant to sustainable development. They should also explore the potential for introducing principles of sustainable development into existing disciplines.	DES / HEA / 3 rd level institutions
20	The Higher Education Authority should be asked to report to the Department of Education and Skills on the research that is currently underway, or has been conducted in the past three years, in relation to sustainable development, and the results of this research should be made publicly available. This process could be supported by a forum to disseminate research findings in this area.	DES / HEA
21	The Department of Education and Skills should work with the Higher Education Authority to ensure that sustainable development is one of the priority areas reflected in future calls for research programmes that are funded by the	DEA / HEA

	Department.	
22	Third level institutions should continue to seek collaborations with industry and other stakeholders through strategic clusters and centres of excellence for sustainable development. Any opportunities for international cooperation between academic institutions at EU level or beyond should also be promoted.	DES / HEA / 3 rd . level institutions
23	The Department of Education and Skills should continue to implement its commitments in relation to research and development that are contained in <i>Our Sustainable Future</i> .	DES
24	The Department of Education and Skills should implement where possible the actions and commitments relevant to its remit under the National Strategy on Children and Young People's Participation in Decision-Making (2014-2020)	DES
25	The Department of Education and Skills should encourage more primary schools in particular to establish student councils. It should also review the effectiveness of the existing student council model with a view to improving the involvement of primary and post primary students in the operation of their school. The expertise of the Department of Children and Youth Affairs in consulting young people may be utilised as part of this review.	DES / DCYA
26	The Department of Education and Skills and the National Council for Curriculum and Assessment should ensure that the voice of students is taken into account when new curricula and specifications are being developed, in particular in relation to the future revision of the Primary School Curriculum and the Junior Cycle Student Awards.	DES/ NCCA
27	The Department of Education and Skills should introduce a <i>Parents' and Learners' Charter</i> as soon as possible.	DES
28	The Department of Education and Skills should promote the inclusion of children and young people's voices to a greater extent in the development of new policies and programmes that affect them. It should draw on the expertise of the Department of Children and Youth Affairs in this respect.	DES / DCYA
29	The Department of Education and Skills (supported by the Department of Children and Youth Affairs) should consult children and young people directly on the issue of Education for Sustainable Development. This consultation process will take place before 2017. It will be used as an evidence base to inform the development of future policy in this area.	DCYA
30	The Department of Children and Youth Affairs should conduct a survey of programmes that relate to Education for Sustainable Development (ESD), and Development Education (DE), given the extent to which ESD and DE are interlinked in the Youth sector, and report the results to the proposed ESD Advisory Group in 2015. The report should include recommendations for strengthening the role of young people as change agents for sustainable development.	DCYA
31	The Department of Children and Youth Affairs should reflect the importance of Education for Sustainable	DCYA

	Development in the new Youth Strategy that is currently being developed, as well as in the Early Years Strategy due to be published by that Department under the overall National Policy Framework for Children and Young People, 'Better Outcomes: Brighter Futures'.	
32	The Department of Education and Skills should work with An Taisce, the National Transport Authority (in relation to the travel aspect), and the Department of the Environment, Community and Local Government to support the extension of the 'Green Schools' programme into all primary and post primary schools. The possibility of extending the green pre-schools pilot project on a phased basis to early years settings that are funded by the Department of Children and Youth Affairs should also be explored. As a first step in this regard, the Department of Education and Skills should examine the possibility of extending the green pre-schools pilot into the 40 'Early Start' pre-school units that it funds directly. The extension of the 'Green campus' programme to all further and higher education institutions on a phased basis should also be explored.	DES / DTTS, DECLG
33	The Department of Education and Skills should explore the potential for supporting other programmes within the education sector that complement and reinforce the whole institution approach of the green-schools programme	DES
34	Higher Education institutions should continue to form closer links with schools, the Youth sector, and communities in relation to sustainable development in order to exchange ideas and best practice and in particular to facilitate wider access to the specialist expertise and knowledge on sustainability that is available in third level institutions. The learning from this collaboration could be made available on a national basis.	3 rd . Level institutions
35	The Department of Education and Skills should continue to strive to improve the sustainability of new and existing educational infrastructure.	DES
36	The Department of Education and Skills should continue to work with the SEAI to promote the 'energy in education' programme in an effort to improve energy efficiency in schools.	DES / SEAI
37	The Department of Education and Skills should continue to use the data collated from educational institutions on their energy usage to monitor performance in this area and should inform the development of future measures to strengthen energy efficiency.	DES
38	The Department of Education and Skills should work with the Sustainable Energy Authority of Ireland and the Office of Public Works to reduce its energy use by 33% by 2020 (from a 2009 benchmark). As a first step, technical assessments should be undertaken in 2015. The results of these assessments should inform the development of a number of	DES / SEAI / OPW

	projects to further reduce, monitor and manage energy usage in the Department's offices.	
39	The Department of Education and Skills should ensure that sustainable development is reflected in its next Statement of Strategy, and that annual energy usage is reported in future annual reports. Sustainable development should also be reflected in future mission statements of the agencies under the aegis of the Department, including all further and higher education institutions. From 2016, each primary and post primary school should reflect sustainable development in its school plan and review compliance with those commitments as part of the normal school self-evaluative process. Inspection reports should, where appropriate, comment on the actions taken by schools to promote sustainable development principles.	DES / DES agencies / schools
40	The Department of Education and Skills should undertake a survey of its employees in 2014 to identify the number who travel to work by sustainable means of transport. Following the results of this survey, the Department should encourage sustainable travel among its employees with a view to increasing the proportion of travelling to work by sustainable means by at least an additional 10% by 2020.	DES
41	The Department of Education and Skills, in conjunction with Bus Éireann, should continue to promote the increased energy efficiency of the school transport fleet..	DES/ Bus Eireann
42	The Department of Education and Skills, An Taisce and the National Transport Authority should aim to increase the number of children and young people who travel to school by sustainable means by 20% by 2020.	DES /DTTS / An Taisce / NTA
43	Each school and educational institution should have a travel plan to encourage students to take more sustainable alternatives to the car.	All educational institutions
44	The Department of Education and Skills, in conjunction with the National Transport Authority and the Department of the Environment and Local Government to produce guidance on integrated planning and guidance for new school developments by end 2014.	DES / NTA / DECLG

Appendix 2: List of submissions received through the public consultation process

1. Tina Neylon, EcCoWeLL Cork
2. Charlotte Holland, School of Education Studies, Dublin City University
3. Bernadette Connolly Cork Environmental Forum
4. Eddie Conlon and Iacovos Nicolaou, College of Engineering and Built Environment, Dublin Institute of Technology
5. Mark Coyne, Dalkia
6. Edmond Byrne, School of Engineering, University College Cork
7. Patrick Boylan, Toilet Revolution
8. Rosalind Duke; Orla Kelly, Church of Ireland College of Education
9. Audrey Bryan, St. Patrick's College, Drumcondra
10. Vaughan, Lisa. Enterprise Ireland
11. Anne Dolan, Mary Immaculate College
12. Liam Kilbride, Presentation Education Office
13. Maria Barry, Trócaire
14. Fiona Hennessy, Waterford/Wexford ETB
15. Tony Williams, Irish Landscape Institute
16. Conor Norton, Dublin Institute of Technology
17. Frank Geary, IDEA - Irish Development Education Association
18. Nikita White, UNICEF Ireland
19. Colm Regan, Tony Daly DevelopmentEducation.ie
20. Deirdre Hogan, Ubuntu Network
21. Rodd Bond, Netwell Centre, Dundalk Institute of Technology
22. WorldWise Global Schools
23. Aidan Clifford, CDETBDU
24. FridaBesong, School of Education Studies, Dublin City University
25. Eamonn Parker, FADA
26. Ferdia Kelly, Joint Managerial Body
27. Amanda McCloat & Helen Maguire, Home Economics Department, St. Angela's College, Sligo
28. Tom Roche, Just Forests
29. David Malone, Environmental Action Alliance-Ireland
30. MagsLiddy, RCE Ireland, University of Limerick
31. Professor John O'Halloran, School of Biological Earth and Environmental Sciences, University College Cork
32. Aoife Cannon, Sustainable Energy Authority of Ireland (SEAI)
33. Heike Vornhagen, Galway One World Centre
34. Valerie Duffy, The National Youth Council of Ireland
35. Siobhan Egan – Birdwatch
36. David Rose, Presentation Ireland
37. Elaine Nevin, ECO-UNESCO
38. Michael Ewing, Environmental Pillar
39. Dr. Michael John O' Mahony/ Birgit O' Driscoll An Taisce
40. Peter Cullen, QQI

41. Rose Kelly, Afri
42. Sr. Maureen O' Connell, Presentation Justice Network
43. Assoc.Prof. Hugh Kelley, Dr. Nadine Jeserich, Department of Economics,NUI, Galway
44. Ruth Collier
45. David O'Brien
46. Sarah O'Malley
47. Senan Gardiner

Appendix 3: List of participants at the ESD roundtable

Participant	Organisation
Maria Barry	Trócaire
Sinead Begley	Sustainable Energy Authority of Ireland
Frida Besong	School of Education Studies, Dublin City University
Edmond Byrne	School of Engineering, University College Cork
Annette Cahalane	Environmental Protection Agency
Aoife Cannon	Sustainable Energy Authority of Ireland
Eddie Conlon	College of Engineering and Built Environment, DIT
Mark Coyne	Dalkia
Barrie Curley	School of Biological Earth and Environmental Sciences, UCC
Tony Daly	DevelopmentEducation.ie
John Dolan	Department of Education & Skills
Martin Duggan	Joint Managerial Body
Siobhan Egan	Birdwatch
Katy Egan	Presentation Ireland
Michael Ewing	Environmental Pillar
Kevin Forde	Department of the Environment, Community and Local Government
Frank Geary	Irish Development Education Association
Margaret Healy	Presentation Education Office
Fiona Hennessy	Waterford/Wexford ETB
Charlotte Holland	School of Education Studies, Dublin City University
Liam Kilbride	Presentation Education Office
Frank Lewis	Department of Education & Skills
Helen Maguire	St. Angela's College, Sligo
Amanda Mc Cloat	St. Angela's College, Sligo
Kevin McCarthy	Inspectorate, DES
Mary McCarthy	WorldWise Global Schools
Aishling McGrath	WorldWise Global Schools
Jeanne Moore	National Economic and Social Council of Ireland
Carmel Mulcahy	School of Education Studies, Dublin City University
Elaine Nevin	ECO-UNESCO
Jacovos Nicolaou	College of Engineering and Built Environment, DIT
Conor Norton	Dublin Institute of Technology
David O'Brien	
Deirdre O'Carroll	Environmental Education Unit, An Taisce
Miriam O'Donoghue	CDETBDU
Micheál Ó Gríofa	The Teaching Council
Majella OShea	National Council for Curriculum and Assessment
Ciara Phelan	Department of Jobs, Enterprise and Innovation
Tom Roche	Just Forests
Margaret Ryan	Department of Foreign Affairs and Trade
Yvonne Ryan	Environmental Education Unit, An Taisce
Tony Williams	Irish Landscape Institute

Appendix 4: Acronyms used in the Strategy

BUSI - Build Up Skills Ireland
CDU/CDETBoard - Curriculum Development Unit/ City of Dublin Education and Training Board
CSPE - Civic, Social and Political Education
D/CYA - Department of Children and Youth Affairs
D/ECLG - Department of the Environment, Community and Local Government
DCU – Dublin City University
DE - Development Education
DES - Department of Education and Skills
DESD – United Nations Decade for Education for Sustainable Development
DFAT – Department of Foreign Affairs and Trade
DICE - Development & Intercultural Education within Initial Teacher Education
DIT - Dublin Institute of Technology
DJEI – Department of Jobs, Enterprise and Innovation
EE - Environmental Education
EPA – Environmental Protection Agency
ESD - Education for Sustainable Development
ESS - Environmental and Social Studies
ETBs - Education and Training Boards
FETAC - Further Education and Training Awards Council
HEA - Higher Education Authority
IDEA – Irish Development Education Association
IoT - Institute of Technology
NCCA – National Council for Curriculum and Assessment
NGOs - Non-governmental organisations
NTA - National Transport Authority
NUIG - National University of Ireland, Galway
NYCI - National Youth Council of Ireland
OWW - One World Week
PRTL - Programme for Research in Third-Level Institutions
QQI - Quality and Qualifications Ireland
QUB - Queen's University Belfast
RCE - Regional Centres of Expertise
RUCAS - Reorient University Curricula to Address Sustainability
SD – Sustainable Development
SEAI - Sustainable Energy Authority of Ireland
SOLAS (formerly FAS) - Further Education and Training Authority in Ireland
SPHE - Social, Personal and Health Education
STEM - Science, Technology, Engineering and Mathematics
TCD - Trinity College Dublin
TUs – Transition Units

TY - Transition Year

UCC - University College Cork

UL - University of Limerick

UN – United Nations

UNESCO – United Nations Educational, Scientific and Cultural Organization

UNICEF - United Nations Children's Fund

WWGS - WorldWide Global Schools

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