

Children and the Outdoors

CONTACT WITH THE OUTDOORS AND NATURAL HERITAGE AMONG CHILDREN AGED 5 TO 12:
CURRENT TRENDS, BENEFITS, BARRIERS AND RESEARCH REQUIREMENTS

Commissioned Report by the Heritage Council



An Chomhairle Oidhreachta
The Heritage Council



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I look after my 3 dogs
6 hens and 2 ducks and
my cat and play
with them

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Section A: Introduction

Studies on childhood have documented its changing nature and highlighted the impact of changing lifestyles, urbanisation and the commercialisation of children's activities on children's experiences of play. Research shows that fewer children play outdoors and outdoor play is increasingly centred on the home, rather than the countryside, parks and beaches. Although evidence suggests that available opportunities for outdoor play have an impact on children's play patterns, especially in the creation of safe spaces to play, other factors – including parents' anxieties about children's safety and the changing nature of childhood – also play a key role. The importance of play and participation in cultural and artistic life is well recognised as fundamental to children's health, development and wellbeing; along with the right to education and to health, play is a right of the child under the Convention on the Rights of the Child (CRC), to which Ireland is party. The United Nations Committee on the Rights of the Child considers that play should involve children having both space and opportunity to play outdoors unaccompanied in a diverse and challenging physical environment; opportunities to experience, interact with and play in natural environments and the animal world; and opportunities to explore, understand and shape the cultural and artistic heritage of their community (Committee on the Rights of the Child, 2013). Moreover, the child's education must be directed to, amongst others, 'the development of respect for natural environment' (art 29(1)), rights which are instrumental to the conservation of natural heritage. Research shows that providing safe, outdoor spaces for children to play and explore is linked to good physical and mental health. Children's rights are indivisible and inter-connected; there are strong connections between the child's rights to health, to education and to play. Central to this study, too, is the child's right to a say on matters that affect him/her. In this regard, this study about children's experiences of the outdoors is not only about children, it is a study with children and for them.

The principal objective of this research project is to review existing research and relevant literature around contact with the outdoors and natural heritage for children aged 5 to 12, from the perspective of children's rights to education, health and wellbeing. This includes analysing current trends and identifying gaps in the research on this subject, particularly in the Irish context. Through this process, the project aims to:

- (i) Present an understanding of the barriers and constraints to ensuring children's enjoyment of their rights to contact with the outdoors and natural heritage;
- (ii) Identify the impacts and precise benefits to children of contact with the outdoors and natural heritage holistically, including health, education, social and environmental perspectives;
- (iii) Develop precise recommendations for further research and for specific measures for supporting children's engagement with the outdoors and natural heritage.

This research report is divided into four main sections. First, we introduce the research, outline what we mean by the natural environment and where this fits into children's worlds. We describe the methodology for the research, having outlined its children's rights base. Second, we introduce the relevant law and policy framework against which any advocacy around children and the outdoors must be set. Third, we outline the benefits of the child-nature connection, the barriers to being in nature and current trends to address these barriers, from Irish and international resources and evidence. Finally, we present the findings of our fieldwork – children's perspectives on their relationship with the natural environment. We conclude with recommendations for further research and advocacy.

Natural environments

Natural environments 'are those which in contrast to the built environment contain living and non-living material. They include rivers, lakes, forests, the atmosphere, coastlines, caves and mountains' (Natural England Report, 2012). Research on everyday experiences of children in natural environments identifies the following places: woodlands, urban green public spaces, outdoor green domestic spaces (e.g. gardens), school grounds and wild areas (Gill, 2014). Natural environments share common characteristics: they are usually open to the elements, contain growing vegetation and wild animals, and are somewhat removed from adult control (Maudsley, 2007). Some studies have asked children themselves to identify important places when playing outside: different types of natural environments were listed (Francis and Lorenzo, 2002, Table 1).

Affordances - how environments are viewed by children

Children perceive spaces and outdoor environments based on how they can be used: they have a functional view of the world (Heft, 1988) and children see opportunities for play everywhere (Glenn et al., 2013). An affordance is what the environment offers or suggests to the child and how the child perceives the potential in the environment. The concept of affordances (Gibson, 1979) has been applied to good effect as a way of describing and identifying children's ways of playing and places for play. How the child uses the environment is dependent on the child's ability to perceive and act on the affordance. For example a toddler might see a hole in the ground and see an opportunity to climb into it whereas an older child may see the same hole and see opportunities for jumping over it. The affordance of the hole could be both a place for climbing and a place for jumping over. Usually the affordance matches the child's level of ability and it changes as the child develops (Lynch, 2012). Outdoor affordances are more flexible and varied than indoor affordances, and are characterised by unpredictability: for example the natural environment changes through the seasons, affording different experiences of temperature, wind, light, and smells. Natural environments also afford children with opportunities to experience varied emotions (Maudsley, 2007). For example, children can experience fascination, and joy or fear and anger from paddling in the waves by the sea. This document will draw from work on affordances as a way of presenting barriers, trends and benefits in relation to understanding children's lives.

Affordances have been applied in researching natural environments with children resulting in a rich body of work that captures more effectively how children engage with the outdoors (Hart, 1979, Heft, 1988, Fjortoft and Sageie, 2000, Kytta, 2003). In each study, findings show that children identify and report using places outdoors that are not designed specifically for the purpose (e.g. vacant lots). Therefore a key issue in understanding how children engage with the outdoors includes consideration of this fact, that children use all kinds of local and community places for play, often in non-designated ways. This has been highlighted in the Irish Play Policy as an important feature for guiding and designing outdoor spaces for children (National Children's Office, 2004a).

Children's Rights and Research

Since the adoption by the United Nations of the Convention on the Rights of the Child in 1989, children have become recognised as agents in their own lives, in the now, and not just as future citizens (White, 2002). Article 12 of the CRC provides for the child's right to have a say about matters that affect him/her and to have those views taken into account in line with the child's age and maturity. As a result, there is a growing acceptance that incorporating children's views into decision-making results in better data and better outcomes for children, and for the societies in which they live (Graham and Fitzgerald, 2010). The

United Nations Committee on the Rights of the Child (UNCRC) General Comment No 5, states that:

‘...in many cases, only children themselves are in a position to indicate whether their rights are being fully recognized and realized. Interviewing children and using children as researchers (with appropriate safeguards) is likely to be an important way of finding out, for example, to what extent their civil rights, including the crucial right set out in article 12, to have their views heard and given due consideration, are respected within the family, in schools and so on’. (UNCRC, 2003)

According to Lundy and McEvoy, a children’s rights approach to research demands that the research methodology and dissemination mechanisms are rights-based, including a requirement that children’s own understanding of their rights is enhanced in the process (Lundy and McEvoy, 2012a). This study aims to ensure that children’s views are heard as part of the research process while also advocating for policy-making that is itself informed by children’s perspectives. This latter goal is informed by the fact that one of the national policy goals is that children will participate in decisions made about them, as recognised in the *National Children’s Strategy: Our Children their Lives* (Department of Health and Children (DoHC), 2000), and retained in *Better Outcomes, Brighter Futures: The National Policy Framework for Children and Young People* (2014 – 2020) (Department of Children and Youth Affairs (DCYA), 2014a). A National Participation Strategy is currently being developed to support children to have a meaningful voice in decisions that affect them. This aims to advance children’s participation in public decision-making, including in the formulation of relevant national policy.

The aim of this study is to examine trends in, benefits of, and barriers to children’s access to the outdoors and natural heritage, with a view to informing policy aimed at improving children’s health, well-being and engagement with environmental issues. This research project is informed by a children’s rights framework: for reasons relating to ethics (it is the right thing to do), epistemology (it produces sounder knowledge), and implementation (it works). The research aims to produce a set of recommendations that can support and encourage greater outdoor activities and identify gaps in research on children’s relationship to the outdoors, where those recommendations would also promote respect for and fulfilment of children’s rights. It is a project about, but also with and for children.

Methods

The study adopted a mixed methods approach, combining desk research which comprised a literature, law and policy review, together with qualitative participatory research with children aged between five and twelve years.

Phase 1: Desk Research

The first phase of the study employed desk based research using a process of a scoping review (Arksey and O’Malley, 2005). Scoping reviews work to establish the most significant material related to the area of concern from multiple diffuse sources in order ‘to map rapidly the key concepts underpinning a research area and the main sources and types of evidence available’ (Anderson et al., 2008). This type of review usually includes literature and policy mapping alongside stake-holder involvement to comprehend the current state of understanding in a given area in both the policy and practice context. Synthesising evidence in relation to children and nature is complex, as the topic has been reviewed by researchers from diverse disciplines utilising different definitions and methodologies. Therefore it is recommended that scoping reviews are carried out by a team from different disciplinary backgrounds (Anderson et al, 2008). For this review the team consisted of members from law, occupational science, and education, and literature from

a broad range of disciplines was reviewed, such as education, health promotion, law, children's geography, occupational science as well as psychology and sociology.

The international and domestic legal framework and the policy environment in relation to children's contact with the outdoors and natural heritage contextualised the study. Relevant websites, such as the Heritage Council, the Irish Sports Council, the Central Statistics Office, the Department of Children and Youth Affairs, Growing up in Ireland, Health Behaviour in School-age children, Green Flag programme, the Countryside Council for Wales, and a variety of others were accessed to ensure that all available published and grey literature was captured. Broad themes relating to trends, benefits and barriers emerged which also subsequently informed the methodology for the fieldwork with children.

Phase 2: Fieldwork

Ethical approval for the fieldwork involving children was obtained from the Social Research Ethics Committee of University College Cork. The consent protocol adopted in this project was also child-rights focused, and involved establishing initial contact with the target groups to explain the research and give time for reflection before children would make their choice, together with their parents, about whether or not they would take part. A verbal as well as written explanation of the research purpose, process and expected outcomes was provided at both meetings, and it was explained to the children that their participation was voluntary and that they could withdraw at any time before or during the focus group sessions. It was felt that selecting children for focus groups from within class groups might cause others to feel excluded, so it was decided, together with the school principals and teachers, that each class would take part in a whole class art project but only those drawings or compositions where child and parental consent had been granted would be used in the research.

In keeping with the children's rights focus of the research, a rights-based participatory methodology using the Mosaic approach was developed (Clark and Moss, 2001). The Mosaic approach uses a mixture of methods, combining visual, spatial and language-based methods to create a vehicle for children to communicate with adult researchers about their ideas and experiences. The term 'Mosaic' was coined by Moss and Clark (2001) to evoke an image comprising a variety of different pieces. The method employs an active research approach whereby participants and researchers construct knowledge together, using a selection of tools which make up the project 'portfolio'. Tools can include, for example, observation, conversations, child-photography, child-led tours, and collective interpretation of data with children (Crivello et al., 2009). Using drawings as a focus for discussion has also been found to be useful as it allows children to talk about what they deem to be of concern and significance, thus maintaining their interest (Mauthner, 1997).

The Mosaic approach is particularly responsive to children's individual preferences and characteristics, allowing choice both in whether or not to take part, and in how to take part in research, thus facilitating children's 'voice' to be conveyed through a variety of media rather than relying exclusively on written or spoken language (Clark, 2010). The approach is inclusive, allowing younger children, children with disabilities, and those whose first language is not English to participate using alternative media. Its use allows children's capacities and preferences to be respected, enabling them to feel confident and comfortable. The researcher in turn is furnished with materials that have been produced voluntarily, and in most cases it is hoped, enjoyably, thus contributing to a rights-respecting approach in the research process (Lundy and McEvoy, 2012b).

The methods used for the research itself allowed for children to express themselves in the classroom setting by drawing and colouring (using pencils or crayons supplied by the researchers or their own

markers), writing, or a combination of these, chatting informally with the researchers, as well as for some, more structured focus group discussions in smaller groups. Clark stresses that tools employed in Mosaic research become bridges linking the perspectives of children and adults, where meanings can be constructed in a process of negotiation (Clark, 2010). In the current study, the children's drawings and writing were discussed with them in order to allow the child's intended meanings to be captured.

The Schools

Three primary schools were selected for the qualitative part of the study. One school each was chosen from a rural, a town, and a city environment. Although not a comparative study, it was hoped that such an approach might provide an opportunity for the views of a broad range of children from different socio-economic and geographic backgrounds to be considered. The rural school was the smallest, with just over one hundred pupils. The town and rural schools each catered for approximately two hundred pupils.

While engaged in the fieldwork, the researchers conducted a short survey with the school principal, and took photographs of the schools in order to illustrate some of the features of the environment that could potentially provide affordances for children's engagement with the outdoors and natural heritage.

The city school is a DEIS Band 2 school, located in a so-called 'disadvantaged' area of a southern city. It is situated beside a very busy street at the top of a steep hill. There are three concrete yards, each roughly the size of a football pitch, which the school can use for break-times. At the back of the school building, overlooking the city, is a big, terraced vegetable, herb and flower garden, which the children maintain with the help of a landscape gardener. Recently the school has created a natural environment break-time yard, planned and designed with the children, adjacent to one of the concrete yards. This new 'garden' is on a very steep hill and about the size of a big football field. It has old, big trees; planted trees and shrubs, such as elder, fruit trees and fruit bushes; native flowers and wild garlic; a pond; and a herb garden. There are a number of play features such as a tree house, a water pump, climbing features, slides, wobbly bridges, a tyre-swing; a sand-play area; and a cob-built covered structure with a clay pizza oven and seating in it.

The town school is located on country road leading out of a town, on a level piece of land. The school has a large concrete yard, half-circling around the front and the side of the school building. At the back of the



Town school rear view – school vegetable garden



Rural school side view – sports pitches

school is a further, small concrete yard, which is covered with safety surface for the infant class children. There is a big vegetable garden adjacent to that, which is maintained by a teacher with the help of some children. Leading up to the garden is a designed gravel area with some art features. The large rain-water conservation tank, which is used for flushing the toilets, is also at the back of the school.

The rural school is situated in a Gaeltacht area, outside a small village. It is beside a quiet country road on a flat piece of land. The front of the school provides space for parking cars, but is also used as the concrete school yard, which is roughly the size of a football pitch. To one side of the school is a large lawn area which circles in around the side of the building and which is hedged with trees and bushes. Behind and above the school is a further green field, similarly hedged, which can be reached through a 'secret' passage through shrubs and bushes.

All schools are active in the Green Flag programme, but none is involved with Heritage Council schools programme. One Principal explained that his school was "more involved in science projects which integrate better into the curriculum."

The Children

Three classes (9 in total) from each school (between Senior Infants and 6th class) took part in the qualitative data collection. After making contact with the Principal to explain the research and request the participation of the school, an initial visit to each class was carried out to introduce the project to the children, and to give parental consent forms to be completed and returned for the subsequent research visit.

As each class was met for the second time, the children were reminded about the research and asked to complete their own consent if they wished to take part. In order to allow all children who wished to participate at some level, a whole class art project was undertaken, asking children to draw or write about what they do in their free time. It was explained that participation was voluntary and that we would only use the pictures or writing where child and parent had both consented.¹ The researchers chatted with the children while they were working, and their comments were recorded on the backs of the pages. Some children chose to write captions on their drawings, and a number of drawings depict multiple activities in cartoon-strip format, some with speech bubbles and/or captions. The researchers then asked the children if they could collect the work, but children were told they could keep theirs if they wished. A total of 123 children's drawings, as well as the photographs of the school environments, comprise the visual data that illustrate the report. Those who did not have both types of consent were included in selecting names from the hat for the focus group, and all children, regardless of consent, were offered a treat at the end of the classroom session.²

Focus groups were carried out for eight of the nine classes, comprising 39 children (18 girls, 21 boys). These discussions were audio recorded and transcribed.

Coding and Analysis

Transcripts and notes from class-based artwork were coded using a thematic analysis approach with a qualitative analysis software package (*NVivo*). Thematic analysis is "a method for identifying, analysing, and reporting patterns (themes) within data" (Braun and Clarke, 2006). It is flexible and can be used with a variety of types of data and across a range of theoretical frameworks. This first round of analysis

¹ A total of 123 children provided dual consent.

² Each school was also presented with a large planted pot for their outdoor space.

organised the data under a wide range of codes suggested by the original research question and themes emerging from the literature review. The second round of analysis grouped these codes under 'themes' suggested by Affordance Theory which provided the theoretical framework for analysis. These themes were titled 'affordances', 'barriers and constraints', and 'benefits', and each theme was sub-divided into sub-themes such as 'home' or 'school rules' or 'friends' and so on. The findings of the fieldwork are presented in their own dedicated section of the report, below.

Section B: Law And Policy

This section examines national law and policy relating to children's contact with the outdoors and natural heritage from a children's rights perspective. Using the United Nations Convention on the Rights of the Child (CRC) as a framework, it analyses law and policy in relevant areas with a view to identifying a set of measures which will further support children's engagement with the outdoors and natural heritage.

International framework

The CRC is an international treaty which sets out the minimum standard of treatment to which children are entitled. Now 25 years old, the CRC embodies the status of children as autonomous rights-holders, whilst recognising that they sometimes also need protection (Hart, 1997). The CRC recognises a wide range of rights which cut across almost all areas of children's lives including education, leisure and cultural life, children's health and basic welfare and family life and alternative care (UN Committee on the Rights of the Child, 2003). It also provides for children's civil rights and freedoms, such as the right to freedom of expression, privacy, peaceful assembly and access to appropriate information.³ Furthermore, the Convention necessitates the extension of special protection measures to vulnerable cohorts of children such as children without parental care, minority children, refugee children and children with disabilities.⁴

Although a few of the Convention's 54 articles make reference to the physical environment, overall the environment plays a subordinate role within the CRC (Anderson-Brolin, 2002). Indeed, the right of children to have a meaningful relationship with nature has been referred to as the 'forgotten human right'.⁵ Nevertheless, a number of the Convention's provisions impact upon children's contact with the natural environment;

Article 8.1 States Parties undertake to respect the right of the child to preserve his or her identity, including nationality, name and family relations as recognized by law without unlawful interference.

Article 15. 1 States Parties recognise the rights of the child to freedom of association and to freedom of peaceful assembly.

Article 16.1 No child shall be subjected to arbitrary or unlawful interference with his or her privacy, family, or correspondence, nor to unlawful attacks on his or her honour and reputation.

Article 19.1 States Parties shall take all appropriate legislative, administrative, social and educational measures to protect the child from all forms of physical or mental violence, injury or abuse, neglect or negligent treatment, maltreatment or exploitation, including sexual abuse, while in the care of parent(s), legal guardian(s) or any other person who has the care of the child.

³ Article 13, Article 16, Article 15, Article 17 CRC.

⁴ Article 30, Article 22, Article 40 CRC, Article 23 CRC.

⁵ Dutch Human Rights Attorney, Annelies Henstra, has referred to the child's right to connect with nature as the 'forgotten human right'. The International Union for the Conservation of Nature meeting (IUCN) has adopted a resolution, declaring that children have a human right to experience the natural world. The resolution, the Child's Right to Connect with Nature and to a Healthy Environment, calls on IUCN's membership to advocate for the inclusion of this right within the framework of the CRC. For more information see <http://richardlouw.com/blog/the-forgotten-human-right1/> (accessed: 1 December 2014)

Article 24.1 States Parties recognize the right of the child to the enjoyment of the highest attainable standard of health and to facilities for the treatment of illness and rehabilitation of health. States Parties shall strive to ensure that no child is deprived of his or her right of access to such health care services.

Article 29 1. States Parties agree that the education of the child shall be directed to (29 1 e) the development of respect for the natural environment.

Article 31.1. States Parties recognize the right of the child to rest and leisure, to engage in play and recreational activities appropriate to the age of the child and to participate freely in cultural life and the arts.

The CRC adopts an integrated and holistic approach and is based on the indivisible and inter-related nature of children's rights. There is no hierarchy of children's rights - all are considered to be fundamental to the full and harmonious development of the child's personality and inherent dignity (Children's Rights Alliance, 2010). Support for children's engagement with the outdoors and natural heritage must, therefore, be approached from a health, educational and social perspective with special protection afforded to vulnerable groups of children.

Although no hierarchy of rights exists within the Convention, there are four general and overarching principles afforded special status as they form the basis for the implementation of all of the other CRC rights. The four general principles provide that:

- children are entitled to enjoy all CRC rights without discrimination (Article 2);
- the best interests of the child must be a primary consideration in all actions concerning children (Article 3);
- every child has the right to life, survival and development (Article 6) ;
- children have the right to express their views in all matters affecting them and to have those views given due weight in accordance with age and maturity (Article 12).

In order to be fully consistent with the CRC measures taken to promote children's contact with the natural environment must also be equally accessible, consider the best interests of the child as a primary factor, and embrace the child's physical, social, mental, spiritual and psychological development as well as incorporating children's views and opinions.

As a party to the CRC, the State, as the primary duty-bearer, is legally bound to develop laws and policies which promote the practical and effective realisation of standards articulated in the Convention. This duty is reinforced by Article 4 CRC which requires the State to take all appropriate legal, administrative and other measures to promote, protect and fulfil children's rights. However, the Committee on the Rights of the Child (the body charged with the implementation of Convention) has stated that the task of implementation requires input from all sections of society, including children themselves (UN Committee on the Rights of the Child, 2003). In this regard, the Committee has issued guidance for States and other duty-bearers which identifies the necessary features of a children's rights framework (UN Committee on the Rights of the Child, 2003). Such features include a requirement that the principles and provisions of the CRC are fully reflected in all laws, policies and practices of the State. This requires the development of a children's rights perspective throughout Government, parliament and the judiciary in addition to

ensuring that the standards enshrined in the CRC are integral to the legislative process (UN Committee on the Rights of the Child, 2003). Furthermore, it requires the collection and application of reliable disaggregated data on children, and a continuous process of child impact assessments and evaluations, to inform law and policy development (UN Committee on the Rights of the Child, 2003).

Guidance provided by the CRC can be supplemented and strengthened by reference to other international instruments. Among the most forceful of these instruments is *Agenda 21-Global Programme of Action on Sustainable Development*, which arose from the 1992 United Nations Conference on Sustainable Development. The programme acknowledges that children are particularly vulnerable to environmental degradation and are highly environmentally aware, and thus provides an imperative for the involvement of children and young people in environment and development decision-making and in the implementation of the action programme itself (Anderson-Brolin, 2002). In accordance with the programme, each country is requested to establish a mechanism through which a dialogue between government and children and youth concerning environmental issues can be facilitated (Anderson-Brolin, 2002). Furthermore, it outlines that the specific interests of children should be fully taken into account in the participatory process on environment and development (Anderson-Brolin, 2002). This was reinforced by the Habitat Agenda which recognised children and young people as stakeholders for sustainable urban development.⁶

International Implementation Initiatives

In light of the standards articulated in the CRC and other international instruments, a number of rights-based implementation initiatives have been developed. One such model is the UNICEF Child Friendly Cities Initiative which aims to support children's rights through a co-ordinated and unified approach between local government, communities and civil society (UNICEF, 2014). A child friendly city is broadly defined as a system of local governance committed to fulfilling children's rights, 'a child friendly city is the embodiment of the Convention on the Rights of the Child at a local level'(UNICEF, 2014). The Child Friendly Cities Initiative has developed a framework which identifies nine building blocks⁷ necessary for the construction of a child friendly city in addition to other guidance materials and a central website (Day et al., 2011).⁸

A further example is the Growing Up in Cities project which aims to understand the processes and effects of urbanisation from children's perspectives (UNESCO). It aims to create better cities with children and youth by engaging them as co-researchers in assessing local environments to plan and implement change. The project enables municipal governments and child advocates to recognise and realise the participation principles of the CRC, the Habitat Agenda and Agenda 21. The project is now operational in countries such as Argentina, Australia, England and India (UNESCO).

National Law and Policy

Arising from its legal obligation to implement the CRC, the State has developed two particular national policy plans to progress children's rights in Ireland. In 2000, *The National Children's Strategy 2000-2010*:

⁶ The Habitat Agenda was developed as an implementation vehicle for the 1996 Second United Nations Conference on Human Settlements. It sets out that 'Special attention needs to be paid to participatory processes dealing with the shaping of cities, towns and neighbourhoods; this is in order to secure the living conditions of children and youth and to make use of their insight, creativity and thoughts on the environment.' See [Day et al, 2011].

⁷ The nine building blocks are 1) children's participation 2) a child-friendly legal framework 3) a city-wide children's rights strategy 4) a children's rights unit or coordinating mechanism 5) child impact assessment and evaluation 6) a children's budget 7) a regular 'state of the city's children report' 8) making children's rights known, and 9) independent advocacy for children.

⁸ Ireland has made some progress on this- Galway City Council has produced a discussion document entitled 'Galway as a Child-Friendly City' see <http://www.galwaycity.ie/publications/> (accessed 15 Dec. 14).

Our Children – Their Lives, was adopted. The Strategy identifies six principles to guide all actions to be taken and proposes a more holistic way of considering issues concerning children ((OMC), 2007).

It encompasses three overarching goals:

- 1) Children will have a voice
- 2) Children's lives will be better understood
- 3) Children will receive quality supports and services.

Its focus on children as a specific group and commitment to involving children in the policy making process has marked it out as the starting point to changing attitudes towards children (Children's Rights Alliance, 2011). The new national policy framework for children - *Better Outcomes, Brighter Futures* - builds on the measures outlined in the National Children's Strategy. It commits to the achievement of a number of outcomes namely;

- 1) Children are active and healthy with positive physical and mental well-being
- 2) Children are achieving their full potential in all areas of learning and development
- 3) Children are safe and protected from harm
- 4) Children have economic security and opportunity
- 5) Children are connected, respected and contributing to their world.

In delivering the above five outcomes, a number of cross-cutting themes were identified and prioritised such as prevention and early intervention, a culture that listens to and involves children and young people and greater support for parents (Department of Children and Youth Affairs, 2014a).

Participation

A prominent feature of both frameworks is the commitment to ascertaining the views of children and young people and ensuring that those views influence the development of law, policy and service delivery. Apart from complying with the legal imperative enshrined in Article 12 CRC, the commitment to hearing the voice of the child is reflective of the general principle that children are experts in their own lives and can therefore offer unique perspectives based on their own experience (Lansdown, 2005). Children often raise issues important to them which may not be regarded as significant by adults (Lansdown, 2005). Thus, decisions made about or on behalf of children are better informed and more likely to produce positive outcomes when children participate in the decision-making process (Lansdown, 2005). Furthermore, the policies reflect the fact that supporting active citizenship and social inclusion at an early stage is critical to the construction of a healthy society (Hart, 1997). There is a growing body of evidence that children's participation also aids their development; as Lansdown notes children come to know and understand their world through their own activities in communication with others (Lansdown, 2005). Thus, experience of involvement in shared activities with adults and peers encourages children's development.

In the context of environmental issues, there are specific reasons why children should be consulted and their views given due weight. Firstly, children are environmental stakeholders and it is clear that, as present and future citizens, they are and will be affected by environmental decision-making (Barratt Hacking et al., 2007). Indeed, it has been suggested that fostering children's role as active stakeholders can connect children with the environment in a positive way. Approaches which merely inform children and young people about environmental issues in the hope that this will lead to care for the environment have been criticised (Wilson, 2011). Instead, many researchers advocate for an approach that empowers young people through the development of knowledge and understanding of decision-making (Wilson, 2011). Moreover children and young people have specific developmental needs relating to how they use their environments (Day et al., 2011). It has been shown that young people are at greater risk of some hazards than adults, due to their limited ability to exercise control over their environment (Day et al., 2011). Therefore, children's participation is needed to ensure that spaces and services are designed in a way that is appropriate to their needs. This is echoed by the Committee on the Rights of the Child which has explicitly stated that children should be consulted regarding the accessibility and appropriateness of play and recreation facilities and that such facilities should be designed with children's preferences and capacities in mind (UN Committee on the Rights of the Child, 2009). A further rationale for children's participation is drawn from their capacity to act in the interests of the wider community (Day et al., 2011). Literature reveals that children and young people often demonstrate a high level of empathy with other members of the community and take their needs into consideration in environmental planning and design (Day et al., 2011).

In light of the above, the recent Government commitment to develop a *National Policy on Children and Young People's Participation in Decision-Making* and an accompanying implementation vehicle in the form of a Children and Young People's Participation Hub is particularly welcome.

Play

As outlined above, the right to play, rest, recreation and leisure is enshrined in Article 31 CRC. Play is defined by the Committee on the Rights of the Child as 'any behaviour, activity or process initiated, controlled and structured by children themselves; it takes place whenever and wherever opportunities arise' (UN Committee on the Rights of the Child, 2013). The Committee notes that children have a spontaneous urge to play and will seek out opportunities to do so in the most unfavourable environments; it therefore urges States to create certain conditions which will enable children to realize their Article 31 rights to the maximum extent (UN Committee on the Rights of the Child, 2013). Such conditions include space and opportunities to play outdoors unaccompanied in a diverse and challenging physical environment in addition to opportunities to experience, interact with and play in natural environments and the animal world (UN Committee on the Rights of the Child, 2013).

At a national level, access to play and recreation activities is identified as a key objective of both children's policy frameworks but in particular the National Children's Strategy which included development of a national play policy as one of its objectives (National Children's Office, 2000). In 2004, *Ready, Steady, Play! A National Play Policy*, was adopted with the aim of increasing public play facilities (National Children's Office, 2004c). However, the focus of the policy centres more on increasing availability of structured play spaces and less on maximising the use of natural settings such as forests and beaches for play and recreation purposes. This is particularly problematic in light of the Committee's assertion that play in natural settings contributes towards balance, agility, creativity, social co-operation, and concentration (UN Committee on the Rights of the Child, 2013).

The policy contains eight specific objectives namely;

- 1) To give children a voice in the design and implementation of play policies and facilities;
- 2) To raise awareness of the importance of play;
- 3) To ensure that children's play needs are met through the development of child-friendly environments;
- 4) To maximise the range of public play opportunities available to children, particularly children who are marginalised, disadvantaged or who have a disability (this includes a number of secondary objectives: to ensure social inclusion in publicly- funded play, to improve play provision in childcare settings, hospitals and other health settings and promote the importance of play in schools);
- 5) To improve the quality and safety of playgrounds and play areas;
- 6) To ensure the relevant training and qualifications are available to persons offering play and related services to children;
- 7) To develop a partnership approach in funding and developing play opportunities and
- 8) To improve information on, and evaluation and monitoring of, play provision for children in Ireland.

In order to translate the above goals into practice, the policy contains an implementation plan which prescribes over 50 actions to be undertaken by a range of stakeholders at national and local level (National Children's Office, 2004c). At local level, it includes the preparation by local authorities of a play plan in consultation with children and other stakeholders and the designation of an officer responsible for the development of play and recreation activities, to oversee implementation of the County Play Plan and to promote and co-ordinate multi-agency activity (National Children's Office, 2004c).

Evaluation of implementation has, however, focused on counting the number of playgrounds per county and identifying the number of local authorities with play policies and play officers (Kerrins et al., 2011). A 2006 survey revealed that almost 50% of local authorities had adopted play policies and nearly 60% had appointed a play officer.⁹ However, such an approach fails to consider whether these measures are actually improving the quality of children's play opportunities. The number of playgrounds in the country has increased but the extent to which children in lower socio-economic areas have benefitted relative to other economic groups has not been analysed (Kerrins et al., 2011). This is problematic in light of the State's obligation to pay particular attention to children living in poverty and ensure that they have equal opportunities for play and recreation (UN Committee on the Rights of the Child, 2013).

Moreover, a report by the Children's Rights Alliance has indicated that the status of play officers may vary between local authorities, it reported that only two such posts are full time and others are in jeopardy as a result of staff restructuring (Children's Rights Alliance, 2006). The policy was due to undergo independent evaluation in 2008 but this did not occur.

The policy also proposed the establishment of a National Play Resource Centre to provide information,

⁹ See <http://www.playinireland.ie/policy.htm>. See for example the Dublin City Development Board, Dublin City Play Plan 2012-2017.

support and advice on a range of issues affecting the development of children's play (National Children's Office, 2004c). A key objective of the Centre was to support local authorities in developing play opportunities (National Play Resource Centre, 2006). However, the Centre was only in operation for two years; it closed in 2008 reportedly due to the beginning of the recession and accompanying cutbacks (Sugrath, 2008).

The policy has now expired and non-governmental organisations, PlayTime and The Play Alliance, have called on the government to draw up a new national play policy (PlayTime, 2010), notwithstanding that the Department of Children and Youth Affairs holds events such as National Play Day and National Recreation Week where local authorities run events for children and their families centred on various themes (Department of Children and Youth Affairs, 2014c).

Education

The National Children's Strategy promises to enable children to play their part in protecting and enhancing the natural environment by providing access to environmental education (National Children's Office, 2000). Furthermore, *Better Outcomes, Brighter Futures* highlights the importance of enabling children and young people to be civically engaged and socially and environmentally conscious (Department of Children and Youth Affairs, 2014a). It specifically acknowledges that 'outdoor learning spaces should be a feature of the lives of children and young people to raise their environmental consciousness' (Department of Children and Youth Affairs, 2014a). Despite these commitments, education law and policy does not reflect the particular importance of children's contact with nature or the outdoors.

The Irish Constitution envisages the family as the natural and primary educator of the child, allocating a secondary role to the State.¹⁰ Interpretation of Article 42.4 has kept the State at a remove from the provision of education, confining its role to prescribing minimum standards (Kilkelly and O'Mahony, 2014). Thus, schools have a great deal of autonomy in their own management.

It has been argued that because of this secondary role the State has taken a back seat in terms of statutory provision for education (Kilkelly, 2008). The statutory framework governing education is comprised of the *Education Act 1998*, the *Educational Welfare Act 2000* and the *Education of Persons with Special Educational Needs Act 2004*. The role of the natural environment is notably absent from this legislation.

Provision for education is primarily made through statutory instruments such as guidelines and circulars issued to schools by the Department of Education and Skills (DES). The Code of Practice, *Provision of Schools and the Planning System*, obliges planning authorities to ensure that school sites are fit for purpose in terms of their location, have access to services and provide space for recreational and sports activities (Department of Education and Skills and Department of the Environment, 2008). In addition, the *General Design Guidelines for Schools*, lay out for primary and post-primary schools the general principles to be used in the design of the physical school environment (Department of Education and Skills, 2007). The guidelines consider the design of outdoor as well as indoor space, providing that an allowance for the planting of trees and shrubs should be made and that a variety of informal and social areas should be created to suit the learning, development and cultural needs of pupils during breaks (Department of Education and Skills, 2007). The guidelines set out that the external landscape can also include 'biodiversity areas' if required by the school, acknowledging that these can provide a valuable resource for teaching (Department of Education and Skills, 2007). However, these are merely guidelines and consequently there is no obligation on schools to comply with their content. In addition, the guidelines leave broad latitude to schools to determine whether biodiversity areas are necessary.

¹⁰ Article 42.1 of the Constitution states, "The State acknowledges that the primary and natural educator of the child is the Family and guarantees to respect the inalienable right and duty of parents to provide according to their means, for the religious and moral, intellectual, physical and social education of their children."

In addition to limited provision for the role of the outdoors in the physical setting of schools, the structure of the school day does little to support children's contact with the natural environment. According to rules issued by the Department of Education, schools are required to permit one half hour for recreation in a school day which must be no less than five hours and forty minutes (Department of Education and Skills, 1995). Morning and afternoon breaks of five minutes are allowed but where these breaks are of longer duration the school day must be adjusted accordingly (Department of Education and Skills, 1995). However, anecdotal evidence suggests that schools often cite insurance as a reason to ban running and climbing in schools.¹¹

In terms of the primary school curriculum content, reference to the role of the outdoors is made in relation to the teaching of Social, Environmental and Scientific education (SESE) which aims to contribute to the development of the child's awareness and appreciation of the natural, human, social, cultural and historical dimensions of life (Government of Ireland, 1999b). SESE is comprised of three closely related subjects: History, Geography and Science (Government of Ireland, 1999b). In relation to the teaching of geography, the curriculum emphasises the development of skills as well as the acquisition of knowledge (Government of Ireland, 1999b). Skills development involves children exploring and observing features of the natural environment at home and in school (Government of Ireland, 1999b). The Social Personal and Health Education (SPHE) facet of the curriculum complements SESE by encouraging the development of respect for the natural environment and a sense of responsibility and stewardship for its long-term care (Government of Ireland, 1999c).

Of supplementary relevance is the work of the Heritage Council. In accordance with s.6(3)(a) of the *Heritage Act 1995*, the Heritage Council is required to 'promote interest, education, knowledge and pride in and facilitate the appreciation and enjoyment of national heritage'. In fulfilment of this function, the Heritage Council have developed a 'Heritage in Schools Scheme' which makes available at a fee to primary schools a panel of 165 Heritage experts who will visit schools to work directly with children (Heritage Council). The Scheme supports the stated aims and objectives of the SESE curriculum and provides an additional educational tool and resource for teachers (Heritage Council, 2014).¹² Other initiatives such as the OWLS Programme, ECO Beo and the Green Schools Programme also offer environmental education to children in primary schools.¹³ These programmes, however, are supplementary to the formal curriculum and may not be availed of by every school.

The curriculum also makes provision for physical education (PE) (Government of Ireland, 1999a). PE has been described as a 'source of communication with others and in addition can involve an appreciation of the natural environment as well as contributing to moral education and development' (Woods et al., 2010). The aims of PE include the promotion of physical, social, emotional and intellectual development of the child, development of positive personality qualities, and the promotion of understanding and knowledge of the various aspects of movement (Government of Ireland, 1999a). Development of a sense of respect and appreciation for the natural environment does not feature as an aim in the PE curriculum.

The PE curriculum has six strands, including outdoor and adventure activities (Government of Ireland, 1999a).¹⁴ It is noteworthy that the outdoor and adventure activity strand was only formerly recognised as an element of PE in the revised 1999 curriculum (Irish National Teachers Organisation, 2007). Research on teachers' perspectives of physical education reported a discrepancy in the frequency of outdoor and

11 'Calls for ban on schoolyard running to be lifted to help tackle childhood obesity' <http://www.thejournal.ie/ban-running-schoolyard-1500352-Jun2014/> (accessed: 08/01/15).

12 825 schools availed of the scheme in 2014. See Heritage Council, 'A Summary Report of the Activities Associated with the Heritage in Schools Scheme.' (2014).

13 See Appendix of this report for further details.

14 The six strands are: athletics, dance, gymnastics, games, outdoor and adventure activities, and aquatics.

adventure lessons reported by participants and the actual frequency of the lessons (Irish National Teachers Organisation, 2007). Researchers suggest that this could be attributed to the respondents' uncertainty in terms of defining outdoor and adventure pursuits (Irish National Teachers Organisation, 2007). Interview data suggested that this strand is not being regularly taught; the study cited the demanding nature of the strand from an organisational perspective as a possible reason for this (Irish National Teachers Organisation, 2007). In this context, respondents also expressed safety concerns such as 'losing children in the school grounds' (Irish National Teachers Organisation, 2007).

For primary school children, the DES recommends a minimum of 60 minutes of PE per week, an allocation which is half that of post-primary students (Woods et al., 2010). This minimal allocation is at odds with the EU average and rationale behind it is unclear (Harrington, 2014). Furthermore, the time allotted is low in comparison with the *National Physical Activity Guidelines* which provide that children should engage in 60 minutes moderate to vigorous physical activity each day (Department of Health and Children and Health Service Executive, 2009).

Available evidence indicates that the low status of PE in schools is in turn leading to poor uptake (Oireachtas Joint Committee on Education and Science, 2005)¹⁵. Furthermore, there is evidence of gender inequity in the provision of PE with girls generally receiving less PE time than boys (Woods et al., 2010). A further frequent criticism of PE is the domination of team-based sports which may not appeal to all pupils (Fahey et al., 2005). Lack of specialist training for teachers at a primary school level has been cited as a contributory factor in the low uptake of PE and teachers have expressed concern regarding their own competence, particularly in relation to accommodating children with special needs (Oireachtas Joint Committee on Education and Science, 2005).

Sports

Research suggests that children undertake the majority of their physical activity outside of the school environment (Fahey et al., 2005), therefore it is essential to take extra-curricular sports in school and sport played in clubs outside school into account in a consideration of children's contact with the outdoor environment. The Government recognises that sport is an immensely important part of children's lives and is highly valued by them (Department of Children and Youth Affairs, 2014a). Indeed, it notes that sport was regarded by children as the second best thing about living in Ireland in a recent consultation (Department of Children and Youth Affairs, 2012b). *Better Outcomes, Brighter Futures* commits to continued support for accessible and affordable youth and sport activities which encourage young people's overall personal and social development (Department of Children and Youth Affairs, 2014a).

Extra-curricular sport forms what is often referred to as the 'hidden curriculum', loosely defined as 'the ethos and informal structures and processes that play a large role in defining the character of schools and the overall educational experience encountered by pupils' (Woods et al., 2010). Some schools attach little importance to it but for others it can be central to the culture of the school, therefore delivery can vary considerably (Fahey et al., 2005). Though extra-curricular sport is by definition not covered by the PE curriculum, there is a significant overlap and it can often shape how PE is delivered in the school (Fahey et al., 2005). This overlap is positive in many ways – children who have a strong interest in sports popular outside of school become more enthusiastic about PE if those sports are brought within the remit of the PE syllabus (Fahey et al., 2005). Often the same resources and facilities in the school are used both for PE and extra-curricular sport and facilities developed for one can be used for the other (Fahey et al., 2005).

¹⁵ Only 35% of primary pupils were timetabled with the DES recommended minimum minutes of PE per week (See Woods et al, The Children's Sport Participation and Physical Activity Study (CSPPA Study) Research Report No. 1 School of Health and Human Performance, Dublin City University and The Irish Sports Council, Dublin, Ireland.)

However, there are also disadvantages to the close relationship between these two strands. There are concerns that interest in a narrow range of competitive team-based sports may have a spill-over effect on PE and replace the broader PE objectives (Fahey et al., 2005). Again, extra-curricular provision hinges on the willingness and availability of teachers to take on responsibility for this outside of their formal teaching duties.

Outside of the school setting, it is the responsibility of the Irish Sports Council (ISC) to promote, develop and co-ordinate sport in Ireland (Department of Children and Youth Affairs, 2013). The Council funds a number of programmes specifically oriented towards children and young people (Fahey et al., 2005). One such example is the Buntús programme, an initiative designed to assist primary school teachers to implement the games element in the primary school curriculum (Fahey et al., 2005). The programme is overseen by Local Sports Partnerships, local bodies which have been set up with the objective of uniting local agencies with an interest in sport in order to promote local sports participation (Fahey et al., 2005). A further example is the Youth Field Sports Programme which is broadly aimed at encouraging and creating more opportunities for young people to participate in field sports in Ireland (Irish Sports Council, 2014). The Programme is run by three major governing bodies of sport, the Football Association of Ireland (FAI), the Irish Rugby Football Union (IRFU) and the Gaelic Athletic Association (GAA) (Irish Sports Council, 2014).

The emphasis on competitive sport and structured activity, both in and outside of the school setting, restricts children's ability to engage in self-directed activity, thereby encroaching on their Article 31 rights. In its General Comment on Article 31, the Committee on the Rights of the Child asserts that centring all of children's leisure time on overly structured, programmed and competitive activities can be damaging to her/his physical, emotional, cognitive and social well-being (UN Committee on the Rights of the Child, 2013). The Committee asserts that children have a right to recreation time which is not determined or controlled by adults (UN Committee on the Rights of the Child, 2013).

Health

In *Better Outcomes, Brighter Futures*, the natural environment is recognised as essential to the health and well-being of children and young people. There is little legislation or policy generally relating to children's health care and existing provision does not take account of the health benefits associated with the natural environment (Kilkelly and Savage, 2013). *Healthy Ireland- the National Framework for Improved Health and Well-being 2013-2025* is the new national framework for action to improve the health and well-being of the country over the next generation (Department of Health, 2013). The framework identifies the natural environment as a social determinant and the inextricable link between a healthy environment and the health of the population is acknowledged; 'amenities such as forest parks provide opportunities for recreation and add to our understanding of the environment, thus supporting healthier lifestyles while contributing to our well-being' (Department of Health, 2013). However, the framework does not recommend measures to support engagement with the outdoors. Furthermore, Ireland's mental health policy, *A Vision for Change*, does not recognise the importance of access to the outdoor environment (Government of Ireland, 2006).

Children's physical activity was also considered from a health perspective by the National Taskforce on Obesity which was set up to make recommendations on how to halt the rise and reverse the prevalence of obesity in Ireland (National Taskforce on Obesity, 2005). The Taskforce's recommendations in relation to the level of children's physical activity have been the subject of criticism as they pertain only to the school environment (Children's Rights Alliance, 2006). It has been argued that a more integrated approach to the promotion of a healthy lifestyle should be adopted, including funding for increased provision of play and

recreation opportunities involving physical activities outside of school (Children's Rights Alliance, 2006). This is further supported by the (2004) Gill study (see below).

Planning

The National Children's Strategy, *Our Children, Their Lives*, incorporated a vision that children would benefit from a built and natural environment which supports their physical and emotional wellbeing (National Children's Office, 2000). In this regard, it set out a number of measures to be taken to achieve this vision including enhancing the design of open space provision and improving safe access to it for children, giving consideration to children's safety while walking or cycling when planning traffic management policies (National Children's Office, 2000). A review of implementation of the Strategy revealed that no progress had been made on the first measure and there had been limited progress on the second (Children's Rights Alliance, 2011). In *Better Outcomes, Brighter Futures*, the Government renewed its commitment to building child-friendly communities to support children's learning and developmental needs (Department of Children and Youth Affairs, 2014a). It has pledged to develop child and youth-friendly communities through the adoption by local government of appropriate policies and objectives in County and City Development plans and it has further promised to prepare and issue *National Guidelines on Planning for Child-Friendly Communities* (Department of Children and Youth Affairs, 2014a).

Despite these laudable intentions, children's rights and interests are rarely considered in the arena of planning and development. As Kerrins notes "planning and development have not traditionally been considered by policy-makers to be a 'children's issue' or a 'children's service'" (Kerrins et al., 2011). Some progress was made by the *Planning and Development Act 2010* which amended the principal legislation, the *Planning and Development Act 2000*, to require Local Authorities to indicate that children or groups representing children are entitled to make submissions on development plans (Section 8 (bb) of the *Planning and Development Act 2010*). However, it does not oblige Local Authorities to consult with children nor does it outline the weight to be afforded to children's views (Bourke, 2012). Therefore, it is not fully consistent with Article 12 CRC.

A Comhairle na nÓg (child and youth council) exists in every Local Authority area in the country with the aim of affording children and young people the opportunity to be involved in the development of local services and policies (Department of Children and Youth Affairs, 2014b). However, the true extent of children's participation in Comhairlí na nÓg is unclear. Evaluation of the programme reveals that participants are not permitted to vote in meetings nor can they choose the items on their agenda (Office of the Minister for Children and Youth Affairs, 2010).¹⁶

Increasing privatisation of public spaces has been noted, leading to a reduction in outdoor public space available for play (Children's Rights Alliance, 2006). This problem is particularly acute in residential areas in and around most cities where demand for housing development is drastically diminishing and eliminating space for children to play (Children's Rights Alliance, 2006). The *National Housing Policy Statement* gives no consideration to children's use of public space (Department of Environment, 2011). The *Quality Housing for Sustainable Communities Policy Statement* and the *Delivering Homes, Sustaining Communities guidelines* note that spaces attached to the dwelling such as back gardens are to be the primary play spaces for small children (Kerrins et al., 2011). The guidelines contain a checklist for children's play, asking, for example, developers to consider whether there is space for young children to play near a parent working in the kitchen and whether there is safe space for children to play outdoors (Kerrins et al., 2011). The guidelines state that play areas are to be located near the home to ensure easy

¹⁶ See also forthcoming research; Shirley Martin, Catherine Forde, Dr. Audrey Dunn Galvin, Dr. Angela O'Connell, Young People as Social Actors: An examination of young people's perspectives on the impact of participation in DCYA initiatives Dublin: DCYA 2014 [in press].

access and passive surveillance but should not be placed in area where play is likely to become a nuisance to local residents (Kerrins et al., 2011). There is a need for a more child-centred approach to planning and for more outdoor public spaces to be created and preserved for children. The planning of residential areas should provide safe and direct walking and cycling routes between housing estates and adjacent amenities.

Transport

Travel to and from school can be an important part of children's contact with the outdoors and provide an opportunity for children to connect to nature. Yet a growing body of evidence illustrates that the level of children actively commuting to school i.e. walking or cycling is low, approximately 30% of 10 and 11 year olds.¹⁷ Recent research suggests that parental fears about traffic associated dangers would need to be addressed through the planning of such measures as traffic calming (K Hamilton et al, 2015). Walking and cycling are promoted in the new transport policy for Ireland, *Smarter Travel-A Sustainable Transport Future* (Department of Transport, 2009a). Moreover, the National Cycle Policy Framework aims to create a strong cycling culture in the cities, towns, villages and rural areas of Ireland (Department of Transport, 2009b). Although these policies will have an impact on children, they fail to consider the rights or needs of children as a specific interest group and do not promote the involvement of children in planning.

Promotion of active travel amongst children and youth, although absent in policy, is an element of the Green Schools Initiative (Green Schools Ireland, 2014).¹⁸ The Programme encompasses a travel element which is funded by the Department of Transport, Tourism and Sport and the National Transport Authority (Green Schools Ireland, 2014). As part of the initiative, schools set their own travel targets with the aim of increasing the number of pupils walking and cycling to school (Green Schools Ireland, 2014). The programme focuses on a behaviour change methodology based around the Green Schools framework and comprises a number of elements including encouraging schools to carry out an audit of their students' travel patterns at the outset of the programme, raising awareness of sustainable travel among the school community, developing and implementing a travel action plan to realise changes in the journey to and from school and finally monitoring and evaluation on an on-going basis (Green Schools Ireland, 2014). A shift to a more sustainable travel culture within participating schools has been reported, however, independent evaluation and monitoring of the programme is needed to determine its efficacy.

Natural Heritage

Responsibility for the development of built and natural heritage policy rests with the Department of Arts, Heritage and the Gaeltacht. Development of recent policy pertaining to natural heritage includes; *Actions for Biodiversity 2011-2016-Ireland's National Biodiversity Plan* and the *Quirke Report* which is concerned with the effect of implementation of the EU Habitats Directive on turf-cutting communities (Department of Arts, 2014). In accordance with s 6(1) of the *Heritage Act 1995*, the Heritage Council has a remit to 'propose policies and priorities for the identification, protection, preservation and enhancement of the national heritage.' As part of its remit, the Heritage Council has published policies for a wide variety of heritage areas of interest including *Conserving Ireland's Maritime Heritage*, *Integrating Policies for Ireland's Inland Waterways* and a *Policy Paper on Ireland's Landscape and National Heritage*.¹⁹ There is currently no policy provision for the promotion of children's contact with natural heritage. It is hoped that the current research will provide an impetus for the closing of this gap.

¹⁷ HSBC survey 2010 showed that only 31.2% of boys and 30.1% of girls aged 10-11 years actively travelled to school. Children's Sport Participation and Physical Activity Study showed that proportion of children walking to school has increased since 2004 but cycling has remained very low; only 3% of children reported that they cycled to school and within this virtually no girls cycled.

¹⁸ See appendix for further information.

¹⁹ See www.heritagecouncil.ie for more information.

Conclusion

Children's relationship with the natural environment has received scant consideration in domestic law and policy. Although touched upon in a number of policy areas such as play and education, an explicit and overarching policy which supports children's engagement with the outdoors is yet to be developed. Natural play has been neglected in national play policy and the low priority afforded to children's play generally, as evidenced by the closure of the Play Resource Centre and the lack of new policy in the area, presents a further challenge to children's access to natural spaces. Although the SESE and PE elements of the primary school curriculum give some support to children's contact with the natural environment, schools have a broad degree of autonomy and therefore the character and ethos of the school will often determine the level of access to natural settings that children actually receive. As a result, there can be a great deal of variation from school to school.

Although the link between nature and children's health and well-being is expressly acknowledged in the national framework for children's policy, there is no recognition of this in health policy. A further gap is evident in the area of natural heritage; the absence of a strategy or policy to promote the benefits and values of the natural environment among children and young people is a glaring omission. Active travel would afford children the opportunity to spend more time outdoors, yet levels of walking and cycling to and from school are low.

The Convention on the Rights of the Child provides a valuable framework for the design and development of national law and policy. Its emphasis on child participation is particularly important in the context of promoting children's contact with nature. Despite Ireland's ratification of the Convention, lack of consultation with children is a consistent theme throughout each area of domestic law and policy. If children's engagement with the outdoors and natural heritage is to be supported and promoted, relevant measures should be grounded in the principles and provisions of the Convention on the Rights of the Child. This must involve listening to the views of children on these issues and, as experts on their own lives, incorporating those views into the policy-making process.

Section C: Current Trends, Benefits And Barriers

Understanding children's worlds in the 21st century

For some time now, the changing nature of children's lives has been a major concern, with researchers talking about the 'shrinking horizons of childhood' (Gill, 2005), play deprivation (Bundy et al., 2011), the hurried child (Elkind, 2001) and 'nature deficit disorder' (Louv, 2008). In many countries, outdoor urban environments are no longer child-friendly spaces (Karsten, 2005, Nilsen and Rogers, 2005). Researchers are identifying that in the US, Australia and the UK, children are playing less outdoors, leading more structured lives in terms of after school organised activities, and being restricted from street-play (Malone, 2007, Veitch et al., 2006, Valentine, 2001). This has been attributed to increased urbanisation, population density, and issues around risk and safety (Rivkin, 2006). In addition, in families of working parents, children are spending more time in formal day-care after school programmes rather than in their home environments (Ginsburg, 2007). Children today play more frequently indoors, described as a '*retreat to home environments*' (Hasluck and Malone, 1999).

Consequently, there has been a growing concern that child-nature connection is under threat. There is increasing evidence of a disconnect between children and nature in the 21st century. Although it is difficult to measure exactly the difference between generations, parents report on their children having a different relationship with nature and the outdoors compared to when they were young. In a UK survey (England Marketing, 2009) parents reported playing outside 80% of the time compared to 10% for their own children. In Ireland, in comparison, parents felt that their children have reduced access to nature but only 5% less than they had themselves (Wild Child Poll, Fanning, 2010). However, 50% of parents in the Wild Child Poll had never swum in a lake or river with their children, 40% had not climbed trees and 1 in 3 had never made daisy chains as a family. It may be that the grandparents of these same families had not engaged with these sorts of nature activities either. But in the absence of such detailed information, it appears that children may be underexposed to outdoor activities that would be viewed as common activities in childhood. What this poll identified was that while there is still a strong connection with nature in Ireland, compared to the UK for example, the context of that connection is changing from free, wild areas to outdoor gardens and play spaces (Fanning, 2010).

The Poll is evidence of how children engage with nature: through playful experiences of tree climbing and daisy-chain making. A review of multiple policy and research documents makes clear that when children have freedom to engage with nature, it is primarily through play: the relationship between children and nature can only be understood through an understanding of how children play in nature. Therefore, when addressing the issues arising on children's relationships with the outdoors, play needs to be considered as being central: it is through play that children from a very early age engage and interact in the world around them (Ginsburg, 2007).

Trends

The Centrality of Play

"Play is freely chosen, personally directed, intrinsically motivated behaviour that actively engages the child. Put more simply, it could be said that play is what children do when no-one else is telling them what to do".

(National Children's Office (NCO), 2004, p. 10)

Childhood play is a natural impulse that drives learning and development. Play is the means through which children grow and learn cognitively, emotionally, physically, socially and spiritually (American Occupational Therapy Association (AOTA), , 2008, Committee on the Rights of the Child (CRC), , 2013). The Committee on the Rights of the Child describes play as 'any behaviour, activity or process initiated, controlled and structured by children themselves; it takes place whenever and wherever opportunities arise' (Committee on the Rights of the Child, 2013). Risk and challenge are core components of play, as is flexibility and uncertainty: there is no 'right' or 'wrong' way to play (Gleave and Cole-Hamilton, 2012). Nature has a special place in play as it supports children to develop mastery their environments alongside an intrinsic role in connection to the natural cycles of life: seasons, changing temperature and growth patterns, animals and nature (Ginsburg 2007).

Outdoor play: play types and characteristics

Children go through different stages of play and play in different ways: sometimes alone or with others; sometimes with objects or toys; sometimes through movement, in large spaces such as fields or playgrounds, and sometimes with imagination or rules as in game-playing. (See Table 2, Appendix) For children aged 5 to 12 years, outdoor play can involve every form of play that is also seen indoors: play with language, with objects, with interaction and with motion (Garvey, 1990). However, play and development are highly influenced by the types of environments in which children participate in their daily lives (Greenfield, 2004, cited in Nedovic and Morrissey, 2013). Ideally, children's play environments need to have multiple characteristics: they facilitate free-play to take place, they afford a variety of multisensory experiences, and they also encompass a sense of being connected to place (Moore, 1986, Heerwagen, 2009). The outdoor environment affords all of these opportunities often more easily than the indoor environment is able to do.

The outside environment tends to afford more active forms of play, known as Physical Activity Play (Pellegrini and Smith, 1998), which is typically highly unstructured, and informal, consisting of free movement in play (Burdette and Whitaker, 2005). In one Norwegian study, children who attended natural environment early childhood settings listed running, jumping and climbing as their favourite activities (Kaarby, 2005). In Sweden, children identified climbable features as the most frequently used affordances in outdoor play, with water as the least used (Niklasson and Sandberg, 2010), while in another Norwegian study, children reported preferences for sliding, building dens, climbing and skiing (Fjortoft, 2001). Outdoor play has been compared to indoor play in child-care settings and key differences identified (Stephenson, 2002). In outdoor play, children were observed working to master the environment and take control through climbing higher, or running faster with a sense of 'look at me' (mastery). The outdoors was seen to be constantly changing in itself, with wind, sun, temperature, smell and so on, in a manner that is not equalled indoors. Routines were more centred indoors, while the physical materials tended to have designated places indoors but outside, were more transportable. Indoors was presented as an environment where adults worked to provide secure learning contexts, compared to outdoors where children extended their play more with each other and relied less on adult input. Identifying these different dimensions enables researchers to consider the inherent values of outdoor play as contributing to providing rich and varied learning opportunities for children (Stephenson, 2002).

Outdoor play is usually characterised by "short intermittent bouts of activity with frequent rest periods" (Burdette et al., 2004). It is important to note that this view of 'physical activity' needs to be taken into account when analysing children activity levels. The current measurement of physical exercise used for children in Ireland is 60 minutes of vigorous activity at least four times a week and 60 minutes of moderate activity daily (Department of Health and Children, 2009). Children do not usually play for 60 continuous minutes vigorously unless they are playing sports, but instead engage in more flexible ways of play. In

addition, children's engagement in moderate physical activity play often consists of activities involving carrying, pulling and throwing objects, which is not typically reported in research: physical activity is commonly documented using accelerometers that capture speed and movement specifically (Engelen et al., 2013). In summary, outdoor play is highly shaped by the environment which typically involves active forms of play that are not so easily carried out inside the home, and that are not easily captured in current methods for measuring physical activity.

Play and place preferences

It is a common adult perception that children today prefer to be indoors, playing with technology, over being outside. However, children's views as to what is important to them involve a different world-view. In a UK survey, 86% of children reported preferring outdoor activities with 82% choosing natural spaces as favourite places to play (Lester and Maudsley, 2007). Overall, there is evidence over many years that children report preferences for playing outside over playing inside, and playing in the natural rather than built outdoor environment with nature being a high priority for children (Lester and Maudsley, 2007). What is so appealing to children about the outdoors? Children value wild places for play (Hart, 1982) and when given the choice, like to spend time more in scrub land, bushes and ditches rather than on playing fields (Gill, 2005). In his analysis of the outdoors, Fjortoft found that children enjoy this environment because of rough surfaces and vegetation that provide affordances for movement challenges and for variety in play schemes (Fjortoft, 2004). Play materials were found to be the least important thing about the outdoors (Min and Lee, 2006), while in a broad study of different play spaces, children were found to play primarily with natural elements such as mown grass, sand, bark, gravel, trees (Sargisson and McLean, 2012).

Playing outside is highly linked to the presence of friends nearby. For example, parents in urban areas reported that their children played more frequently outside when there are friends living nearby (Ziviani and Rodger, 2006), especially if they live in built communities such as cul-de-sacs (Veitch et al., 2006). When comparing urban to rural settings, Kytta identified that rural (village) settings appear to contain a richer set of affordances or opportunities for socialising than urban (city) settings (Kytta, 2002). In a study of families in Amsterdam, researchers found that children were playing more indoors due not typically living close to others who attended the same school (Karsten, 2005). So when it comes to preferences for being outside, children have reported equally favouring natural environments compared to community settings or sports facilities.

Although in Ireland we have large data sets for children (Growing Up in Ireland (GUI)) children's outdoor play or place preferences are not reported. Instead, data relates to physical activity - how often the child exercises or plays sport, and how many days the child is physically active (Office of the Minister for Children, 2012) - and the relationship with neighbourhoods and general activities (Harris et al., 2011). One study has explored the link between physical activity in 9-year olds, and where children live: Ward found that the most significant issue for children was not related to low or high levels of income or high levels of traffic nearby, but about having safe places to play: children who had the highest levels of physical activity reported having safe and good places to play nearby (Ward, 2013, Ward, 2014).

A number of Irish studies have consulted with children about their lives and it is here that play and place preferences can be found. In 2011, a national project was carried out by surveying 54,163 children about what they like and don't like about being a child in Ireland, including what they would like to change (DCYA, 2012b). Children had four main things that they liked best: 1) education, 2) sport, 3) friends and 4) Irish identity, including playing camogie and hurling. The weather was the second worst thing they listed about living in Ireland- with 18% saying it was a problem and how it affected their lives, while anti-social behaviours was also problematic for them. Play was one of the top four priorities for things that need to

be changed, named by 8% or 4,202 children: they wanted more spaces to play, safe places to play and to have more free time for play. In another study of children's wellbeing, children reported that having friends was a high priority, alongside family (Nic Gabhainn and Sixsmith, 2005). We have other evidence about trends in children's lives. In the Health Behaviour of School-Aged children study (HBSC) from 1998 to 2010, it was reported that Irish children are significantly happier with their lives now than in 1998 (Gavin et al., 2013). Trends for what they like to do include more time on e-communication and spending less time exercising: increasingly, as noted earlier, there has been a retreat to home environments. Children are playing inside more often and engaging in screen-time activities on digital platforms and playing in virtual worlds. However, children have also commonly reported that this is not their first preference. For example, in an earlier Irish study in 10 primary schools, children reported preferring being outside and playing with friends over computer use, but that when on their own they preferred to play inside (Downey et al., 2007). See Table 3, Appendix, for more details.

Other qualitative studies, carried out with Irish children, reveal the following:

- In the Irish Wild Child Poll (2010) parents listed their children's favourite nature activities: feeding the birds, gardening and looking for insects.
- Barron's study of play in local housing estates in Dublin²⁰ found that 60% of girls and 76% of boys took photos of nature when asked to take pictures of how they play in winter and summer (Barron, 2013). In particular trees were central in images of climbing, sitting in, using as a goal-post. It was interesting that none of the children talked about trees, showing that pictures can capture more closely the child-nature relationship than talking with children can achieve. Children in her study played close to home again reflecting findings that places to play need to be spatially related to places to live: planners need to ensure nature spaces are located within close proximity to living areas in urban design.
- Another urban study was carried out with 32 children from a local primary school in an area of urban disadvantage in Ireland (Rogers, 2009)²¹. Rogers found that children spent the majority of their outdoor time in non-designated public spaces involving green verges or spaces with trees, hedges and street furniture (e.g. lampposts) that helped give boundaries to their play; or in open spaces for running about with friends: 'we spend most of the time in the big green across from the house' (Rogers, 2009, p.3): having open spaces nearby along with friends was what they liked best about their neighbourhood. This study shows that having natural environments close by encourages child play.²²
- In another study exploring children's active and social selves, Tatlow-Golden worked with 600 national-school children aged 10 to 13 years from across the Dublin area. Children identified their most favoured activities as involving being physically active (usually in sports or unstructured activity with friends), and associated this activity with being socially connected, being challenged and learning new skills, and having fun. The physically active self was most important to children and accompanied being social and having fun (Tatlow-Golden, 2011).
- In a study in Cork city, children reported playing outside with friends in the street and local green area. Their play preferences were playing with friends and hanging out (Lynch, 2009).

²⁰ In a study of 61 children: 28 boys and 32 girls, aged from 8-13 years.

²¹ 32 children aged 9-11 participated but another 132 children also took part in an in-school peer survey.

²² In addition, the children in this study expressed their concern for their environment where refuse dumping and anti-social behaviour led to vandalism and when outdoor drinking resulted in loose bottles and refuse impacted on their play space.

In the spring of that year, 32 children listed in their time-diaries common seasonal play activities such as going to the beach, catching lady-birds and lying in the grass.

It appears that for children in these Irish studies, having friends nearby to play with has a significant link with outdoor play and activity, and that being active outdoors is rated highly. In addition, recent findings show that there is also a significant increase in children saying they have good places to spend their free time in their communities (HBSC, 2013). It is likely therefore, that a child will actively choose to play outside when the environment affords these key elements: when a child has access to safe outdoor environments, has close proximity to friends and is able to freely explore nearby nature.

Children's Physical Health and Well-being

There is evidence to suggest that reduced access to outdoor natural environments is having significant consequences on our children's physical health and well-being. Physical health problems include vitamin D deficiency, leading to a major rise in the childhood disease rickets; short sightedness; and asthma (Moss, 2012). There has also been a marked reduction in children's ability to do physical tasks such as sit-ups, producing a "generation of weaklings", a major decline in children's cardiorespiratory (heart and lung) fitness (Moss, 2012), among others. All of these health problems have been, at least in part, been attributed by the researchers to the decline in the amount of time children spend outdoors in natural environments in comparison to previous generations (Moss, 2012).

Obesity

Perhaps the most prominent physical health crisis facing today's children is observed in the modern epidemic of childhood obesity. Childhood obesity is a result of increased energy content in the diet, decreased levels of physical activity and increasingly inactive lifestyles (Brownell and Rodin, 1994, Prentice and Jebb, 1995). Existing Irish data show that the overall rate of overweight and obesity in nine-year-olds is 26% (GUI, 2011) and, in children aged between 4 and 13 years, 24.6% (Barron et al., 2009). While there is some evidence that the prevalence is slightly decreasing or levelling off (Keane et al., 2014) this remains a significant health issue for many children. A staggering 80% of Irish children are viewed as insufficiently active (Layte and McCrory, 2013, Barron, 2013). Key factors in this decline in children's physical activity are attributed to the increased use of cars for chauffeuring children, decreased opportunities to play outside, and the increase in more sedentary activities such as playing computer games (Lester and Maudsley, 2007), among others. There is increasing concern at the rapidly decreasing levels of fitness (Sallis and Patrick, 1994), since physical inactivity is now identified as a major underlying cause of death, disease and disability (Booth et al., 2002). Consequently, the Irish government has identified addressing and preventing obesity in children as top priority in the current policy framework (DCYA, , 2014a). Increasing physical activity in children and reducing sedentary behaviour are now being proposed as solutions to the childhood obesity problem, in terms of both its prevention and treatment (Barron, 2013). Given that access to the outdoor environment is a significant predictor of physical activity in children (Sallis et al., 2000), opportunities for children to access the outdoors can decrease the incidence of childhood obesity and improve child wellness in Ireland (Barron, 2013). Opportunities for children to access the outdoor environment are vital to combat not only the modern epidemic of childhood obesity but also the profound consequences on our children's physical health in general.

Mental health problems

Gray (2011) and Ginsburg (2007) contend that the decline in outdoor free play time has resulted in the rise of mental health problems in children, particularly increased anxiety and depression. Mental health is

defined as a state of well-being in which every individual realises his or her potential, can cope with normal life stressors, can work productively and fruitfully, and make a contribution to his or her community (DCYA, 2014). Children and young people's mental health is deemed the most vital component for their social and cognitive development (DCYA, 2014). Existing Irish data tell us that by the age of 13 years, one in three children are likely to have experienced some type of mental disorder (Cannon et al., 2013). The recent rise in demand for mental health services and the incidence of self-harm and suicide among children and young people is a significant concern (DCYA, 2014). Indeed, mental health is a growing health, social and economic issue; so much so that depressive mental illnesses are expected to be the leading cause of chronic disease in high income countries by 2030 (Department of Health, 2013).

Attitudes and the Child-Nature Connection

The human-nature connection has been examined in many different ways with some researchers exploring healing or healthy landscapes (Bedard, 2000, Marcus and Barnes, 1999) or the relationship between children and plants (Moore, 1997), or children and animals. Wilson's view was that nature influences child development but also, that children have an innate unity with nature. His theory (Biophilia) is that, owing to our evolutionary history (where people survived through relying on nature) human beings still have an innate affinity for nature which must be acted on, in order to optimise health and well-being (Nedovic and Morrissey, 2013, Wilson, 1984, Kellert and Wilson, 1993).

In their review of research on nature play, Lester and Maudsley found that there was extensive research to show that children have a strong affiliation and connection with nature (2007). This went beyond the Biophilia theory and included influences from individuals, families and communities that shaped their sensitivity to nature. It means that for a child to truly develop this link with nature there is a need for being in nature and affordances for play in natural environments (Maudsley, 2007). Without natural access to nature, children can develop aversions and even illogical fears of the natural world. A child's innate curiosity needs to be fostered as part of gaining confidence of being in the world also (Hart, 1979).

Benefits

The benefits of spending time outdoors and connecting with nature are multiple and have universal application. Studies have identified benefits in relation to: development, health and well-being, social and emotional development and attitudes to the environment (Gill, 2014). A meta-analysis of the benefits of children's engagement with nature found that the strongest evidence relates to the area of physical and mental health (Gill, 2014). Time spent in nature was also found to be strongly linked to having a positive view of nature. However, the centrality of playfulness was the most significant finding: the studies that had strongest evidence were those where children engaged in nature through free play that was child-directed. There was weaker evidence where adults directed the engagement in more structured ways. Overall Gill concludes that this is the most significant contribution to future development in this field- the need to place playfulness more centrally in designing outdoor programmes and interventions (Gill, 2014). Gill's work is significant in that it helps to support the identification of possible protective factors²³ in relation to positive outcomes for children. It is also an approach that is entirely consistent with the children's rights approach where children's capacity to determine their own play is supported and developed.

²³ Protective factors are qualities in the person, environment or interactions between these elements that predict better outcomes.

Health

The shift from outdoor play to indoor activities, combined with an increased push for academic achievements, potentially leave children more stressed and with poorer mental health (Burdette & Whitaker, 2005).

An abundance of evidence demonstrates that access to the outdoors and natural heritage is fundamental to the physical and emotional health and well-being of children. There is substantial evidence that supports the wide-ranging benefits arising from children's play in natural settings, ranging from enhanced physical, social, cognitive, emotional and spiritual development to enhanced health and well-being, as well as a greater appreciation and sensibility for nature (Manuel, 2003). Conversely, we can see that reduced access to the outdoors can have a negative effect on children's health and well-being and although correlation does not prove causation, a strong case can be made for such a causal role (Gray, 2011). Both benefits and drawbacks have particular impact on children with disabilities, and this must be taken into account in line with every child's right to equal enjoyment of their rights under the CRC.

There is a growing body of evidence to suggest that outdoor play in natural environments helps promote childhood mental health; helping children develop intrinsic interests and competencies; learn how to make decisions, solve problems, exert self-control, and follow rules; learn to regulate their emotions make friends and learn to get along with others as equals; and experience joy (Gray, 2011). Gill's systematic literature review identified strong evidence that spending time in nearby nature leads to improvements in mental health and emotional regulation for specific groups of children (such as those with Attention Deficit Hyperactivity Disorder (ADHD) when children under 12 spend time in natural environments (Gill 2014). In studies of children with ADD/HD specifically, researchers found that there is a direct relationship with green spaces and attention, showing that spending time in nature reduces symptoms of ADHD and promotes better attention (Taylor et al., 2001, Kuo and Faber, 2004).

Research has found that children who live with higher levels of nature nearby are buffered from the effects of stress in their lives (Wells and Evans, 2003). Other studies have shown that there are mental health benefits to just being exposed to natural environments, aside from whether the environment promotes more active engagement. Furthermore, regular contact with nature is linked to increased levels of satisfaction with life, reduced aggressive behaviour in children, and a greater sense of self-worth (Moss, 2012). Studies have also demonstrated that exposure to the natural environment can lower the effects of various mental health issues that can make it difficult for students to pay attention in the classroom. In particular, the Attention Restoration Theory posits that exposure to nature reduces directed attention fatigue, restoring the ability to concentrate at will (Kaplan, 1995). Thus, opportunities for children to access natural environments have health related functions: to decrease the incidence of childhood psychopathology and improve children's social, emotional and mental well-being in Ireland.

Children with Autism Spectrum Disorder

Autism Spectrum Disorder (ASD) is a neurodevelopmental disorder that originates in early childhood and it is frequently accompanied by the presence of sensory-based restrictive and repetitive behaviours that effect play (Baker et al., 2008, Baranek et al., 2006, Ben-Sasson et al., 2009, Tomcheck and Dunn, 2007). However, it has also been found that children with ASD respond very well to animal-assisted approaches, as animals can help reduce the high levels of stress and anxiety these children frequently experience (Ferwerda-van Zonneveld et al., 2012). In addition, taking part in care farms has been shown to help children with ASD cope with relationships and the social environment. Furthermore, in a recent study of 134 families of children with ASD in Ireland, it was found that the presence of assisted dogs significantly

reduces parental fears about safety, and improves social inclusion in the community (Burgoyne et al., 2014). Notwithstanding, further research is required to establish the potential role of the natural environment to further enable children with ASD to participate in the social environment and to improve their overall health and well-being.

Children living with social disadvantage

Research indicates a steady increase in the number of children experiencing “consistent poverty” in Ireland, defined as those living in households below the 60% of average income and experiencing enforced basic deprivation (National Children’s Office, 2004b). Consistent poverty among children rose to 9.3% in 2011 – up from 6.3% in 2008 (Department of Children and Youth Affairs, 2014). Although many studies show that natural environments enhance health or encourage healthy behaviours, only few examine variation in these effects by socioeconomic status (Mitchell and Popham, 2008). There is evidence to suggest that people with low socioeconomic status are less likely to exercise (Centre for Health Promotion Studies, 2003) than those with high socioeconomic status and this is attributed to the environments in which they live (Mitchell and Popham, 2008). Nonetheless, evidence for the relations between socioeconomic status and green space suggest that, although more deprived populations may be less likely to have access to such areas (by virtue of residential location or transportation disadvantage), socioeconomic position itself does not independently affect the use of green space if it is readily available (Grahn and Stigsdotter, 2003). Thus, it has been proposed that disadvantaged populations that do have access to green space may be expected to gain greater health benefits from using it (more so than any physical activity in other settings) (Pretty et al., 2005, van den Berg et al., 2007); and therefore potentially enjoy better health than those of a similar level of deprivation might, who do not have access to green space (Mitchell and Popham, 2008). Thus, as a nation, where urbanisation remains a strong force, it is paramount that facilities and opportunities for children to access nearby nature are essential to buffer the effects of health and socioeconomic inequalities. This is also key to an integrated rights-based approach to children’s health, education and well-being.

The following sections summarise some of the additional evidence as to the benefits to children of contact with the outdoors, addressing each area in turn:

- Access to the outdoor environment has been identified as a significant predictor of physical activity (Sallis et al., 2000) and consequently is highly related to physical health in children. The outdoors offers different affordances for play than home environments, providing space for more vigorous and variety in movement (Kaarby, 2005, Pellegrini and Smith, 1998). This results in improved movements skills, balance and coordination (Fjortoft, 2004) and has a strong correlation to physical fitness and general health (Fjortoft and Sageie, 2000, Thigpen, 2007). For example in Norwegian kindergartens that are provided almost entirely in the outdoors, children show lower levels of absence due to sickness (Fjortoft, 2001). Specifically, outdoor play in neighbourhood green areas has been linked to health benefits. In a study of 10 neighbourhoods in the Netherlands, it was found that children living near green spaces and who had access to cycling areas and water, had higher levels of physical activity (de Vries et al., 2007) while in another study it was shown to result in weight loss (Bell et al., 2008).
- The outdoor environment has also been significantly related to social and emotional health and well-being. Contact with nature helps people recover from stress (Wells and Evans, 2003, Ulrich et al., 1991) and is self-restorative for children (Korpela et al., 2008). Studies have shown specifically that favourite places have high levels of restorative qualities (Korpela et al., 2002) while living near nature has also been shown to support attentive behaviour and

therefore life functioning (Kuo, 2001, Ulrich et al., 1991). In a study of 11 preschool settings in Sweden, researchers found that when there was a high presence of trees, shrubs and hilly terrains for the children to play, their attention was better (Martensson et al., 2009). For children facing stressful events such as moving home, peer-pressure, or bullying at school, living near higher levels of nature has been shown to be related to less stress. Consequently, it is thought that nearby nature helps buffer stress in children (Wells and Evans, 2003). Recent research has begun to combine findings from studies on stress, resilience and nature to demonstrate the link between them (Chawla et al., 2014). In this study, Chawla et al found that access to nature helped reduce stress and support social supportive networks, thus helping build resilience.

- Studies have reported positive effects on children from playing in natural environments and how it shapes and supports play and development (Fjortoft and Sageie, 2000). The presence of earth, sand, water, plants and small animals have all been identified as aspects that have particular attraction for children (Moore and Wong, 1997). With these elements, outdoor settings provide more opportunities for negotiating play, participation and social interaction than indoor settings (Aasen et al., 2009). It is the presence of more flexible social spaces that contain 'loose parts' such as berries, rocks, leaves, flowers that appear to provide flexible, changing environments for play (Derr and Lance, 2012, Waters and Maynard, 2010). Compared to other features, such loose parts have been found to facilitate construction and symbolic play, particularly where the environment contained deciduous trees and scattered shrubbery (Fjortoft and Sageie, 2000). Furthermore, the flexibility of the environment also contributed to affording challenges and risk taking (Canning, 2010). It is noted how these elements are so often absent in formal playgrounds in comparison.
- Beunderman (2010) found evidence of children acquiring life skills through playing outside in their communities, such as sharing, looking out for one another and asking for help. It is argued that such skills can provide them with a more positive outlook on the neighbourhood through gaining trust, feeling welcome and knowing others in the community (Gleave and Cole-Hamilton, 2012). Children who play outside develop a sense of belonging (Gleave, 2010) and have more respect for the public arena allowing them to make a positive contribution to their local neighbourhood (Gleave and Cole-Hamilton, 2012). It seems that having a place to play, where children are welcome, gives them a positive perception of their local area (Gleave and Cole-Hamilton, 2012). Natural environments provide ideal spaces to enhance social interactions and promote a "sense of belonging" leading to place attachment (Hart, 1979, Waller, 2006). Therefore, reconnecting children with nature is not just for their advantage, there are also positive outcomes for communities and society as a whole (Moss, 2012).
- Evidence also shows that connecting with nature produces results in relation to attitudes and values. For example, a recent study with more than 20,000 people in the UK, found that participants were substantially happier in natural or green outdoor places than in outdoor urban settings (MacKerron and Mourato). The link with happiness and nature has also been captured by others in terms of children's spiritual development: where nature stimulates 'childhood wonder' (Hart, 2006, p. 168). Research has identified strong evidence related to benefits from connection with nature and environmental knowledge and attitudes (Gill, 2014). Through connecting with nature, children were shown to have a better understanding of healthy eating (Lineberger and Zajicek, 2000, Morris and Zidenberg-Cherr, 2002, Morris et al., 2001). In addition, children's attitudes about nature were highly related to regular exposure and involvement in nature, resulting in concern for the environment, connected to

nature and a stronger sense of place (Gill, 2014). These positive attitudes were linked to positive attitudes also in adulthood, which confirms the fact that habits learned in childhood have long-term effects.

- Pet-ownership needs to also be mentioned here as a specific aspect of the natural environment. It is included as part of the social environment of children in the State of the Nation's Children reports, where it is noted that 3 out of 4 Irish children have pets in their family and pets were identified by the children themselves as being an important part of their lives (2012a). It also was identified in the qualitative report from the Growing Up in Ireland 9-year-old cohort (Harris, 2011). In a review of research on pet-ownership, O'Haire found that there is strong evidence for the contribution of pets to physical and psychological well-being (O'Haire, 2010). In addition, Owen et al., (2010) found that children, who had dogs in the family, also had higher levels of physical activity than children who were not dog-owners. Researching with pets is an emerging area of focus in relation to children and is an important consideration in the whole context of natural environments as pets appear to have a special place in children's lives in Ireland.

In summary, through reviewing a varied range of evidence, by engaging in nature, children benefit in multiple ways that includes health, development, augmented social and community involvement, environmental attitudes and happiness. In addition, the benefits that accrue from access to the outdoors can ameliorate the effects of disability and disadvantage on children in especially vulnerable circumstances.

Barriers

Children at risk: nature deficit and play deprivation

Numerous studies offer direct and indirect indicators of changes in childhood, including: perception of growing demands on children's time, resulting in less free time to play outside in nature; reduced mobility, including a reduction in walking and riding a bike to school; growing fear of strangers, traffic and nature itself (Charles, 2009); expansion of urbanisation; the increasing role of social media and technology in children's lives; among others, have all resulted in a shift from outdoor play to indoor activity over the past several decades. In addition, certain groups of children are routinely having additional difficulties in accessing play (Cole-Hamilton and Gill, 2002). Groups of children at particular risk of exclusion include the following: children from low income families; traveller children; children from ethnic minority groups; children living in emergency accommodation; children from refugee families; children with disabilities; children living in rural areas (National Children's Office, 2004) and children living in urban areas (Cheng and Monroe, 2012). Barriers to their inclusion include, amongst others, a lack of safe space, language difficulties, mobility problems, fear of assault, concerns about safety, especially among girls, an absence of transport (National Children's Office, 2004), and adult influences (Lester and Maudsley, 2007).

Parenting styles

In the developed world, studies have shown that children are being encouraged to play indoors more often than outdoors (Nilsen and Rogers, 2005) and this has resulted in research to explore the parents' role in supporting children's outdoor play and access to nature. Parents are identified as being influenced by a number of issues including health and safety, perceived dangers in children's use of outdoor spaces, and their own perceptions of what is appropriate play (Malone, 2007, Nilsen and Rogers, 2005). Parents are frequently found to be the gatekeepers of their children's outdoor play opportunities (Karsten and Leit,

2006) granting or denying permission for their children to access the local environment (Tranter and Pawson, 2001). This is consistent with the parental role in children's autonomous exercise of their rights under the CRC. Research has found that parent's perceptions of appropriate environments for children are what influence the licenses they give for play (Mee, 2010). Appropriate environments are considered to be those related to low risk for gangs, strangers and road traffic either at the play area, or en route to the play area (Veitch et al., 2006). In addition, as we have seen, parents own experiences of the outdoors and nature as a child will shape their decision-making as adults in enabling their own children to access the natural environment for play.

We are indoor people!

Cultural perspectives can also be seen as they relate to the natural environment. In Ireland, for example, there has been some concern at the relative lack of outdoor play (Duffy, 2007). Duffy explored the use of outdoors in an exploratory study²⁴ and found that little value was placed on the outdoors as a learning environment, resulting in low use of the outdoors (Duffy, 2007). Kernan's study of the outdoors and her work with adults and educators also throws some light on how Irish adults might view the outdoors in relation to children lives. Adults in her study included educators working in 1,500 early childhood settings around Ireland, as well as policy officers in education and policy development (Kernan, 2006). Overall, adults viewed being outside as equating with naturalness (contact with plant and animal life). However, it was also highly associated with risk and danger and consequently viewed as a problem. Despite being educated in child development, a significant number of practitioners had a lack of awareness of the contribution of outdoors to children's health and wellbeing. Consequently being outdoors was not high priority. In her study, the negative attitudes towards the outdoors were viewed as being cultural: time outside 'was framed by some interviewees as culturally embedded, derived from the damp Irish weather and constructions of the Irish as indoor people' (Kernan and Devine, 2009). In a similar study in Wales, infant teachers use of the outdoors was dependent on good weather (Maynard and Waters, 2007), which resulted in some schools not using outdoor spaces from November to March.²⁵ In both the Irish and Welsh studies, the outdoor environment was not seen as part of their cultural identity (Kernan & Devine, 2009; Maynard & Waters, 2007). This is in contrast to early childhood education in Norway, where the outdoors is used on a daily basis during winter and summer (Moser and Martinsen, 2010). So it seems that while weather is proposed to be the rationale for not being outdoors, it covers a deeper value system where the outdoors is not viewed as being important for learning.

Attitudes towards risky play

Different attitudes towards risky play are evident in research and are becoming a commonly reported barrier in accessing the outdoors, with adults commonly viewing risk as negative and dangerous, while children view it as fun and positive (Stephenson, 2002, Waters and Begley, 2007). Risky play is part of the physical activity play category (Pellegrini and Smith, 1998) which is often confused in adults as being related to aggression and danger. Risky play is defined as thrilling and challenging forms of play that involve a risk of physical injury (Sandseter, 2007a). Researchers have asserted that children actively seek this thrilling kind of play, and that almost all children seek challenges and risky forms of play even though and often because, it is closely connected with the feeling of fear and thrill, and the possibility of being harmed (Smith, 1998, Stephenson, 2003, Sandseter, 2009). Moreover, researchers have identified that taking risks can have positive implications for numerous developmental domains for children, in particular, motor and spatial skills, social and emotional needs, as well as their overall health (ChildLinks, 2011, Sandseter, 2009).

²⁴ With ten preschool practitioners from rural and urban areas near Dublin.

²⁵ In this view, weather is considered as separate to the outdoor experience, rather than being part of it.

Despite these benefits, it appears that modern Western societies are experiencing a growing focus on children's safety in general, but particularly in relation children's safety at play and safety in their play environments (ChildLinks, 2011). Evidence suggests that parents are increasingly restrictive when it comes to children's play in natural settings (for example, Louv, 2008, Skar and Krogh, 2009, Derr and Lance, 2012) due to fears regarding their children's safety.

In an editorial regarding children's risky play, numerous play commentators have argued that eliminating risks deprives children of the opportunity to assess them efficiently; resulting in adolescents and adults that are unequipped to deal with any situations they may encounter in later life (ChildLinks, 2011). Without it, long term psychological and emotional development may be compromised (Little et al., 2011) with subsequent implications for children's independence (Coplan et al., 2006). This has been widely debated in relation to the decline in emotional resilience and in one's ability to assess risk. Gill (2007) argues that denying children the opportunity to participate in risky and challenging play may result in a society of risk-averse citizens, unable to cope with everyday situations; or in children simply finding more dangerous locations to carry out their risk-taking behaviour. Moreover, engaging in challenging play activities is also considered to be an essential part of becoming at home in the world (Waters and Begley, 2007). Thus, it is essential that children are exposed to risk and challenges in their play as a means of developing resilience. The Children's Play Council in England have proposed that "exposure to the risk of injury, and experience of actual minor injuries, is a universal part of childhood. Such experiences also have a positive role in child development. When children sustain or witness injuries they gain direct experiences of the consequences of their actions and choices, and through this an understanding of the extent of their abilities and competencies"(as cited in Ball, 2004).

For children, play is the primary mechanism through which they build resilience across adaptive systems – pleasure, emotional regulation, stress response systems, peer and place attachments, learning and creativity (Lester and Russell, 2010). These benefits are noted to arise from play's unpredictability, spontaneity, nonsense and irrationality, and also from children's sense of control (Lester and Russell, 2010). Thus, adults who often have a significant role to play in facilitating children's play, need to ensure that the physical and social environments in which children live are supportive of their play; otherwise their survival, well-being and development may be compromised (Lester & Russell, 2010).

The extent to which one should regulate risk in children's play is an on-going debate internationally between politicians, parents and people working within childcare (Furedi, 2001, Gill, 2007, Hughes and Sturrock, 2006, Sandseter, 2011). More recently, researchers have asserted that an exaggerated focus on children's safety is problematic because, in our quest to protect children and keep them free from harm, children are becoming increasingly restricted from experiences and stimuli that are crucial for their normal, overall development (for example: Ball, 2002; Boyessen, 1997; as cited in Sandseter, 2011). It has been proposed that there is a need to shift from a philosophy of protection towards a philosophy of resilience: an approach which recognises the need for a balance between children's protection and freedom (Gill, 2007). Nonetheless, finding the balance between facilitating children to take risks, whilst also avoiding serious injuries, is by no means an easy exercise (ChildLinks, 2011). Little and Wyver (2008) propose that "An environment free from hazard is necessary to ensure that children can satisfy their natural curiosity and desire for novelty and challenge and take risks without compromising their safety. This does not mean removing all the risks, but rather finding the balance between those that foster learning and those that can result in serious injury, and ensuring appropriate supervision"(as cited in Willoughby, 2011).

Access for Children with physical disabilities

Children with disability are often excluded from typical play or outdoor experiences due to many factors such as physical inaccessibility, attitudinal barriers and poor social supports (Anaby et al., 2013). In addition, the child's own difficulties in physical movement contribute to further barriers to participation (Law et al., 2004). Children with physical disability are known to engage in lower levels of physical activity than their peers which is likely to be contributing to secondary health concerns such as pain and fatigue (Shimmell et al., 2013). We know from the evidence that people with disabilities are more likely to have health problems than the general population (Watson and Nolan, 2011). In a review of participation of children with physical disabilities (primarily Cerebral Palsy) and the role of the environment, research shows that the attitudinal barriers are more prevalent than barriers due to the physical environment (Anaby et al., 2013). Moreover, studies of children with poor coordination (Developmental Co-ordination Disorder) have found that these children also experience social exclusion from outdoor play activities (Poulsen et al., 2007). It is perhaps not surprising therefore, that children with physical disabilities more frequently play alone or are passive onlookers (Richardson, 2002).

A further complication for children with physical disability is that outdoor social play tends to involve much more physically vigorous activity than indoor play (Richardson, 2002, Stephenson, 2002). Thus, if a child has a physical disability, these forms of play in the natural environment are more challenging, and require increased adult support to structure the environment to facilitate participation and social inclusion from an early age. As a group, children with physical disability are at increased risk of developing secondary complications related to social exclusion as they get older; thus, this becomes both an issue of physical and psychological health and well-being. Yet, children with physical disability are not well-represented in the research on outdoor activities and play, and the majority of studies on participation are based on parent or carer self-report measures and not from the child's perspective. There is a significant need for research to focus on the experiences, play preferences and needs of children with disabilities in Ireland. This gap in knowledge has already been highlighted in relation to the need to research levels of physical activity of children with physical disabilities in Ireland (Harrington, 2014). Furthermore, there is a need to concurrently research the environments, and in particular the natural environment, to identify how to reduce barriers to participation for these children, and facilitate their inclusion in the play situations.

Conclusion

Play is a biological drive and the means through which children develop competence and mastery. Children, regardless of ability, have a natural affiliation towards nature, and natural environments provide optimal settings for children to fulfil their drive to play and affiliate with nature. Despite children's preference for outdoor environments and desire for risky and challenging play settings; numerous factors are hindering their ability to access such environments. This is particularly problematic for children, considering the numerous and various benefits derived from playing in natural environments. Restricting, depriving and denying today's children of such opportunities may result in children not realising their potential and potentially leaving them with poorer physical and mental health in the future. Their rights – to education, health, play – are undermined as a result. Although it can be argued that there are social, economic and political advantages – now and in the future – to placing a reconnection of children with nature at the top of the political agenda (Moss, 2012), Ireland's duty to safeguard, protect and promote the rights of all children under the CRC is a moral and a legal imperative now.

Section D: What Children Say

Clearly, the research identifies the significant benefits for children of engagement with the outdoors and the natural environment and it is also established that this serves to fulfil children's rights under the CRC and national policy. Moreover, a children's rights approach to research that is about children's contact with the outdoors and the natural heritage requires their participation. For this reason, children were involved in this research as co-constructors of knowledge (Tisdall, 2012) and their views are a powerful testimony to the issues. This section details what children had to say about their environment, expressed in a variety of ways. They first introduced their experiences of interacting with the outdoors and they then went on to describe what they saw as the barriers to greater engagement.

Children's experiences of the outdoors

Spaces

The spaces available to the children varied considerably between the three locations. The children in the city school focus group talked about public green spaces near their houses, but one child said that the green space was on a hill so couldn't be used for ball-games, while another spoke about bringing goal posts each time he and his friends would meet to play soccer (10-12 years). The boys in the school described where they play:

Interviewer: And is there a place to play soccer near where you live?

Boy 1: Like no because you can, like, kick it out the field. There's a field, like, they play soccer there but I just don't go out the front and kick the ball to the wall and kick it back.

Boy 2: The wall kicks it back! (City school, 10-12 years)

It'd be in my estate, down by the bars, like going down the steps, or in the big green. (City school, 8/9 years)

Most of the children seemed to have the freedom to roam around near where they lived, but one child in the city school mentioned that this was a recent development as he had grown older:

I used not be allowed at the top of my estate but now since I am, and now I get a call from my friend who lives up the top, and then we'd go down and we'd like be playing our games. And like, we'd be doing stunts and stuff. (City school, 8/9 years, boy)

None of the city children mentioned having gardens, but they did talk about the school garden where the natural play area had been created:

...at the end of the day sometimes Mr Green would bring us down to the garden. (City school, 8/9 years, boy)

Children in the rural school and town school made a large number of references to playing in their gardens, often on trampolines, swings, see-saws, and tents, or playing ball. In the town and city schools, they also played around the roads and in neighbours' gardens. The rural children talked about the fields and other



Artwork in rural school



City school garden

spaces around their houses where they played, often with pets, and which sometimes also provided opportunities for reflection and observation:

I have a field next door to my house and it's a fairy fort, so sometimes I go over there and just sit down on the rocks and climb on it [...] it kind of just feels nice, sometimes there's this wind blowing and the grass is kind of just...I like the sound of the grass. And sometimes up in the shed there's a bird that sits on the window and starts singing every morning. (Rural school, 10-12 years, girl)

Schools provide spaces for children both for educational and leisure purposes, but there was a clear delineation in all the schools between the indoor and outdoor environments in relation to the curriculum, with the building clearly being seen as the primary learning space. It was clear that the schools were committed to fostering respect for and interest in the natural environment, with all of the schools prominently displaying projects and posters and artwork relating to nature and the outdoors, and from the children's accounts of school trips and their contributions to their nature tables and other projects.

The town school had an artificial grass playground and a tarmac playground, as well as a fenced-off lawn and raised bed area which was used by some classes for growing flowers and vegetables. The city school had a natural play area as well as the concrete yard, and had integrated the natural outdoor space into multiple areas of the curriculum, having created a wattle and daub pizza hut structure and clay oven as part of a history project, using the wooden tower and rope bridges for a recreation of a roman fortress scenario, and teaching the children about permaculture while the herb garden was being created with them. The rural school, although having extensive green areas, had neither a garden for the pupils, nor were they allowed to use the fields and trees and bushes for play, except for a small, defined area adjacent to the school building. The children talked about their restricted access to the grass and bushes but most seemed to accept it without question. One girl (8/9 years), however, commented that "adults think we're not responsible" to explain why she felt that the children were not allowed to play in the trees and bushes. The school principal told us that most of the space was reserved for matches and training.

When asked, the vast majority of the children who took part in the focus groups said they would prefer to be outside during their break-times at school.

Travel to school

Although the majority of children in all locations took the bus or were driven to school, when asked, they were able to describe some of the things they saw out of the window on their journeys, but in rather generic terms:

Fields and trees and animals. (Rural school, 10-12 years, girl)

However, walking to school was an opportunity for some children to engage with the outdoors and nature:

Girl: Well, when I walk I see the leaves falling, sometimes in the autumn. And in the summer I see the sun shining.

Interviewer: And does it feel different to walk than to be driven? Do you see different things? Do you notice different things?

Girl: Yeah. I don't really know what to do in the car so I read and I don't really notice things, but when I walk then I notice a lot more things. (Town school, 10-12 years)

It could also provide a chance for a daring adventure:

Two years ago when the weather was all snowy, me and John walked down the hill and all of the road was all icy. Me and John got out our bags and we went down on our bags and we started sliding down the whole hill. Then the car came and me and John jumped off our bags! We tried to turn but we couldn't so we jumped off our bags and all our books were soaking. I had books in my bag and all my books came out soaking. (City school, 10-12 years, boy)

Understanding of nature

Although most of the children seemed to understand what the researchers meant when they asked them to talk about being in nature, one rural child claimed to have "never been in nature before" (8/9 years, boy), although he then described going to Gougane Barra, a natural forest park in County Cork, for his Communion. There was some fuzziness in children's understanding of nature and the outdoors generally, and older children in the city school were easily distracted into talking about waterparks and activity centres they had visited when the subject of nature was raised. In the youngest town class, the discussion was dominated by discussions of an exotic wildlife park after one child talked about a trip there at the start of the session.

For most of the children, nature appeared to be an arena where they were able to use their imaginations, explore and manipulate their environments, experience fun and adventure, and discover new things:

At the seaside I always look for a rock pool, it's fun because you don't know what's in there. I might try and catch little fish, it was very hard, I almost fell in with the seaweed and my dad just caught me. (City school, 8/9 years, boy)

Access to Nature

Predictably children's access to nature varied across the three locations. Some opportunities for accessing nature were provided by adults; for example, many of the city children had been orienteering with their

school and one boy went hunting with his father. This was also the school with the natural play area, where existing established trees and bushes had provided the framework for play structures. The children in the city school all spoke with enormous warmth and excitement about this space, including the relaxed rules relating to safety, wet and dirt:

Boy 1: I would go to the garden because like, it involves like, more nature. It's like a mini forest and you can climb trees and stuff.

Boy 2: I'd choose the garden because it's more fun and the grass won't cut you but out in the flat yard if you fall, you will hurt yourself. And like, my friend says there's a load of stuff and you can climb on trees and there's a load of tree houses.

Boy 3: We'd still go out, we'd just put on coats and like, pants over ourselves so if we get mucky we can just take off the pants, but if they're dirty we'd still have our pants on and then we'd like, go up. (City school, 8/9 years)

The children in the city school were familiar with horse chestnut trees and told the researchers exactly where these could be found in their locality, as playing 'chessies' in the school yard was a current popular pastime. They also talked about rabbits, foxes, badgers, birds, crabs, trees and flowers. One child gave a vivid description of an insect he had once seen:

...I don't know what it is but it was like a centipede and it was very big and fat. (City school, 8/9 years, boy)

The children in the town school mostly lived close to the countryside, with some of their estates backing onto woodland, and many talked about exploring their areas, on nature walks with their families and on their own:

I love cycling. Because like, it's good for you and when I'm cycling I get to see some like, animals sometimes. Like once, I saw a fox and it was really- and I stopped off because I really wanted to watch it, because it wasn't close to me but it was in a field beside me. (Town school, 10-12 years, boy)

One girl (8/9 years) said she and her neighbour "do this competition for finding loads of stuff, interesting stuff" from nature, while another girl spoke about the recuperative power of playing imaginative games in nature:

When we're really tired after doing gymnastics at our neighbours, we go looking around and we look for sticks and leaves and then we pretend we are at a restaurant and it only sells kebabs, so we put the leaves on the stick. (Town school, 8/9 years, girl)

Some of the town children also talked about school nature walks and nature projects. Although one boy had done a project on squirrels, he had never seen one.

The rural children's understanding of nature appeared to be integrated into their everyday lives, and their descriptions often included the woodlands, farmland and farm animals they encountered at and near their homes:

Sometimes when it's rainy we go down the forest and we start cutting trees because we have

a stove and we're filling up the shed with blocks and stuff for the fire. And my brother mostly does it but I do it sometimes. (Rural school, 10-12 years, girl)

They also described their experiences in more unfamiliar natural places:

We went picking sloes for our Aunt's friend because our Aunt and her friend make sloe wine and we picked loads of them this year and we found this big tree with them, and under it there was like this tunnel thing. And it was like really old, and we found a torch in the car and we went into it and we went under, and it was under a bridge and you came out the other side of the bridge. Yeah, we went down there for like ten times because it was really fun. (Rural school, 10-12 years, boy)

Friends and other children

The importance of friends for children's outdoor activities was clear across the focus groups. Although the rural children appeared to have the most unrestricted access to outdoor space and reported various outdoor activities, in the rural area it was notable that the youngest age group made no mention at all of friends, while the older children mentioned inviting friends over, but did not talk about playing informally with friends. This compares with children in the town and city school, where friends were mentioned casually and frequently:

Ehm I prefer outside because with your friends you've got like, so many options to do outside. And like, even you can just talk outside and it's being nice, and you get some sun, except for when it's raining. (Town school, 10-12 years, girl)

Siblings and cousins, however, featured strongly as companions in the town and rural groups, where they seemed to play a major role in children's outdoor play and other activities:

I think of like, my friends and my family because am when I go to my friend's house there's like, a woods there and we normally build dens and stuff. And also my mum, my dad, my brother and sister, I normally go walking with them and it would be really like, luxurious except for when we get spiked with plants (laughing). (Town school, 10-12 years, girl)

Isolation from other children

One of the most cited reasons for staying indoors was lack of company. Children often mentioned that they felt bored and that they would choose to stay indoors if they had nobody to play with:

If I'm with my friends it would be either, but if I was on my own it would probably be inside. (Town school, 10-12 years, boy).

This was particularly marked in the rural school, where friends were rarely mentioned compared to siblings, cousins and other family members, and a number of children described being alone because of the distance from their friends' houses:

...they're always saying why do you always want to go on like laptops and stuff and I always say because we're living in the middle of nowhere and I have no friends round here. (Rural school, 8/9 year olds, boy).

One of the younger (5-7 years) boys in the town school said that although he is allowed to go anywhere in his estate, he has nobody to play with because he just moved there recently, and as a result doesn't normally play outside.

Role of adults

Parents played a major role in facilitating children's access to the outdoors and nature, by providing outdoor equipment such as trampolines and bicycles, by playing with them, particularly in their gardens, and by bringing them on trips and accompanying them on walks:

...my dad was in swimming we saw the big red crab, and he goes, 'Brady, look at him' and he picked him up and he put it back in [...] and then he goes to my younger sister, 'Don't go in'. And she would just go to go in, and I pushed her, and then she got all sandy so she had to go in. And then she seen the crab and she ran out. (City school, 8/9 years, boy)

One child also mentioned that when she is indoors, she is usually doing jobs, which might be another incentive parents provide for their children's outdoor activity.

Other adult relatives also featured integrally in children's accounts of their lives, and many rural and town children spoke about going out with aunts and uncles, and visiting grandparents:

In my spare time my next door neighbour, Róisín, comes over to play and I ride my bike with my dad and I go to my granny's house. (Town school, 8/9, girl)

Pets

Pets (their own and other people's) featured prominently in the children's accounts of their lives, particularly among the rural and town children. Many of the children had dogs, cats, fish, and rabbits at home, and one boy had a pet chipmunk. Even more children said that they played with neighbours' dogs, and a few said that they looked forward to spending time with their grandparents because there they got to spend time with dogs and puppies:

I like going to my granny's house because she has two puppies. (Town school, 8/9, girl)

For many children, playing with animals was part of the incentive to going outdoors:

I normally like going outside because the dogs always run around with us and we go up on our massive rock and we jump off it. (Rural school, 5-7 years, boy)

I go outside every day because I have a dog and I love walking the dog over cornfields that are in front of my house. (City school, 10-12 years, boy)

The children's relationships with their animals appeared to be very important to them, both as companions and playmates, and some of the children also spent time watching their animals' behaviour:

My cats always wander around the place and one of them goes across the road into my granddad's field every day and he just sort of lies there. (Town school, 8/9 years, boy)

Perhaps interestingly, among the 8/9 year olds in the city school, nobody mentioned having a pet, and this

was the class where a great deal of the discussion centred on how hazardous and mysterious the natural environment was:

Boy 1: [The forest] feels a bit scary like, because you don't know what will be down there and sometimes there might be a wild animal and you'd be afraid that you wouldn't know what to do.
[...]

Boy 2: I got pinched in the finger by a crab. I was swimming like, and then I went over to my dad and I said, 'Dad, I got pinched by a crab on the finger'. And my mam came over and looked at my finger and said, 'There's nothing there' because it was only red, like. And then she went in, jumped in so she'd know (laughing).
[...]

Boy 3: The first time I went to the beach, I went into the water with my uncle, and then I actually fell underwater and I was drowning. But when I was under there I saw like some kind of animal, and then my uncle pulled me up before I could find out what it was.

Barriers and constraints

Barriers which restrict children's opportunities to access the outdoors and nature may be explicit (e.g. rules and regulations) or implicit (e.g. beliefs and attitudes); they may be physical (e.g. fences, darkness, long distances) or virtual (e.g. neighbourhood boundaries); or a combination:

The grass is Mr Smith's grass so once, ehm, a junior went on it and then the juniors said sorry to Mr Smith, and then Mr Smith was like "Say sorry to the grass, not me." (Town school, 5-7 years, girl)

Schools

Schools were both enablers and obstacles to children's enjoyment of the outdoors and natural heritage.



Town school rear view



Fence protecting garden from school yard. Town school.

As stated, none of the schools had direct involvement with the Heritage in Schools programme, but one had engaged the services of a local heritage expert to work with the school on nature education projects. Both the city school and the town school had a garden where they grew vegetables, herbs and flowers, but the children had varying degrees of access to and involvement in these projects, which seemed to depend on the interest of their particular teacher, with one group telling us that they were involved in planting and harvesting (10-12 year) while the other two groups had had little if any opportunity to do this:

Interviewer: Do you actually do gardening in school?

Girl 1: Sometimes.

Girl 2: Last year before –

Girl 1: Sometimes, but Ms Black retired.

Boy: Ms Black took care of them. Ms White said we'd be doing loads, that we'd get really dirty, but we don't. (Town school, 8/9 years)

Although all of the schools had trees and bushes in their grounds, in the town and rural schools these did not appear to feature in the children's accounts as either play spaces or as learning tools. While all of the schools brought nature into the buildings, with posters, artwork, videos and nature tables visible in all schools, what was less apparent was how the outdoor spaces were being utilised in a broader way for the children's holistic education. For example, access to the outdoors was in most cases weather dependent, and in one school (rural), children were not allowed outside during their shorter of two breaks on any day. In the rural school also, the main outdoor green spaces were reserved for sports, and there was limited, age-related access to a small green area for break-times, but again, only during dry weather:

Girl: I would sometimes play with my sisters. I'm not allowed to play with my older one because she goes on the grass and we're not allowed.

Interviewer: You're not allowed on the grass?

Girl: But next year I think we are.

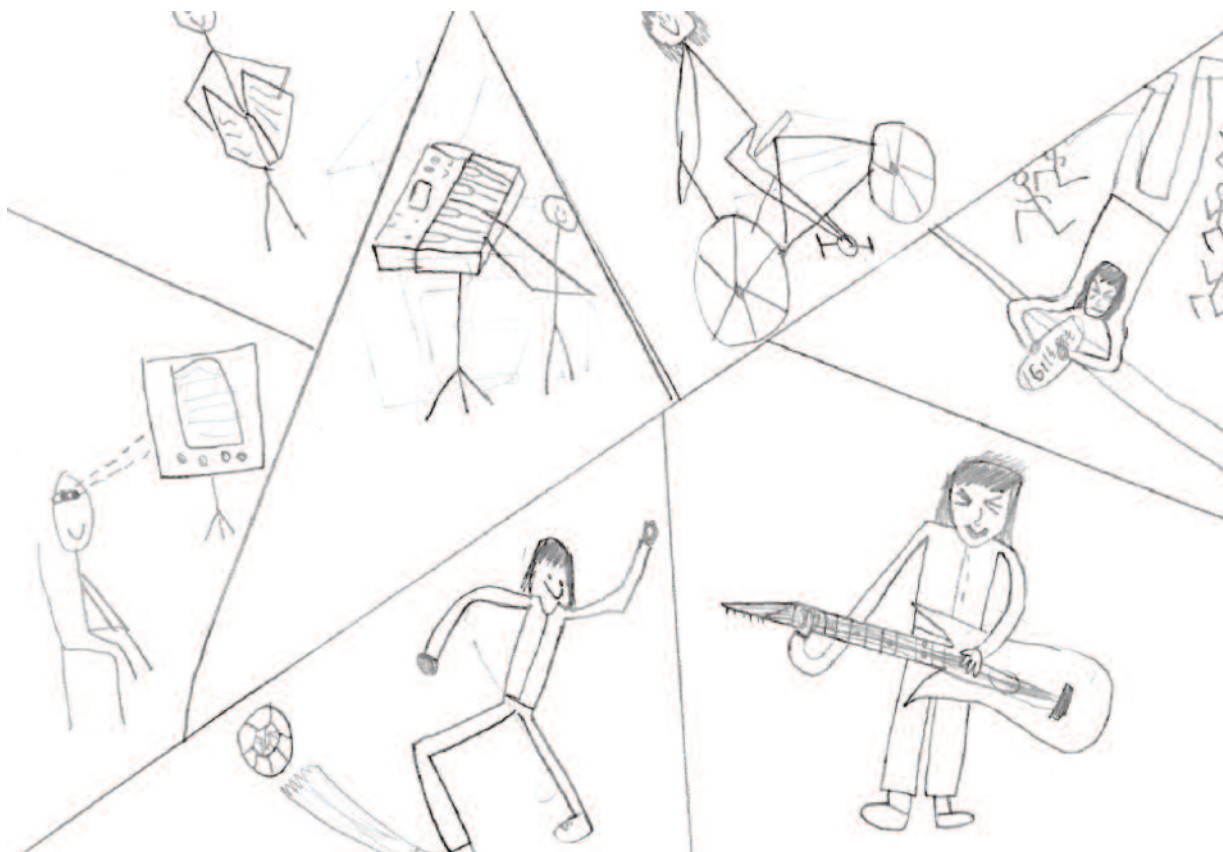
Girl 2: We are.

Girl 1: Not all the way back. We would only be allowed back to the third pole. And I would sometimes just sit down and watch, and then sometimes I play with Cian and Elisha, but most of the times me and Elisha do hand shapes. (Rural school, 5-7 years, girl)

Busyness

Children's involvement in structured activities outside of school appeared to have little or no negative impact on their use of the outdoors and nature. For example, in the city school, few children referred to structured activities, and were also less likely to spend their time outdoors than those in the town or rural schools. Children in these latter schools listed many extra-curricular and out of school activities, but were also likely to include outdoor play and other types of engagement with nature in their pastimes:

I play football and hurling and soccer at home. And I like going on the trampoline and horse riding. I play with my dogs. (Rural school, 10-12 years, boy)



Town school, 10-12 years, boy: multiple activities.

Seasons

Although many said that they enjoy playing in the rain, rules around staying dry in wet weather were cited a barrier to outdoor access, particularly, but not exclusively, in the school setting. In the town and rural schools, children said they have to stay indoors if it rains:

... when it starts to rain sometimes they would ring the bell and then all of us would have to go in line or else we'll just run in. (Rural school, 5-7 years, girl)

Notably, in the city school with the natural play area and shelter where the children had been provided with rain-proof clothing, they said that they would not be deterred by wet weather at school, but another child in that conversation pointed out that they did not have this type of clothing at home:

...if you were at home and you went out, you would get all wet because you wouldn't think of what you'd be doing in school, like putting on two pants and stuff. You're all soaking and you couldn't go out for the day because you would have your pyjamas on. (City school, 8/9 years, boy)

For many children, at home, the rain provided an exciting dimension to play:

Most of the times I do go outside when it's wet because it's fun. (Rural school, 10-12 years, boy)

Some of the children described making pretend 'slush puppies' with hailstones (Town school, 8/9 years, 2

girls), but also said that going out in the rain would depend on having a friend to play with or not. One or two made reference to times when they stayed outside in the rain:

We actually went outside, myself and Anna, in the rain, and went on the trampoline. (Town school, 10-12 years, girl)

Although most of the children said that bad weather means staying indoors, others said that they would still go out but would wear extra clothing:

Girl 1: But I have to cover up well just in case I get a cold.

Girl 2: I'll wear a jumper or something. (Rural school, 10-12 years)

One child also mentioned the darker evenings as a constraint to outdoor play:

I watch telly when it gets dark outside so I can't play. (Rural school, 10-12 years, boy)

Fear of nature

Notably, it was the city school where most of the descriptions of natural danger were talked about. One child spoke about how his class had all been stung by bees while in the natural playground (City school, 8/9 years), others talked about the danger of unknown animals lurking in the woods, or biting crabs at the beach (City school, 10-12 years, 3 boys).

Boy 1: I'm not really scared of nature but sometimes I kind of am, and I see new things [...] I see kind of squirrels, maybe something moving in the bushes but I don't know what it is yet. [...]

Boy 2: I was out swimming and something just locked on to my toe. I didn't know what it was at first and then I'm like, 'A crab, I knew it'. And I was shaking it off and it flew off my foot and then I just ran out of the pool and I go up to my dad, 'There's a crab in there' and then he went and then my dad got bit. And then he goes to my younger sister, 'Don't go in'. (City school, 8/9 years).

Other outdoor hazards

A number of other hazards were mentioned by children, many of which were dictated by parents' concerns for their children's safety. Others were those that the children themselves identified as dangers, for example, farm animals, such as horses and sheep, meant that some children were not allowed to play in the surrounding fields (Rural school, 5-7 years, boy and girl). Although many children said they loved to climb trees, this was prohibited in school:

Girl 1: Because it's dangerous.

Girl 2: In case we fall, like. (Rural school, 10-12 years)

However, the same children climbed trees outside of school, with little apparent concern for the dangers they seemed to accept in school:

Girl 2: Yeah at home I do, sometimes when I go to my music class. She has a big garden and she has this big tree and there's loads of branches that you can climb up and stuff.

In all schools, almost all of the children took the school bus or were driven to school, and none walked regularly. One or two said that they sometimes choose to walk to school, but that would be an exception. Road safety concerns were the reason one rural child gave for not cycling to school, but distance was the usual reason.

Benefits

It was clear from talking to the children in the focus groups that the majority loved being outside, preferred nature to the built environment, and that if they had company, most would choose the outdoors over indoors wherever possible:

Boy: 'Cause like normally I can just picture myself just walking through the forest with my mum and dad and sometimes maybe my granny and granddad. And just feel happy, and then again throwing pinecones at my brothers (laughing).

Girl 1: When I go to my friend's house there's like, a woods there and we normally build dens and stuff. And also my mum, my dad, my brother and sister, I normally go walking with them and it would be really like, luxurious except for when we get spiked with plants (laughing).

Girl 2: I go to the woods with my friends and I run around and I feel free, and I climb trees and I just throw the leaves up into the air. (Town school, 10-12 year old group).

Environmentalism

If environmentalism is interpreted as respect for and protection of the natural environment (Dowdell, Gray & Love, 2011, p. 26), there was ample evidence from their accounts that the children in all three locations had respect for nature. When asked to think about a time they were in nature, there was a noticeable, albeit not measurable, shift in energy in the groups and the children grew more animated and spoke with excitement and warmth about their experiences in natural settings. The natural environment was viewed as rich and varied, as a place of adventure and mystery (and occasionally of fear), and somewhere where the children were powerful, free, and agents of their own play:

I climb on the rocks and I find big huge rock pools and I find little streams and I make sandcastles around them. And once I made a big huge castle about that size because I carried on making one on top. (City school, 8/9 years, boy)

I go to the woods with my friends and I run around and I feel free, and I climb trees and I just throw the leaves up into the air. (Town school, 10-12 years, girl)

In the city school where a natural play area had been created, the children were asked where they would choose to spend their time:

I'd pick the garden too, not the flat one – the one with the tree houses, because you get to go like, down on tree houses and you get to climb. And there's this tree and the whole class loves to climb it. (City school, 8/9 years, boy).

Few children explicitly raised the subject of environmental protection, although one child talked about refuse in his local area, but quickly moved on to its more aesthetically pleasing features:

I go down this path, like it's around like – I don't know where, I forgot the name of it but I see like, tons of pollution which is kind of bad for the earth. Like, rubbish, like I don't know where it is. And then, but then I always see like some trees and all that kind of stuff like, and sometimes I see like, animals up the trees like birds and all that kind of stuff. (Town school, 10-12 years, boy).

While a question about the Heritage Council was dropped after it emerged that none of the schools was involved with the programme, the children were asked what they knew about the Green-Schools programme.

In the rural school, the 8/9 year olds explained that their flag was for recycling and each classroom had separated bins, but that 6th class students take responsibility for emptying the bins. They were cognisant of the purpose of the recycling as being "better for the world and for the environment" by reusing resources instead of cutting down more trees. The 10-12 year olds in this school were less interested in talking about the Green-School flag, although one said "I really liked that" before the subject was quickly changed back to talking about animals and berry-picking.

In the town school, the older children described their Green-School flag work in some detail:

Girl: We get the green flag cause am we do – ehm what do we do again? (Laughing) If we help the environment, yeah, help the environment.

Boy: ...like we save energy in the school by – you have to turn the lights off and don't like and don't keep the lights on. We made some plants for the bees to come in, like that's for our garden. And yeah, and then we like, all recycle when we can. (Town school, 10-12 years).

The youngest group were even less aware:

Interviewer 1: Ok. Do you guys know anything about the green school?

Boy 1: No.

Girl 1: What green school?

Interviewer 1: The green school flag. Do you have a flag?

All: Yes (Overspeaking)

Girl: We have a red and a green.

Boy 2: We do and it's, it's just out the window of our classroom.

Interviewer 1: And do you know what it's for?

Boy 2: To tell...to tell the school's name, one of them, and I don't know what the other one's for.

Interviewer 1: Do you know what it's for, Alison?

Girl 1: When do we eat our lunch? (Town school, 5-7 years)

What the pictures show

The art project was an addition to the focus groups and provided an opportunity to engage informally with larger numbers of children (123 in total), producing a range of images depicting what the children do in their spare time. What this part of the project vividly demonstrated was the wide range of pastimes that children engage in, including the busyness of some children's lives.

While most of the children drew themselves playing, or drew images of things they play with including balls, computer consoles and other artefacts, a number of the pictures showed children engaged in other pursuits, such as music and dance, reading, drawing, swimming, walking their dogs, baking, helping on the farm, and various other activities.

Some differences between the areas in the images of indoor versus outdoor pastimes were notable in the drawings. As might be expected from the literature, a high proportion of the images across all age groups in the urban setting depicted indoor pastimes (approximately equal to outdoor images), whereas those in the town and rural settings were generally dominated by outdoor pastimes, except for the oldest age group in the rural school where they were again equal, often explained by the children as owing to their geographic isolation from friends.

Many of the children in the town setting drew themselves playing in their gardens or around the estates where they told us they were free to roam and mix with their neighbours and friends.

Although a high proportion of the children in the rural setting depicted themselves outdoors playing football, with their dogs, and other outdoor activities, the older groups were also more likely to draw images of music lessons, Irish dancing, reading, and other indoor pastimes, which impacted on the rate of representation of outdoor activities.

Television and computer use was also a point of difference. Of the twenty-four city children whose pictures were included, two depicted television (one in twelve), while eleven included images of computers and games consoles (one in two).



Town school 10/12 year old girl. "Handstands against the wall" and "I look after my 3 dogs, 6 hens and 2 ducks and my cat and play with them."



Town school, 5/7 year old boy. "I am skateboarding outside my house" and "My mum and I are walking the dog."



Rural school, 10/12 year old girl. "Drawing, walking, Irish dancing, doing hair, football, playing music, reading, cycle, playing on the go-cart, playing with my dog and puppies, playing on the swing, baking."

In the rural setting, among the thirty-five children whose drawings were included, there were five images of television watching (one in seven), and seven of computer or games console use (one in five). None of the two younger age groups in the town setting included television in their drawings, while almost half of the oldest group did (one in two). Computer use was low in all town groups, present in just one of the twenty-one Senior Infants', five of the nineteen second class (one in four), and just four of the 20 fifth class pictures (one in five). As shown in the table below, in the absence of prompts from the researchers, few children (6) spontaneously depicted nature. See further Table 4 in the Appendices.

Section E: Conclusions And Recommendations

This small study provides an important snapshot of children's experiences of the outdoors and the natural environment. Set against the backdrop of the child's right to education, health and play, the research identifies the main trends in this area, considers the benefits to children and their rights of contact with the outdoors and examines the different barriers that prevent children from enjoying these rights to the full. Two principal methodologies were used – a desk based review of both the literature and the law and policy were undertaken while 123 children were consulted, in three different school settings, as part of a commitment to ensuring that the research was informed by children's views and experiences. Although the views of the children are important, in their own right, there is an important correlation between the considerable body of research examined for this study and the views expressed by the children involved.

Summary Conclusions

In summarising the wide-range of issues identified as part of this study, the following points should be highlighted:

- Children's relationship with the natural environment has received scant consideration in Irish law and policy. Although referenced in a number of policy areas such as play and education, an explicit and overarching policy which supports children's engagement with the outdoors is yet to be developed.
- Research shows that the changing nature of children's lives is a major concern and that the child-nature connection is under serious threat. Particular groups, including children with disabilities face particular challenges in this regard. At the same time, there are significant benefits, including to health and well-being, to contact with the outdoors and the environment.
- Play is central to these benefits, to children's development and to their lives. Risk, challenge and flexibility are some of the core components of play, provided best by the outdoor environment.
- All things being equal, children prefer to play outdoors rather than indoors. They relish the freedom of exploring and playing in an unstructured manner. Location, weather and having friends nearby are strongly linked to the attractiveness of outdoor play.
- Barriers include the role played by gatekeepers (e.g. parents, teachers) whose attitudes influence children's behaviour.
- Schools are an excellent place to nurture children's relationship with nature and some elements of the primary school curriculum give support to children's contact with the natural environment. However, the autonomy of schools means that the character and ethos of each individual school will determine the level of access to natural settings that children receive. This is borne out by the three different school settings visited in this research.

Recommendations

In light of this research, using its findings and giving voice to the children's perspectives, the Heritage Council is encouraged to consider the following measures to support children's engagement with the outdoors and natural heritage:

Policy

- The Heritage Council should lead efforts to adopt a national policy on children and the outdoors and the natural environment, advocating for a cross-government approach in this area. Particular emphasis should be placed on the views and experiences of children in this process, which should be addressed to government departments and agencies concerned with Children and Youth Affairs; Health; Education; Sport; Planning; Environment, Transport and Finance.

Public Awareness and Engagement

- The Heritage Council should consider how best to stimulate public awareness and engagement around the issues in this report. One suggestion is to showcase on the Heritage Council website some of the key programmes and initiatives being implemented in Ireland and worldwide to promote children's contact with the outdoors.
- A public debate could be stimulated by convening a conference identifying the benefits to children of contact with the outdoors, to engage with policy makers, government departments, schools and civil society groups (from across the spectrum) on the issues in this report. The Heritage Council should also consider using the National Play Day initiative run by the Department of Children and Youth Affairs to generate support for a national policy in this area.

Children

- The Heritage Council should adopt the principle of children's participation into its way of working, in line with national policy, to ensure that children's perspectives inform its programmes, policies and initiatives. A Children's Advisory Group should be set up to ensure that children's views inform its activities. This group might assist to develop a children and young people's section on the Heritage Council website, could usefully feed into the development of the proposed national policy on children and the outdoors and inform awareness raising activities with schools and the public generally. It could also play an important role in the development of the school strategy (below).

Schools

- Schools are in a unique position to educate and engage children about their connection to the natural world and the interdependence between people, plants, animals and the land. Outdoor play and learning spaces are an ideal feature of this learning, helping to raise their environmental consciousness. To maximise this opportunity, and building on its relationship with schools through the Heritage in Schools Scheme, the Heritage Council is recommended to develop a schools strategy taking into account the following:

- Free outdoor play, particularly in natural environments, has been found to be one of the most natural and effective forms of learning and to also be vital for children's happiness. Measures to clearly establish the importance of free, natural outdoor play within the education system need to be developed, including through developing appropriate teacher-training modules and reviewing school policies.
- Schoolyard greening, including natural landscaping, integrated natural materials, play equipment and school gardens, can increase children's engagement with nature and the outdoors. Such measures, in addition to field trips, environmental clubs, and other creative approaches may also facilitate the integration of environmental topics into the existing curriculum.
- During the school day, principals and teachers should encourage children's learning in the broadest sense, facilitating access to a wide range of enrichment activities, materials and environments for all children. This will entail moving beyond a narrow academic and risk-averse focus by facilitating children's access to nature and the outdoors through adequate outdoor break times and place-based education (both in the school grounds, the local area and through organised trips to sites further afield).
- The Heritage in Schools Scheme should be promoted and adequately funded to encourage greater buy-in from all types of schools regardless of their access to resources. Greater cooperation and networking with other national and local nature and environmental projects and programmes could enhance the impact of the Scheme. A visible merit system of evaluation, possibly modelled on the Green Schools flag initiative, could provide greater incentive for schools to engage with the Scheme, and provide a valuable way for the Heritage Council to audit and evaluate the Scheme.

Research

- Multiple areas for further research are identified throughout this report. The Heritage Council is recommended to develop a research strategy taking into account this study and using its child-focused research methods.
- In this regard, priority should be given to research to discover strategies for increasing the frequency and quality of children's contact with the natural environment, with particular regard to the perspectives of migrant children, children with disabilities, Traveller children and children from disadvantaged backgrounds.

Evaluating Progress

- Consideration should be given to developing a children's rights framework for evaluating children's contact with the outdoors. This could be done in conjunction with a children and young people's advisory group and could usefully take account of the trends, benefits and barriers identified in this study.

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An Chomhairle Oidhreachta
The Heritage Council



An Chomhairle Oidhreachta
The Heritage Council

Áras na hOidhreachta
Church Lane, Kilkenny, Ireland

T +353 (0)56 777 0 777

F +353 (0)56 777 0 788

E mail@heritagecouncil.ie

www.heritagecouncil.ie

The research was conducted for the Heritage Council
at University College Cork under Professor Ursula
Kilkelly of the School of Law. The research team was:

Dr Helen Lynch and Alice Moore, School of
Occupational Therapy and Occupational Science; Dr
Angela O'Connell and Sarah C Field, School of Law.

For further information about the research please
contact Professor Ursula Kilkelly at u.kilkelly@ucc.ie

