

Review of the environmental dimension of children and young people's well-being

A report for the Sustainable Development Commission

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Preface

This report was commissioned by the Sustainable Development Commission (SDC), as part of their project *Every Child's Future Matters*. It was researched and written by the *centre for well-being, nef* (the new economics foundation).

Key objectives of the project, as identified in the tender brief, were as follows:

1. To review research that has examined correlations between the environment and the physical and psychological well-being of children, now and in the future.
2. To analyse how the outcomes of Every Child Matters (ECM) can be met through application of sustainable development principles.
3. To identify potential changes to ECM outputs and indicators that would allow ECM to better incorporate an environmental dimension.
4. To provide evidence, where possible, on the effectiveness of different types of programme or project delivery and their impact on children and young people's well-being.

The report complements a parallel report commissioned by the Sustainable Development Commission from researchers at the University of York (see Huby & Bradshaw, 2006). Both reports will be used as feeder documents into the main project.

Methodology

The process of researching and writing the present report consisted of three stages:

1. Review of the evidence base

A desk based review was conducted of relevant research findings from both academic research literature (i.e. from scholarly journals and books) and relevant publications in the grey literature (i.e. secondary research findings from local government, NGOs, and other third sector organisations).

2. Collection, collation and analysis of Local Authority findings

Nicola Steuer attended the second workshop day of the *Every Child's Future: Does That Matter?* project, on 13 October 2006. This workshop was also attended by representatives from the nine participating Local authorities. Notes were taken of discussions amongst Local Authority representatives about the connections between ECM and the environment, including any progress to date on practical delivery at a local level. Subsequent to the workshop, follow-up work was undertaken to review the written summaries of the Local authorities involved.

3. Analysis of findings and write-up

Definitions

The following terms used throughout the report are defined below:

Well-being follows the general usage within the Every Child Matters framework and associated literature. Although there is no single definition, the strong implication is of a state of overall physical and psychological health, with opportunities to develop and flourish in a safe and supportive environment.

Environment is used in the broad sense of the child or young person's physical surroundings. It does *not*, therefore, refer exclusively to the "natural world", although this is included in the definition to the extent that it is part of the child or young person's wider environment.

Sustainable development is understood in accordance with the definition put forward in the most recent UK sustainable development strategy, *Securing the Future*. This has two main components:

"Ensuring a strong, healthy and just society. Meeting the diverse needs of all people in existing and future communities, promoting personal well-being, social cohesion and inclusion, and creating equal opportunity for all." We refer to this as a **sustainable community**.

"Living within environmental limits. Respecting the limits of the planet's environment, resources and biodiversity – to improve our environment and ensure that the natural resources needed for life are unimpaired and remain so for future generations." We refer to this as **environmental sustainability**.

1 Introduction

1.1 Every Child Matters

Every Child Matters (ECM) is a national framework for coordinating and orienting the provision of children's services, from birth up to the age of 19. Based on the 2003 Green Paper of the same name, and given legislative force by the 2004 Children's Act, the ECM framework emphasises the need to place the well-being of children at the heart of service delivery, focusing on the needs of each child as a whole person. In particular, it aims to focus on aspects of well-being that are important to children themselves, not just to the professionals who are involved in children's services.

Central to the framework is the idea that the various organisations that provide services to children – school, local authority social workers, health services and so on – need to operate more effectively together towards a common agenda. This agenda is encapsulated in the five core outcomes of ECM, which themselves were developed partially in consultation with children and young people:

- Be healthy
- Stay safe
- Enjoy and achieve
- Make a positive contribution
- Achieve economic well-being

1.2 Whither environment?

In the two years since the inception of Every Child Matters, there has been widespread agreement both that the strategy is valuable in itself and that it has succeeded in providing a much-needed impetus for children's services to work more collaboratively. As can be seen from the aims outlined in Table 1, the strategy is undoubtedly broad in its coverage, incorporating health, education, home and family life, sports and culture.

Nonetheless, it is striking how little overt consideration is given in the ECM strategy either to the child's environment or to wider issues of environmental sustainability. Of the complete set of indicators used in the ECM framework, only one makes explicit reference to the environment: "Cleaner, safer & greener public spaces, and quality of the built environment in deprived areas". This is listed as the

indicator for one of the five aims under the *Achieve economic well-being* outcome target, “Children and Young People live in decent homes and sustainable communities”.

Table 1: Core aims of *Every Child Matters*

Outcome	Aims
Be healthy	Physically healthy Mentally and emotionally healthy Sexually healthy Healthy lifestyles Choose not to take illegal drugs <i>Parents, carers and families promote healthy choices</i>
Stay safe	Safe from maltreatment, neglect, violence and sexual exploitation Safe from accidental injury and death Safe from bullying and discrimination Safe from crime and anti-social behaviour in and out of school Have security, stability and are cared for <i>Parents, carers and families provide safe homes and stability</i>
Enjoy and achieve	Ready for school Attend and enjoy school Achieve stretching national educational standards at primary school Achieve personal and social development and enjoy recreation Achieve stretching national educational standards at secondary school <i>Parents, carers and families support learning</i>
Make a positive contribution	Engage in decision-making and support the community and environment Engage in law-abiding and positive behaviour in and out of school Develop positive relationships and choose not to bully and discriminate Develop self-confidence and successfully deal with significant life changes and challenges Develop enterprising behaviour <i>Parents, carers and families promote positive behaviour</i>
Achieve economic well-being	Engage in further education, employment or training on leaving school Ready for employment Live in decent homes and sustainable communities Access to transport and material goods Live in households free from low income <i>Parents, carers and families are supported to be economically active</i>

Recent research by the National Federation for Educational Research (Lord *et al*, 2006) analysed 75 Children and Young People’s Plans (CYPP: a single, strategic, overarching plan for all services

affecting children and young people in a district) to look at how they contribute to the five outcomes of Every Child Matters. This review provides compelling evidence of the lack of an environmental dimension in ECM. It shows that, despite over 90 different targets (and their variants) being recorded across the plans, very few related to the environmental context in which children and young people live their lives. Where reference was made it tended to be indirect, such as to targets for increasing physical activity outside school (presumably requiring availability of quality open and play spaces) and reduce road traffic accidents (which by reducing car usage would not only have beneficial effects on children's physical safety but also for quality of the environment – for current and future generations – in terms of reduced carbon emissions). A small number of more explicit linkages are mentioned in relation to environmental health, such as ensuring smoke free environments which was linked to the ECM outcome "Be Healthy" and providing cleaner, safer and greener public spaces which was linked to "Achieve Economic Wellbeing". In relation to the latter outcome, the analysis found that Children and Young People Plan priorities in this area could be grouped into two main categories: education, employment and training, and standard of living. Within the standard of living sub-group, twenty-six of the seventy-five plans included a priority for "sustainable communities and local environment" although the report notes:

...within standard of living, priorities concerning housing (including the quality of housing and youth homelessness) feature most frequently, whilst priorities relating to sustainable communities and the quality of the local environment are less commonly cited (Section 11, p.2).

The report also notes that targets for standard of living, including local environment, featured less frequently than targets within "Achieve Economic Wellbeing", and tended to be "chiefly non-numerical".

A second interesting finding from nfer's review is that although the majority of Children and Young People Plans were designed to a different format and outcomes framework than that proposed under Every Child Matters, they still largely failed to include any consideration of the environmental dimension of children and young people's well-being. The report notes that only four of the seventy-five plans relayed the ECM outcomes framework in its entirety, instead choosing to devise alternative formats for outlining priorities, targets and actions. The authors suggest that

..local authorities are working with it [ECM outcomes framework] as a conceptual tool rather than adhering to it as a blueprint formula (p.2).

Given that ECM lacks an explicit focus on the environment, this departure could present a positive alternative means of integrating the environment into local Children and Young People Plans, although the evidence from the review does not appear to support this in practice.

This near absence of an environment focus within ECM, and within existing CYPPs, is notable for at least two reasons. Firstly, as Huby and Bradshaw show, there is strong evidence that the environment makes an important contribution to the well-being of children and adults alike. Secondly, environmental sustainability is increasingly being viewed as a key economic and social agenda (especially since the publication of the Stern Review) and seems likely to remain a major issue in the lives of all people, children and adults, for many years to come.

1.3 Well-being and sustainable development

The idea that well-being should be considered alongside sustainable development is reflected clearly in the most recent UK sustainable development strategy, *Securing the Future* (DEFRA, 2005). In this document, sustainable development is conceptualised in terms of two key principles (p. 16):

- **Living within environmental limits.** Respecting the limits of the planet's environment, resources and biodiversity – to improve our environment and ensure that the natural resources needed for life are unimpaired and remain so for future generations; and
- **Ensuring a strong, healthy and just society.** Meeting the diverse needs of all people in existing and future communities, promoting personal well-being, social cohesion and inclusion, and creating equal opportunity for all.

An obvious implication of this definition is that the two goals are not – or, at least, should not be assumed to be – mutually exclusive but mutually reinforcing; that is, an environmentally sustainable community is also thought to be one that promotes personal well-being and strong social ties.

The UK government's decisive bringing together of the sustainable development and well-being debates, hitherto conducted at some distance from one another, is both enlightened and timely given the current prominence of both issues within national policy discourse. At the same time, however, it is not immediately clear how the two relate to one another in practice. Is there real, substantive evidence that sustainable development principles lead to better social outcomes? Or conversely, that strong societies are more environmentally sustainable? Following a commitment in *Securing the Future*,

DEFRA commissioned two substantial research reviews (Dolan *et al*, 2006; Marks *et al*, 2006)¹ to address these issues by exploring the relationship between sustainable development and well-being, assessing the state of existing evidence and (in Marks, *et al*) considering a range of potential policy implications.

Both reports found that relationships existed on different levels. Some of these were direct (e.g. resulting from individuals' contact with the natural environment) and some mediated through behaviours (e.g. consumption patterns in the home) or wider psychosocial processes (e.g. aspects of the economic system and their impacts on individuals' values and attitudes). In general, though, both reports found that the evidence to support claims of a positive relationship between individual well-being and environmental sustainability was often suggestive rather than robust, and frequently equivocal in nature. Moreover, much of positive evidence was cross-sectional rather than longitudinal, rendering the direction and strength of causal links difficult to establish.

Partly, of course, the limitations in the current evidence are the result of researchers having only recently considered environmental sustainability and well-being as aspects of the same issue; they certainly do not preclude the existence of relationships. Nevertheless, it is worth being mindful from the outset of potential limitations of the existing evidence base in relationship to children and young people's well-being and the environment. Two particular caveats should be noted. Firstly, the amount of non-academic evidence bearing on the subject is relatively slight; much of what exists is in the form of evaluations of small-scale initiatives and projects, and is anecdotal in nature. Secondly, the majority of evidence from the academic literature explores links between the environment and children and young people's well-being *now*. As will be discussed below, much of this evidence is persuasive and has important implications for the application of ECM in practice. However, there is currently little substantive evidence available on issues of inter-generational inequity for children and young people into the future². Future research is definitely needed to address longitudinal issues, such as the impact of children's early environment on their later development.

1.4 Contents of the present report

The lack of an overt environmental 'angle' within the current ECM framework raises several questions:

¹ Marks *et al* (2006) was researched and written by the *centre for well-being*, **nef** (the new economics foundation).

² Note that the following review was compiled with reference to Huby and Bradshaw (2006). As such we have endeavoured, where appropriate, not to repeat material already covered in their report.

1. What is the nature of existing evidence that environment plays an important part in the well-being of children, and, how could this evidence be used to enhance the current ECM framework?
2. Are there existing examples of how a closer integration of ECM and the sustainable development agenda could be achieved in practice?
3. What might be the challenges of integrating an environmental dimension into children and young people's services?

The following sections of the report address these three questions in turn. Firstly, evidence for relationships between the environment and environmental sustainability on children and young people's well-being is reviewed, with suggestions for how linkages between the sustainable development agenda and ECM could be improved and specifically how the ECM indicator set could be expanded to this end. Secondly, we provide practice based examples in relation to embedding environmental sustainability into the ECM framework, drawing on examples from local authorities involved in the *Every Child's Future Matters* project along with evidence from other initiatives. In the final section, we consider some of the practical challenges of integrating an environmental dimension into children and young people's service provision under the ECM framework.

2 The environment and Every Child Matters

In this section, we review the research evidence to consider the role the environment plays in relation to each ECM outcome and its potential affect on children and young people's well-being. The aim of the section is to identify linkages and explore the rationale, based on the available evidence, for increasing the environmental dimension within ECM.

2.1 Be healthy

Evidence

Mental and physical health is at the very core of ECM. Without good health, it is difficult for children and young people to achieve economic well-being, make a positive contribution to society or maximise their full potential. Health is also the area where an environmental dimension overlaps most immediately with ECM objectives, because the many detrimental impacts on health from environmental degradation and unsustainable resource use are both obvious and well-understood.

At the extremes, of course, such impacts can be catastrophic. Worldwide, poor environmental quality is estimated to be directly responsible for some 25 per cent of all preventable ill-health, especially diarrhoeal diseases and acute respiratory infections (United Nations Environment Program 2002). Moreover, there is copious evidence in the medical and epidemiological literature to support the argument that environmental changes have already had impacts on health, and will continue to do so in the future. Sunyer and Grimalt (2006), for instance, review a range of evidence suggesting direct effects of climate change on individual's health, in particular those resulting from temperature rises, changes in levels of rainfall (e.g. droughts and floods) and the ecology of infectious diseases. Weiss and McMichael (2004) argue that marked trends of re-emergence of old, and emergence of new, infectious diseases in the latter part of the twentieth century can be partially attributed to human-induced climate change.

As Huby and Bradshaw (2006) note in their comprehensive review of the extant academic literature, there is already a good deal of evidence that changes in general environmental quality of the kind that are evident in the UK now have an effect on children and young people's physical health. They highlight evidence of detrimental impacts from ultraviolet radiation (as a consequence of the thinning of the ozone layer), diminished air quality and increases in toxic pollutants from both household products, from waste and landfill and in drinking water. In many cases, whilst there are adverse health

impacts for people of all ages, the dangers are more acute for children than for adults because of the consequences they can have for future development.

An environmental dimension is of further importance in relation to children and young people's physical health regarding its role in supporting good diets and nutrition and providing open space for children and young people to exercise. Huby and Bradshaw's (2006) review of the literature highlights the importance of environmental quality such as soil degradation, pollution and climate change in affecting food quality and the importance of providing outdoor play spaces to help support children's physical health and address issues such as obesity. British children have notoriously poor diets, with particularly high rates of obesity; according to the British Medical Association, around 25% of school aged children are significantly overweight or obese (BMA, 2005). Pearce, Green and Noble (2005) argue that improving the quality of food in schools is an opportunity for a sustainability "double dividend" – that is, providing children with good quality, locally-sourced, seasonal food would have health benefits for them, whilst reducing the environmental impact of food production.

In addition to these physical health dimensions, however, there is some emerging evidence that wider environmental factors can exert an influence on aspects of psychological well-being, even if the mechanism through which this occurs is unclear. Vemuri and Costanza (2006) recently showed that natural capital (as measured by a composite indicator of "environmental health" called the Ecosystem Services Product) is strongly associated with aggregate subjective well-being (that is, how people actually feel about their lives) when compared across countries, and is actually a better predictor than social capital. In another recent paper, the German economist Heinz Welsch (2006) looked at panel data on subjective life satisfaction, Gross National Product (GNP) and pollution levels across ten European countries over the period 1990-1997. Air pollution (in particular levels of nitrogen dioxide and lead) was found to be a significant predictor of differences in life satisfaction both between countries and over time, even when GNP was controlled for. In other words, high levels of air pollution were associated with lower subjective well-being and well-being improved as air quality improved. At present, there is no data specifically showing these kinds of effects with children or young people, but it is not hard to imagine that similar relationships may well exist.

These findings all relate to detrimental effects of exposure to poor or degraded environments, of the kind that are typically observed in urban settings. However, a growing number of studies have drawn explicit links between positive mental health outcomes and the amount of direct contact people have with the environment, and especially with relatively unspoilt natural environments. For instance, Hartig *et al* (2003) exposed two randomly assigned groups of participants to a number of stressful tasks. Afterwards, one group sat in a windowless room before walking through an urban environment, whilst

the second sat in a room with green outdoor views before walking through a nature reserve. At the end of the study, the second group had significantly lower blood pressure (an indicator of stress) and reported more positive feelings than the first. This explanation echoes, to some extent, the claim that human's have innate "biophilia" (Wilson, 1984) – that there is some sense in which natural surroundings are *intrinsically* calming and restorative. The biophilia hypothesis has had popularity recently amongst some psychologists, as witnessed by the emergence of "nature-guided therapy" (Burns 1998), "ecopsychology" (Kanner, Roszak & Gomes, 1995) and even "horticultural therapy" (see, e.g. Simson & Straus, 2003). The premise underlying all these approaches is that nature has a restorative effect on humans that goes beyond merely improving physical health or providing a pleasant place to exercise and spend time (Kaplan & Kaplan, 1989; Kaplan, 1992). As such, it is argued, contact with the natural world can potentially be a powerful tool in psychotherapeutic intervention. It is this kind of ethos that underlies practical projects such as the Forest Schools Programme,³ which provides the opportunity for primary and secondary school pupils to have regular class time in outdoor woodland environments.

These positive effects of access to the environment on psychological well-being have led some writers to consider policy implications. Mace, Bell and Loomis (2004), for instance, argue for regulatory intervention to preserve natural parks, justified on the basis of the psychological benefits of green space. A similar case is made by Waylen (2006), in the specific context of botanic gardens. Pretty *et al* (2005) argue for wider-ranging policy intervention to promote green space on the grounds of psychological and physical well-being; in particular, they stress the need to encourage active engagement with green spaces, through educational activities in school and partnership with the sport and leisure industry.

It must be acknowledged that relatively little of the work reviewed above on mental health and the environment has considered children directly. To the extent that nature is thought to have positive benefits for intrinsic, evolutionary reasons rather than through learned associations, it seems likely that such benefits will also be felt by children as well as by adults (although at present there is not specific evidence for this). A recent review chapter (Faber Taylor & Kuo, 2006) found that whilst existing research provided suggestive evidence of positive relationships between natural environment interaction and children's well-being (broadly construed), most of these studies suffered from methodological limitations.

³ See www.forestschoools.com.

Nevertheless, there are at least two striking findings that relate specifically to children. Firstly, a series of studies by Korpela and colleagues in Finland (Korpela, 1989, 1992; Korpela & Hartig, 1996; Korpela, Hartig, Kaiser & Fuhrer, 2001) suggest that children and young people are likely to identify natural environments as “favourite places” where they like to go after being in emotionally or cognitively taxing situations. The researchers suggest that this may reflect a process of more-or-less conscious self-regulation of emotions through the use of environmental surroundings, which is learned in childhood. Secondly, in two survey studies (Faber Taylor, Kuo & Sullivan, 2001; Kuo & Faber Taylor, 2004), parents of children suffering from Attention-Deficit / Hyperactivity Disorder (AD/HD) were asked to name activities that improved or worsened their child’s symptoms. Both studies found that the best activities for improving AD/HD symptoms were those that took place in green outside spaces, whereas the worst were those which took place indoors or in non-green outside spaces. Parents also typically reported that any given activity (e.g. playing sports) had a more beneficial impact on their child’s symptoms when it took place outdoors in green surroundings. Both of these series of studies are consistent with the suggestion that contact with nature encourages or enhances relaxation and recovery from mental fatigue and stress.

Summary

There is reasonable evidence that incorporating a more explicitly environmental dimension might help achieve some of the aims and targets under the “Be Healthy” ECM outcome. Evidence is particularly well-developed in relation to the negative consequences of degraded environmental conditions, and the positive physical and psychological impacts on well-being from supporting access to green space and good quality local and natural environments for children and young people. There is also some evidence that more sustainable food procurement in schools could reap a “double dividend” by improving health and reducing environmental impact.

Be Healthy Evidence Base:

Links between the environment and this ECM outcome

- Poor environmental quality, especially air pollution, can have damaging effects on children and young people’s physical health
- Greater ‘natural capital’ (including access to green space, air quality etc) has been found to correlate with higher subjective life satisfaction (*measured among adults only*)
- Levels of air pollution have been found to correlate with higher subjective life satisfaction (*measured among adults only*)
- Access to green spaces can have restorative and calming effects – e.g. children and young people suffering from Attention-Deficit / Hyperactivity Disorder (AD/HD)

- Provision of play spaces and food quality have an environmental dimension and can have an influence on children and young people's physical health
- Access to natural environments can help reduce the psychological impact of stressful life events for children and young people
- Reducing environmental hazards and encouraging the use of more sustainable fuels has positive benefits for children's physical health, now and in the future
- Encouraging sustainable food procurement in schools has positive benefits for health and environmental sustainability.

Indicators and targets

Existing indicators and targets which an environmental dimension could help contribute towards:

- Infant mortality rate
- % obese U11
- % children consuming 5 portions of fruit and veg a day

Additional indicators and targets which may be useful include:

- % children and young people who walk or cycle to school (by primary and secondary school)
- PSA 6 (DfT / Defra) Progress towards meeting Air Quality Strategy targets for carbon monoxide, lead, nitrogen dioxide, particles, sulphur dioxide, benzene and 1.3 butadiene

2.2 Stay safe

Evidence

It probably goes without saying that the "strong, healthy and just society" called for in *Securing the Future* is envisaged as one characterised by high levels of social capital, low levels of antisocial behaviour and a safe, clean local environment.

The issue of *perceived* safety can be as important a determinant of children and young people's behaviour as the actual objective risk. In particular, parent's perceptions of danger are a key determinant of the extent to which children are given freedom to play and explore outdoors (Prezza *et al*, 2006). Hillman (1999/2000) argues that "parental paranoia", fuelled by lurid media stories, is unjustified on the basis of actual trends in child safety and leads to detrimental developmental outcomes. Objective environmental factors do play a role in determining the character and safety of a local area, although their importance relative to other factors is a matter for debate. For instance, O'Neil, Parke and McDowell (2001) found only a modest relationship between actual characteristics of the local environment (e.g. amount of litter, rundown or abandoned homes, vandalism, graffiti and so

on) and mothers' perceptions of the area. Furthermore, they found some evidence that children from less advantaged neighbourhoods but with good parental supervision actually had better social outcomes than those from higher quality areas but with less supervision. Even if this is true in the long term, however, it is easy to imagine that the quality of the environment is important from the child or young person's own perspective.

An interesting body of recent research demonstrates the potential impact that "greening" the urban environment may have on social outcomes. Over a series of studies, researchers at the Landscape and Human Health Laboratory at the University of Illinois at Urbana-Champaign have shown that the mere presence or absence of green space and trees near urban homes is associated with striking differences in numerous indicators. Availability of communal green spaces in highly urbanised areas was shown to have significant positive impacts on community cohesion and social interaction amongst neighbours (Kuo, Sullivan, Coley & Brunson, 1998). Further studies have suggested that access to green space is associated with lower incidence of domestic violence and aggression (Kuo & Sullivan, 2001a), greater ability to cope (Kuo, 2001) and lower rates of violent and property crime within the local area (Kuo & Sullivan, 2001b). These findings are striking because they suggest that the extent of exposure to nature need only be relatively slight for a discernable effect to occur. It is worth noting, however, that some research has highlighted potential safety issues with urban green spaces. Poorly lit urban parks can be frightening places for children (Matthews & Limb, 1999) especially if they are densely wooded (Schroeder & Anderson, 1984). Wohlwill and Heft (1987) suggest that children may have a mixed relationship with such environments, being at once drawn to them and yet also wary. Local Authorities can play an important role in the regeneration of develop urban derelict, dangerous or otherwise underutilised urban parkland. *Groundwork*, a federation of Trusts in the UK who work with their partners to improve the quality of the local environment, has done considerable work in this area, especially in encouraging local communities to take an active role in the regeneration process.⁴

As highlighted in Huby and Bradshaw (2006), one area of clear overlap between the environment and well-being issues for children and young people is in relation to transport, and specifically traffic. Road traffic accidents are a major cause of mortality amongst school-aged children; according to *Sustrans*, a UK sustainable transport charity, children and young people are 50 times more likely to be killed in a road traffic accident than they are to be murdered by a stranger (Sustrans, 2001; see also Department for Transport, 2003). According to Department of Transport statistics, 141 children were killed in road traffic accidents in 2005, whilst the number seriously injured was just under 3500. Time trends suggest that both of these figures have come down by up to 50 per cent over the last 10 years; however, there

⁴ For examples, see <http://www.living-spaces.org.uk/> and <http://www.cleanersaferegreener.gov.uk/>

is clearly scope for further progress. The risk to children of traffic is already highlighted in ECM, by the inclusion of “Number of 0-15 year olds injured or killed in road traffic accidents” as an indicator.

Summary

The evidence on how sustainable development principles help children and young people to “stay safe” is relatively limited. There is limited explicit consideration of the linkages in the literature with the evidence tending to be limited to road traffic accidents and perceived safety of urban parks.

Stay Safe Evidence Base:

Links between the environment and this ECM outcome

- More environmentally sustainable transport methods (walking, cycling etc) take cars off the road and in turn increase safety for children and young people (e.g. by reducing road traffic accidents)
- Greening the urban environment can encourage community cohesion and social interaction
- Local environments can have an effect on children and young people’s – and their parents’ – perceptions of safety (and, in turn, activities)

Indicators and targets

Existing indicators and targets which an environmental dimension could help contribute towards:

- Number of 0-15 yo injured or killed in road traffic accidents

Additional indicators and targets which may be useful include:

- % children and young people who feel safe during the day
- Number/% of children and young people injured or killed in road traffic accidents in disadvantaged areas⁵
- Minimum amount of community green space per unit area of new development

2.3 Enjoy and achieve

Evidence

The aims associated with the ECM outcome “Enjoy and achieve” relate chiefly to education and personal development. The education system provides an opportunity for children to become acquainted with the environment, both through play and through more formal learning activities. This

⁵ Evidence from the National Road Safety Initiative (NRSI) suggests that children in the lowest socio-economic group are five times more likely to be killed or injured as pedestrians than those in higher socio-economic groups.

opportunity has already been identified by many interested groups, and as a consequence numerous environmental education initiatives exist in the UK and worldwide. Some of these are premised on the assumption that increasing children's contact with nature will be fruitful for their education, personal development, behaviour - and therefore their wider well-being. Other programmes – particularly those concerning sustainability – focus on empowering children and young people to improve the world around them, and in doing so improve their own prospects and quality of life.

Somewhat separately, it is also sometimes argued that exposing children to the natural world, or involving them in sustainability projects, from a young age is likely to help foster pro-environmental attitudes in the future. For example, Maller and Townsend (2005) conducted a pilot survey of schools near Melbourne, Australia, that included regular nature-based activities in their curricula, largely through explicit education about environmental sustainability. The survey explored the reasons why teachers felt that this kind of education was important and asked whether they were able to perceive mental health and well-being benefits in the children as the result of nature contact. Developing children's "connection with nature" was the most highly rated reason for implementing environmental sustainability teaching and activities into curricula, coming higher on the list than purely educational or pastoral motivations.

Are these beliefs in the benefits of the environment for education and development well-founded? There is good evidence from the academic literature that hands-on environmental sustainability teaching can lead to good well-being outcomes for children. Rickinson *et al* (2004) conducted a comprehensive review of research pertaining to outdoor education, for the Field Studies Council. This review included some 150 studies relating to the impact of outdoor adventure activities and school grounds projects on children's educational outcomes. With regards to the former, there was strong evidence of impacts from outdoor "adventure" activity education on aspects of psychological well-being (e.g. self-perception and self-esteem, confidence, autonomy, coping), as well as on interpersonal skills (e.g. communication, teamwork, social efficacy). There was also good evidence that these positive effects were not just short-term but could be long lasting in some cases, although this was subject to significant variability between type of activity and outcome. Overall, evidence for cognitive and physical/behavioural benefits was found to be less strong than for affective and interpersonal/social outcomes, although such evidence as exists for the latter was positive. As for school grounds projects, evidence was found that factors such as confidence, pride in community, motivation for learning and a sense of belonging and responsibility were all enhanced. Engagement in school grounds projects can engender greater community involvement and social development, with students developing better social relationships with one another, with their teachers and with the wider community.

An example of such a project is *School Grounds of the Future*, managed by *Learning through Landscapes* (LTL), a charity set up in 1990 to promote the use of outdoor space as a learning environment and in particular to encourage improvements to school grounds. This was a three year initiative that aimed “to demonstrate how school grounds can be transformed and managed as high quality environments for the benefit of children's learning and development”. A qualitative evaluation of the project suggested that numerous positive outcomes were observed, as indicated by the following comments:

- Improved playtime behaviour and positive impact on teaching and learning
- Major improvements in pupil behaviour and play value during break/lunchtimes
- Improved playtimes, children have a variety of activities to interest them which are always accessible

Several academic studies have looked beyond the school setting and also shown positive benefits for children from playing outdoors in green areas, especially in the development of motor skills (Fjørtoft & Sageie, 2000; Fjørtoft, 2001). However, there is also some evidence relating specifically to the impact of “incidental” exposure to greenery (e.g. by the presence of trees, bushes, green parkland, and so on in the local neighbourhood) on children’s cognitive development. Faber Taylor, Kuo and Sullivan (2002) studied children in Chicago who lived in public housing apartments that varied in terms of the amount of green space visible from the window, but were otherwise similar. For the girls, measures of self-discipline (i.e. concentration, inhibition of impulsive behaviour and delay of gratification) were all associated with the extent of available green views from their apartment. Further evidence along similar lines is provided by Wells (2000), who studied children of low income urban families before and after relocating to rural areas. Children whose environment improved most dramatically from urban to green also showed the highest levels of cognitive functioning after the move. A second study (Wells & Evans, 2003) surveyed children who lived in rural settings, collecting both child and parent reports of psychological distress and self-worth, and information on the amount of vegetation near the home. Levels of vegetation were found to be a moderating factor in children’s responses to stressful life events, with levels of psychological distress lowest for those with high levels of nearby nature, and vice versa.

Summary

Evidence bearing on the ECM outcome “Enjoy and achieve” is primarily related to the impact that environmental sustainability teaching and exposure to the environment can have on children and young people’s educational development and enjoyment of learning. Access to the environment and learning outside the classroom engages children and young people in the learning process, improves their behaviour, and there is some evidence to suggest that exposure to the natural world has inherent benefits as a buffer for stress and an aid to cognitive development.

Enjoy and Achieve Evidence Base:

Links between the environment and this ECM outcome

- Improvements to school grounds can have a positive impact on pupil learning and behaviour
- Outdoor learning environments (e.g. ‘discovery’ activity) can have positive psychological impacts on children and young people’s confidence, self-perception and self-esteem
- Environmental education (e.g. Learning for Sustainability) and outdoor learning environments has been found to motivate children and young people, including those previously disengaged from learning, and improve pupil behaviour

Indicators and targets

Existing indicators and targets which an environmental dimension could help contribute towards:

- Half days missed through absence
- Achievement of educational standards at primary and secondary school

Additional indicators and targets which may be useful include:

- % schools delivering learning outside the classroom (measured through OFSTED’s SEF forms)
- % children and young people who enjoy learning outside the classroom (this could be broken-down to including learning in “natural environments” and an additional question asked about whether children and young people enjoy school overall)

2.4 Make a positive contribution

Evidence

This ECM outcome is concerned with producing rounded and motivated citizens – existing indicators cover community engagement, law-abiding behaviour, self-confidence and the ability to deal with “significant life changes and challenges”. As such, many of the positive outcomes discussed in the

previous section seem likely to contribute to this outcome. This is especially true of projects that give children and young people responsibility as decision makers, and encourage them to engage with members of the wider community.

One such example is the *Eco-Schools* initiative. This international programme was founded in 1994 by the Foundation for Environmental Education, a US based organisation that aims to “expand environmental and energy literacy”. It is currently in operation across 23 countries in Europe and is led in the UK by ENCAMS. Although based in schools, the intention of the programme goes beyond just environmental education. Ultimately it functions not only as a learning framework and a means of embedding environmental sustainability teaching into the curriculum, but also as a system of self-audit and a means of enabling schools to forge links within their communities. Participating schools instigate a programme of change based around seven elements:

1. Establishing an Eco-Committee
2. Conducting an environmental review
3. Creating an action plan
4. Monitoring action and evaluating progress
5. Linking to the curriculum
6. Involving the whole school and the wider community
7. Establishing an “Eco-code” for the school

Pupil participation is an essential component of the Eco-Schools programme; a usual first step is establishing an eco-committee consisting of both staff and students. This committee then leads subsequent work across the remaining six elements, setting a plan for action and ensuring that there is wide “buy-in” across all parts of the school and into the wider community.

In Scotland, the impact of the Eco-Schools initiative was reviewed in 2006 by a team from Glasgow University (Pirrie, Elliot, McConnell & Wilkinson, 2006). This evaluation suggested not only that children and young people’s closer relationship with the school environment brought about well-being benefits in relationship to physical health, personal well-being and social development (particularly for younger pupils involved in active play within the school grounds), but that it fostered a more responsible and community-minded attitude.

Other research has found that children and young people’s interaction with local neighbourhood environments, beyond school settings, can also encourage social development, engagement in decision making and community participation, all of which fall under the “make a positive contribution”

outcome. In a research study on the role of public space on active citizenship (McInroy & McDonald, 2006) participants involved in neighbourhood based projects to improve public spaces were also found to develop a range of new skills (e.g. teamwork) and knowledge (e.g. about local planning systems), enjoy greater opportunities for social interaction and meeting new people, and feel more actively involved in their local communities (e.g. by influencing decisions and becoming more involved in local events). Whilst the research was undertaken with adults and with children and young people, the evidence points towards the important potential that the environment plays in affecting children and young people's interaction with their surroundings by improving the appearance and usability of public spaces. It also shows how direct involvement in local environmental improvements can lead to positive personal and social well-being outcomes for children and young people.

These examples indicate how the environment can be used as a vehicle to produce beneficial well-being outcomes for children and young people. From an environmental sustainability perspective, however, making a "positive contribution" might have a stronger implication; namely, holding pro-environmental attitudes and acting responsibly with regard to the environment. It is not clear, though, exactly how childhood experiences contribute to this. In their review of literature, Rickinson *et al* (2004) found little evidence for a link between outdoor adventure and learning activities and subsequent development of pro-environmental attitudes and concern. The authors argue that there is, in fact, "a strong case for questioning the notion that nature experience automatically contributes to environmental awareness, commitment and action." The suggestion that contact with nature in childhood may not be strongly correlated with the development of pro-environmental attitudes in later life is curious and somewhat counter-intuitive. It may be that "contact with nature" is too broad a category and that the kind of activity in which children engage is an important determinant. Wells and Lekies (2006), for instance, found that "wild" nature experiences in childhood – hiking, camping, hunting and so on – are a stronger predictor of the development of pro-environmental attitudes than "domestic" activities such as picking flowers or helping in the garden.

Another factor may be what Kahn (2002) calls *intergenerational amnesia*, namely the fact that "people take the natural environment they encounter during childhood as the norm against which they measure environmental degradation later in life" (p. 113). Over time, different environments degrade at different rates. Where degradation takes place relatively slowly, the effect of this norm-level comparison may be that people are largely oblivious to major environmental changes, largely irrespective of how much direct contact with the natural world they had as children. Where large environmental changes happen relatively quickly – well within one person's lifetime – there is some evidence of marked negative psychological impacts (see, e.g. Connor *et al*, 2004; Albrecht, 2005).

In another paper, Kahn (1999) notes that children generally express positive valuations of nature. However, he also finds that when asked *why* the environment is valuable, children are more likely to emphasise anthropocentric explanations – i.e. in terms of what nature affords human welfare – rather than express belief in an intrinsic value (in Kahn’s work this seems to be the case irrespective of the child’s actual degree of exposure to the natural world). Adult participants’ childhood memories of woodlands were found to be strong and mainly positive – they recalled in particular how woodlands provided opportunities for adventure, excitement, and fun. However, it was clear that these respondents had come to consciously value and appreciate woodlands “for their own sake” only as they grew older. At the same time, they increasingly felt aware of a widening gulf between children and young people, and the environment.

Summary

Evidence suggests that an environmental dimension can add positively to the “make a positive contribution” outcome by increasing engagement, promoting positive behaviour, improving self-esteem, and encouraging enterprising activity among children and well-being. However, evidence for a longer-term positive impact on pro-environmental attitudes and behaviours is inconclusive.

Make a Positive Contribution Evidence Base:

Links between the environment and this ECM outcome

- Involvement in environmental improvement projects can engender greater pride in the local community and encourage community involvement and social development for children and young people
- Environmental education (e.g. Learning for Sustainability) can help to raise awareness of the importance of sustainable development among children and young people, although evidence is not available on its contribution to pro-environmental behaviour over the longer-term

Indicators and targets

Existing indicators and targets which an environmental dimension could help contribute towards:

- Self-confidence indicator (being devised)
- Permanent and fixed period exclusions
- % 18-24 yo who are self-employed, manage own business or have thought seriously about starting their own business

Additional indicators and targets which may be useful include:

- % children and young people agree with the statement ‘the way things are now, I find it hard to be hopeful about the future of the world’⁶
- Ecological feelings indicator
 - e.g. % children and young people who feel connected to the natural world
- Ecological functionings indicator
 - e.g. % children and young people who engage in pro-environmental behaviour
 - e.g. % children and young people participating in school eco-committees

2.5 Achieve economic well-being

Evidence

Of the five ECM outcome areas, “Achieve economic well-being” has – arguably – the least *prima facie* potential for embedding an environmental dimension. This is not to say that the environment and well-being are unrelated to the economy; indeed, as Marks *et al* (2006) discuss, the very concept of sustainable development is intrinsically bound-up with the current economic system. At the aggregate level, many of the relationships that pertain between environmental sustainability and personal well-being are indirect and mediated by the economy – through consumption patterns, travel choices and so on. At the same time, however, the evidence is less clear about how children and young people’s well-being is affected by these kinds of considerations, given that they are rarely in the position of making major economic decisions.

One of the links that does appear to have an evidence base is between poor environmental quality at the neighbourhood level, including poor housing and environmental degradation, and children living in low income households. Huby and Bradshaw (2006) note that environmental inequalities correlate positively with inequalities in family income and other forms of deprivation and that the environmental degradation of neighbourhoods can have a corrosive influence on quality of life. Research also identifies that a “disadvantaged neighbourhood”, including on indicators of environmental quality, is a key risk factor for children and young people across areas such as school failure, homelessness and mental health problems (SEU, 2000). Although the evidence does not generally identify whether these are causal relationships, it raises significant issues for children and young people and the potential role that neighbourhood regeneration and renewal and the Cleaner, Safer, Greener agenda can play in relation to children and young people’s economic well-being in later life.

⁶ This question is asked in the European Social Survey 2006 and captures feelings about social/ecological progress.

Issues around the environmental dimension of children and young people's well-being in relation to this ECM outcome go beyond the preserve of local environments, however. The recent Stern Report (Stern, 2006) makes clear that "business as usual", as far as the global economic system is concerned, is no longer a viable option. If serious and devastating climatic change is to be avoided, action must be taken now to move towards a much materially-lighter economy. In the event that such action is not taken, the scale of resulting climatic change will ultimately force significant and damaging changes to the economic system. In either case, therefore, the economic well-being of children and young people in the future depends on choices made now in relation to the challenge of sustainable development.

It is worth noting, on this point, that children and young people are potential consumers and to the extent that sustainable development requires changes in consumption behaviour, the attitudes they develop are important. Economic well-being in sustainability terms is not simply being comfortably-off and having access to services, important though these things are – it also means being a considerate and ethical consumer. Holding materialist values (that is, placing high value and priority on wealth and possessions) is strongly implicated in unsustainable consumption behaviour, particularly the "conspicuous consumption" of expensive goods (e.g. designer labels, exclusive cars, etc). From a sustainability point of view, this would be a concern even if materialist values were benign for the individual. Unfortunately, however, there is now a significant amount of evidence that holding a strongly materialist value orientation is, all else being equal, detrimental to psychological well-being. People who place a high emphasis on material goods and wealth report higher levels of stress and anxiety, lower satisfaction with themselves and their lives, poorer relationships with others, and less concern for the environment (for a review of these findings see Kasser, 2002).

In younger children, materialism is positively associated with shopping and spending, and negatively associated with school performance (Goldberg, Gorn, Peracchio & Bamossy, 2003). It has also been increasingly implicated as a causal factor in children's emotional and behavioural problems (Flouri, 2004) and in difficulties within families. Some researchers have suggested a direct relationship between advertising and children's purchase requests, which in turn become a cause of family conflict (Buijzen & Valkenburg, 2003). Adolescents who report higher levels of family stress are also more likely to associate material possessions with happiness (Roberts, Tanner & Manolis, 2004).

Summary

Whilst there are few overt relationships between this ECM outcome and the environment, future consequences of climate change and the values and attitudes that drive unsustainable consumption should be considered in relation to future economic well-being. The indicators currently identified for

the “achieve economic well-being” outcome are focused on being economically successful. Whilst this is important, sustainable development suggests that children and young people should also have an awareness of their environmental and ethical responsibilities as consumers.

Achieve Economic Well-Being Evidence Base:

Links between the environment and this ECM outcome

- Poor local environmental quality is correlated with children living in low income households and evidence suggests the neighbourhood environment has an important role to play in children and young people’s economic well-being in later life.
- Evidence suggests climate change will have significant and damaging effects on the economy, which will in turn impact on children and young people’s future well-being.
- Materialist values are detrimental to children’s well-being, as well as contributing to the unsustainable consumption patterns.

Indicators and targets

Existing indicators and targets which an environmental dimension and sustainable development approach could help contribute towards:

- Cleaner, safer & greener public spaces, and quality of the built environment in deprived areas (ODPM)

Additional indicators and targets which may be useful include:

- Carbon dioxide equivalent emissions

2.6 Summary

The above review of evidence for an environmental dimension to children and young people’s well-being suggests that there are several areas where consideration of the environment could make a useful contribution to the existing ECM framework. Moreover, whilst there are gaps in the literature, there is also clear potential for expanding the indicator set, on the basis of current evidence, in ways that acknowledge more specifically the role of the environment in sustaining and supporting children’s well-being.

It is worth highlighting that many of the issues considered extend across a broad range of policy and service delivery contexts. Indeed, the range of potential effects of “the environment” on children and young people’s well-being suggests that the findings should not only be of interest to those concerned with an explicit environmental or sustainability remit. For instance, evidence that environmental

conditions (including local environmental quality) affect children and young people's health is important for policy and service areas as broad as health, social care, regeneration and leisure services. Similarly, the role of green space and contact with nature on children's cognitive development and behaviour should be of interest to neighbourhood renewal officers, planning authorities, and Local Education Authorities alike. Meanwhile the negative impact of materialism both on children's well-being *now* and in laying the foundations for unsustainable consumption behaviour in the future, should be of concern to economic policy as well as to education and environmental sustainability teams.

In short, full integration of an environmental dimension into ECM will require a broad and inclusive definition of "environment", and an understanding on behalf of all service departments engaged in the delivery of ECM that the environment is a cross-cutting issue. Of course, this kind of holistic thinking and delivery is precisely what ECM was intended to encourage.

3 The challenges of embedding an environmental dimension

3.1 Introduction

This section considers some of the challenges of embedding an environmental dimension to support children and young people's well-being. It focuses on the experiences of the nine Local authorities involved in the Sustainable Development Commission's *Every Child's Future Matters* project and looks, from a local government perspective, at the nature of the general challenges involved and the specific experiences of the authorities in working to address them. The section explores three overarching challenges, each of which are considered in turn below.

3.2 Poor conceptual understanding and terminology barriers

Terms such as "environmental sustainability" and "sustainable development" are commonplace among those working with a specific environmental remit, but are infrequently heard and sometimes poorly understood by those concerned primarily with the education, social care and protection of children and young people. Many of the local authorities involved in the study stated the language of sustainability is a "turn off" and can act as a barrier to joint working, despite there often being a shared commitment once these initial barriers have been overcome.

Language is important. Sustainable Development is not an easy language for educationalists.
Perhaps we need to talk more about care principles? (Local authority)

One initial challenge may therefore be to re-conceptualise the principles of sustainable development as it affects children and young people's well-being now and in the future so that it can become further embedded. One of the ways in which this might be achieved, some local authorities suggested, is through using different terminology or concepts. For example, terms such as "one planet living" or "well-being", as well as definitions of sustainability such as those used in the DfES sustainable schools strategy such as "care for oneself, care for each other and care for the environment", could offer alternatives. However, whether these terms have a wider resonance than "sustainable development" would need further investigation.

3.3 A lack of strategic linkages

Evidence-based practice suggests that one of the key barriers to integrating an environmental dimension within services designed to increase children and young people's well-being is the current lack of linkages at a strategic level. This was identified at a local level, for example in relation to Children and Young People's Plans, as well as through central government policy, such as in the case of the Every Child Matters outcomes framework.

Some of the comments from the local authorities involved in the *Every Child's Future: Does That Matter?* project reflect these views:

I have read [the] Children and Young People's Plan and assessed its priorities based on the 5 ECM outcomes. There is currently no specific mention of sustainable development within the plan but a number of the priorities have an obvious connection.

The Children and Young People's Plan has already been produced and environmental/sustainability issues are not highlighted.

As the consultation had already taken place [for the Children and Young People's Plan] without involvement from the Education for Sustainable Development adviser and officers, and detailed action plans were being already written, it was not possible to embed principles of sustainable schools in the way we would have wished.

The Council [also] has one of the biggest sustainability teams in England but they have not been asked to take any active role in the strategic direction of ECM.

The local authorities involved in the *Every Child's Future: Does That Matter?* project highlighted that this lack of connection at a strategic level made it difficult to focus on the environmental dimension of children and young people's well-being, either explicitly or as a means of helping to achieve existing outcomes within ECM and Children and Young People's Plans. The reasons cited for this acting as a barrier were that the environment was subsequently seen as a low priority and consideration of the environmental dimension of children and young people's well-being as a distraction from "core business" and an "add on" to existing activities.

3.4 Timing and time constraints

Timing and time constraints were identified by a number of local authority participants as being the third main challenge to embedding the environment within ECM at the current time and are linked, in part, to some of the issues identified above. This included issues about the overall time available for addressing the issues although may also be linked to low prioritisation given to the environment within ECM.

In terms of time constraints, the lack of clear strategic links between ECM and the environment was reported to hamper efforts to encourage closer integration and felt to draw people away from key priorities, without additional resources being available. Other issues around the timing of the project (*Every Child's Future Matters*) were also identified, although perceived implications of this tended to vary between the local authorities involved. For some, trying to introduce "new" concepts into the work of children's services departments at a time when many are undergoing reorganisation and are busy preparing strategic plans was felt to be particularly challenging:

[One challenge is] finding the time we feel is required to take this important area forward when we are working with the pressures that a newly reorganised service presents. It can be difficult to introduce perceived new work to colleagues when they are already working at capacity. (Local Authority)

Our main challenge has been to get strategic managers to engage with sustainable schools while they were in the midst of writing the Children and Young People's Plan. People are sympathetic but very busy. Had we been able to present sustainable schools to them earlier in their strategic thinking the links might have become embedded. (Local Authority)

Whilst the majority of experience supports these views, the local authorities felt that it was a positive addition to have had the *Every Child's Future Matters* project running now, as it has encouraged discussion about the environmental dimension of children and young people's well-being at a crucial juncture in new service design and delivery (albeit that this would have ideally taken place sooner in a number of cases). The challenge in some areas has therefore become one of trying to weave environmental sustainability issues into plans *after* they have been written (e.g. by influencing the action planning processes flowing from the strategy itself) and "making a case" to key representatives and partners to support further integration.

3.5 Summary

Participation [in sustainable schools activity] exposes schools to a range of criteria that contribute to improving their own environmental performance and also begin to develop in young people the skills, attitudes and values they will need to make decisions that will help to improve their quality of life now and not damage the planet for future generations. Though significant, the current level of dedicated strategic support available....would need to be increased to guarantee the quality of this work and support those schools who may find this to be a demanding agenda. One such challenge has been the language of sustainability which has proved to be rather problematic for colleagues not directly engaged in the environmental sector. Lack of understanding about its meaning and relevance led to a lack of ownership. [Local authority]

The quote above encapsulates many of the challenges experienced by those seeking to embed an environmental dimension within the Every Child Matters agenda. These range from the concept of sustainable development itself, where a reported lack of understanding and awareness as to how it can positively contribute to children and young people's well-being is restricting an environmental dimension becoming an integral component of the ECM agenda, to challenges about weaving-in perceived "additional" components to an already wide-ranging ECM framework. Significantly, the review highlights that, for local authorities, these challenges appear particularly prevalent at a strategic level, suggesting this is an area where the provision of further support may be worthwhile.

4 Evidence of effective actions

4.1 Introduction

This section considers practice-based examples of how some local authorities have sought to overcome the challenges observed and to embed an environmental dimension in Every Child Matters. Its aim is not to focus on demonstrating good practice *per se*, but to outline the type of steps which can be taken to support children and young people's well-being, now and in the future. Given the evidence suggesting a link between children and young people's well-being and the environment, how are local authorities faring with this agenda in practice? To answer this question the Sustainable Development Commission initiated a dialogue with local authorities – one in each English region – to gain insight into their current approaches, dilemmas and challenges in integrating environmental considerations into their work on Every Child Matters. The *Every Child's Future Matters* project revealed a surprisingly diverse picture that, overall, indicates local authorities are still at an early stage in their thinking, and earlier still in their practice.

The findings presented in this section draw on the reported experiences of the local authorities involved in the project. The purpose of drawing these findings together is to provide direction to local authorities and their partners to help address the challenges identified as well as to stimulate thinking in central government about ways to facilitate future change.

Although many of the actions may at first appear rudimentary, they have been highlighted by the participating local authorities as valuable steps forward in practice. However, given variations across local contexts, the types of actions which may be appropriate for readers of the report are likely to differ and it may be worthwhile to view the content of the section as providing a menu of possible options rather than a comprehensive checklist. In addition, it is worth considering that the local authorities participating in the project are likely to be those who have already recognised the significance of the environment in relation to children and young people's well-being and as such, may not reflect a representative sample.

4.2 Action area: Encouraging dialogue and building understanding

Creating dialogue and building understanding is a vital first step to achieving greater focus on the environment as a means of supporting children and young people's well-being, both now and in the future. The evidence suggests that to initiate change, a concerted effort is required to achieve a

"coming together" of all stakeholders interested in the well-being of children and young people. This must:

- encourage cross-departmental working to bring together teams concerned with the environment and environmental sustainability alongside those in health, education, welfare etc (at central and local level)
- raise awareness of how the environment affects children and young people's well-being and the potential for achieving ECM outcomes (drawing on evidence reviews and working to fill evidence gaps where they exist)
- build understanding of how the values and actions of children and young people today will affect the well-being of our planet and all people in the future
- enable children and young people to become directly involved in the dialogue about the value of the environment and the actions necessary for achieving a change in behaviour towards more sustainable lifestyles (highlighting the importance of recent findings from the Sustainable Schools consultation)

Practice-based evidence suggests that at present, both policy makers and practitioners concerned with the environment are frequently in the position of needing to "make the case" as to its importance for children and young people's well-being. As such, practical actions which can support this process are of particular value. Some of the examples identified through this research include bringing people together in meetings (facilitated for some of the participating local authorities by the Sustainable Development Commission), holding conferences and workshops, and reflecting an environmental dimension in training and development activities (e.g. INSET).

Encouraging dialogue and building understanding

Examples of positive actions taken by local authorities

- Organising a conference with the Arts Service and Creative Partnerships which will have a focus on Learning for Sustainability and learning in outdoor environments.
- Publishing practice arising from establishing a holistic Learning for Sustainability project in a local/distinct geographical area. The article is currently being used to help communicate existing practice.
- Planning workshops which aim to link ECM and sustainable development (particularly ESD), to be held at forthcoming Deputy Heads and Heads conferences.
- Providing INSET training across a county, focusing on the links between ESD and ECM
- Establishing an Environmental Education Forum to provide an opportunity for networking teachers and providers who support sustainability and outdoor learning.
- Organising and holding a cross-departmental meeting to discuss sustainable development and ECM, and identifying senior officers within the Sustainability Team and Children's Services to continue dialogue.
- Compiling a database of projects and programmes available to schools, which have a focus on sustainable development, to be shared across the authority.

4.3 Action area: Influencing strategy

One of the main challenges facing practitioners working at a local level is that reference to "the environment" is absent in many existing strategies. To address this issue, those with a specific environmental sustainability remit can achieve some progress through raising understanding and "lobbying" for involvement in local strategic groups (such as LSPs and Children and Young People's Partnerships). Evidence also suggests that they can provide a valuable contribution even *after* local strategic plans appear to be in place (e.g. at the action planning or delivery stage), although clearly this is not the ideal way in which to bring about change.

One of the ways in which a strategic influence has been achieved is by teams, committees and groups with a specific environmental remit taking a pro-active approach to the planning and delivery of services to children and young people. Whilst the preferred scenario may be one which weaves environmental sustainability throughout different service departments, the present context suggests that "environmental" structures – such as Sustainability Liaison Groups, Roundtables for

Sustainability, and Environmental Task Groups – are providing a valuable mechanism to help foster change in the first instance.

Local case study

From a local authority involved in the Every Child's Future: Does That Matter? project

Background: A large authority which includes an outdoor education service and sustainability team. The area also has a long standing partnership programme that provides a voice for children and young people on key strategic issues (such as the Children and Young People's Plan) and an eco-learning centre.

Challenges and actions: A lack of strategic linkages are reported to exist between the Sustainability Team and Children and Young People's Services. Preparation of the draft Children and Young People's Plan included limited reference and explicit linkages to environmental sustainability. As a result a local group, interested in how the broader school ethos including the environment influences pupil achievement, negotiated involvement in the latter stages of developing the Children and Young People's Plan by outlining gaps in the document and seeking to raise understanding about how environmental sustainability issues impact on children and young people's lives.

Outcomes: Officers from the sustainability team state "there is now a recognition of the importance of SD to achieve ECM outcomes". Advisor Inspectors are now working through the Children and Young People's Plan to re-word the document to better reflect sustainable development and to highlight the activities of the outdoor education service to bring forward opportunities for future collaboration.

4.4 Action area: Leading by example and delivering practical initiatives

One of the main areas of good practice as regards embedding an environmental dimension is to take forward practical initiatives which support children and young people's well-being in this area. At the school level, evidence from the Eco Schools Evaluation in Scotland (Pirrie *et al*, 2006) suggests that increasing an environmental dimension requires:

- Strong leadership and strategic vision
- Good communication within the staff team, and with members of non-teaching staff, such as school caretakers and secretaries
- Targeted initiatives, with visible and sustainable results
- Student leadership and responsibility

Results from the Eco Schools evaluation for Scotland also showed that:

leading by example was the most effective way of ensuring that a sufficient number of people in the school community were actively involved. (p.7).

The nature and type of practical activities which can be taken forward vary widely. Some may be linked to particular initiatives and programmes such as Eco Schools or Healthy Schools whilst others relate to more locally specific agendas, such as running learning through landscapes schemes or delivering schools ground improvement projects. The example boxes below highlight the work of two schools in bringing about a change in approach within the school environment.

Local case study

From TeacherNet

Background: A school governor of a primary school in the North West attended a conference on improving school grounds. This led to the establishment of a gardening club at the school.

Challenges and action: The key aims of the gardening club were:

- To improve pupils' environmental awareness
- To involve pupils in an environmental improvement project
- To develop team work
- To introduce sustainable development issues into a broad range of subject areas including science, geography, English, citizenship and art and design.

The gardening club chose a number of themes for gardens, e.g. cottage garden, seaside, tropical. With help from teachers and community members, pupils painted murals for each garden, researched suitable plants for each location and dug and planted the beds.

Outcomes: The main outcomes of the project included:

- Pupils learnt about environmental diversity.
- Decision-making skills were improved.
- Improved environment and appearance of the school grounds – the school has won various awards.
- Involvement of parents and the whole school community
- The establishment of good links with the local community
- The use of school grounds for activities in different subjects.
- Improvement in pupil behaviour.

Local case study

From TeacherNet

Background: A secondary school in the South West with a strong history of interest in sustainable development amongst its staff participated in the Eco-Schools initiative.

Challenges and actions: The aim of the project was to use the Eco-Schools framework to embed sustainable development principles throughout both the curriculum and the working practices of the school. Examples of actions to incorporate sustainable development teaching in the curriculum include:

- Mathematics: Pupils look at angles of the sun for work on the Sundial project, in conjunction with partner school in Kenya.
- Modern Languages: Pupils use ecological footprint data from Francophone countries.
- Art undertakes a wide range of activities, including involvement with a project run by a local development education centre.
- PSHE/citizenship programme promotes waste management and health.
- Sustainable development teaching delivered through assemblies and collapsed days. Assembly themes include: Rights and responsibilities, involvement, making decisions, World food day, United Nations day, stewardship and human diversity.

In addition to teaching, examples of sustainable practice include:

- Recycling of mobile phones, paper, Christmas cards from local residents, print cartridges and cardboard from the canteen.
- Vending machine selling canned drinks replaced with one that sold bottled and healthier fruit drinks.
- Food cone in the playground to recycle and compost food

The school also provides opportunities for children and young people to become directly involved in decision making regarding environmental sustainability through mechanisms such as the School Council and Green Committee.

Outcomes: The school reports a much greater awareness of sustainable development issues, including environmental sustainability and social justice, among pupils. The approach taken by the school has meant that sustainable development appears to be incorporated across the structure of the school, not compartmentalised. The main lessons from their local experience are that schools need to take risks and that change, whilst achievable, will be slow.

Practical action is not, and indeed should not be, confined to school settings however. The broad-ranging influence of the environment on children and young people's lives means that positive actions can also be achieved at the neighbourhood level (e.g. through reducing environmental degradation and urban blight) and through changes implemented by local services as diverse as planning, transport, social services and health. Organisations such as Groundwork, for example, regularly work with children and young people in local neighbourhood settings to deliver practical projects. Such projects have been shown to improve local environmental quality at the same time as developing skills and encouraging active citizenship among children and young people.

4.5 Action area: Continuous development and impact - targeted activity and support

The review highlights that, at the local level, practice can currently be found at different places along a spectrum in relation to embedding an environmental dimension within ECM and recognising the significant role of the environment in children and young people's well-being. It follows, therefore, that actions that are appropriate or being taken forward by some will differ for others. What is also apparent, however, is that the process is continuous. The challenges facing children and young people in today's society, such as rising obesity, together with the environmental concerns and injustices facing all people across the globe means that 'the environment' requires ongoing attention and effort at all levels.

Local case study

From a local authority involved in Every Child's Future: Does That Matter? project

Background: A local authority whose sustainability teams report general support for further embedding 'Learning for Sustainability' among senior offices within Children's Services and Community Learning Departments and already identify a number of positive actions. It is reported that 'the commitment and the opportunity to feed into strategy also exists'.

Challenges and actions: As an authority already making good progress in recognising the importance of the environmental dimension of children and young people's well-being and taking actions to include learning for sustainability into the curriculum, the challenge for this authority is how to build on this work and embed it throughout the local education system.

Outcomes: A targeted strategy has now been agreed within the local authority between senior officers in the sustainability team and Children's Services to tailor environmental sustainability approaches, particularly around education for sustainability. This includes:

- working to support hard to reach schools (i.e. those not already engaged in learning for sustainability activity) ;
- working to support looked after children to have first hand experiences of learning for sustainability
- working with field teachers to enable outreach support for schools which helps them to design high quality geographical and biological field work opportunities in school grounds around sustainability themes (e.g. climate change, transport etc.)
- working with key advisers to ensure Learning for Sustainability represents current educational best practice and also influences the curriculum areas more effectively.

4.6 Summary

The evidence above suggests that positive actions can be taken at the local level to embed environmental considerations when seeking to support children and young people's well-being through

Every Child Matters. Whilst the scope of this report has not enabled us to outline these actions in detail, the examples in this section give an indication of what is achievable and how central and local governments can best support an ongoing process of change. Furthermore, the review suggests that providing this support is vital. The positive steps which have been noted are, in many cases, being made “against the odds” and the experiences of the participating local authorities suggests that progress can be slow. Whilst it is important to consider individual examples of *how* progress is being made, it is also important to address the underlying barriers that exist towards a wider process of change as discussed in the preceding section.

5 Summary of findings and opportunities for the future

5.1 Introduction

Our feeling is that we should not be so much considering what sustainable development can contribute to ECM as what it must contribute to ECM in order that the outcomes of ECM are truly sustainable in themselves (Local authority)

The ECM agenda is not achievable without taking on sustainable development principles (Local authority)

The above quotes indicate the views of two local authority representatives involved in the *Every Child's Future Matters* project, highlighting the role that the environment and environmental sustainability is perceived to play in enabling the five ECM outcomes to be reached. This final section of the report considers the extent to which the evidence supports these perceptions and the gaps which remain in our understanding. It also looks at the opportunities for taking a broader perspective as regards both “the environment” and “well-being” in the future.

5.2 Summary of the evidence and its limitations

The research evidence highlights a case for embedding an environmental dimension more explicitly into the ECM framework. There is reasonable evidence to show the potential role that contact with the natural environment can play in supporting children and young people’s development, how local neighbourhood environments appear to affect children and young people’s well-being, and how environmental sustainability is necessary to help address inter-generational issues of environmental equity. In relation to the five ECM outcomes, evidence on the importance of the environment can be found in relation to each area, albeit to different strengths, and there is potential for expanding the ECM indicator set to include more of an environmental dimension.

Despite this, the range and quality of evidence bearing on the relationship between the environment and children and young people’s well-being is somewhat lacking. To a large extent, as noted previously, this is because the two issues have only recently been considered together in research contexts. Furthermore, the contribution of the environment to real *flourishing* is much less easy to identify. One of the most important limitations of the current evidence base, from a policy perspective is the difficulty of estimating effect size and understanding the mode of causation. Specifically, whilst

current research suggests some positive impacts, it is impossible on current evidence to estimate what the magnitude of such impacts might be in comparison with potential alternative interventions where the “environmental” dimension was not present. This is not to suggest that the environment is unimportant or irrelevant to the positive outcomes observed, just that it is often not possible on current evidence to say *how* important it is.

Of course, in the general sense that environmental sustainability is concerned with preserving the planet’s resources for future generations and supporting ethical living, there are clear synergies with the well-being of children and young people in future generations. Nonetheless, there are perfectly good arguments for achieving sustainability in the systems and institutions that provide children’s services now and are tasked with delivering ECM on purely environmental grounds. These arguments are not significantly bolstered by the extant evidence on environment and young people’s well-being, but they are – arguably – strong enough in their own terms to justify inclusion of an environmental dimension into the ECM outcomes framework.

5.3 Opportunities for the future

The potential role of “the environment” in having a positive effect on children and young people’s well-being means that it is important to identify where opportunities may exist to take forward this agenda. Below we give brief consideration to some of these opportunities, considering firstly the need to look upon the environment in relation to children and young people as a shared responsibility, limited not only to schools and the role of parents. Secondly, we identify some of the “levers” that have been made available through central government policy to take forward work in this area. Finally, we explore the potential for including more of a subjective dimension to children and young people’s well-being, drawing on **nef**’s own work in this field.

Shared responsibilities

In the context of policy and service delivery, the environment needs to be seen as a shared responsibility if it is to be effectively weaved into the ECM outcomes framework. Responsibility must extend beyond the formal education sector and schools to include a wider range of services including health, Sure Start, planning, social services, transport, regeneration and many more. It has been beyond the scope of this study to explore in detail the role of these ‘other’ policy and service areas in supporting children and young people’s well-being through an environmental dimension. However, some opportunities have emerged over the duration of the review and these are grouped below to indicate the role different policy and service delivery areas might play in contributing to children and

young people's well-being, and the five ECM outcomes, through active demonstration of environmental considerations.

Table 2: Sharing responsibility for the environmental dimension

	Be healthy	Stay safe	Enjoy & achieve	Make a positive contribution	Achieve economic well-being
Culture, sport and play					
Provision of play areas in local parks/community spaces to encourage active play and develop social networks	•		•		
Partnerships with the sport and leisure industry to maximise use of available green space by children and young people	•		•		
Planning for, and investing in, open space (public space) in local environments as part of regeneration and neighbourhood renewal initiatives	•			•	
Education, training and employment					
Access to outdoor learning environments/deliver learning outside the classroom	•			•	
Provision of and attendance on 'out and about' trips which expose children and young people to natural environments and develop understanding of 'one planet living' concept	•		•		
Piloting the use of learning outside the classroom as a means of encouraging pro-environmental behaviour among children and young people to protect the well-being of future generations			•	•	
Economic opportunities associated with the sustainable living and sustainable development sectors highlighted within careers guidance/training provision offered to young people				•	•
Social care, welfare and protection					
Interaction with the environment encouraged for Looked After Children, particularly at times of transition and when facing emotional distress	•			•	
Consideration of transport and traffic issues at the neighbourhood level to protect children and young people's safety whilst also encouraging opportunities for play and mobility	•	•	•		
Youth justice					
Engagement with local natural environments and learning for sustainability within programmes designed to address juvenile crime and anti-social behaviour				•	
Involving planning and regeneration departments in the physical design of local environments and new housing developments to create safe and enjoyable recreation spaces for children and young people		•	•		
Health					
Interventions that support children and young people's interaction with the environment as a means of improving physical and psychological health – e.g. 'environmental prescriptions'	•				
Use of alternative fuels and sources of power to protect physical health (e.g. air pollutants) of children and young people, now and in the future	•				
Local food production to increase nutritional content and minimise processing/packaging to support children and young people's health and support economic well-being	•				•
Participation of children and young people					
Engagement in neighbourhood projects to improve local environmental quality and increase active citizenship among children and young people			•	•	•

Using existing levers for change

Despite the lack of an environmental dimension within the ECM outcomes framework itself, the practice-based examples discussed in an earlier section highlight that positive actions can be taken forward. To help overcome the barriers that some may be facing, the following points highlight some of the levers that exist that may help provide support at the local level:

- ***Sustainable Community Strategies***

Sustainable Community Strategies, building on the existing Community Strategies, provide the mechanism through which local authorities and their partners should embed environmental sustainability within all areas of local service delivery. The re-drafting of the strategies provides an opportunity to focus on the priorities, actions and performance indicators which will achieve and demonstrate this movement towards sustainability, including for children and young people. As overarching strategies within a local area, they also provide an opportunity to bring together the agendas on protecting the well-being of children and young people now as well as looking towards future generations.

- ***Children's Trusts***

As new and emerging structures, the Trusts offer an opportunity to ensure all areas of children and young people's well-being are represented, including those concerned with the environmental dimension (alongside health, social care, education, protection services etc).

- ***Children and Young People's Plans***

Although the evidence suggests many Children and Young People's Plans are being developed without due consideration to the environment, practice based examples also indicate that some influence can be exerted (e.g. at the action planning stage) after the strategic plans have been drawn up. For those areas still in the process of drafting their plan, there are now important opportunities to reflect on the evidence presented in the review to decide how best to incorporate an environmental dimension.

- ***Local Area Agreements***

By providing a mechanism through which collaboration can take place, the LAA should help to ensure a holistic approach is achieved to meeting the needs of children and young people. Many areas are pooling resources and delivering collaborative interventions through the children and young people's block, where opportunities to champion and embed an environmental dimension should exist, albeit that the extent to which this is currently taking place is likely to be variable.

- ***Ofsted***

There may be opportunities to look at the training for OFSTED schools inspectors to increasingly consider the environment as part of the inspection and reporting process. This could help to embed an environmental dimension with respect to children and young people's well-being within a school setting without requiring significant changes to the inspection process itself.

- ***Manifesto for Learning Outside the Classroom***

A new £2.7m package for schools, following the launch of the Government's Learning Outside the Classroom manifesto in November 2006, offers an opportunity to support children and young people's personal development at the same time as encouraging understanding of the environment.

Changing perspectives: increasing the role of children and young people

Every Child Matters was designed to reflect the issues affecting children and young people and to encourage a more co-ordinated approach at central, regional, and local level to address the priorities identified. Strengthening Every Child Matters so that it takes account of "the environment" must, therefore, include the perspectives of children and young people themselves. In addition to the areas already identified, there is an opportunity to re-conceptualise some existing notions of well-being and the environment and, in turn, begin to measure those things which are important to children and young people.

nef's current work in the field of well-being suggests, in the first instance, a general need to broaden the target and indicator set of Every Child Matters such that it better reflects the overarching outcomes and aims. What gets measured, matters and at present the ECM indicators place take too little emphasis on the subjective feelings and experiences of children and young people. For example, whilst one of the ECM aims is for children and young people "to attend and enjoy school", the indicator used to proxy this is the number of "Half days missed through absence". The disjunction between aim and indicator here is obvious: children may miss school for any number of reasons, and it is a moot point whether enjoyment of school *per se* features among them. Moreover, focusing solely on absenteeism risks overlooking those children who attend school diligently but are bored, unchallenged, unhappy – in short, languishing rather than flourishing.

5.4 Summary

As previous work by **nef** illustrates (Marks, 2004) it is both possible and – crucially – insightful to take a much more person-centred approach to measuring children and young-people’s well-being, using their own subjective experiences as core data. Across the five outcomes, ECM indicators could place much more emphasis on how children and young people actually feel and function in a range of environments: school, family, neighbourhood, and so on. Needless to say, this would be very much in the spirit of ECM’s stated goal of giving children and young people more say about the issues that affect them as individuals and collectively.

In relation to “the environment”, there is a similar need to incorporate the perspective of the child or young person more explicitly. If we do so, evidence suggests that policy makers and practitioners will increasingly be able to recognise the diversity of “the environment” and how it affects children and young people. Whilst we may hypothesise that children and young people’s own perspective will include issues such as access to natural environments, greenery, and play spaces, it is also likely to highlight the importance of local environmental quality, and issues such as safety, environmental degradation and mobility. Furthermore, placing a greater emphasis on the feelings and behaviours of children and young people in relation to environmental sustainability – through what gets measured as well as delivered – will allow a greater emphasis to be placed on the environmental dimension of well-being in Every Child Matters.

nef’s approach to well-being considers both feelings and functionings, considering these in relation to the individual (personal) as well as how the individual interacts with those around them (interpersonal or social). Translating the ECM framework to this model shows where the different outcome areas appear (Table 3).

Table 3: ECM outcomes within nef's model of well-being

	Personal	Interpersonal (social)
Feeling (having, being)	1. BE HEALTHY 3a. ENJOY 5c. MAKE A POSITIVE CONTRIBUTION (self-confidence)	2. STAY SAFE 4b. ECONOMIC WELL-BEING (sustainable communities)
Functioning (doing)	3b. ACHIEVE 4a. ECONOMIC WELL-BEING (engage in education) 5b. MAKE A POSITIVE CONTRIBUTION (enterprising behaviour)	5a. MAKE A POSITIVE CONTRIBUTION

The longer-term opportunity is to further utilise this framework to consider the environmental dimension, identifying meaningful ways in which ECM can better measure outcomes for children and young people through their subjective experiences and perspectives. The table below provides examples of some of these opportunities.

Table 4: nef's personal, social and environmental dimensions of well-being

	Personal	Interpersonal (social)	Environmental
Feeling (having, being)	Satisfaction Optimism Enjoyment Self-esteem Autonomy	Belonging Social support Social progress Fear of crime Caring	Connectedness with nature Wonder-awe-beauty Perceptions of local envt Ecological values
Functioning (doing)	Goal orientation Interest in learning Sense of purpose Resilience	Altruism Social engagement	Pro-environmental behaviour Engaging with natural world Protecting eco-systems

This review suggests that an environmental dimension can make a positive contribution to the achievement of ECM outcomes. However, it also indicates that to embed environmental considerations, we first need to be clearer about the contribution that the environment makes to children and young people's well-being. There is a need to raise awareness of the existing evidence base, share emerging findings, and continue to address the gaps that are currently identifiable. At the same time, the review indicates where strong evidence is already available there is a need to support

policy makers and practitioners across a range of areas to move towards an increasingly embedded approach within the structure of the current ECM framework. Meanwhile over the medium to longer term the need to advance understanding and practice in terms of how we meaningfully measure children and young people's well-being is also advocated.

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