

The Irish Landscape 2009



Looking around, Looking ahead

An Chomhairle Oidhreachta
The Heritage Council



Irish National Landscape Conference 2009

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The Heritage Council



IRISH NATIONAL LANDSCAPE CONFERENCE

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CONTENTS

Foreword , Michael Starrett, Chief Executive, The Heritage Council	5
EUROPE AND BEYOND	7
Landscapes 'Я' Us Conor Newman, The Heritage Council	8
The European Landscape Convention, Maguelonne Déjeant-Pons, Council of Europe	15
Arrangements of Nature and People: Using Landscape-Ecology, Coastal-Region, and Urban-Region Lenses, Richard Forman, Harvard University	28
The Landscape Observatory of Catalonia, Joan Nogué, The Landscape Observatory of Catalonia	39
Character and Convention: Natural England's role in implementing the European Landscape Convention, Val Kirby, Natural England	53
Landscape and Culture, Mónica Luengo, ICOMOS	63
A Landscape Charter: French Regional Nature Parks – Pioneers of Sustainable Development in France, Bernard Guihéneuf, Parc de Brière	73
Unlocking the Rideau Canal: Planning for the landscape of a World Heritage Site, Heather Thomson, Parks Canada	79
Taking the High Road, Ian Jardine and Simon Brooks, Scottish Natural Heritage	89
BRINGING IT ALL BACK HOME	99
The Irish Agricultural Rural Landscape, Professor Gerry Boyle, Teagasc	100
The Environment and Landscape: Land Cover and Land Use in Ireland, Dr Mary Kelly, Environmental Protection Agency	111
Tourism and the Landscape, Shaun Quinn, Fáilte Ireland	132
Recreation and the Landscape: Providing Trails – a Consideration of the Challenges Presented in Delivering Trail Networks for Recreation, Dr Caro-lynn Ferris, Countryside Activities Network	141
Local Authorities and Landscape, Pat Gallagher, Offaly County Manager	148
Road Infrastructure and the Landscape, Dolan, L. M. J, Whelan, P.M. and Emmerson, M., University College Cork	158

The Irish Coastal Landscape, Andrew Cooper, University of Ulster	169
Irish Landscape and Forest Management, John Landy, Coillte	178
LIVING LANDSCAPES – COMMUNITY CASE STUDIES	185
The Bere Island Conservation Plan 2000 -2009, John Walsh	186
Perspectives on Farming Community Involvement in the Management of the Burren Landscape, Michael Davoren	193
Challenges, Changes and Opportunities in the Irish Uplands, Frank Nugent, Irish Uplands Council	200
Looking around: Looking ahead in the Wicklow uplands, Colin Murphy, Wicklow Uplands Council	209
Tara Skryne Landscape Conservation Area: National pilot project, Dr Loreto Guinan, Meath Local Authorities	218
The Landscape Circle, Terry O'Regan, Landscape Alliance Ireland	225

FOREWORD

The timing of the 2009 Landscape Conference and the publication of these papers could not be better. In the current economic climate it allows us to consider how others in Europe and beyond have faced up to the challenges of living in, planning for and managing their landscapes. It also allows us to consider how agencies in Ireland that oversee or encourage uses of the landscape view those activities in a wider landscape context. Furthermore it provides a platform for individuals and communities that have taken initiatives in the absence of any overall strategy for the Irish landscape to share their experience, their successes and their failures.

Above all, this conference, and the publication of the papers that will be presented, provides an opportunity to discuss how we might do better and best manage, conserve and plan for our landscape in the future. These papers are an apt metaphor for the landscape. Their diversity and style reflect the experience and interests of the authors and similarly serve to highlight that landscape is dynamic and changing in response to natural and cultural causes.

In 2009 the Irish landscape in all its guises, urban, peri-urban and rural has just witnessed the most sustained period of economic growth our country has ever known. Our landscape has in fact provided the stage on which a turbocharged development game has been played. Everywhere we look we see the impact that such economic growth has had on the landscape where we all live, work and play. That impact has touched us all as individuals; it has changed our environment and our communities.

One thing is sure – in providing a forum for debate the Heritage Council wants to ensure the Irish landscape is valued and seen as significant to the economy and the well being of all who live in or visit this Island. In communicating and striving for that objective in an open and accessible manner, and through partnerships and co-operation with all who have an interest, it is my earnest hope that we will all be better placed to ensure that the physical, spiritual and emotional benefits we derive from our landscape can also be enjoyed by our children.

Michael Starrett
Chief Executive
The Heritage Council

EUROPE AND BEYOND

Landscapes 'Я' Us

Conor Newman, Chairman, The Heritage Council

When anthropologist Tim Ingold (1993) described 'landscape' as the '...totality of human experience' he spoke to a definition of 'landscape' that is frankly unfamiliar to most people. For many of us the word 'landscape' is roughly analogous to 'scenery' or 'vista', to the pasturelands and countryside captured in nineteenth century landscape paintings. While happy to distinguish all manner of landscapes, rural, natural, urban, industrial, and so on, Ingold evidently had in mind something a bit more all-embracing. Ingold, in fact, espouses the view that landscapes, even untouched wildernesses, are distinguished, ordered, and assembled as such in the human mind. In short, landscape is the consequence of human engagement with the world. Put another way, landscape is the noise of George Berkeley's tree as it falls in a forest, for as Berkeley (a Kilkenny man) says: '*esse est percipi (aut percipere)*...to be is to be perceived (or to perceive)' (*Principles of Human Knowledge* §§22-3, in Luce and Jessop 1948-57). By 'landscape' is meant, therefore, the meaningful order that results from everything that human beings bring, consciously and unconsciously, to their perception of the physical environment (see also essays in Hannes Palang and Gary Fry's 2003 edited volume *Landscape Interfaces: Cultural Heritage in Changing Landscapes*). It is space ordered, and the human mind is, ostensibly, the sole ordering agent, or at least the only one whose rationale can be fully known to us.

Commandeered thus by students of human behaviour, the word 'landscape' now supports two quite different meanings and has become a potential source of ambiguity and confusion. I would like to begin this paper, therefore, by examining a little further these two different meanings of the word 'landscape', and exploring, *inter alia*, their convergence.

The word 'landscape' comes to us from the Dutch *landschap* meaning an area of land of particular character. Although it can mean an area under specific ownership or jurisdiction, it principally refers to what is discernible, a vista with a demonstrably coherent character, a scene with a harmonious foreground, middleground and background. Landscape theorists like to use the analogy of a landscape painting to introduce and explain their concept of landscape because it provides access to both meanings of the word. As an artistic composition a contrivance even of various elements arranged purposefully on a canvas, landscape painting provides a good analogy for an unconscious trick we all perform which is to order and make

sense of our surroundings by composing or arranging the constituent parts into coherent and integrated tableaux or compositions (e.g. Casey 1996). We are nature's great composers.

Moreover, we compose or arrange things according only to what we already know and understand. Composition is thus an act of assertive comprehension. Projecting *our* knowledge, our understandings and our identities onto the outside world, we encounter it exclusively on our own terms, apprehending it through the prisms of our own emotional and intellectual biographies. Indeed, we invest landscapes with our *selves* to the extent that the two realities converge and meld: neither man nor bog can ever be fully separated from one another because the meaning of one is bound together with the meaning of the other. Again, this aspect of the human condition finds an analogy in *commissioned* landscape paintings which typically record the commissioning family's definition and image of itself, its achievements and its place in the world, projected onto the landscape – from background to foreground, the family is framed against the great estate house, the formal gardens, the pastures, and finally the familiar and mostly tamed wilderness. In so far as such paintings reveal how hierarchies of civility are reflected in landscapes ordered according to approved value systems, these are nothing short of landscape-portraits.

Even though this style of landscape painting is no longer in vogue, and the world of the landed gentry is no more than a relic of history, theoreticians argue that the insights that such images provide on the human condition apply to all of humanity. They are universalisable: all human beings are, as it were, pre-programmed to assemble the world around them into a coherent composition. Such is an inescapable fact of human existence. To support this argument theoreticians have turned to metaphysics, a branch of philosophy concerned with the fundamental nature of being, in particular the work of the German philosopher Martin Heidegger (1977) who wrote in detail about how, and why, human beings order their worlds. Developing on Edmund Husserl's (1958) view that all consciousness is consciousness of *something*, Heidegger was of the view that abandoned to its own fate, human consciousness inherits the task of conferring meaning on the world, a task that each of us performs according to the sum of his or her experiences, contemporary and historical. This meaning-laden world is the only world that we know and inhabit; it is the reality into which we are born, the one we have shaped to our own liking. Because we participate in this enterprise with the whole of our being, it is inevitable that we mark out the world according to our needs and desires. We shape landscapes, not just with our minds but also with our hands. So doing, we inherit the works of past generations and create artefacts for the next. Landscapes are thus the canvasses and the repositories of human history, as well as touchstones for the transference of knowledge, of heritage, from generation to generation.

Trends in metaphysics, however rarefied, have a way of eventually influencing contemporary society and collective knowledge and consciousness. The thinking of philosophers like Heidegger and, later, Sartre and Merleau-Ponty, has been disseminated through all sorts of contemporary media, including art, literature and the performing arts, as well as in more academic writing. It has had a direct bearing on the definition of 'landscape' used in the European Landscape Convention (Florence 2000): '*...an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors*' (emphasis my own). How this definition predicates the intellectual and ethical framework of the research, management and care of landscapes will be explored more fully later.

Like opening a Russian doll, we perceive and encounter the world at various scales, moving seamlessly between them along the strands of an existential and cultural web of our own making. While each of us has a sense of the whole world and our place in it, individually we occupy or inhabit only small parts of it. That with which we are most familiar, which bears most of our fingerprints, is the local, and it is the local, therefore, that reflects most faithfully who we are as individuals because this is where we call 'home'. And if our homes are reflections or extensions of ourselves, our landscapes are extensions of the communities and societies to which we belong, they mirror what is collectively us. As human biography, landscapes are not, therefore, confined to the aesthetically and morally beautiful, the edifying, they are also capable of charting what is least attractive about our species.

The moment must not be let pass without acknowledging also the myriad of different landscapes that arise from the mosaic of cultural and intellectual traditions evident throughout the world. It is as well to remember that ours is a decidedly Western perspective. It is not the only one, and it has no claim on being the superior perspective. One artefact of Western epistemology, for example, is the nature-culture dichotomy (see Descola 1996), a dissociation that has encouraged us not to take responsibility for our environment. Sadly, if there is one lesson that history teaches us it is how seldom different cultures learn from one another. Mutual respect is a principle that all too often falls foul of the rough and tumble of international commerce.

A measure of mental agility is required in order to move between these two applications of the word 'landscape'. Researchers struggle to apply the metaphysics to live case studies, particularly because it demands thoroughgoing interdisciplinarity and pushes interpretations beyond their usual, empirical comfort zones. Such challenges notwithstanding, on a practical level social scientists study landscapes at a 'human' scale, *i.e.*, landscapes conceived of, occupied and usually owned by individuals, families, tribes, communities and so on. The intimacy of such private and communal

worlds is not always well served, however, by the word 'landscape' which seems to carry with it a sense of dispassionate observation of the sort one might bring to the contemplation of a landscape painting. Thus the analogy with landscape painting is finally exhausted as the unavoidable sense of detachment associated with the word 'landscape' is anathema to those who would see the world through the eyes of others. Consequently, to evoke and preserve the intimacy and embeddedness of everyday, lived experiences, writers are now using the word 'place' much more often. As Finbarr Bradley and James Kennelly put it:

A sense of place represents an emotional and complex attachment to a particular and cultural space, a connection embedded in social networks and feelings. It is also rich in tacit knowledge. Such knowledge embodies aesthetics, meaning and emotions that can often be critical motivators of creativity and hence innovation. Tacit knowledge is informed by people's sense of identity and place. A sense of place broadly encompasses elements of natural, social and built environments, and a shared experience of history and community. (Bradley and Kennelly 2008, 6)

The importance of this theoretical framework for those of us who try to study places and landscapes of the past, landscapes composed in minds other than our own, is that it allows us to start from the principle that such landscapes were/are ordered and made meaningful according to complex cultural rubrics; histories *and* projections. That these governing principles are encoded and preserved, however incompletely, in surviving vestiges of the past, in monuments, artefacts, oral and written histories, place names, myths, legends, etc, is what tasks landscape archaeologists to examine and narrate, in so far as is possible, how such syntheses played out in the past. The archaeological jigsaw may be seriously incomplete but this should not blind us to the thoroughness with which places are invested with meaning and wisdom. In so far as the landscape is constructed in, and according to, our likeness, it is capable therefore of being a classroom, a storehouse of personal, tribal and communal knowledge (e.g. Basso 1996). Disregard for and loss of access to this knowledge is one of the greatest tragedies of modern life because it literally dis-locates us.

The recent financial boom contributed significantly to social and spiritual dislocation, casting us adrift from historical cultural identifiers and behavioural and ethical norms, yet offering nothing in their place except vacuous exercises in what anthropologists call 'conspicuous consumption'. Ireland became unfamiliar and unrecognisable, not just to those who visited here but to those of us who live here. Apologists read this as progress, arguing that modernity meant being able to shed the past. While off-loading the shackles of history may be liberating, dislocating ourselves into the bargain by jettisoning the anchor that is history has proven to have been reckless. Clearly, governance is about addressing all of the needs of society, including the need for cultural sustenance.

Advocating re-admission into the vision of Irish society of a philosophical, or spiritual, perspective that acknowledges the importance of cultural identity, Bradley and Kennelly recognise that such is embedded in people *and* place. Such relationships should never be sundered because not only are they affirmative and vital to our spiritual well-being but in fact they also offer a sustainable economic alternative to what has gone before. Suggesting a remedy to the situation we now find ourselves in, Bradley and Kennelly observe that:

...culture, tradition and identity are powerful resources that lead to innovation, creativity, entrepreneurship and global advantage. Such qualities, founded on meaning, rooted in place, and catalysed by a forward-looking public policy, can create conditions necessary for creation of the vaunted knowledge or learning society.

While tangible resources such as financial, natural and technological are certainly necessary, these are not sufficient to achieve a sustainable competitive advantage. Intangibles, such as human, cultural and social capital are crucial. Such resources are rooted in individuals and in the social and economic fabric of the local communities in which they live. In other words, they are deeply embedded historically in the people, places and dynamic of a culture that constitutes a shared identity. (Bradley and Kennelly 2008, 4)

Central to any vision of a sustainable future is landscape. To quote directly from the European Landscape Convention: 'landscape has an important public interest role in the cultural, ecological, environmental and social fields, and constitutes a resource favourable to economic activity and whose protection, management and planning can contribute to job creation'.

At different ends of the Irish spectrum are busy, rapidly changing landscapes – the heavily-populated engine rooms of commerce, industry, and governance – and less densely populated, rural landscapes, where the vestiges of older, historical orders are more easily found and nature is to hand. At whatever pace it may be occurring, however, our landscapes are in constant flux. And while it may be desirable to reverse some trends, to check pollution and re-establish ecosystems, landscape management is mostly concerned with the management of change, addressing the needs and ambitions of current and future generations without needlessly destroying the great storehouses of human history and nature that landscapes represent.

Landscape management does not just refer to iconic landscapes but refers to the principle of participation in informed decisions that affect quality of life of all on this island; a democratisation of spatial planning that is by the people and for the people. Initiatives like the Village Design Statements and the Landscape Characterisation projects being contemplated or undertaken by local authorities throughout Ireland should have the affect of making people more attentive to their and history's role in the shaping of the landscapes and places that they call home, knowledge that will,

in turn, attune them to the erosive affects of careless planning. That the evocation and exploration of landscapes generally have the propensity to contribute positively to self-understanding and quality of life is, by now I hope, self-evident. The realisation of this potential, however, depends on the quality and depth of knowledge – which is itself an on-going process – and on access to both knowledge and the landscape. Axiomatic to the experience of landscape is how natural and cultural phenomena combine to produce places of unique character. The capacity of places to inform and educate is lost when such dynamics are interrupted and setting (i.e. the space occupied by both natural and cultural elements) is irrevocably changed or destroyed.

Deeply inscribed by natural and cultural history, iconic landscapes require special attention for these are places that define all of us. Here history can be traced, and in the management of these areas conservation of the legibility of the historical processes that have shaped them is paramount. The draft new National Monuments Act contains provisions for the designation of historic landscapes and provides a comprehensive list of qualities enjoyed by them, ranging from their association with events, persons or ideas of importance in history, to associative values, public esteem, and the potential of such landscapes to provide knowledge. The provision is being sought because the conservation of these landscapes is important to all of us and is indicative of good, holistic governance.

The built environment is what we have added; the canvas is nature itself. There are no habitats or ecosystems in Ireland that are not directly or indirectly affected by those of us who live on this island. Our well-being, including the quality of the food that we produce and the water that we drink, depends, therefore, not just on stewardship of the cultural dimensions of our landscapes but of nature as well. Sustainability means striking that balance, keeping the human dream alive without exhausting our natural resources or upsetting the ecosystems that we participate in and rely upon. Whether you consider it divine providence or a happenstance of evolution, we hold the future of nature in Ireland in the palms of our hands because human activity is the dominant agency of change on this island. The Green Infrastructure philosophy has much to offer in this regard, referring, as it does, to the maintenance of ecosystems, nature's infrastructure, in the face of the built environment. Though the first image that may spring to mind is a heavily built-up suburban area, ecosystems in rural and wilderness areas are also vulnerable to human impact.

The seamless convergence of culture and nature in Ireland is what makes us who we are, and behoves us to manage our landscapes in a commensurably integrated fashion. Now is the time to begin that process.

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The European Landscape Convention

Maguelonne Déjeant-Pons, Head of the Cultural Heritage, Landscape and Spatial Planning Division, Council of Europe

'The landscape ... has an important public interest role in the cultural, ecological, environmental and social fields, and constitutes a resource favourable to economic activity and whose protection, management and planning can contribute to job creation; ... contributes to the formation of local cultures and ... is a basic component of the European natural and cultural heritage, contributing to human well-being and consolidation of the European identity; ... is an important part of the quality of life for people everywhere: in urban areas and in the countryside, in degraded areas as well as in areas of high quality, in areas recognised as being of outstanding beauty as well as everyday areas: ... is a key element of individual and social well-being and ... its protection, management and planning entail rights and responsibilities for everyone.'

(Preamble to the European Landscape Convention, Florence, 20 October 2000)

The European Landscape Convention was adopted in Florence (Italy) on 20 October 2000 with the aim of promoting European landscape protection, management and planning, and organising European co-operation in this area. The Convention is the first international treaty to be exclusively concerned with all aspects of European landscape. It applies to the entire territory of the Parties and covers natural, rural, urban, and peri-urban areas. It concerns landscapes that might be considered outstanding as well as everyday or blighted landscapes.

The Convention entered into force on 1 March 2004. As of 5 August 2009, 30 out of 47 member states of the Council of Europe had ratified the Convention: Armenia, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Finland, France, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Moldova, Montenegro, Netherlands, Norway, Poland, Portugal, Romania, San Marino, Slovak Republic, Slovenia, Spain, 'the former Yugoslav Republic of Macedonia', Turkey, Ukraine, United Kingdom. Six states had signed but not ratified it: Azerbaijan, Greece, Malta, Serbia, Sweden, and Switzerland¹.

1. Presentation of the European Landscape Convention

The member states of the Council of Europe signatory to the European Landscape Convention declared their concern to achieve sustainable development based on a balanced and harmonious relationship between social needs, economic activity, and the environment. The Convention therefore represents the first international treaty devoted to sustainable development, the cultural dimension also being included.

Origins of the Convention

On the basis of an initial draft prepared by the Congress of Local and Regional Authorities of the Council of Europe, the Committee of Ministers decided in 1999 to set up a select group of experts responsible for drafting a European Landscape Convention, under the aegis of the Cultural Heritage Committee (CCPAT) and the Committee for the activities of the Council of Europe in the field of biological and landscape diversity (CO-DBP). Following the work of this group of experts, in which the principal governmental and non-governmental international organisations participated, the Committee of Ministers adopted the final text of the Convention on 19 July 2000. The Convention was opened for signature in Florence, Italy, on 20 October 2000 in the context of the Council of Europe Campaign 'Europe, a common heritage'.

Why a convention on landscape?

As an essential factor of individual and communal well-being and an important part of people's quality of life, landscape contributes to human fulfilment and consolidation of European identity. It also has an important public interest role in the cultural, ecological, environmental, and social fields, and constitutes a resource favourable to economic activity, particularly to tourism.

The advances in production techniques in agriculture, forestry, industry and mining, together with the practices followed in town and country planning, transport, networks, tourism and recreation, and more generally the global economic changes, have in many cases led to degradation, debasement or transformation of landscapes.

While each citizen should of course contribute to preserving the quality of the landscape, it is the responsibility of the public authorities to define the general framework in which this quality can be secured. The Convention thus lays down the general legal principles, which should guide the adoption of national and community landscape policies and the establishment of international co-operation in this field.

The objectives and specificity of the Convention

The aim of the Convention is to respond to the public's wish to enjoy high quality landscapes. Its purpose is therefore to further the protection,

management and planning of European landscapes, and to organise European co-operation in this field.

The scope of the Convention is extensive: it applies to the entire territory of the Parties and relates to natural, urban, and peri-urban areas, whether on land, water, or sea. It therefore concerns not just remarkable landscapes, but also ordinary everyday landscapes and degraded areas. Landscape is recognised irrespective of its exceptional value, since all forms of landscape are crucial to the quality of the citizens' environment and deserve to be considered in landscape policies. Many rural and urban fringe areas in particular are undergoing far-reaching transformations and should receive closer attention from the authorities and the public.

Given the breadth of scope, the active role of the citizens regarding perception and evaluation of landscapes is an essential point in the Convention. Awareness-raising is thus a key issue, in order for citizens to participate in the decision-making process, which affects the landscape dimension of the territory where they reside.

Definitions

Terms used in the Convention are defined to ensure that they are interpreted in the same way:

- 'Landscape' means an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors
- 'Landscape policy' means an expression by the competent public authorities of general principles, strategies and guidelines that permit the taking of specific measures aimed at the protection, management and planning of landscapes
- 'Landscape quality objective' means, for a specific landscape, the formulation by the competent public authorities of the aspirations of the public with regard to the landscape features of their surroundings
- 'Landscape protection' means action to conserve and maintain the significant or characteristic features of a landscape, justified by the landscape's heritage value derived from its natural configuration and/or human activity
- 'Landscape management' means action, from a perspective of sustainable development, to ensure the regular upkeep of a landscape, to guide and harmonise changes, which are brought about by social, economic and environmental processes
- 'Landscape planning' means strong forward-looking action to enhance, restore or create landscapes

Undertakings of the contracting parties: national measures

In accepting the principles and aims of the Convention, the contracting parties undertake to protect, manage, and/or plan their landscapes by

adopting a whole series of general and specific measures on a national level, in keeping with the subsidiarity principle. In this context, they undertake to encourage the participation of the public and of local and regional authorities in the decision-making processes that affect the landscape dimension of their territory.

The contracting parties undertake to implement four general measures at national level:

- The legal recognition of landscape constituting an essential component of the setting for people's lives, reflecting the diversity of their common cultural and natural heritage and as the foundation of their identity
- The establishment and implementation of policies to protect, manage and plan landscapes
- Procedures for the participation by the general public, local and regional authorities and other parties interested in the formulation and implementation of landscape policies
- The integration of landscape into regional and town planning policies, cultural, environmental, agricultural, social and economic policies, and any other policies, which may have direct or indirect impact on the landscape

The contracting parties further undertake to implement five specific measures at national level:

- a) Awareness-raising: improving appreciation by civil society, private organisations and public authorities of the value, function and transformation of landscapes.
- b) Training and education: providing training for specialists in landscape appraisal and landscape operations, multidisciplinary training programmes on landscape policy, protection, management and planning, aimed at professionals in the private and public sector, for interested associations, and school and university courses, which, in the relevant subject areas, cover landscape-related values and questions of landscape protection, management and planning.
- c) Identification and evaluation: mobilising those concerned in order to reach a better knowledge of landscape, guiding the work of landscape identification and evaluation through exchanges of experience and methods between the Parties at European level.
- d) Setting landscape quality objectives: defining quality objectives for the landscapes, which have been identified and evaluated, after consulting the public.
- e) Implementation of landscape policies: introducing policy instruments for the protection, management and/or planning of landscapes.

International measures: European co-operation

The contracting parties also undertake to co-operate at international level in catering for the landscape dimension in international policies and programmes, and to recommend where appropriate the inclusion of landscape considerations in them. They accordingly undertake to co-operate in respect of technical and scientific assistance and exchange of landscape specialists for training and information, and to exchange information on all questions covered by the Convention.

Transfrontier landscapes are covered by a specific provision: the contracting parties undertake to encourage transfrontier co-operation at local and regional levels and, wherever necessary, to prepare and implement joint landscape programmes.

Council of Europe Landscape Award

The Convention provides for a 'Council of Europe Landscape Award'. It will recognise a policy implemented or measures to be taken by local and regional authorities or non-governmental organisations to protect, manage and/or plan their landscape which have proved effective in the long term and can thus serve as an example to other authorities in Europe. It should contribute to the stimulation of those working at local level and to the encouragement and recognition of exemplary landscape management.

2. Implementation of the European Landscape Convention

The Convention states that existing competent committees of experts set up under Article 17 of the Statute of the Council of Europe should be appointed by the Committee of Ministers of the Council of Europe to be responsible for monitoring its implementation. It also states that, following each meeting of the committees of experts, the Secretary General of the Council of Europe will transmit a report on the work carried out and on the operation of the Convention to the Committee of Ministers and that the said committees should propose to the Committee of Ministers the criteria for conferring, and the rules governing, the Landscape Award of the Council of Europe.

On 19 July 2000, when the European Landscape Convention was adopted, the Ministers' Deputies '[...] instructed the Committee for the activities of the Council of Europe in the field of biological and landscape diversity (CO-DBP) and the Cultural Heritage Committee (CDPAT) to monitor the implementation of the European Landscape Convention' (CM/Del/Dec(2000)718, 718th meeting).

The Declaration of the Second Conference of Contracting and Signatory States to the European Landscape Convention adopted in Strasbourg on 29 November 2002, of which the Committee of Ministers took note on 28 May 2003, also asked the Committee of Ministers to associate the Committee of Senior Officials of the European Conference

of Ministers responsible for Regional Planning (CEMAT) in the work of the committees of experts responsible under Article 10 for monitoring implementation of the Convention.

On 30 January 2008, the Committee of Ministers adopted the terms of reference of a new Steering Committee for Cultural Heritage and Landscape (CDPATEP), which is now responsible for dealing with natural and cultural heritage issues. It has the task of monitoring the following Conventions on the cultural heritage and the landscape:

- The European Convention on the Protection of the Archaeological Heritage and the European Convention on the Protection of the Archaeological Heritage (revised)
- The Convention for the Protection of the Architectural Heritage of Europe
- The European Landscape Convention

With regard to the follow-up of the European Landscape Convention, the terms of reference state that the CDPATEP should also take into account the work of the periodic Council of Europe conferences on the European Landscape Convention and other work by appropriate experts.

The work carried out to implement the European Landscape Convention is aimed at:

- Monitoring implementation of the Convention
- Fostering European co-operation
- Raising awareness of the importance of landscape in relation to the Council of Europe's core objectives, landscape being considered as people's living environment from the angle of sustainable spatial development and an issue for democratic debate

Measures taken since the Convention was drafted to implement and promote it: Recommendation CM/Rec(2008)3 of the Committee of Ministers to member states on the guidelines for the implementation of the European Landscape Convention

Recommendation CM/Rec(2008)3 of the Committee of Ministers to member states on the guidelines for the implementation of the European Landscape Convention was adopted by the Committee of Ministers on 6 February 2008 at the 1017th meeting of the Ministers' Deputies. The recommendation, which contains a series of theoretical, methodological, and practical guidelines, is intended for parties to the Convention which wish to draw up and implement a national landscape policy based on the Convention. It also includes two appendices entitled:

- a) Examples of instruments used to implement the European Landscape Convention
- b) Suggested text for the practical implementation of the European Landscape Convention at national level

Appendix 1 to the recommendation may be reinforced by the experiences of parties to the Convention on their own territories, which will provide practical and methodological lessons. It is proposed that each party should contribute to the setting up of a database to appear on the website of the Council of Europe's European Landscape Convention, which would be a 'toolbox' to help provide mutual technical and scientific assistance, as provided for in Article 8 of the Convention.

Summary descriptive notes on the landscape policies pursued in Council of Europe member states

A document entitled '*Summary descriptive notes on the landscape policies pursued in Council of Europe member states*', giving the key facts concerning the landscape of the various Council of Europe member states, has been produced and the information in the notes has been analysed.

An updated version of the notes was presented at the Council of Europe Conferences on the European Landscape Convention (Strasbourg, 22-23 March 2007 and 30-31 March 2009).

The descriptive notes are regularly updated and a Council of Europe Information System on the European Landscape Convention is being established.

National seminars on the European Landscape Convention

Intended for states which have or have not yet ratified the Convention, the national seminars on the European Landscape Convention help generate discussion on the subject of landscape.

Five national seminars on the European Landscape Convention have been held to date, with declarations or conclusions adopted at the end of each:

- Seminar on 'Spatial planning and landscape', Yerevan, Armenia, 23-24 October 2003;
- Seminar on 'Spatial planning and landscape', Moscow, Russian Federation, 26-27 April 2004;
- Seminar on 'Sustainable spatial development and the European Landscape Convention', Tulcea, Romania, 6-7 May 2004;
- Seminar on 'The contribution of Albania to the implementation of the European Landscape Convention', Tirana, Albania, 15-16 December 2005;
- Seminar on landscape, Andorra la Vella, Principality of Andorra, 4-5 June 2007.

Promotion of European co-operation

The European Landscape Convention provides for the contracting parties to undertake to co-operate at European level in the consideration

of the landscape dimension of international policies and programmes. The Council of Europe organises this co-operation through the Conferences on the European Landscape Convention and the meetings of the Workshops for the Implementation of the European Landscape Convention.

The Council of Europe Conferences on the European Landscape Convention

Several conferences on the European Landscape Convention have already been organised. They are attended by representatives of the parties and signatories and representatives of the three Council of Europe bodies – the Committee of Ministers, the Parliamentary Assembly and the Congress of Local and Regional Authorities of the Council of Europe. Representatives of Council of Europe member states which are not yet parties or signatories and various international governmental and non-governmental organisations can also attend as observers.

Two Conferences of the Contracting and Signatory States to the European Landscape Convention were held at the Council of Europe in Strasbourg, on 22-23 November 2001 and on 28-29 November 2002. In particular, they served to:

- Promote the signature and/or ratification of the Convention so that it could swiftly enter into force
- Provide legal assistance for the signatory states and Council of Europe member states invited to sign the Convention
- Pave the way for the implementation of the Convention following its entry into force

Following the entry into force of the European Landscape Convention on 1 March 2004, a conference to mark the event and a joint meeting of the Steering Committee for Cultural Heritage (CDPAT) and the Committee for the Activities of the Council of Europe in the field of Biological and Landscape Diversity (CO-DBP) were held in Strasbourg, 17-18 June 2004.

A further Council of Europe Conference on the European Landscape Convention was held in Strasbourg, on 22-23 March 2007. Conclusions concerning the '*Guidelines for the implementation of the European Landscape Convention*' and the '*Rules governing the Landscape Award of the Council of Europe*' were adopted. The fifth Conference took place in Strasbourg on 30-31 March 2009.

Meetings of the Workshops for the Implementation of the European Landscape Convention

The meetings of the Workshops for the Implementation of the European Landscape Convention have been organised by the Council of Europe on a regular basis since 2002. They look in detail at the implementation

of the Convention. Special emphasis is given to the experiences of the state hosting the meeting. The meetings are a genuine forum for sharing practice and ideas and are also an opportunity to present new concepts and achievements in connection with the Convention.

Seven meetings of the Council of Europe Workshops for the implementation of the European Landscape Convention have been held so far:

- 23-24 May 2002, Strasbourg: 'Landscape policies: contribution to the well-being of European citizens and to sustainable development (social, economic, cultural and ecological approaches) (preamble to the convention); Landscape identification, evaluation and quality objectives, using cultural and natural resources (Article 6 of the Convention); Awareness-raising, training and education (Article 6 of the Convention); Innovative tools for the protection, management and planning of landscape (Article 5 of the convention)';
- 27-28 November 2003, Strasbourg: 'Integration of landscapes in international policies and programmes (Article 7 of the convention) and transfrontier landscapes (Article 9 of the convention); Landscapes and individual and social well-being (Preamble to the Convention); Spatial planning and landscape (Article 5 of the convention)';
- 16-17 June 2005, Cork (Ireland): 'Landscapes for urban, suburban and peri-urban areas' (Article 5(d) of the Convention);
- 11-12 May 2006, Ljubljana (Slovenia): 'Landscape and society' (Preamble to the Convention);
- 28-29 September 2006, Gerona (Spain): 'Landscape quality objectives: from theory to practice' (Articles 6 c, d, and e of the convention);
- 20-21 September 2007, Sibiu (Romania): 'Landscape and rural heritage', in the context of the 2007 Year 'Sibiu, European Capital of Culture' (Article 5(d) of the convention);
- 24-25 April 2008, Piestany (Slovak Republic): 'Landscape in development policies and governance: towards integrated spatial planning' (Articles 4 and 5(d) of the convention).

The eighth meeting of the Council of Europe Workshops for the implementation of the European Landscape Convention on 'Landscape and driving forces' will be held in Malmö/Alnarp, Sweden, on 8-9 October 2009.

The proceedings of the workshops are regularly published in the Council of Europe's Spatial Planning and Landscape series.

Awareness-raising and information: Council of Europe Landscape Award

The Convention (Article 11) provides for a Council of Europe Landscape Award. In particular, it states that, on proposals from the committees of experts supervising the implementation of the Convention, the Committee of Ministers should define and publish the criteria for conferring the Landscape

Award, adopt the relevant rules and confer the award. The Committee of Ministers adopted Resolution CM/Res (2008)3 on the rules governing the Landscape Award of the Council of Europe on 20 February 2008.

The Landscape Award of the Council of Europe may be conferred on local and regional authorities or groups among them which have instituted, as part of the landscape policy of a party to the Convention, a policy or measures to protect, manage and/or plan their landscape, which have proved lastingly effective and can thus serve as an example to other local and regional authorities in Europe. The distinction may also be conferred on non-governmental organisations which have made particularly remarkable contributions to landscape protection, management, or planning.

The award will be conferred for the first time in October 2009.

European Landscape Convention website

The Convention website (<http://www.coe.int/EuropeanLandscapeConvention> (English) and <http://www.coe.int/Conventioneuropennedupaysage> (French)) includes the following:

- Presentation of the European Landscape Convention
- State of signatures and ratifications of the European Landscape Convention
- Implementation of the European Landscape Convention (before and since its entry into force)
- Meetings of the Workshops for the implementation of the European Landscape Convention
- National Seminars on the European Landscape Convention
- Reference texts on landscape
- National policies
- Network of partners of the European Landscape Convention
- Landscape calendar
- Publications
- Contacts

The site will also offer access to the database provided for in Recommendation CM/Rec(2008)3 of the Committee of Ministers to member states on the guidelines for the implementation of the European Landscape Convention.

Reports and information documents

Reports by Council of Europe experts are submitted to the relevant committees of experts for the purpose of monitoring implementation of the provisions of the Convention.

To date, reports have been produced on the following subjects:

- Landscape policies: contribution to the well-being of European citizens and to sustainable development (social, economic, cultural and ecological approaches) (Preamble to the convention)
- Landscape identification, evaluation and quality objectives, using cultural and natural resources (Article 6 of the convention)
- Awareness-raising, training and education (Article 6 of the convention)
- Innovative tools for the protection, management and planning of landscape (Article 5 of the convention)
- Landscape, towns and suburban and peri-urban areas
- Landscape and transport infrastructures: roads
- Selected EU funding opportunities to support the implementation of the European Landscape Convention in EU and non-EU Members
- Training of landscape architects
- Road infrastructures: Tree avenues in the landscape
- Landscape and education for children
- Landscape and ethics

Several information documents and four issues of the Council of Europe's *Naturoipa* magazine have been devoted to landscape and the European Landscape Convention. In 2008, the magazine was renamed *Futuroipa*, for a new vision of landscape and territory so as to highlight the cross-sectoral nature of the themes more clearly:

- 'Landscapes: the setting for our future lives', *Naturoipa*, No 86, 1998
- 'The European Landscape Convention', *Naturoipa*, No 98, 2002
- 'Landscape through literature', *Naturoipa/Culturoipa*, No 103, 2005 (special issue, European Landscape Convention). This issue brought together texts and pictures from the Council of Europe member states to show that landscape has always had a key spiritual part to play in the lives of individuals everywhere
- *Futuroipa*, 'Vernacular rural housing: heritage in the landscape', No 1, 2008

The next issue will focus on landscape and transfrontier co-operation.

Conclusion

The Action Plan adopted by the heads of state and government of the member states of the Council of Europe (Warsaw, 17 May 2005), at the Third Summit of the Council of Europe states includes a section on the promotion of sustainable development and states: 'We are committed to improving the quality of life for citizens. The Council of Europe shall therefore, on the basis of the existing instruments, further develop and support integrated policies in the fields of environment, landscape, spatial planning and prevention and management of natural disasters, in a sustainable development perspective'.

The European Landscape Convention represents an important contribution to the implementation of the Council of Europe's objectives, namely to promote democracy, human rights and the rule of law and to seek common solutions to the main problems facing European society today². By taking into account landscape qualities, the Council of Europe seeks to protect the quality of life and individual and collective well-being of Europeans.

* * *

Reference texts:

1) European Landscape Convention

Full text in Word Format

http://www.coe.int/t/dg4/cultureheritage/conventions/landscape/florence_en.asp?

Convention européenne du paysage

Texte intégral au format Word

http://www.coe.int/t/dg4/cultureheritage/conventions/landscape/florence_fr.asp?

2) Recommendation CM/Rec(2008)3 of the Committee of Ministers to member states on the guidelines for the implementation of the European Landscape Convention (Adopted by the Committee of Ministers on 6 February 2008 at the 1017th meeting of the Ministers' Deputies)

Links to the document: [http://wcd.coe.int/ViewDoc.jsp?Ref=CM/Rec\(2008\)3&Language=lanEnglish&Ver=original&BackColorInternet=9999CC&BackColorIntranet=FFBB55&BackColorLogged=FFAC75](http://wcd.coe.int/ViewDoc.jsp?Ref=CM/Rec(2008)3&Language=lanEnglish&Ver=original&BackColorInternet=9999CC&BackColorIntranet=FFBB55&BackColorLogged=FFAC75)

Recommandation CM/Rec(2008)3 du Comité des Ministres aux Etats membres sur les orientations pour la mise en œuvre de la Convention européenne du paysage (adoptée par le Comité des Ministres le 6 février 2008, lors de la 1017e réunion des Délégués des Ministres)

Lien vers le document :

[http://wcd.coe.int/ViewDoc.jsp?Ref=CM/Rec\(2008\)3&Language=lanFrench&Ver=original&BackColorInternet=9999CC&BackColorIntranet=FFBB55&BackColorLogged=FFAC75](http://wcd.coe.int/ViewDoc.jsp?Ref=CM/Rec(2008)3&Language=lanFrench&Ver=original&BackColorInternet=9999CC&BackColorIntranet=FFBB55&BackColorLogged=FFAC75)

3) Resolution on the Rules governing the Landscape Award of the Council of Europe (Adopted by the Committee of Ministers on 20 February 2008 at the 1018th meeting of the Ministers' Deputies)

Links to document: [http://wcd.coe.int/ViewDoc.jsp?Ref=CM/Res\(2008\)3&Language=lanEnglish&Ver=original&BackColorInternet=9999CC&BackColorIntranet=FFBB55&BackColorLogged=FFAC75](http://wcd.coe.int/ViewDoc.jsp?Ref=CM/Res(2008)3&Language=lanEnglish&Ver=original&BackColorInternet=9999CC&BackColorIntranet=FFBB55&BackColorLogged=FFAC75)

Résolution sur le règlement relatif au Prix du paysage du Conseil de l'Europe (adoptée par le Comité des Ministres le 20 février 2008, lors de la 1018e réunion des Délégués des Ministres)

Lien vers le document: [http://wcd.coe.int/ViewDoc.jsp?Ref=CM/Res\(2008\)3&Language=lanFrench&Ver=original&BackColorInternet=9999CC&BackColorIntranet=FFBB55&BackColorLogged=FFAC75](http://wcd.coe.int/ViewDoc.jsp?Ref=CM/Res(2008)3&Language=lanFrench&Ver=original&BackColorInternet=9999CC&BackColorIntranet=FFBB55&BackColorLogged=FFAC75)

*More information on the European Landscape Convention, and a chart of signatures and ratifications can be found on <http://conventions.coe.int>

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¹ See <http://conventions.coe.int/Treaty/Commun/QueVoulezVous.asp?NT=176&CM=1&DF=26/09/2009&CL=ENG>

² *Human Rights and the Environment*, Council of Europe Publishing 2002, 341 p.; Council of Europe, *Landscape and sustainable development: challenges of the European Landscape Convention*, Council of Europe Publishing, 2006, 213 p.

Arrangements of Nature and People: Using Landscape-Ecology, Coastal- Region, and Urban-Region Lenses

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Introduction

In a bare twenty years society has discovered our large landscapes and regions, suddenly revealed by satellite images, geographic information systems, and Google-Earth-type computer programs. Yet surprise and delight are giving way to dismay, as terrible surrounding land-use arrangements are discovered, urbanization accelerates, and proposed changes ahead are pondered. Ironically, it is exactly these landscape and regional scales where land planning and political action often has barely started, yet is most needed and may be most effective...where visible results and long-term success can be combined. Therefore the goals of this brief article are to schematically introduce: (1) people-nature interactions and requirements; (2) natural systems and their human uses in urban regions; (3) spatial patterns and flows in coastal regions; and (4) strategic principles and guidelines for moulding tomorrow's landscapes.

Today's nature-and-people patterns

People-nature interactions. Consider the following four basic options: people positively or negatively affecting nature, and nature positively or negatively affecting people (Forman 2009a). Which is most prominent, and which is least? The positive effect of people on nature is least conspicuous, though where nature is severely degraded, restoration and planning may be quite important. Interestingly, nature's effects on people, both positive and negative, appear to be of intermediate prominence on land. Ecosystem services from flood reduction to crop pollination and pollutant breakdown by microbes illustrate nature's positive roles for society. Conversely, nature brings pest outbreaks, big floods, earthquakes, and other effects onto people.

Yet the giant among the four interactions is clearly the negative effect of people on nature. Habitat fragmentation, brownfield soil contamination, greenhouse gases, stormwater pollutants, top predators decimated, drained/filled wetlands, eutrophication, smog/particulate air pollution, rare species

replaced by houses, septic seepage/sewer overflows, excess farm chemicals, traffic noise inhibiting wildlife...such effects are familiar, conspicuous and pervasive. Human impacts on nature extend different distances (Newmark et al. 1994, McDonald et al. 2009)...site, local, landscape, regional, global...but their cumulative effect is most severe where people and nature are adjacent or nearby. Consequently, intermixing fine-scale small patches of people and nature, as in urban sprawl, on the land is the worst design. Such a pattern eliminates large natural areas, and that in turn impoverishes both nature and society (Forman 1995, Luck et al. 2004, Lindenmayer and Burgman 2005, Farina 2007).

Habitat/place, resources, routes. So what do people and nature apparently need in order to survive and thrive? Basic human needs, according to the United Nations, are food, water, health and shelter (energy may be added to the list). That suggests a healthful home with access routes to resources including food, water, and energy. A sense of place, i.e., a familiarity and affinity for the home location (or place), should enhance stability. Many of the resources required...agriculture, water supply, woodland/forest...have a major natural systems dimension. On land, routes and lodging for both residents and visitors are typically important. Concentrating rather than dispersing people movement is normally better for people, and much better for nature (Forman et al. 2003). Combining these human places and routes with the predominant negative effects of people on nature effectively provides a basic template or principle for understanding and planning landscapes.

A second spatial principle emerges from recognition that most people prefer to live in communities, such as towns and cities, where resources can be aggregated, transportation minimized, and specialization facilitated. So communities, from tiny to large, are spotted somewhat evenly across the land. In contrast, nature best thrives (is least altered or degraded) in large patches, where, for example, clean groundwater, integrated headwater streams, top predators, and viable populations of interior species are sustained (Forman 1995, Lindenmayer and Burgman 2005, Collinge 2009). These emeralds...the most valuable large green objects...are normally lost without planning and protection. Smaller habitats support somewhat different nature and wildlife as a secondary value. Thus in effect, animals have habitats for homes and movement routes to access resources.

Put this in the context of a changing world (Grimm et al. 2008) available freshwater decreasing, urban expansion, urban infill, industrialization, sea level rising, heat island expanding, and so much more. People need places and routes; nature needs habitats and routes. All of today's patterns will be different tomorrow. Moulding the nature-and-people trajectory with these principles is the opportunity before us.

Urban regions

Nature and altered nature. In a world with a long history of human activities it is valuable to recognise four conspicuous types or categories of nature and altered nature present in an urban region (Forman 2009a): natural area, semi-natural area, intensive-use greenspace, and built area. (1) A natural area is unplanted and without intensive human use or management (such as a rather large woodland or desert area with little human usage). (2) A semi-natural area resembles a natural ecosystem but is significantly altered or degraded in ecological structure/function, and sometimes includes intensive-use unbuilt spaces (e.g., woodland city park, greenway, or area with logging). (3) An intensive-use greenspace is a mainly plant-covered area heavily utilized, managed, or maintained by people (e.g., grass-tree city park, golf course, or farmland). Finally, (4) a built area has nearly continuous closely spaced buildings, typically with roads and other human structures present (e.g., diverse residential and industrial areas).

Much variation exists within each of the four types of nature/altered nature, but the sequence represents a gradient of human alteration or degradation of nature. Degradation may be by a significant alteration of natural vertical structure, horizontal pattern, species structure, or flows and movements. Although protecting large natural areas is often a top priority on land, arranging the three altered-nature types to support the needs of nature and people for habitat/place, resources, and routes is often a key immediate, yet daunting, challenge (Grimm et al. 2008, Marsluff et al. 2008). Indeed in a changing world, opportunities often exist for planned alteration or restoration of the last three types in the direction of natural conditions.

In an urban region, nature and the three types of altered nature appear in relatively predictable patterns. Natural areas are scarce in part due to their required large size, and are generally larger in the outer urban-region ring and smaller toward the city (Forman 2009a). Semi-natural areas such as parts of large city parks, river corridors and greenways, are somewhat more frequent and widespread. Intensive-use, usually small greenspaces in many forms are scattered through built areas, and also appear in large forms such as market gardening (truck farming), pastureland, and logging area. Built areas, including diverse residential, commercial, and industrial land, contain bits or shreds of nature.

Still more landscape-ecology principles for understanding and planning land are important here. A coarse-grain landscape with small fine-grain areas present is better for nature and people than is either a coarse-grain or a fine-grain landscape alone (Forman 1995). Such a design provides a wide range of land-use resources, limits transportation cost-and-time, limits the area polluted, and provides for diversity, generalists, and specialisation alike.

Where nearby municipalities or towns are expanding, a 'green net' of unbuilt corridors along municipal boundaries offers manifold benefits (Forman 2004, 2008). Local recreation, woodland, and food production sites are combined with connectivity for walking paths and wildlife movement. Moreover, local residents and leaders appreciate the opportunity to spatially highlight the identity and distinctiveness of each community.

Barcelona's ring-around-the-city. As perhaps the best case study available, the objective of a recent Barcelona planning project (Forman 2004, 2008) was to outline promising spatial arrangements and solutions that enhance natural systems and associated human uses for the long-term future of the Greater Barcelona Region. Seven primary themes were highlighted:

1. **Emerald network.** Nature protection was emphasized with large natural-vegetation areas or patches interconnected with vegetated corridors. Ten of these emeralds represented a diversity, and logical arrangement, of vegetation/rock types. Five different corridor types ranged from a 'reconnection zone' (creating a large patch from two medium-sized ones) to a 'string-of-pearls' (wooded path with connected small green patches), both of which may be sustained in the face of long-term regional urbanisation.
2. **Major food areas for the future.** Three large agricultural landscapes featuring different crops were complemented by two market-gardening landscapes on lower river floodplains. Seven agriculture-nature parks composed of small-farm areas adjacent to emeralds, plus an intensive greenhouse-production area, are also considered important for the region's future.
3. **Water for nature and us.** This addressed both the scarcity of water and the periodic big floods in the Mediterranean climate. The role of scarce wetlands in urban regions and the widespread pollution of water, especially due to stormwater and human wastewater in the same pipe system, also critically affect the long-term water-related resources.
4. **Streams, rivers, and blue-green ribbons** (stream corridors). A handful of major pollutant source-areas mostly related to different types of food production, and the distribution of heavy, medium and light industry affecting water quality, were addressed. Floodplain riparian vegetation and contrasting issues for the four major rivers present were considered keys to the region's future.
5. **Growth, development, and municipalities.** A key planning strategy, after analyzing and mapping environmental resources, was the highlighting of focus areas for future growth and development, as well as certain areas for limited or no growth, and even specific sites for building removals. Where growing municipalities are threatening to coalesce, a green net of corridors lining municipal boundaries is outlined.

6. **Transportation and industry.** Limited but strategic solutions were identified for a heterogeneous mix of issues...traffic, public transport, rail, highways, and heavy/medium/light industry. Proposed solutions ranged from new heavy-industry and trucking centres to highway underpasses/overpasses for walkers and wildlife.
7. **Nature and people in municipalities.** Solutions include creating a productive world-class recreation park for the river floodplain right by the big city, to creating edge parks for countless growing towns that: provide amenities for both the adjacent existing and to-be-built neighbourhoods; enhance nature and wildlife movement; and, along with light/medium industry nodes, provide proximal jobs with limited motor-vehicle commuter traffic.

Three plan options were provided for the region...a most-promising plan, solid plan, and minimal plan...containing interchangeable components. Significant flexibility and adaptability for regional stability characterized all three options. A series of 'reflections two years later' (Forman 2008) provided perspective on the Barcelona project.

Urban regions worldwide. Selected results from >75 analyses of natural systems and their human uses in urban regions for 38 large-to-small cities in all geographic areas (e.g., continents) (Forman 2008) provide further useful principles and guidelines.

- a) A limited number of **narrow connections and gaps** between natural landscapes (100+ km²) in an urban region, the majority being near the metropolitan area border, represent strategic locations for sustaining future nature and its connectivity.
- b) Wetland loss has been concentrated in urban regions, so that the remaining **major wetlands** are normally scarce, full of rare species, magnets for recreation, and strategic for protection.
- c) Most urban regions have **wooded landscapes** (100+ km²) within an accessible 50km of city centre, that are especially valuable in providing major recreation and other resources for the urban population.
- d) **Cropland** is the predominant land cover outside the metro area in half the urban regions.
- e) Only a quarter of the urban regions have the **flexibility and stability** provided by the presence of both several (5+) agricultural landscapes and a diversity (3+) of agricultural landscape types.
- f) Agriculture, with sediment and chemical runoff, predominates **near streams and rivers** (within 2.5km) in almost all urban regions, with natural vegetation protecting only a quarter of the water courses.
- g) Where abundant, **hill slopes and mountain slopes** facing a nearby city tend to have natural vegetation cover, whereas such slopes, if scarce, tend to be developed, with the consequent loss of major soil, water, microclimate, pollution and aesthetic benefits.

- h) Natural vegetation covers most of the **water-supply drainage area** around reservoirs (mainly used by large cities), whereas nearly half the urban regions have water supplies (lakes, reservoirs, rivers, streams, groundwater) less than half-covered by vegetation, suggesting major sedimentation and pollution problems.
- i) About 40% of the cities have an **adjacent water supply**, suggesting major water pollution and availability problems now and in the future.
- j) Larger cities have more radial **major highways** subdividing the urban region into sections, and are more likely to have ring roads beyond the metro area that tend to stimulate widespread outward development.
- k) While most major **airports** in urban regions are in cropland, most of the area affected by aircraft noise is built land.
- l) All-built metropolitan areas average 3.5 major **built lobes** and 2.3 major greenspace wedges on their perimeter; about half the metro areas are quite compact (0-2 lobes), though some are highly convoluted (4-9 lobes).
- m) Based on ten diverse metro-area-form and urban-region-ring attributes, evidence of **regional planning** is at least detectable in about 60% of the urban regions; two planned cities manifest 4 attributes, and four other cities have 3 attributes.
- n) **Satellite cities** in an urban region are more frequent around, and closer to, a large central city than around a smaller one.
- o) **Towns** in an urban region tend to be in agricultural areas or by water bodies, with almost all other towns located near the border of agricultural and natural areas where degradation of both is less.
- p) The very few urban regions with a **large metropolitan area** and small surrounding urban-region ring (suggesting limited resources for the future) are either constrained by the total **border length** between built and greenspace areas in an urban region (see people-nature interactions above), on average the metro-area border contributes just over 40%, towns almost 40%, and satellite cities a relatively small amount of such border length.
- q) Overall, city population size and geographic region correlate with the nature-people variables in very few of the >75 analyses, suggesting that the **inherent geometry** or spatial pattern created by a growing city is the key broad determinant of urban-region natural systems and their uses.

Coastal regions

Coastal regions, and especially their narrow coastlines, increasingly represent the global conflict between people and nature. That is where human populations squeeze in, recreational demands skyrocket, distinctive

biodiverse ecosystems concentrate, rich seafood resources are emptied, and climate change most threatens.

Several types of people with diverse activities in different locations are drawn to coastal regions (Grove and Rackham 2001, Pedrolí et al. 2007). A major city present serves as the prime seaport, hub for highways and railways, and location for urban residents and city visitors (Forman 2004), while other visitors head for coastal towns, coastal strip development, second homes, and camping areas. Meanwhile, all 29 of the world's ecoregions >33% urbanized are coastal or on islands, and these contain 213 endemic terrestrial vertebrates, all threatened with extinction (McDonald et al. 2008).

The concepts of region (including sliced-donut models), edge, and corridor from landscape ecology (Forman 1995, 2008, Farina 2007) are particularly useful foundations for understanding and planning coastal regions. Discovering the big picture by examining spatial pattern and flows/movements of coastal regions is the central focus here. A solution for the nature-people conflict on coastlines is briefly mentioned.

Spatial patterns in coastal regions. Although quite diverse worldwide, coastal regions have a surprisingly predictable structure: i.e., arrangement of natural systems and human activities (Pignatti 1994, Grove and Rackham 2001, Forman 2009b). Generally elongated or strip-shaped, coastal regions are sandwiched between the open sea and a different inland region, with straight or convoluted boundaries largely due to coastal processes seaward and physiography and human history landward. The strip of sea adjoining and directly affected by the land is included in a coastal region.

Many landscape features tend to generally parallel the coastline, such as vegetation zones, coastal microclimate zone, topography, soil types, agriculture, railway, major highway, some local roads, inland aquifer, aquifer discharge zone near the coast, and saltwater intrusion area. Other prominent features are relatively perpendicular to the coastline, including river, major stream, drainage basin divide, some roads, and major highway. Specific types of sites are also distributed in a relatively predictable way. For instance, the main city is often on the best bay or harbour near the centre of the region, and is the key hub of shipping, rail, and highway. Its radial roads may be the primary oblique patterns present. Towns appear relatively equi-distant along the coast and at lower density inland. Many site types concentrate along the coastline...resort strip development, second-home development, camping area, industries and military bases dependent on the sea, estuaries, wetlands, nature reserves, parks, and underwater parks. Overall, three-quarters of the patterns are generally parallel to the coastline (18 on land and sea, out of 24 in total) (Forman 2009b). The others are terrestrial and relatively perpendicular to the coast. Almost all the zones and patterns are at rather predictable distances from the shore. These parallel

and perpendicular patterns tend to create a mesh or grid-like pattern with diverse dividers and highly diverse 'cells' across the region.

Flows and movements in coastal regions. An analogous analysis of flows and movements, both natural and human, reveals much about how a coastal region works or functions (Pilkey and Dixon 1996, Marsh 2005, Forman 2009b). The types, directions, distances, and widths of the flows are readily mapped within the region, and between region and its surroundings. For example, vehicles and goods on land move in both directions both lengthwise and across a region, whereas sediment and groundwater flow seaward, sea salt is carried landward, and migratory land birds move along the region in both directions. Flows on the sea side are equally diverse... sand and plumes of chemical pollutants are carried one-way along the coast, marine mammals and cargo shipping go both ways alongshore, tsunamis and most storms are shoreward, and off-shore breezes are a one-way flow in the opposite direction.

Overall, most flows (on land or sea) parallel to a coastline go both ways (Forman 2009b). Most perpendicular flows on land are one way, and on sea the flows are primarily landward or both ways. Flows far from the coastline are mainly long distance, whereas flows originating in the coastline are predominantly short distance. The main city has primarily perpendicular flows but also has radial movements in many other directions. Flows and movements on land tend to appear in a narrow band which in effect targets specific sites.

The predominance of orthogonal flows and movements, in combination with the same overall spatial pattern highlighted above, strongly points to a 'multicoloured chess-board' pattern or model. Natural and human flows/movements are concentrated along the boundaries of, and connect, the diverse rectilinear coloured sections. Down the middle of a coastal region is a heterogeneous yet rather regular coastline, often with a relatively central main city and its surrounding radial patterns. Blue water overwhelmingly dominates on the seaward side and green or brown land covers with sharper boundaries on the landward side.

Coastlines and nature-people interactions. The coastline (usually hundreds of metres to a few kilometres wide), in contrast, has a fine-scale highly heterogeneous pattern of small sites packed together. Most types of sites... towns, convex rocky headlands, concave beaches, stream and river outlets, and coastal wetlands... are individually relatively equidistant. Conflicts between nature and people are concentrated in coastlines, where biodiversity and natural flows are rich and human recreation and diverse economic activities are centred. Protecting coastline nature is a central challenge for society here.

A simple spatial model, based on an exponential decrease in human dispersal distance and a sigmoid response of natural ecosystems to human activity, was used to compare six options for spatially meshing recreation and

nature protection along a coastline (Knight and Gutzwiller 1995, Forman 2009b). Number of recreationists (R versus 2R), number of access points to the coast (1 or 2), and normal versus enhanced access points were varied in the model. The best option highlighted is to provide one enhanced access point for R recreationists, and the worst is two regular access points, with either R or 2R people. One enhanced access point for 2R recreationists is better than one normal access point for half as many people. In short, to sustain both nature and recreation on coastlines, remove access points, and locally enhance the remaining ones.

Fortuitously, both the broad-scale pattern of the coastal region and the fine-scale concentrated heterogeneity of the coastline manifest striking regularity. Such predictability provides a valuable basis for understanding, policy, and planning.

Conclusion

The basic requirements, interactions, and tendencies of people and nature, outlined above, point inexorably toward one central, optimal arrangement on land. In each region: (a) large natural emeralds are critical for many sensitive species and the richness and functioning of nature, and also provide valuable resources for people; (b) a network of green corridors, supplemented by dispersed small patches, that interconnects the emeralds and other portions of the land are critical for wildlife movement, and valuable for people; (c) compact human communities from cities to villages, located to limit impacts on the emerald network, provide a richness of living, working, and recreational conditions for diverse types of people; and (d) human transport systems interconnect the communities and other major resources, that are designed and function with limited impacts on the emerald network. Thus, to 'mould the land so both nature and people thrive long-term,' the target is a spatial pattern where both people and nature live and move with sufficient spatial separation to sustain the emerald network. This salutary solution is easy to draw... and provides ample flexibility for a diverse world.

A range of increasingly familiar principles and guidelines from landscape ecology is now available for moulding the land to this trajectory. Urban regions and coastal regions both manifest distinctive geometries, an enormous advantage for understanding patterns and processes, and in applying the principles for society's changing future.

* * *

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The Landscape Observatory of Catalonia

Joan Nogué, Director of the Landscape Observatory of Catalonia
www.catpaisatge.net

Introduction

Landscape is a subject of general interest that transcends specialised fields and is becoming a fundamental part of the territorial planning policies and sectorial policies of a social and cultural character. Slowly and discretely, the idea is taking hold that an attractive, affable and harmonious landscape generates a pleasant sensation of well-being that considerably increases the quality of life of citizens. In this awareness, and considering that Catalonia enjoys a great diversity of landscapes which are subject to a whole series of threats and risks, on 8 June 2005 the Catalan Parliament passed the Act 8/2005 for the protection, management and planning of the landscape. This text aims to sum up the main contributions of this Act, focusing particularly on one of its key instruments: the Landscape Observatory of Catalonia, which is absolutely impregnated, as is the Act, by the philosophy that has resulted in the European Landscape Convention.

1. The Act 8/2005 for the protection, management and planning of the landscape of Catalonia

The Act for the protection, management and planning of the landscape is the basic regulation and reference upon which the landscape policies of the Government of Catalonia are founded. Its purpose is to give positive content to the Catalan Parliament's adherence to the European Landscape Convention of December 2000 and, in this way, it gives the Catalan landscapes legal protection and establishes the corresponding instruments to confront the challenges and guarantee the quality of the landscape.

The purpose of the Act is the recognition, protection, management and planning of the landscape in order to preserve its natural, heritage, cultural, social and economic values in a framework of sustainable development. It also seeks to make economic and town planning development compatible with quality in the environment, taking into account the heritage, cultural and economic values of the whole of the Catalan territory. Starting from an integrated conception of landscape, the Act establishes that its provisions apply to all the territory of Catalonia: both to the natural, rural, forest, urban and peripheral areas and to singular landscapes such as everyday and degraded landscapes, whether inland or on the coast.

Instruments for the application of the Act

The preamble of the Act establishes that this regulation oversees the protection of the landscape and for this purpose gives the Government instruments for legal recognition of its values and to promote actions for its preservation and improvement. These instruments are: Instruments of protection, management and planning; Landscape Catalogues (articles 9, 10 and 11) and Landscape Directives (article 12).

The first are of a descriptive nature, while the Directives have a regulation nature. The **landscape catalogues**, prepared by the Landscape Observatory of Catalonia, are a new instrument for the introduction of landscape targets into town and country planning and sectorial policies in Catalonia, and in this way adopt the principles and strategies of action established in the European Landscape Convention promoted by the Council of Europe. They are documents of a descriptive and prospective nature which define the various types of landscapes in Catalonia, identify their values and state of preservation, and propose the quality objectives which need to be met. The territorial reach of the landscape catalogues corresponds to each seven ambits of application of the town and country zoning plans. In the border areas between two zoning plans, the Act obliges the coherence and continuity of the landscape units to be guaranteed. The Landscape Observatory of Catalonia has been elaborating the seven landscape catalogues in the period between June 2005 and the end of 2009. Just at this moment we are in the last stage of this fascinating process.

The Act provides that the landscape catalogues have at least the following content:

- a) An inventory of the landscape values present in the area.
- b) A list of the activities and processes which impact or have impacted in a well-known way on the current configuration of the landscape.
- c) Indications of the principal routes and places from which the landscape is perceived.
- d) Definition of the landscape units, understood as structural, functional or visually coherent ambits, on which may fall, partly or wholly, a specific regime of protection, management or planning.
- e) Definition of the landscape quality objectives for each landscape unit: these objectives must express the aspirations of the group with regard to the landscape characteristics of their environment.
- f) Proposals for the measures and actions necessary to achieve the landscape quality objectives.



Image 1. Map of Catalonia with the seven Landscape Catalogues

The **landscape directives** are the determinations which, based on the landscape catalogues, set out precisely and incorporate into regulations the proposed landscape quality objectives in the town and country zoning plans or directing plans. It corresponds to the Ministry of Town and Country Planning and Public Works to incorporate into the town and country zoning plans and, if appropriate, into the directing plans, where their ambit is concerned, the landscape directives that respond to the proposals of landscape quality objectives contained in the landscape catalogues.

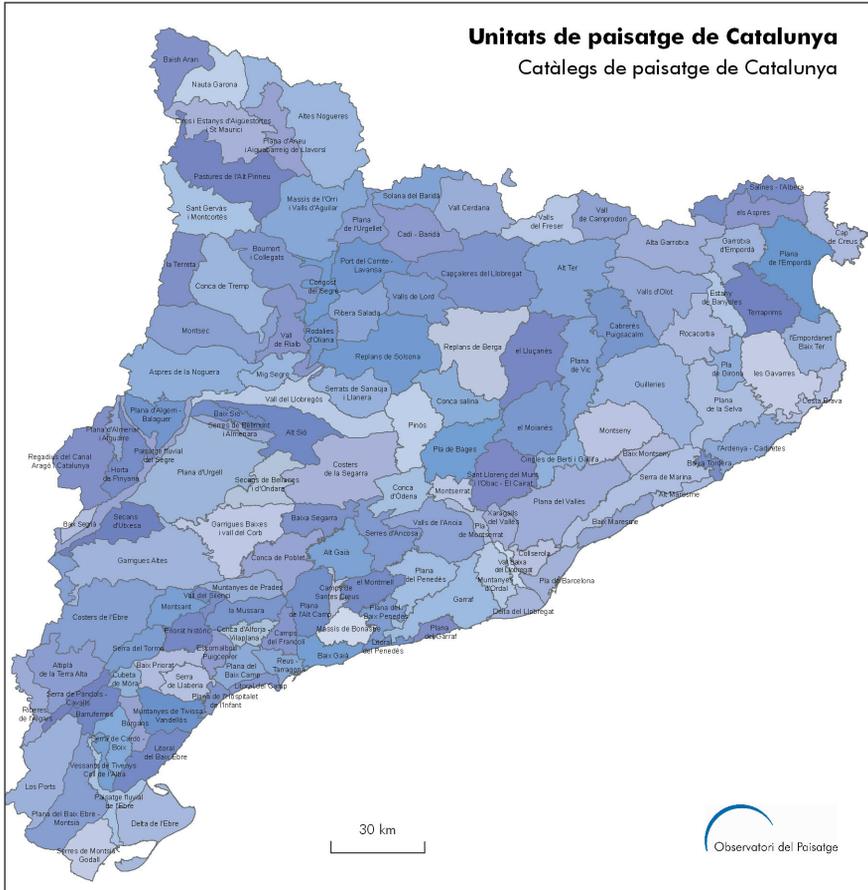


Image 2. Landscape units in Catalonia (June 2009).

These landscape directives are:

- a) Instruments in collaboration with the administration: Landscape Observatory of Catalonia (article 13). This instrument is described in the next section.
- b) Instruments for harmonising strategies: Landscape Charters (article 14). The Landscape Act promotes voluntary action in favour of landscape through the harmonisation of the authorities and agents of territory by means of **landscape charters**. The landscape charters are, then, voluntary instruments for the harmonisation of strategies between the public and private agents of territory, directed to promoting the improvement of the landscape and the shared life of communities through the establishment of objectives, agreements and management strategies for the purpose of maintaining its values.

- c) Instruments of sensitisation and education: educational programmes, research and dissemination projects, and activities for promotion and protection of the landscape (article 15). The Landscape Observatory especially collaborates with the deployment of these instruments.
- d) Instruments of finance: The Landscape Act 8/2005 creates the **Fund for the protection, management and planning of the landscape** (articles 16 to 20), as a financial instrument of the Government, with the purpose of being destined to actions of improvement to the landscape carried out in accordance with the criteria established by the Act itself and by its implementing regulation.

The Decree that develops the Landscape Act creates, moreover, the **Landscape impact and integration study** as a technical document designed to consider the landscape consequences of carrying out actions, works projects or activities and to set out the criteria adopted for their integration. This study is required in those actuations, uses, activities and new constructions in a non-developable land established in the town zoning rules.

2. The Landscape Observatory of Catalonia

The Landscape Observatory has been conceived as an advisory body of the Government of Catalonia and society in general in landscape matters and as the centre par excellence for the study and follow-up of the evolution of landscapes in Catalonia and the agents which condition its dynamism. The basic and generic objective of the Landscape Observatory is the study, identification, follow-up and documentation of Catalan landscapes and their transformations, without this meaning any neglect of reflecting on landscape in a generic way.

One of the principal objectives of the Landscape Observatory is to increase the knowledge that Catalan society has of its landscapes, to collaborate with the Government of Catalonia in implementing landscape policies and, in general, to support the application of the European Landscape Convention in Catalonia. In this sense, it is seen as a meeting point between the authorities (at all levels), the universities, professional groups and the whole of society in relation with everything concerned with landscape. Its creation answers the need to study the landscape, prepare proposals and make Catalan society aware of the need for greater protection, management and planning of the landscape in the framework of sustainable development. The Landscape Observatory is, therefore, a sort of a great umbrella under which anyone interested in landscape can take shelter.



*Image 3. Cloister of the Hospici building in Olot,
headquarters of the Landscape Observatory*

Functions and objectives of the Landscape Observatory

Its functions, which are set out in its Constitution, are the following:

- Establishing **criteria** for the adoption of measures of protection, management and planning of the landscape
- Fixing criteria to establish the landscape quality objectives and the necessary **measures and actions** destined to achieving these objectives
- Establishing **mechanisms of observation** of the evolution and transformation of the landscape
- Proposing actions directed to the **improvement, restoration or creation** of landscape
- Preparing the **Landscape Catalogues of Catalonia**, to identify, classify and qualify the various existing landscapes
- Promoting **campaigns of social sensitisation** with respect to landscape, its evolution, functions and transformation
- Dissemination of **studies and reports** and establishing working **methodologies** in landscape matters
- Stimulating **scientific and academic collaboration** in landscape matters, and exchanges of work and experiences between specialists and experts from universities and other academic and cultural institutions
- A follow-up of **European initiatives** in landscape matters

- Organising **seminars, courses, exhibitions and conferences**, as well as **publications and specific programmes of information and training** on landscape policies
- Creating a **documentation centre** open to all the general public of Catalonia

The Observatory has another function established by the Landscape Act: every four years it must prepare a report on the state of the landscape in Catalonia, for presentation to the Catalan Parliament by the Catalan Government.

The Observatory's activity

The Landscape Observatory's activity is broad and very diverse, in accordance with the functions attributed to it by its constitution and the Landscape Act. As an example, its activity, during the year 2009, has been the following:

Preparation of the Landscape Catalogues of Catalonia

The main work of the Observatory since its creation has been the preparation of the Landscape Catalogues of Catalonia. Concerned about its novelty and importance for the territorial planning of Catalonia, in May 2005 the Landscape Observatory prepared a **prototype landscape catalogue** which established a conceptual, methodological and procedural basic outline for the preparation of the seven catalogues, coherently and in a coordinated way. The catalogues are not intended as a mere exercise of methodological trial, but are conceived to obtain an applicable and very specific type of results. The procedure for the preparation of the landscape catalogues has four phases: identification and characterisation of the landscape, landscape evaluation, definition of the landscape quality objectives, and establishment of directives, measures and proposals for action.

Mechanisms of **public and social participation** are envisaged for all the phases of preparation of the catalogues, above all through working sessions and wide-ranging questionnaires. This point is important in involving Catalan society and making it responsible in the management and planning of its own landscape.

Designing landscape indicators for Catalonia

The **landscape indicators** are key factors in following up the state of the landscape in Catalonia and in the application of landscape policies at all levels. The Landscape Observatory defines and applies a list of landscape indicators, based on environmental, cultural and social viewpoints, which will enable the state of the Catalan landscapes and their evolution to be measured, as well as landscape policies in Catalonia, following the principles of sustainable development. The indicators will be useful in the preparation

of the landscape catalogues and, naturally, in preparing the four-yearly report on the state of landscape in Catalonia referred to in the Landscape Act.

The provisional list of indicators we are working with is the following:

- Transformation of landscape
- Landscape diversity
- Landscape fragmentation
- Economic value of the landscape
- Knowledge of the landscape
- Landscape sociability
- Landscape and communication
- Landscape satisfaction
- Application of the instruments of the Act for the Protection, Management and Planning of the Landscape in Catalonia
- Public and private action in the field of conservation



Image 4. Landscape Indicators. Challenges and Perspectives, the latest book published by the Landscape Observatory of Catalonia

Following up landscape policies on a international scale

The follow-up of landscape policies at a European level is a fundamental activity of the Observatory. For this purpose formal contacts have been established on an international scale with institutions whose central purpose is concerned with landscape activities, in order to exchange experiences and develop common projects. In this sense the Observatory, representing the Government of Catalonia, takes an active part in the **European network of local and regional authorities for the implementation of the European Landscape Convention (RECEP)**, attached to the Congress of Local and Regional Authorities of the Council of Europe, with its legal headquarters in Strasbourg, France. The principal objectives of the network are to promote knowledge and the application of the European Landscape Convention on a local and regional scale and to encourage an exchange of experiences and methodologies in landscape matters.

Landscape Observatory Web

To facilitate dissemination, training and sensitisation in relation to landscape, the Observatory has created a web www.catpaisatge.net available in four languages (Catalan, Spanish, English and French). This site, formed with the intention of being a source of reference for anyone interested in landscape, supplies information on the Observatory's activities, landscape policies, conferences and activities related with landscape, and information on Catalan, Spanish, European and international institutions which deal with landscape from different perspectives, reference publications and university studies linked with this theme.

Publication of books

The Landscape Observatory of Catalonia has two collections of books under the name of 'Plecs de Paisatge' and 'Documents'. The collection 'Plecs de Paisatge' has two series: 'Reflections' and 'Tools'. The first includes articles, studies, workshops and conferences which consider, either generally or through specific cases, a particular aspect or problem related to the landscape. The series 'Tools', on the other hand, includes regulations, instruments and methods for the protection, management and planning of landscape. As the name states, 'Documents' is a collection of small documents on landscape that, because of their size and subject, fail to adapt to the 'Plecs de Paisatge' collection. Since June 2009, the Observatory has already published the books: *Landscape and Health* and *Landscape Indicators: Challenges and Perspectives*.

And the following books are about to be published: *Instruments de gestió i ordenació del paisatge a Catalunya i a Europa* (Instruments of Landscape Management and Planning in Catalonia and Europe), *Els Paisatges sonors a Catalunya* (Sound Landscapes in Catalonia) and *La participació ciutadana en els catàlegs de paisatge* (Public Participation in the Landscape Catalogues).

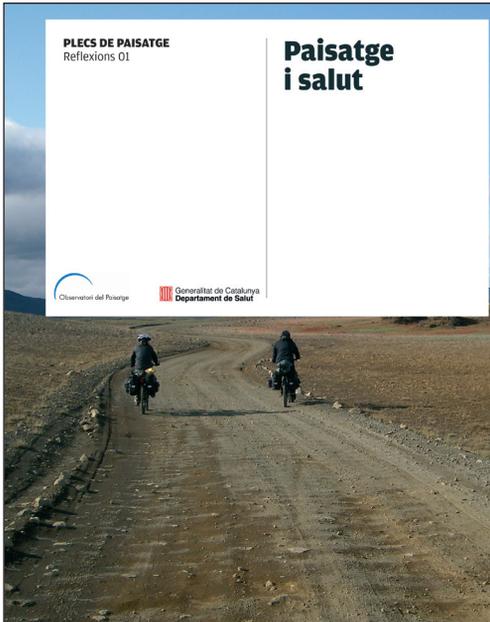


Image 5. Paisatge i salut
(Landscape and Health)

Dissemination of information on landscape in three electronic newsletters

The Observatory has three **electronic newsletters**. First was the *Dietari de Paisatge* (Landscape Diary), a weekly newsletter which since May 2005 has contained news on landscape published in the principal communication media of the world, addressed to people specialised in landscape and with responsibilities in management. The second, *Paisatg-e* (*Landscape-e*), set up in September 2006, is of broader dissemination and includes expert opinions on landscape at international level, news related with the Observatory, important novelties on landscape around the world, regulations, articles of interest appearing in the press, a schedule of activities, seminars and conferences. The third one, *Landscape Events*, set up in October 2007, offers the user monthly a selection of congresses, seminars, courses, presentations, conferences and exhibitions, among other events around the world, with a special emphasis on those taking place in Catalonia.

Catalonia Historical Landscape (PaHisCat)

The landscape catalogues show the extraordinary variety of landscapes in Catalonia. The 135 different landscapes identified and characterised covering the whole of the Catalan territory are the result of a historical evolution which has shaped their character and identity. In line with similar experiences started in other European countries, the Landscape Observatory of Catalonia propose starting a line of research in 2009 through the Catalonia

Historical Landscape project (PaHisCat) on the historical evolution of the landscapes in Catalonia, as a complement to the landscape catalogues. The project is expected to last three years. There is a double purpose to the PaHisCat project: on the one hand, it is aimed at landscapes of the past in order to better understand their evolution and, on the other hand, it is aimed at the future insofar as it has to provide steps that serve for better protection, planning and management of the Catalan landscapes.

Documentation Centre

The Observatory has a Documentation Centre, included since 2007 in the Collective Catalogue of Universities of Catalonia (CCUC), which seeks to become the information centre par excellence in Catalonia and Spain on landscape themes in a broad sense and particularly with everything referring to its planning and management in Catalonia, in the rest of Spain, in Europe and on an international scale, in that order. For its better dissemination, part of the documentary stock of the Centre will be prepared in digital format and will be able to be consulted through the Landscape Observatory web www.catpaisatge.net.



Image 6. Documentation Centre

Activities in training and social sensitisation

One of the principal objectives of the Landscape Observatory is the promotion of training and social sensitisation campaigns in relation to landscape. In this sense the Observatory has worked in coordination with and on the initiative of the Government of Catalonia in the preparation of **teaching material for use in compulsory secondary education** under the title ‘City, Territory and Landscape’. The idea is that pupils in the second stage of secondary education, through this innovative material, will come to understand not only the diversity of Catalan landscapes, but also will become aware of its associated risks and threats. As well as printed classroom material, the Landscape Observatory created a web page for the project, which broadens and goes more deeply into the content of the twelve prints referred to and encourages the use of the new information technology in the learning processes.



Image 7. Materials of the project ‘City, Territory, Landscape’

Other initiatives in the same line of training and sensitisation are the holding of **courses and seminars** on landscape (such as ‘Landscape and Education’, which will be held in Barcelona next November and it will be an occasion to share the experiences from all over Europe in the areas of formal and non-formal education.)

Catalonia Landscape Museum

Olot City Hall, with the support of other institutions of Catalonia, is working on defining the Catalonia Landscape Museum. The future museum will be located in the city of Olot, specifically in the same building as the technical office of the Landscape Observatory. The coincidence of the subject and location allows work to be done jointly to take advantage of synergies on a local, national and international scale. In this sense, the

Landscape Observatory of Catalonia has taken part on the Advisory Council on the future Catalonia Landscape Museum since 2008, and in 2009, an agreement is expected to be signed, establishing a common strategy between the two institutions. This collaboration is specifically expected to bring about an increase in research, knowledge and discussion concerning the landscape.

Organisation of the Observatory

The Observatory is organised in the form of a public consortium, with its own full legal personality independent of its members, and comprises more than 30 public and private institutions interested in preserving the diversity and richness of the Catalan landscape and halting its deterioration. This structure in the form of a consortium gives room for all kinds of voices and sensitivities. In the same way, being a legal entity also gives the Observatory an open and flexible nature, great agility in its functioning, and absolute transparency.

The Governing Board is the Consortium's highest organ. It deals with the government, executive management, administration, direction and definition of the broad lines of action of the consortium. Forming part of the Board are the Government of Catalonia, the Catalan universities, the four provincial governments, the two Catalan municipal associations, the professional associations most directly linked with the theme, the 'Territori i Paisatge Area' of the 'Obra Social de Caixa Catalunya' and Olot City Hall, as home to the technical headquarters of the Observatory (the registered office is in Barcelona). The Landscape Observatory also has an Advisory Council comprising various social groups and, individually, scientists and professionals linked with landscape themes from the rest of Spain and from Europe, among them a senior member of the Council of Europe.

3. Conclusions

It seems that something is moving in Catalonia concerning landscape and in many ways that is due to the deployment and application of the mentioned Act and to a basic instrument to approaching the topic of landscape to society: the Landscape Observatory of Catalonia. Only four years after its implementation, the tools established by this Act to boost a real landscape policy embedded in land planning efforts are now fully in force. Indeed, the seven landscape catalogues set for the whole country, designed to identify and diagnose the landscapes in Catalonia and lay out landscape quality goals through public involvement, are currently being approved; landscape guidelines, which turn the proposals described in the catalogues into rules by means of their integration into the partial land plans, are about to be completed; the impact and landscape integration assessments, as well as the corresponding reports, are now a common

currency; and the Landscape Observatory, working in the form of a public consortium and with the efforts of dozens of members belonging to public bodies and also to the broader society, is widely seen as a positive reference. We still have many different challenges to face if we are to feel totally safe in this area, but finally wheels are starting to turn in the right direction.

* * *

The author

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Character and Convention: Natural England's role in implementing the European Landscape Convention

Val Kirby, Head of Landscape and Geodiversity, Natural England

Introduction

The words 'character' and 'convention' carry many associations. I am of course focusing here on *landscape* character and the *European Landscape Convention*, but it is worth dwelling on what else these words suggest. We talk about someone being 'a character' when the way they are in the world, their behaviour and possibly their appearance, set them apart. It is often said with affection – 'she's a real character' – meaning she is distinctive, unique, not afraid to be different. A convention on the other hand is followed so that we fit in. 'It's conventional', we say, when explaining local traditions or patterns of speech or dress. It is a convention in much of Europe to shake hands when meeting people – I think it is sad that we have lost the habit in England. The linguistic roots of 'convention' take us to 'come together' or agreement. So in the European Landscape Convention we have an international agreement about the importance of difference. That sounds like a paradox. Now I like paradoxes: they make me think. Thus it is not surprising that, with my background, I like the European Landscape Convention (ELC). More than that, Natural England likes it. Even better, the Republic of Ireland and the UK governments both like it enough to have signed, ratified, and implemented it. But paradoxes are tricky things: with their implicit internal contradictions they also present challenges. This paper explores how Natural England is working with and championing, the ELC, and addressing these challenges.

Natural England and landscape

Landscape is an important element in what Natural England does. We deliver:

- Advice on England's landscapes to the UK Government
- National Park and Area of Outstanding Natural Beauty (AONB) designations
- Landscape objectives in agri-environment schemes
- Consultations on the landscape implications of major planning applications
- Oversight of 36 AONB partnerships/boards¹

- Leadership on implementing the European Landscape Convention in England
- Landscape scale biodiversity projects (three planned in each of our nine regions for 2009-10)

Natural England has adopted the ELC definition of landscape as an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors' (Council of Europe). This inclusive approach does not just apply to special or designated landscapes, nor does it apply just to the countryside. It is so broad that it is a challenge to communicate: landscape can mean neglected, brownfield sites as much as a mountain range, and urban streets, squares and parks as much as a patchwork of farmland. It results from the way that the components of the environment – both natural (the influences of geology, landform, soils, climate and biodiversity) and cultural (the historical and current impact of land use, settlement, enclosure and other human interventions) – interact together and are perceived by people. It also acknowledges change: landscapes have always evolved, and will continue to do so, under the influence of global drivers such as climate change, as well as in response to more local pressures. Given the significance of our landscape remit, it is not surprising that we have adopted landscape as one of eight key internal themes. We have a suite of landscape policies (an overarching one in operation and four detailed ones nearing approval). There is a high level presumption that all our delivery should be understood in a landscape frame of reference. This is again very challenging: to put this challenge in context, I need to explain a little more about Natural England as a whole.

Natural England, the natural environment and our corporate approach

Natural England is the successor to three bodies, the Countryside Agency (formally Countryside Commission), English Nature, and Defra's Rural Development Service. Defra is our parent government department: our annual grant in aid comes through Defra, and we work closely with many teams there. We were formed in October 2006. This is a significant date, not just because the merger saw the end of a long period of planning and the beginning of a new integrated body focused on delivering benefits across the whole natural environment, but because a month later the UK Government ratified the ELC. Our founding legislation is the Natural Environment and Rural Communities Act (NERC) 2006. We are the natural environment bit – the Commission for Rural Communities leads on the other strand.

We share our concern for the environment with another government agency, English Heritage, which is charged with looking after the historic dimension of the environment and of landscape. Our own NERC duties also

include taking the historic environment into account in some of our work, notably agricultural support. As will be apparent later, we work closely with EH on ELC matters. The term 'natural environment' refers to what most people think is natural – wildlife, habitats, landscapes, farmland, the coast, the sea – even though people have used and altered these places, in some cases over thousands of years. Many of them are also a part of the historic environment. It includes the more natural parts of towns and cities as well as the countryside; it includes brownfield sites as well as nature reserves; intensively farmed lowlands as well as extensive upland grazing. Those familiar with the ELC will immediately be aware that what the NERC Act calls the natural environment covers the same territory as the ELC definition of landscape. Some people are confused by the presence of two terms basically meaning the same thing, but to me it is an invaluable coincidence.

You can imagine that bringing three different bodies together, even with an integrating Act of Parliament, could also be confusing. Clarity is provided by our four strategic outcomes that drive what we do between now and 2013. These outcomes are:

- A healthy natural environment
- People are inspired to value and conserve the natural environment
- Sustainable use of the natural environment; and
- The natural environment is secured for the future

(Natural England 2008)

Under each outcome is a set of more detailed objectives. The one that explicitly refers to landscape is under Outcome 1: Our diverse landscapes continue to provide inspiration and enjoyment for people and enable our wildlife to adapt to the challenges of the future.

This in turn has two targets:

- a) An understanding of landscape and geodiversity is embedded in more policies and practice affecting England's natural environment at national, regional and local levels and is inspiring increased public engagement.
- b) Landscapes of outstanding beauty and areas of importance for their geodiversity are conserved and enhanced through our direct intervention and our support of partnerships and key stakeholders.

(Natural England 2009)

Advising on how the ELC should be implemented in England comes under the first of these targets, but of course landscape is relevant to the second, and indeed in everything else that we do, including our work on marine conservation and management. This is another challenge – dealing with the specific tasks where landscape is clearly involved and also dealing with everything else, where a landscape approach is needed. A review of the full list of our objectives will explain what I mean (see text box 1). If landscape is everywhere, then a landscape approach underpins everything

that we do: in simple terms, all landscapes matter – and this, of course, is a key theme of the ELC.

If all landscapes matter, how does that work?

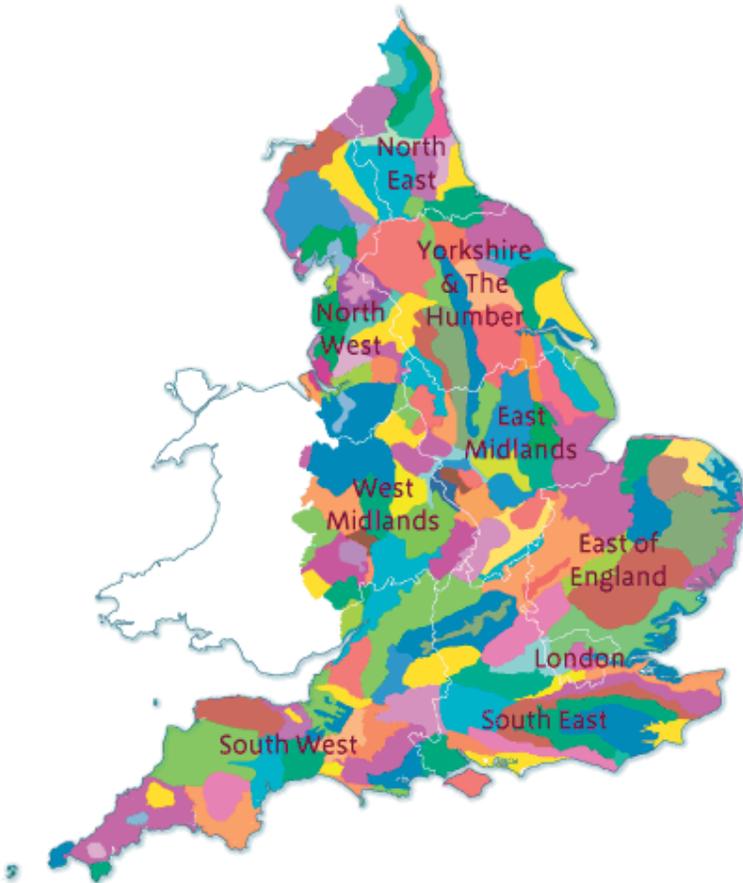
Many people assume that if all landscapes matter, it is impossible to prioritise. It is always necessary to prioritise as resources are always limited, so 'all landscapes matter' won't work. You will not be surprised to hear that I disagree: it is simply another challenge. One concept is the key to resolving the 'all landscapes matter' issue: that concept is landscape character. The idea of landscape character has been around for at least 40 years. I first encountered it in 1974, when staff in the newly created North York Moors National Park Authority analysed the park's landscapes in preparation for their first National Park Plan. The designation meant that all the park's landscapes were of national importance: a way was needed to distinguish between them, so that appropriate policies and proposals could be created for each area.

Text Box 1: Natural England's Objectives

- 1.1 Our diverse landscapes continue to provide inspiration and enjoyment for people and enable our wildlife to adapt to the challenges of the future.
- 1.2 Our rich biodiversity thrives across the landscape, with ecosystems and habitats resilient to climate change.
- 1.3 Our marine environment is better understood, valued and protected
- 2.1 People fully understand and value the contribution of the natural environment to our quality of life.
- 2.2 People increasingly take action to conserve and enhance the natural environment.
- 2.3 People have places to access and enjoy a high quality natural environment.
- 3.1 Land is used for social and economic development in a way that recognises, protects and enhances the value of the natural environment.
- 3.2 Land is managed in a way that delivers environmental services alongside other benefits.
- 3.3 The use and management of the marine environment is more sustainable
- 4.1 Our vision for the natural environment shapes future thinking and decisions at an international, national, regional and local level.
- 4.2 Future challenges for the natural environment are identified and transformed into opportunities for conservation and enhancement.
- 4.3 The natural environment is resilient in the face of climate change.

Eventually 'landscape character' was mainstreamed: the Countryside Commission, later the Countryside Agency, adopted it as a key idea and landscape character assessment became the basis for best practice in countryside planning and management. Before that happened, there was a period of intense debate in which landscape character assessment was opposed to landscape evaluation. The argument was the same as the current one about 'all landscapes matter' – if landscape was to be included in integrated resource management, the need for prioritisation meant that we had to know the relative value of each resource, and that value had to be expressed quantitatively, preferably in monetary terms. Arguments about quantifying and even monetising landscape value remain, but the centrality of landscape character and landscape character assessment is established in practice.

Landscape character and historic landscape character

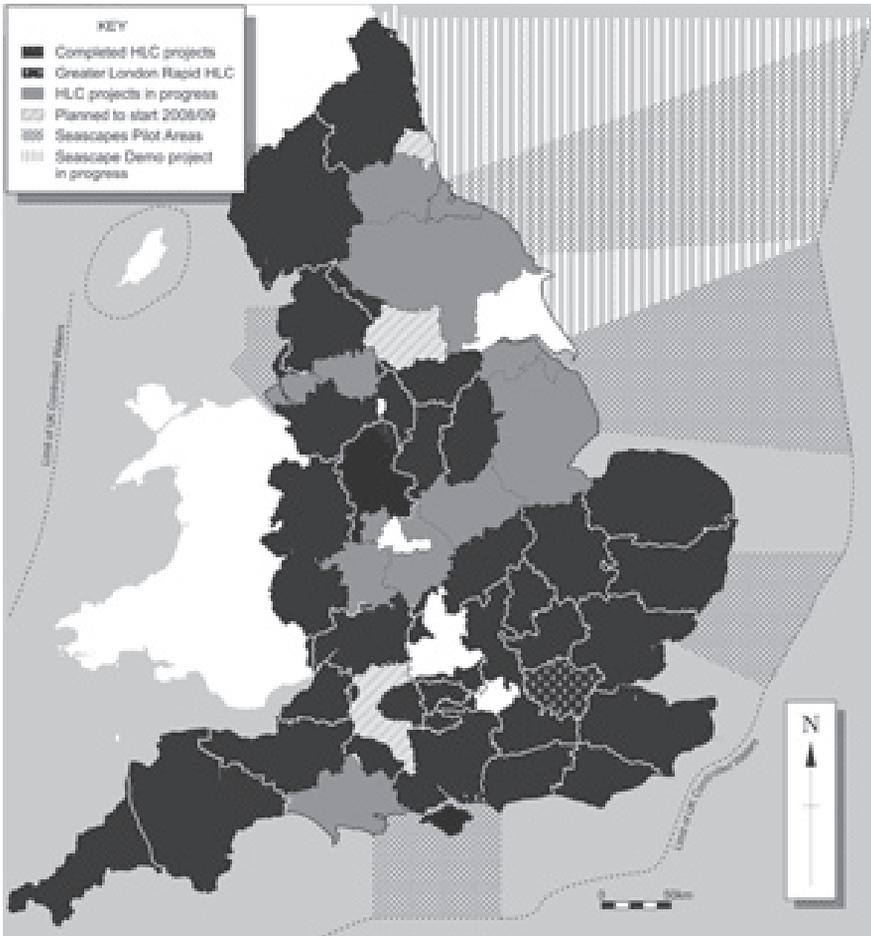


Map 1: England's 159 National Character Areas

Put simply, landscape character is what makes an area unique. It is a distinct, recognisable, and consistent pattern of elements, whether natural (soil, landform) and/or human (for example settlement and land use) that makes one landscape different from another, rather than better or worse. Landscape character is an important influence on people's sense of place, enjoyment, well being, and inspiration. It has economic value too, providing the context for economic activity and often being a central factor in attracting business and tourism. The starting point for assessing landscape character is the Character of England Landscape, Wildlife and Cultural Features Map produced in 2005 (see map 1) by Natural England with support from English Heritage.² This map subdivides England into 159 National Character Areas (NCAs), providing a picture of the differences in landscape character at the national scale. A set of eight regional volumes were published describing the 159 NCAs. These character descriptions highlight the influences which determine the character of the landscape, for example in land cover, buildings, and settlement. The NCAs are a widely recognised national spatial framework, used for a range of applications. Examples include the targeting of Natural England's Environmental Stewardship scheme and the Countryside Quality Counts project. Because they were designed to be used at the national scale, the boundaries of NCAs are not precise: many should be considered as broad zones of transition. Local landscape characterisation provides more detailed analysis. The Countryside Agency and Scottish Natural Heritage produced joint guidance (Swanwick et al 2002): this is still the most authoritative approach available. We will shortly commission updated guidance, which will not involve substantial change to the method.

The basic method has two stages: the first is the process of characterisation; the second is about making judgements and using the results. Each landscape character assessment combines quantitative and qualitative techniques. The results are maps showing the location of landscape types and areas, plus written reports explaining the detail. Most local authorities and national park authorities in England have undertaken some kind of landscape character assessment in recent years: a national database showing where and what kind of assessment is available on the Landscape Character Network website www.landscapecharacter.org.uk/db/map/html. English Heritage's Historic Landscape Characterisation (HLC) programme fills a related gap. County by county, the programme is establishing an over-arching view of the whole historic landscape (see map 2). It provides a base map for a better appreciation of separate places, but also offers an overall understanding of the whole. HLC focuses on aspects of the landscape that have not always been regarded as archaeological. It considers components that are 'natural' but nevertheless the product of centuries of human action, such as hedgerows, woodland, ponds and modified

watercourses. It also takes account of more intangible matters reflected in its physical structure: time-depth, and patterns such as settlement, land-use and the mixture of enclosed and non-enclosed land, arable and grazing, woodland and parkland. English Heritage has produced a guide 'Using Historic Landscape Characterisation' (Clark, Darlington and Fairclough 2004). More detail is available from the English Heritage website at www.english-heritage.org.uk/ .



Map 2: Progress with Historic Landscape Characterisation in England, October 2008

Some counties (Shropshire is a good example) have done both landscape character assessment and historic landscape characterisation. Examples of how the two assessments can be used in resource planning and landscape

management will be included in the presentation that will accompany this paper at the conference.

Implementing the European Landscape Convention in England

Our commitment to working with landscape and historic landscape characterisation predated the UK government's signing and ratification of the ELC, and in an odd way may even have delayed that happening, in that government was convinced for a long time that the UK was already implementing the ELC and would have little to gain by making a formal commitment to it. In the event, the decision to ratify was made in November 2006. This was excellent timing for Natural England, as Defra immediately asked us if we would lead on developing a framework for implementation in England. We were new. We were looking for new things to do that clearly related to our founding legislation. We had willing partners in both Defra and English Heritage. Of course we said yes. Throughout 2007 we worked on Natural England's proposed landscape policies and on the ELC implementation framework in parallel. This was important because we were setting ourselves up as exemplars: it would be no good producing an ELC implementation framework and not be able to show our commitment to the convention by the other things that we were doing. It was another challenge and a bit like bureaucratic tight rope walking. On the one hand there was the ELC, newly in force, requiring us to be clearly compliant – especially as we had agreed to take a lead role. On the other there was the usual competition for both staff time and money, and the need to show that our work on the ELC was not only relevant, but could be done by us and others without overstressing scarce resources.

The Implementation Framework for England (copies will be available at the conference)

The Framework explains the background to the ELC, adding that although the UK government regards itself as broadly compliant, there are areas of policy and practice where performance could be improved. It therefore invites other government bodies, local authorities, NGOs and other bodies to prepare their own Action Plans. Four broad areas for action are listed – landscape protection, management and planning and European cooperation. It acknowledges that the thread of raising awareness of landscape issues through engaging a wide public audience runs through all these areas. The Framework calls for a vision for England's future landscapes which will be achieved over time through actions that are guided by two broad outcomes, both set within the context of sustainable development. The first of these is strengthening institutional frameworks – promoting a landscape perspective to influence spatial planning, land-use and resource management nationally, regionally and locally. The second is creating an inclusive, people-centred approach – raising awareness with the public and

fostering community engagement as well as working with professionals, specialist bodies and politicians.

Natural England, English Heritage and the National Forest Company have each produced Action Plans that show how the ELC is being implemented (copies will be available at the Conference). The Forestry Commission has just expressed its interest in preparing a plan. We have also produced guidance <http://www.landscapecharacter.org.uk/elc>, and in so doing have found considerable interest either in preparing Action Plans or in doing something simpler – using a checklist approach to ‘ELC proof’ strategies, plans and procedures. We have also commissioned reports into the ways in which the ELC approach to landscape is already influencing public policy and practice (Roe et al 2008), and into the benefits and opportunities of integrating geodiversity and landscape with reference to the ELC (Capita Symonds 2009). Remembering the commitment to increased public engagement, we are close to agreeing the final version of a report on ‘Capturing the cultural services and experiential qualities of landscape’ (Research Box et al 2009). Using our regional staff as the key players, regional landscape and geodiversity partnerships have been set up across England. Their activities range from working to ensure that landscape is included as a key issue in the forthcoming suite of Integrated Regional Strategies, to delivering more local, site-based projects with a landscape focus.

Facing up to the future

The last big challenge is of course the future. Climate change is *the* big driver, demanding new heights of creative thinking and action. Given that most people like what they know and resist change, finding ways of working creatively to engage people in strategies and visions that will see our future landscapes changing perhaps radically, whilst remaining as distinctive and individual as they are now, is going to be hard.

It would help if there were clearer, high level agreement on what landscapes do for us. Despite all the good work that we are doing, there is still much to be done to convince policy makers at the highest level that landscape is really important. I referred earlier to the continued call for ways of quantifying and even monetising the value of landscape: this is an enormous challenge. My preference is for increasing our understanding of the services provided by landscape without going too far down the monetising route. The concept of ecosystem goods and services can help us do this, in projects such as CQuEL (Character and Quality of England’s Landscapes), that will monitor landscape change across England. But CQuEL will not report until 2012, and in the meanwhile we must seek to influence policy instruments such as revisions to national planning guidance, and to local authority indicators, using the evidence and the policies that we already have.

Despite the many challenges, I remain optimistic. The European Landscape Convention has already proved its worth: we have built it into our policies, practice, and advocacy. It will remain one of the cornerstones of our delivery.

* * *

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¹ When the South Downs designation as a National Park is confirmed, there will be 34

² This is an updated version of a map of what were then called Joint Character Areas, first produced in 1996

Landscape and Culture

*Mónica Luengo President of the International Scientific
Committee on Cultural Landscapes ICOMOS-IFLA*

Introduction

The International Council on Monuments and Sites (ICOMOS) works for the conservation and protection of cultural heritage places. It is the only global non-governmental organisation of its kind, dedicated to promoting the application of theory, methodology, and applying scientific techniques to the conservation of the architectural and archaeological heritage. In other words, it endeavours to contribute to improving the preservation of heritage, standards and techniques for each type of cultural heritage property, be these buildings, historic cities, archaeological sites and cultural landscapes.

As a representative of ICOMOS, therefore, I have an impact on the cultural value of the landscape or what is currently known as the 'cultural landscape'. We have agreed to consider landscape as a complex, living being which, as well as having physical structure, also has immaterial, intangible values that give it meaning. All our conservation and management plans focus solely on upholding this meaning, respecting the authenticity and integrity that give it a specific identity.

But before we reached this agreement to consider both cultural or 'spiritual' aspects, it was necessary to go through a long process in which cultural landscapes played the lead in the cultural heritage conservation field. Sixteenth century literature reinforces the notion of a compendium, a summarised landscape in the collective memory as a singular way of understanding life. Ever since Petrarca first climbed Mont Ventoux in 1335 to look at the views and henceforth sprung forth a flow of literature, painting and poetry... artists have been teaching us how to open our physical and spiritual eyes to try and see with the laws of perspective and, above all, with those of the painter. Painters taught us to better see and understand the beauty of landscape, which ties us to our past and is at the same time future continuity, the essence of our being and our own civilisation. This way of looking at things is inseparably bound to the way we understand nature and our harmonious relationship with it. We should not think merely of a 'natural' landscape, but also our everyday landscape, a setting for the life of the human community and its development through time; a pictorial landscape, an image of the setting projected outwards through the vision of our artists; a literary landscape materialising in texts and the pages of our literature, collective memory, the testimony of fathers to sons, transformed

into legends, proverbs and folk songs, the fruit of popular culture, a technological landscape born of the economic transformation of a society's way of life; or an urban landscape reflected in the streets, plazas and nooks and crannies of the city.

In the 20th century, a variety of reasons such as new ecological ideas, new schools and trends in the study of geography and others, come together in a new consideration of the landscape, especially from a cultural point of view. UNESCO, the United Nations Organisation for Education, Science and Culture, defines culture as 'the consciousness of a human committee of its own historical past with which it tends to ensure its continuity and development'. This historical moment has a physical framework: the landscape which, therefore, possesses obvious cultural values. That is why it comes as no surprise that in 1952, at the 31st plenary session, UNESCO approved the Recommendation concerning the Safeguarding of Beauty and Character of Landscapes and Sites (1962) which clearly expresses concern for the landscape: 'that at all periods men have sometimes subjected the beauty and character of landscapes and sites forming part of their natural environment to damage which has impoverished the cultural, aesthetic and even vital heritage of whole regions in all parts of the world.'

The document was the first step in the aforementioned process that attributes cultural values to the physical or natural environment, so that their conservation and protection is understood from a heritage standpoint, and states:

"I. Definition

1. For the purpose of this recommendation, the safeguarding of the beauty and character of landscapes and sites is taken to mean the preservation and, where possible, the restoration of the aspect of natural, rural and urban landscapes and sites, whether natural or man-made, which have a cultural or aesthetic interest or form typical natural surroundings.

II. General principles

5. Protection should not be limited to natural landscapes and sites, but should also extend to landscapes and sites whose formation is due wholly or in part to the work of man. Thus, special provisions should be made to ensure the safeguarding of certain urban landscapes and sites which are, in general, the most threatened, especially by building operations and land speculation. Special protection should be accorded to the approaches to monuments.'

6. Measures taken for the safeguarding of landscapes and sites should be both preventive and corrective.."¹

Among the preventive measures it talks of protecting sites from dangers which may cause them damage, activities mentioned include the construction of roads, of electric lines, of advertising hoardings, destruction

of trees, pollution of the air and water, working of mines and quarries, water works, dumping and scrap heaps and even noise. The General Conference recommended that Member States apply the provisions and adopt through their national laws, measures aimed at putting the rules and principles set out in the recommendation into practice. Our landscape would be very different today if the Nations had followed those recommendations!

Combining the idea of conservation of endangered natural and cultural places was born in the United State of America when a White House Conference in Washington, D.C., in 1965 called for a 'World Heritage Trust' that would stimulate international cooperation to protect 'the world's superb natural and scenic areas and historic sites for the present and the future of the entire world citizenry'. In 1968, the International Union for Conservation of Nature (IUCN) developed similar proposals. Eventually, a single text was agreed upon by all parties concerned. The *Convention concerning the Protection of World Cultural and Natural Heritage*² was adopted by the General Conference of UNESCO on 16 November 1972. Currently, 184 nations have ratified the World Heritage Convention, and 878 sites in 140 countries had been placed on the World Heritage List. There are currently 890 World Heritage sites (689 cultural, 176 natural, and 25 mixed properties).

Considering that heritage has dual cultural and natural aspects, the *Convention* reminds us of the ways in which man interacts with nature, and at the same time the fundamental need to maintain the balance between both. The most significant characteristic is precisely that of associating the concept of nature conservation and preservation of natural sites in a single document. Nature and culture complement each other and cultural identity is closely related to the natural environment in which it is developed.

The concept of the cultural landscape, which is not new, is developed in this context, because it is already latent in all the previous documents but was not adopted until 1992 when the World Heritage Committee revised the *Operational Guidelines*. 'In doing so, the Committee recognised that cultural landscapes have values in their own right that are different from the scientific and the perceptually based scenic qualities of properties valued for their natural characteristics.'³.

In the *Operational Guidelines for the Implementation of the World Heritage Convention*, in 1992, cultural landscapes are defined as representing the 'combined works of nature and man', they are illustrative of the evolution of human society and settlement over time, under the influence of the physical constraints and/or opportunities presented by their natural environment and of successive social, economic, and cultural forces, both external and internal... Thus the World Heritage Convention became the first international legal instrument to recognise and protect cultural landscapes, with its three well-known categories: clearly defined landscapes designed and created intentionally by man, organically evolved landscapes and associative cultural landscapes.

This was the end of the traditional dichotomy that appeared to exist between the field of nature conservation and cultural heritage. 'The distinction between different ways of thought and scientific backgrounds, particularly between art history and nature protection was evident. While art historians took single monuments as their main focus, the natural scientists did not recognise the immense cultural influences on nature. For natural scientists the protection of threatened species and of 'untouched' natural areas from human influence was the main goal. Nature modified by humans seemed beside the point to them, had little value and was not recognised as a genuine problem for conservation... Dealing with cultural landscapes has moved our attitude on and our evaluation of 'monuments' and 'wilderness'.⁴

The understanding of cultural landscapes as complex systems where cultural space-time relations take place within an ecological context was consolidated internationally. As a result of this concept, a review was made of the approaches to heritage management.

For the *World Heritage Convention*, unlike the *European Landscape Convention*, the cultural value of landscapes derives primarily from their authenticity and integrity, concepts which, nowadays, still require greater clarification and specification from the experts. In reference to the former, with reference to the former, the Nara Document on Authenticity is one of the pillars of ICOMOS, and indicates, among other points:

"9. Conservation of cultural heritage in all its forms and historical periods is rooted in the values attributed to the heritage. Our ability to understand these values depends, in part, on the degree to which information sources about these values may be understood as credible or truthful. Knowledge and understanding of these sources of information, in relation to original and subsequent characteristics of the cultural heritage, and their meaning, is a requisite basis for assessing all aspects of authenticity.'

10. Authenticity, considered in this way and affirmed in the Charter of Venice, appears as the essential qualifying factor concerning values. The understanding of authenticity plays a fundamental role in all scientific studies of the cultural heritage, in conservation and restoration planning, as well as within the inscription procedures used for the World Heritage Convention and other cultural heritage inventories.'

11. All judgements about values attributed to cultural properties as well as the credibility of related information sources may differ from culture to culture, and even within the same culture. It is thus not possible to base judgements of values and authenticity within fixed criteria. On the contrary, the respect due to all cultures requires that heritage properties must be considered and judged within the cultural contexts to which they belong.'

12. Therefore, it is of the highest importance and urgency that, within each culture, recognition be accorded to the specific nature of its heritage values and the credibility and truthfulness of related information sources.'

13. Depending on the nature of the cultural heritage, its cultural context, and its evolution through time, authenticity judgements may be linked to the worth of a great variety of sources of information. Aspects of the sources may include form and design, materials and substance, use and function, traditions and techniques, location and setting, and spirit and feeling, and other internal and external factors. The use of these sources permits elaboration of the specific artistic, historic, social, and scientific dimensions of the cultural heritage being examined..⁵

This document is considered by some experts to be ‘the first document... that recommends diverse cultural standards for the conservation of the world’s cultural heritage’⁶. For the first time it was acknowledged that the value of heritage, and therefore landscape, may differ among different cultures. The concept of authenticity has continued to be the subject of subsequent documents and discussions, including the Declaration of San Antonio, 1996, which states that:

“1. Authenticity and identity

‘The authenticity of our cultural heritage is directly related to our cultural identity... Because cultural identity is at the core of community and national life, it is the foundation of our cultural heritage and its conservation... The authenticity of our cultural resources lies in the identification, evaluation, and interpretation of their true values as perceived by our ancestors in the past and by ourselves now as an evolving and diverse community... The comprehensive cultural value of our heritage can be understood only through an objective study of history, the material elements inherent in the tangible heritage, and a deep understanding of the intangible traditions associated with the tangible patrimony.’

2. Authenticity and history

‘An understanding of the history and significance of a site over time are crucial elements in the identification of its authenticity. The understanding of the authenticity of a heritage site depends on a comprehensive assessment of the significance of the site by those who are associated with it or who claim it as part of their history. For this reason, it is important to understand the origins and evolution of the site as well as the values associated with it. Variations in the meaning and values of a site may at times be in conflict, and while that conflict needs to be mediated, it may, in fact, enrich the value of the heritage site by being the point of convergence of the values of various groups

3. Authenticity and social value

Beyond the material evidence, heritage sites can carry a deep spiritual message that sustains communal life, linking it to the ancestral past. This spiritual meaning is manifested through customs and traditions

such as settlement patterns, land use practices, and religious beliefs. The role of these intangibles is an inherent part of the cultural heritage, and as such, their link to the meaning of the tangible elements of the sites must be carefully identified, evaluated, protected and interpreted. The goal of preserving memory and its cultural manifestations must be approached by aiming to enrich human spirituality, beyond the material aspect.

General recommendations

a. That further consideration be given to the proofs of authenticity so that indicators may be identified for such a determination in a way that all significant values in the site may be set forth. The following are some examples of indicators:

- (i) **Reflection of the true value.** That is, whether the resource remains in the condition of its creation and reflects all its significant history.
- (ii) **Integrity.** That is, whether the site is fragmented; how much is missing, and what are the recent additions.
- (iii) **Context.** That is, whether the context and/or the environment correspond to the original or other periods of significance; and whether they enhance or diminish the significance.
- (iv) **Identity.** That is, whether the local population identify themselves with the site, and whose identity the site reflects.
- (v) **Use and function.** That is, the traditional patterns of use that have characterised the site."

Specifically, with reference to cultural landscapes, this document includes further specific recommendations:

"4. Recommendations of the Cultural Landscapes Group

That processes of negotiation be established to mediate among the different interests and values of the many groups who own or live in cultural landscapes. Since cultural landscapes are complex and dynamic, that the process of determining and protecting authenticity be sufficiently flexible to incorporate this dynamic quality. That the concept of sustainable development and its relationship to the management of cultural landscapes be defined in order to include economic, social, spiritual and cultural concerns.

- (a) That the conservation of cultural landscapes seek a balance between the significant natural and cultural resources.
- (b) That the needs and values of the local communities be taken into consideration when the future of cultural landscapes is being determined.
- (c) That further work be done on appropriate legislation and governmental planning methodologies to protect the values associated with cultural landscapes.

- (d) Since in conserving the authenticity of cultural landscapes the overall character and traditions, such as patterns, forms, land use and spiritual value of the site may take precedence over material and design aspects, that a clear relationship between values and the proof of authenticity be established.
- (e) That expert multi-disciplinary assessments become a requirement for the determination of authenticity in cultural landscapes.
- (f) That the authenticity of cultural landscapes be protected prior to major changes in land use and to the construction of large public and private projects, by requiring responsible authorities and financing organisations to undertake environmental impact studies that will lead to the mitigation of negative impacts upon the landscape and the traditional values associated with these sites.
- (g) Since in conserving the authenticity of cultural landscapes the overall character and traditions, such as patterns, forms, land use and spiritual value of the site may take precedence over material and design aspects, that a clear relationship between values and the proof of authenticity be established.
- (h) That expert multi-disciplinary assessments become a requirement for the determination of authenticity in cultural landscapes.
- (i) That the authenticity of cultural landscapes be protected prior to major changes in land use and to the construction of large public and private projects, by requiring responsible authorities and financing organizations to undertake environmental impact studies that will lead to the mitigation of negative impacts upon the landscape and the traditional values associated with these sites.”⁷

Given that the concepts of both integrity and authenticity continue to be so controversial, a meeting of experts was held in Aranjuez in December, 2007, attended by the World Heritage Committee and IUCN and ICOMOS, etc, to debate the subjects of authenticity and integrity. Some of the provisional conclusions are based on the fact that “the World Heritage Convention is focused on the conservation of sites and that authenticity and integrity, understood through the significant attributes, are essential tools to justify values and to root them, including intangible values, into the specificity of cultural and natural properties. Authenticity is a qualitative term to address the essence and the spirit of the property, attributes, and dynamic processes ... the integrity relates to both the wholeness/intactness and sustainability and management of properties.”

The participants also considered the concept of limits of acceptable change in relation to authenticity and integrity. The management of change in cultural landscapes being one of the most important issues to be further addressed. Landscapes are dynamic and complex. They require a holistic approach that will safeguard their cultural value and still accommodate change, and we understand that it is difficult to apply these concepts (of

authenticity and integrity) when talking of dynamic processes such as the landscape whose attributes include change. Limits on this change should be established through clarification of exceptional universal value.

In a recent working paper prepared by our Scientific Committee on Cultural Landscapes ICOMOS-IFLA, the proposed *World Heritage Nomination Evaluator Guidelines for Cultural Landscapes*, in other words an 'evaluator's manual', these two points, authenticity and integrity, are given priority together with category, character, exceptional universal value, limits and management.

Authenticity is constantly under threat of loss of popular knowledge, as a result of globalisation, urban transformation, construction of infrastructures, cultural tourism, decontextualisation and loss of meaning /of belonging of the site.

When talking about change, and particularly with reference to developing regions, it is evident that cultural growth and economic sustainability are interdependent, as the management of cultural resources, in this case, of the landscape or territory understood as heritage, can contribute much to social and economic development.

Thus another term appears which is recently on everyone's lips: Sustainability. It is a question of these cultural landscapes being sustainable, that they should remain the same as they have always been, throughout the centuries, but the difficulty sometimes lies in maintaining economic viability, and if this is not possible, understanding that they must be maintained even so, just as we would maintain any other monument. All this must be done while maintaining their authenticity and not turning this landscape into a museum. This is a difficult challenge we have to face, a paradox with an apparent contradiction between the contemplation of life and the desire to perpetuate it, between being and having the challenge. A multiple, interdisciplinary vision appears to be the indispensable route to understanding and managing such protoform heritage, generating new analytical methods enriched by the contributions of anthropology, sociology and philosophy.

But now we are in luck, regarding landscape we are currently experiencing some special moments. Landscape has been awarded centre stage, especially since the European Landscape Convention that may be considered as an innovative instrument that goes beyond the classic concept of protection which, with it, is also transformed fundamentally into a management problem. There are still differences between the European Convention and the World Heritage Convention, because the former makes no distinction between "what is considered natural and what is considered as artificial (it never uses the expression 'cultural landscape' but only the term 'landscape'). Its field of interest is not limited to some landscapes... but concerns the whole of European landscapes, either urban or suburban areas, agricultural or naturalistic areas, both extraordinary and ordinary..."⁸.

This is an important change, because until the European Convention, two parallel standards existed: The first of these dealt with the protection of heritage in a clearly cultural context, while other laws regulated territory and planning. The rules very rarely coincided, while, based on the Convention, the whole territory, whether rural or urban, whether industrial or architectural, becomes a heritage to protect, deeming this territory and the landscape to be a cultural asset and also as an economic resource. Both regulations can and must be harmonised and integrated. These policies must use a new methodology for evaluating both urban and rural landscapes, considering them from a holistic and dynamic point of view, bestowing multiple meanings and values on them.⁹

Landscapes are living realities in continuous transformation. They are places of the totality of existence, a project of the human world, a source of creativity and change. As philosopher Massimo Venturi Ferriolo says: "human beings portray the material by creating dwellings where they collect their history and culture. They create landscapes characterised simultaneously by present and past... and the majesty of the visible world explains the thousand-year-old activity of home builders and reveals landscapes and their ethics." The landscape is a visible and invisible reality in continuous movement that belongs to mankind.

These new focuses all coincide in that they consider the landscape an important part of the culture defined by UNESCO, because it refers to the world in which we live, a world that is changing "which therefore has a vital, circumstantial character.... because man is not a prisoner of his landscapes, they do not impose themselves by force, his relationship with them is not one of being subject, but rather is an expression of freedom. With this, human activities acquire responsibility. A moral question therefore arises, a declaration of civilisation, of style, of culture in our dialogue with the world in which we live with respect to the vital settings we manufacture." (F. Marías)

* * *

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and records of historic gardens and cultural landscapes for the Ministry of Culture and Patrimonio Nacional (Royal Heritage) such as the Royal Botanical Garden of Madrid, Aranjuez, Alameda de Osuna, El Escorial, etc... Some of her restoration projects have merited several prizes such as Europa Nostra Award. She has also published books and articles on cultural landscapes, historic urban landscapes, management, inventory, tourism and gardens, Spanish historic gardens, etc.

¹ http://portal.unesco.org/en/ev.php-URL_ID=13067&URL_DO=DO_TOPIC&URL_SECTION=201.html

² <http://whc.unesco.org/archive/convention-en.pdf>

³ MITCHELL, N. and BUGGEY, S. 'Protected Landscapes and Cultural Landscapes: Taking Advantes of Diverse Approaches', *Landscape Stewardship: New Directions in Conservation of Nature and Culture*, The George Wright Forum 17(1), 1. p. 35- 46.

⁴ PLACHTER, H. and ROSSLER, M. 'Cultural Landscapes: Reconnecting culture and nature', *Cultural Landscapes of Universal Value. Components of a Global Strategy*, , 1995. 15-18, p. 16.

⁵ Nara Document, http://www.international.icomos.org/naradoc_eng.htm

⁶ RHYNE. Ch. S., 'The First International Document for Diverse Cultural Values in Conservation. 'The Document of Nara', presented at the Annual Meeting of American Institute for the Conservation of Historic and Artistic Works', St. Paul, Minnesota, 1995. <http://www.reed.edu/~crhyn/papers/first.html>. On the same point, the approach to cultural values of the landscape by different cultures, also see TAYLOR, K. 'The Cultural Landscape concept in Asia: The challenge for conservation' and TAYLOR, K. and ALTENBURG, K. 'Cultural Landscapes in Asia-Pacific: Potential for Filling World Heritage Gaps1', *International Journal of Heritage Studies*, Volume 12, Number 3, May 2006, pp. 267-282 (16) . O'DONNELL, p. 'Cultural Landscapes: A Compilation & Assessment of Definitions & Typologies from Ten Nations', *ICOMOS Colloquium on Cultural Landscapes*, Montreal, May 10-13, 1993; *Reunión de Expertos sobre Paisajes Culturales en el Caribe: Estrategias de identificación y salvaguardia. Documento conceptual*, <http://whc.unesco.org/uploads/pages/documents/document-299-2.doc> y *Declaración de Santiago de Cuba sobre los Paisajes Culturales en el Caribe*, 2005, <http://whc.unesco.org/uploads/pages/documents/document-299-4.doc>; also see for other regional conferences and documents, http://www.icomos.org/landscapes/external_Historia_esp.htm.

⁷ Declaration of San Antonio, http://www.icomos.org/docs/san_antonio.html

⁸ SCAZZOSI, L. 'Landscape and Cultural Landscape: European Landscape Convention and UNESCO Policy', *Cultural Landscapes: The Challenges of Conservation*, *World Heritage Papers*, 7, World Heritage, 2002, p.55-59, p.56. The author also confirms that the approach to the landscape from the nature-culture binomial which 'still has a certain validity for operational goals. It is under discussion today because of its limitations as regards new problems of contemporaneity: it lacks efficiency in comparison with 'dynamic' forms of protection. ... Moreover, the fact that natural aspects and cultural aspects are cognized in all sites, which characterizes the particular concept of landscape considered in the European Landscape Convention, usually brings into play a long procedure, both cognitive and operational, that many consider negative today'

⁹ For a further approach to conservation examples and policies, see *Cultural Landscapes: The Challenges of Conservation*, *World Heritage Papers*, 7, World Heritage, 2002.

A Landscape Charter: French Regional Nature Parks – Pioneers of Sustainable Development in France

Bernard Guihéneuf, Directeur du Parc Naturel Régional de Brière

1968 – France establishes regional nature parks

At the end of the 1960s France had a few National Parks. These were often situated in the high mountain areas, originally created to preserve the mountains in the face of the growth of winter ski resorts. National Parks were zones for nature, uninhabited, with a primary, almost exclusive, purpose to protect nature. It was not possible to apply this concept across the whole of France and in particular to inhabited areas. However, special areas even when inhabited were in need of measures for their preservation. The idea of Regional Nature Parks was born out of this need and has its origins in a ‘brain storming’ organised in Provence in 1966. These days of study brought together French and foreign individuals from all disciplines. The idea that emerged at the time was a real revelation – to reconcile development and protection of nature. There were many sceptics noting that in their view ‘economic development cannot be compatible with the protection of nature and its landscapes... tourism contributes to development but is above all a source of problems....’

Those ready to criticise were many. The law allowing the establishment of the Parks was published in 1967 and the first Park was established in 1969. 40 years on, we have just established the 46th Regional National Park (Le Parc Pyrénées ariégeoises) and several other areas hope to achieve their designation as a Regional Nature Park. Our Parks have demonstrated the effectiveness of what we call today sustainable development in all local development structures. The experiment has been vindicated.

Regional Nature Parks: an area, a contract, a project

The Regional Nature Parks project has the ambition to reconcile development and protection, to make their territory dynamic living areas that are forward looking and above all focus on large world issues such as ‘*think global – act local*’.

French Regional Parks have in particular the following considerations

- a) **The territory:** not all territories are eligible for consideration as a Park. A feasibility study must be undertaken to determine the justification for the Park’s establishment

- b) **The project:** If the territory passes this first phase, all local partners, with guidance from the Regions will prepare a project based on sustainable development. This step requires extensive consultation bringing together all elected members, NGOs, the services of the State, the residents... leading to validation by Central Government through the Regional Government
- c) **The contract:** The contract between all the partners is confirmed in a document – The Charter. This document is exceptionally important as it is used as the measure by which the State decides to allow – or disallow – the labelling of the territory. The Charter imposes the co-ordination of all the policies of each signatory (Regions, Departments, Communes, Townlands) and Central Government undertakes to respect the charter. All planning documents must in their turn ensure their compatibility with the Charter.

The Parks: placing emphasis on results

From the application of these three key words of **territory, project, and contract**, the Regional Natural Parks of France are distinct both in their conception and by their *modus operandii*. These include:

- Being laboratories of innovation and research
- Placing the decision making at local level within the context of the Charter and within a system of governance adapted to their needs. The major job is to apply the Charter, and it is in this manner that ambitions are fixed and the collective programme is determined
- The Charter having a limited time span – currently 12 years
- Being obliged to produce results. At the end of each period they must do the balance sheet along with an evaluation of the territory in order to define a new project and realise a new charter. The renewal of the label is not automatic, depending on the capacity of the Park to deliver on its commitments and on the ambitions of the new Charter
- Having what amounts to a systemic and global approach to the territory that sees an integration of all aspects including, biodiversity, landscape, planning, habitats, quality of life, culture, tourism education and communication

The French Parks are grouped as a network through a national Federation that co-ordinates and drives their collective work. They benefit from the support of ATEN (a technical work shop for natural areas) which encourages discussions, produces publications that are technical in nature and help with technical and professional training.

The Regional Nature Park of Brière – one of the first in France

Since the creation of the parks became possible in 1967 Brière had been presented as a future Park. If policy reasons can be used to explain this choice it was certainly evident that the area lent itself to such considerations.

The area of Brière was, in the late 1960s, in the process of losing its identity. Traditional architecture was disappearing, the human activities on the marsh were under pressure, the cultural identity of the area was threatened. This was all predicated on a desire for modernity that saw the past as representing decay and poverty.

This territory, subject to such change, was heavily populated with people who were fiercely anchored to their land. It has to be said that history had conferred on them collective ownership of a natural area extending to 7000 hectares. This conferral dates from a decree of the Duke of Brittany Francois II in 1464. Since that date sovereigns and republics alike have confirmed this collective ownership, a situation that persists to this day.

This original decree has been extremely significant over the centuries, as it has avoided the breaking up of the territory into parcels. It is certain that efforts to exploit the marsh differently have been tried but the local population has solidly opposed these to maintain one of Europe's most remarkable wetland areas.

Today the Parc de Brière covers 49,000 hectares, which corresponds to the whole or part of 17 Communes. Nearly 80,000 people live in the Park which includes approximately 17,000 hectares of wetland. The Park puts in place the systematic approach to sustainable development characteristic of all the Regional Parks in France. It intervenes and contributes in many areas of activity. Some would say too many, as the Park is present throughout the territory. Even if in the Charter it must fix a development strategy, the Park only has responsibility to pilot and initiate the projects and the actions. But in an area covering 17 communes (some Parks have over 200) the connections and communications are not always easily made. In these circumstances local partners are happy to have the Park which, even if it has to look outside what is its core activity, adopts an approach where the respect of their heritage is given priority.

Managing and preserving biodiversity

This is undoubtedly a major responsibility for the Park. The 17,000 hectares of the wetland as well as the other natural areas such as the salt marshes and woodlands are precious reservoirs of a rich flora and fauna. Today these areas are preserved in the planning documents on all levels including the communes (Local Plans: PLU) and inter-communal plans (Regional Plans: SCOT).

The falling-off of traditional activities (hunting, fishing, reed cutting, turf cutting) impoverishes the environment. As with all wetland areas La Brière has a natural tendency to silt up. The Park makes clear its intent to maintain La Brière as a wetland area. This is for a variety of reasons including ecological, hydrological and climatological. The Park operates within the framework of Natura 2000 for which it is the local operator and through which it has programmes of restoration of the environment and

the protection of emblematic species such as the otter, tern, spoon bill, and blue throat. At the same time the Park has had for decades to take account of the arrival of invasive species which compete with the natural species and often to the detriment of the latter. Such invasive species include freshwater shrimps from Louisiana, copyu, beaver, water primrose, and baccharis. These species threaten the Park's biodiversity and even as the Park intervenes regularly to prevent their spread, new research is always underway to manage the spread of these invaders.

Managing water

Water levels are managed to allow management of the site and to arrive as closely as possible at the annual levels agreed in the consultation with all the users including hunters, fishermen, farmers, and tour operators. This management also allows the Park to prevent pollution and degradation of the quality of the water. Studies have been underway for a number of years and in 2009 are likely to lead to a *Scheme for the Development and management of Water* (SAGE) that will operate at a river basin level covering the River Basin of the River Brivet (a tributary of the Loire). This will include a *Regional Contract for the Restoration and Maintenance of the Wetland* (CREZH) that is part of a national programme to restore the quality of all water by 2015.

Safeguarding the wetlands

To mitigate the impact of the fall-off in human activities on the wetland, works are undertaken by the Park each year. The Park has its own machinery (diggers and dredgers) and offers assistance to those that manage the marsh. The Park also operates programmes to reclaim the wetland pastures, offering new zones for cattle grazing on the marsh.

However, to avoid being totally dependant on public finance, and following experiments carried out by the Park, a business exploiting the organic silt has been put in place. The overall objective is an ecological one, aiming to restore the environment. Those that exploit the silt and package it for sale as a form of garden compost pay a charge to the Park. The WWF has allowed the use of its logo on the packages of compost as an example of sustainable development where economic, social and environmental aspects work in harmony. The Park in this instance has clearly shown that the environment and its exploitation can in certain areas permit and indeed establish economically beneficial actions.

Evaluating animal grazing in the wetlands

Agri-environmental measures allow the support of cattle-raising on the marshes. In this area too, economy and ecology come together. The Park grants the 'quality label Park' to the beef raised on the marsh. This responds to the demands of consumers for quality, authenticity, proximity and

traceability for products on sale. Short journeys for agricultural products are encouraged. Sale on the farm, co-operative shops, and local markets are all supported by the Park. The Park has encouraged markets specialising in local products for over 20 years and has contributed to the establishment of Saturday farmers markets. Furthermore the park has opened in one of its properties a 'thatch cottage of traditional tastes'. This is a shop widow that has become indispensable for certain businesses.

Real sustainable development – reed filters

The preservation of the landscape is a constant worry for those who work for the Park. A Landscape Charter has been developed, based on an inventory of the landscapes in the Park. It lays out the actions that the communes should engage in, whether in the field of tourism, agriculture or planning to ensure that the quality of the landscape is at the heart of all activities.

Vernacular architecture is certainly an important element of the landscape. This is particularly the case in Brière with its heritage of thatched cottages. It has the largest concentration of thatched cottages in France. When the Park was established this part of its heritage was at death's door. A large part of the thatched roofs were in a poor state of repair and La Brière had practically no thatched cottages remaining. It was a feature and an area of knowledge about to disappear. By integrating the protection of the thatched cottages in its planning documents, by introducing grants thanks to finance provided by the Region des Pays de la Loire, the Park has secured the character of this vernacular architecture, safeguarded a traditional skill, and made this part of its heritage a true tourist attraction. There are today 12 businesses working on the thatching of roofs in the Park. The Park has also been working to encourage the exploitation of the local reeds. The marsh is a difficult terrain and the harvesting of the reed badly organised at present, so success to date is limited.

As well as supporting the use of good quality reed for thatch, the Park is studying how poorer quality reed can be exploited to meet the energy needs of the Park. It will be taking a lead in this regard by installing, in certain of its buildings, boilers that are heated by reed. The studies show that the calorific value is on a par with wood and the project of exploitation of this resource will involve local farmers in new areas of activity.

Tourism and culture – drivers of sustainable development

Comfortable with its trump cards of ecology and landscape, the Park promotes a tourism product adapted to this sensitive environment. It actually translates the European Charter for Sustainable Tourism in Protected Areas into action. It has been able to avoid infrastructural projects that would have had a detrimental impact on the area and has defined a

strategy for sustainable tourism that is adopted by elected representatives and professionals alike.

In the cultural domain, sustainable development is equally present and the Park signs 'Eco Charters' with the organisers of events, festivals and a diverse range of presentations. All these organisers, as a result, commit to reduce energy use, minimise waste of water, and promote the recycling of all rubbish. Furthermore they reject the use of plastic dishes and beakers, only use dry toilets, and encourage access to their events by bicycle and on foot. To reside in a Park, is to live differently. It is to place nature permanently at the heart of all our activities on a daily basis. Our slogan is: *Regional Nature Parks – another way of life is discovered here.*

In conclusion

The Parc de Brière, in association with all the stakeholders in the area, is privileged to safeguard the richness of its biology and the quality of its landscapes without stifling economic development. However it is necessary to go further than that because economic activities press constantly on the richness of our heritage. We do not suffer the future –we make it. Biological diversity has the need of man's help and man himself, faced with the stresses of our style of life, has more and more need of nature to replenish his own resources and as space for recreation. Add also to the territory of the Park the salt marsh. Here too is a further example of sustainable development. The people cultivate the salt and by this very exploitation create an exceptional ecological environment. The salt of Guérande has gained a world wide reputation. In Brière it is the symbol of welcome and good health. It is also the proof that man can live harmoniously with nature in an intelligent manner that is to the benefit of us all.

* * *

The author

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Unlocking the Rideau Canal: Planning for the landscape of a World Heritage Site

Heather Thomson, Heritage Planner, Parks Canada

Executive summary

The Rideau Canal in Ontario, Canada has been honoured with many distinctions, including as a National Historic Site of Canada, as a Canadian Heritage River, and as a UNESCO World Heritage Site. These formal titles represent not only recognition of the values of the waterway, but are milestones that have built understanding and support for landscape conservation in the Rideau Canal corridor. Working in partnership across organisations and opening dialogue on the values of the waterway and its landscape has prompted an initiative called the Rideau Corridor Landscape Strategy. This Strategy represents both the culmination of collective effort over many years and a new opportunity to forge a sustainable future for the landscape of the Rideau Corridor

Introduction

Anyone who experiences the Rideau Canal and the communities along its length will know they are in a very special place. You might be a visitor – paddling through a narrow channel of spectacular natural beauty, walking down an historic street soaking in its character, or driving through the rural countryside to visit a lockstation and watch the boats being locked through. You might be a resident – cycling or skating along the Canal, running a shop in one of its many towns and villages, working a family farm, or fishing along its shores near your cottage. Whoever you are, the Rideau Canal corridor is a place with a unique identity and a remarkable spirit.

The Rideau Canal is more than a canal; it is a 202km ‘slackwater’ system of lakes, rivers, and canal cuts created early in the nineteenth century as a military supply route to protect Canada in case of invasion by the United States. Along the route, the landscape changes from highly urban in Canada’s capital city of Ottawa, to rural farmland and small hamlets, to rugged wilderness in other areas. And ‘locking through’ by boat at any of the lockstations on the waterway is a memorable experience like no other. When the lock gates begin to open, cranked by hand as they were when the canal first opened in 1832, there is an undeniable sense of anticipation,

and before you know it you arrive at another level, seeing things from an entirely new perspective.

Somewhere in the experience of locking through is a metaphor for the Rideau Corridor Landscape Strategy, an initiative that represents the culmination of 30 years of individual and collective effort, and also a new beginning for landscape planning for the Rideau Canal corridor. Work has been undertaken by government and non-governmental organisations at all levels to open dialogue on values, on landscape and on the future, and this has led to a consensus that the corridor landscape should be conserved.

Opening dialogue on values

The Rideau waterway has been honoured with many distinctions. It was designated a National Historic Site of Canada in 1925. It was designated a Canadian Heritage River in 2000. Parts of it share in the Frontenac Arch UNESCO Biosphere Reserve designated in 2002. In 2007, the Rideau Canal was inscribed by UNESCO on the World Heritage List. And in 2008, the Rideau ranked 2nd in the world on the National Geographic Society survey of authentic, sustainable destinations. Behind each of these distinctions is an army of people dedicated to the conservation and celebration of the Rideau Waterway. Not only are these titles an honour, but each one represents another milestone along the road to building an understanding of the values of the Rideau and its corridor and a commitment to conserving these values. In 1925, the National Historic Sites and Monuments Board of Canada recognised the Rideau Canal as a remarkable engineering achievement, transforming Canada's eastern Ontario wilderness into a transportation route the integrity of which is, to this day, largely intact. However, the very integrity of the Canal was challenged almost fifty years after the designation, and that is arguably where the real story of the Canal's conservation begins. Those of us who work in government, especially those of us who are passionate about what we do, often like to think that we are those with the most informed perspective, and that it is our job to teach others. Many times, however, we are the ones who need to be taught.

In the late 1960s, the Rideau Canal was managed by the Canadian Department of Transport. In the interest of efficiency, it was proposed that the locks along the entire system be mechanized. As work commenced, the residents of Chaffey's Lock started organizing. Led by Don Warren, a man later hailed as 'Defender of the Rideau,' this small community of a few hundred people rallied to convey the importance of the original engineering works and the tradition of hand-cranked gates over nearly 150 years. Eventually, the fight was won. Without the dedication and commitment of those local Rideau residents to recognise the waterway's unique values, it is fair to say the Rideau Canal would not be a World Heritage Site today.

The battles over mechanising the system opened a dialogue on the values of the waterway, not only as a transportation route, but as a cultural

heritage resource and an integral part of the identity of the communities along its length. These battles were a turning point, leading to one initiative after another celebrating the Rideau and encouraging its conservation. An important study was undertaken in 1970 that recognised that the heritage and recreational values needed to be planned for and managed in a coordinated fashion. Following this study, significant investments were made in the heritage fabric of the canal structures and in the conservation of the natural environment along the waterway. In 1971, the Rideau Canal was transferred to Parks Canada, a federal agency with a mandate for heritage conservation and interpretation. The 150th anniversary celebrations in 1982 were spectacular, and people still reminisce about the tremendous display of local pride they represented. The Friends of the Rideau organisation was formed, 'to enhance and conserve the irreplaceable charm of the Rideau Corridor' and 'to increase public awareness and enjoyment of the Rideau Corridor and to develop strong public support for the long term well-being of the Rideau Corridor.' As time went on, the discussion has broadened from a focus on the canal itself to its broader corridor, its cultural landscape.

Opening dialogue on landscape

The concept of landscape as a form of cultural resource was being discussed locally, nationally and internationally in the 1990s. The 1980s had seen the development of a whole series of international charters, adopted by the General Assembly and the National and International Scientific Committees of ICOMOS (the International Council on Monuments and Sites) and the Council of Europe/European Union. The proliferation of these documents encouraged the discovery in academic and professional conservation fields, that the whole was often greater than the sum of its parts. UNESCO's World Heritage Committee, prompted by difficulties in finding a framework for inscribing the UK's Lake District on the World Heritage List, developed definitions for the term 'cultural landscape' in 1992. The European Landscape Convention was adopted by the Council of Europe in Florence Italy in 2000 and came into force in 2004. In Canada, various organisations including Parks Canada and the National Capital Commission were developing frameworks and definitions at that time that could be applied to the Canadian context.

In the Rideau Corridor, dialogue began about the nature of the Rideau landscape and measures that might be undertaken to ensure its recognition and conservation. In 1990, the Rideau Canal hosted the World Canals Conference, providing an opportunity to learn from stewards of waterway corridors from a wide range of countries, including the Shannon Navigation in Ireland. In 1993, the Canadian government hosted a World Heritage Committee expert meeting at Chaffey's Lock to compare the suitability of various possible canal nominations to the World Heritage List, stimulating considerable appreciation of the Rideau Canal among international experts.

In 1996, the Rideau Waterway Land Trust was established to acquire and preserve lands in the Rideau Corridor. In 1998, a landmark report entitled, 'The Cultural Landscapes of the Rideau Canal Corridor' was prepared which suggested that the corridor in fact consisted of several different kinds of landscapes, which could be described, categorised and managed according to their recognisably diverse qualities.

This latter report and other research including a study by the Canadian Museum of Nature led to the nomination of the Rideau Waterway as a Canadian Heritage River, recognition intended to help promote, protect and enhance river heritage, and ensure that Canada's leading rivers are managed in a sustainable manner. The Canadian Heritage Rivers System operates in a spirit of cooperation and public support, as opposed to one using regulatory mechanisms. However, through the public engagement that led to the designation in 2000, many important initiatives were launched to support improved stewardship of the waterway. For example, the creation of the Rideau Roundtable, a not-for-profit association whose mission is to work collaboratively with many partners to ensure the social, economic and environmental health of the waterway, has led to a wide range of natural heritage conservation projects and a series of popular, ongoing educational workshops and canoe tours. The Rideau Heritage Network, an association of cultural heritage committees and organisations, was established to foster dialogue across the corridor. Parks Canada facilitated an informal planners' network, leading to the development and implementation of new policies at the local level to protect the Rideau's natural, cultural, and scenic values.

For Parks Canada's own planning processes, the dialogues leading up to and following the Canadian Heritage River designation initiated a change in its relationship with partner organisations and municipal governments. It became clear that the Rideau Canal could not be managed in isolation from the communities and landscape of which it was a part. This took Parks Canada's Rideau Canal Management Plan in a new direction focused on building relationships and partnering with others toward sustainable development across the corridor. In 2000, a Commemorative Integrity Statement was developed for the canal as a management tool. It articulated values both on the canal lands and those beyond Parks Canada's jurisdictional borders, recognising that the historical landscape contributed to the site's national significance. Parks Canada established the Rideau Canal Advisory Committee made up of individuals representing various interests and sectors, to advise on the planning and management of the Canal. In 2001, in partnership with the Advisory Committee, it held the first Rideau Waterway Symposium. Since then, four others have been held and the event has been growing steadily in attendance and stature. The symposia supported the development of the Rideau Heritage Route initiative, which now provides a coordinated approach and brand identity for tourism promotion and

development in the corridor through a formal Tourism Association. It also was a key public engagement vehicle for building support for the World Heritage Site nomination.

In July 2007, amid the 175th anniversary celebrations (over 175 individual events held throughout the year), the World Heritage Committee announced the Rideau Canal's designation as a UNESCO World Heritage Site. The Statement of Outstanding Universal Value declared that:

'The Rideau Canal is a large strategic canal constructed for military purposes which played a crucial contributory role in allowing British forces to defend the colony of Canada against the United States of America, leading to the development of two distinct political and cultural entities in the north of the American continent, which can be seen as a significant stage in human history.

'Criterion i: The Rideau Canal remains the best preserved example of a slackwater canal in North America demonstrating the use of European slackwater technology in North America on a large scale. It is the only canal dating from the great North American canal-building era of the early 19th century that remains operational along its original line with most of its original structures intact.

'Criterion iv: The Rideau Canal is an extensive, well preserved and significant example of a canal which was used for military purposes linked to a significant stage in human history – that of the fight to control the north of the American continent.

Although the Rideau Canal was not designated as a cultural landscape, the ICOMOS evaluation committee recommended that 'following completion of the study of the visual setting of the canal, consideration is given to strengthening its visual protection outside the buffer zone, in order to ensure the visual values of the setting are protected alongside environmental values.'

The latter recommendation is timely, given the ongoing development pressures faced by municipalities and other authorities responsible for land-use planning and economic development decisions on property in the Rideau corridor. There is a growing interest for new development along the Corridor. This includes such residential developments as condominiums, subdivisions, and cottage lots, commercial enterprises such as box stores, strip malls, hotels, tourism facilities and trailer parks. There is also new interest in energy production facilities, and even mining operations. It follows, therefore, that various levels of government are faced with difficult decisions about how development should take place.

It has become clear that a coordinated, strategic approach is needed to ensure the development of strong, sustainable communities along the Rideau, the conservation of the unique character of the canal corridor, and the realisation of economic potential for the region centred on this new World Heritage Site.

One of the most significant challenges in planning collaboratively is the complexity of jurisdictions. The World Heritage Site itself is in federal ownership, under the jurisdiction of three key federal agencies: Parks Canada, the National Capital Commission, and the Department of National Defence. The defined borders of the site itself are essentially the high water mark and the boundaries of the associated locks and fortifications, with a 30 metre 'buffer zone' on either side. Beyond that, there are 13 local municipalities with approval authority over land use planning and development, three 'upper-tier' or county levels, and at least ten provincial ministries and agencies responsible for overarching land use planning policy, natural environment, cultural heritage, mining, transportation, agriculture, water quality, and tourism. There are First Nations and Aboriginal communities with interests and claim to lands in the region. Finally, there are innumerable not-for-profit organisations, citizens groups, and countless private property owners and businesses with a stake in the Rideau corridor.

Despite these challenges, there are some unique opportunities. Each of the landmark designations above has built tremendous community pride and engagement across the Rideau corridor. There are now formal and informal networks and organisations in the tourism, economic development, planning, cultural heritage and natural heritage sectors. The sense of identity and spirit of place in the Rideau corridor are undeniable.

We also have some new partners on the international scene. World Heritage Site status has introduced the Rideau to experts in other countries from whom we have much to learn and share. The Rideau hosted the World Canals Conference in the fall of 2008 and had the opportunity to learn first hand about innovative projects such as Ireland's Waterway Corridor Studies led by the Heritage Council. We have had ongoing dialogue with our Irish colleagues, as well as colleagues in countries as far away as China where exciting work is being undertaken with respect to the Grand Canal.

Opening dialogue on the future

Beginning in 2008, a new initiative called the Rideau Corridor Landscape Strategy has gradually been taking shape. A wide range of partners are committed to this Strategy to develop a coordinated approach to sustainable planning; to serve as a foundation for cooperation between First Nations, municipal, provincial, federal governments and others; and to raise awareness about the values of the Rideau Canal corridor and promote new ways of thinking about development.

Parks Canada has taken a lead role in engaging these various partners in meetings and discussions on the Strategy. Nearly all of the municipalities along the Canal have passed formal council resolutions supporting the initiative in principle.

At the beginning of April 2009, Parks Canada partnered with the provincial ministries of Tourism and Culture to hold the 'Rideau Landscape

Forum' which brought together over 130 people from a wide range of organisations across the corridor. Five mayors were in attendance. The forum was an 'open space' meeting, which enabled the participants to set the agenda, and it was remarkable to see common themes emerge from a very diverse group of people. Some of the key messages included:

- 'We need to speak with one voice'
- 'The Rideau Corridor is a unique World Heritage Site and it is critical to act immediately'
- 'We need to remember the past by exploring the future'
- 'We need all three levels of government to cooperate on this strategy and include the private sector'
- 'We need more than just good intentions; we need to have legislation, either through local official plans or through provincial plans.'

Several key themes stood out from the discussions including the need to define the boundaries of the Rideau Corridor, define a set of principles and guidelines for sustainable development, to determine implementation mechanisms for these guidelines, and to ensure that the process is collaborative, involving education, dialogue, and communications among all partners and stakeholders.

Initially, the Strategy appeared to be one large project but, over time, several distinct components have emerged to fit under the broader umbrella. In practical terms, the key components of the Rideau Corridor Landscape Strategy are as follows:

1. Consolidation of existing research/reports/maps that identify the values, constraints and opportunities for the natural environment, water quality, cultural heritage, tourism, economic development, etc
2. Identification and analysis of gaps in the body of research.
3. A visual assessment of the Rideau Canal that reflects the four seasons.
4. Based on the information above, the creation of model for determining zones of influence which would 'define the Rideau Corridor' for the purposes of planning and development.
5. Implementation of a public engagement process to:
 - a. Identify the key values of the Rideau Corridor, including areas which require special planning or policy;
 - b. Outline a vision for the future and a set of principles for planning and development in the corridor;
 - c. Seek input into the zones of influence model; and
 - d. Develop guidelines which could be used by decision makers to implement the principles in the identified zones.
6. Recommendations regarding options for incorporating these principles and guidelines into policy and legislation at various levels of government including:

- a. Parks Canada's Rideau Canal World Heritage Site and National Historic Site Management Plan and other relevant federal plans and policy documents;
 - b. The Ontario Planning Act and Provincial Policy Statement including consideration of a special policy area designation or plan;
 - c. Municipal Official Plans, Secondary Plans, Community Economic Development Plans, Sustainability Plans, etc.
 - d. Financial incentive strategies at the federal, provincial, and municipal levels.
7. Use the process above to explore opportunities for new approaches to governance. Further to the recommendations above, convene meetings with municipal, provincial, federal and First Nations governments to craft a new governance framework to ensure implementation of the Strategy.
 8. Produce educational materials or a sort of 'Rideau corridor stewardship manual' to communicate the resulting principles and guidelines to planners and decision makers, developers and the business community and private residents and property owners.

Further to direction from the participants at the Rideau Landscape Forum, Parks Canada has established a Steering Committee made up of representatives from various organisations across the Corridor representing government and non-governmental organisations in cultural and natural heritage, tourism, economic development, etc. A provincial staff team from seven ministries has been providing strategic advice. Further to meetings with municipalities, there has been clear commitment and engagement on the part of municipal staff and councillors to move the landscape strategy forward. Aboriginal communities are key partners in this work and Parks Canada has had productive meetings with First Nations such as the Algonquins of Ontario to share our respective concerns and interests.

One of the most important outcomes of the Rideau Corridor Landscape Strategy is that it will, and is already beginning to, create a foundation for cooperation across governments and organisations to ensure a strong vision and future for the Rideau Corridor. Recent Canadian research has underlined the power of place as a vehicle for building relationships across organisations in working for change, stating that 'No single order of government can solve things alone and, increasingly, even governments acting together cannot achieve success without willing partners in the private and voluntary/non-profit sectors and perhaps most importantly, without meaningful engagement of citizens.'

Conclusions: 'locking through'

The collaborative work in the Rideau corridor over the past several decades has gradually brought us to where we are today. Much has been accomplished in terms of support and recognition for the values of the Rideau Canal and its corridor landscape. Governments, organisations, and private individuals have been making policy and decisions to support sustainable development in the corridor and there is tremendous community pride and engagement. There is more to be done, however, to ensure our collective efforts meet our goals and build a strong future for the Rideau in the context of the World Heritage Site designation. The Rideau Corridor Landscape Strategy represents a significant opportunity to pool our efforts and work together in new ways. As Rideau Canal Superintendent, Gordon Giffin, said at the Rideau Landscape Forum: 'This is not about Parks Canada, provincial agencies, or municipal governments. This is not about conservation, tourism, development, or history. This is about the future. It is about having a voice in ensuring the quality of our communities, building sustainable economies, determining what we want as a legacy for our children, for the future.'

We all learned an important lesson from Don Warren and the Chaffeys Lock community many years ago: real change does not happen with a touch of a button. It takes time and the work of many hands to raise us to a new level, help us see things from a fresh perspective, and set us on the right course.

* * *

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Taking the High Road

Ian Jardine and Simon Brooks, Scottish Natural Heritage

1. Introduction

The 10th Anniversary of the Heritage Council's 1999 conference is also the 10th Anniversary of the re-establishment of the Scottish Parliament. This was obviously a significant event generally in the political life of Scotland. It was also of enormous significance for our own organisation – Scottish Natural Heritage (SNH). SNH is the statutory adviser to Scottish Ministers on matters affecting the natural heritage of Scotland – its wildlife, habitats, geology, landforms and landscapes. Constitutionally we are a Non Departmental Public Body, which means we are not a Government Department but are almost wholly funded by Government and Ministers appoint the members of our Board.

Devolution meant that, among many other things, all natural heritage matters as well as cultural heritage and town and country planning were devolved to the Scottish Parliament. Policy on land uses too, such as agriculture and forestry are also devolved, along with the implementation of most transport and energy projects. So all the significant factors likely to affect the state and future of our landscapes are devolved and we look not to Westminster but to Holyrood for direction. Inevitably also the amount of time available for legislation and debate in Parliament has increased enormously.

This paper looks at some of the changes that have occurred since 1999, at some of the opportunities taken and others that so far we seem to have missed. And it looks forward to the challenges of the next decade.

You will I think notice strong similarities as well as some emerging differences with the rest of the UK. Scotland shares many of its approaches to issues such as land use and planning with the other countries with which it shares its legislative and political history. And in terms of international conventions – of which more later – we are part of the UK response – not a separate response.

2. Scotland and SNH

Most people, certainly in Europe, probably have an image of what Scotland looks like. We have a strong tourism industry built in large part upon what a colleague of ours has described as 'selling landscape'. That image can be a bit narrow – typified by a Highland cow standing beside

a loch in front of some ragged looking purple hills. While we are proud of our West Highland landscapes – and they have the most significance in terms of attracting tourists out of our cities – we are perhaps most proud of the range and variety of landscapes within our small country. We have the agricultural landscapes of the south and east – the dairy and mixed farming of the south west and the arable landscapes of the east coast. We have the rolling hills of the Borders at one end and the stark, openness of the bogs and rocky coasts of the north – not forgetting the variety provided by hundreds of islands and 10,000 kilometres of coast line. Surveys of tourist consistently show that scenery is one of the most, if not the most, important reason for choosing Scotland as a destination.

So, one would expect little debate about the economic importance and significance of our landscape resource. But nevertheless there is, I feel, little overall consensus about what caring for our landscapes means in terms of wider land-use policies. Are we concerned with the overall quality of our landscapes as well as protecting a few bits with maximum tourist potential? It depends who you ask. What is clear from SNH's perspective is that caring for our natural heritage, including our landscapes, is not something for us to do alone. A wide number of players at local and national level need to be bought into the importance of the issue and the actions needed. For that reason a lot of effort over the last decade has been focused on generating debate, and establishing broader support, in an effort to raise the issues up the political agenda.

A good start

One of the first pieces of legislation passed by our newly devolved Parliament was the National Parks (Scotland) Act 2000. Scotland learned from, but did not simply duplicate, the established approach in England and Wales.

To date, two National Parks have been established. In setting these up, significant attention was given to the importance and significance of distinctive landscapes in selecting the Parks and establishing their boundaries. Indeed it can be argued that the national affection for its landscapes was the primary reason driving support for designation of Loch Lomond and the Trossachs as a National Park. Perhaps one lesson that the 'bonnie, bonnie banks of Loch Lomond' teach us is that, to get public support, having a catchy theme song is very helpful.

Since designation both Parks have taken their landscape remit very seriously, reflecting this in their research, their Park Plans and in their casework decisions.

On the other hand

The main statutory designation to protect landscapes in Scotland is the National Scenic Area. There are 40 NSAs, identified in the late 1970s

following a systematic but essentially subjective national survey. These areas tend to be in the more traditionally 'scenic' areas of the north and west, with some in the central Highlands and south-west. Ministers adopted them for planning purposes in 1980 although they were not recognised in primary legislation until 1986. Designation gives these areas special recognition within national and local planning guidance and decision making. However the ability to designate NSAs was removed when SNH was established in 1992 and replaced by a new designation called 'Natural Heritage Areas'. For a range of reasons – not least the subsequent arrival of National Park legislation – this designation was never used and has itself been repealed. A new power to designate National Scenic Areas was then created in the planning legislation in 2006, but has not yet been activated by a Commencement Order.

This last change arose from SNH's review of the designation's effectiveness in the late 1990s. This identified that the lack of a statutory basis had led to confusion about its national status. It also identified very low public awareness of the designation and its purpose (other than an occasional obstacle to development), the general absence of management objectives or a delivery mechanism if objectives were set, and a lack of local ownership and engagement.

Unfortunately, ten years on, most of these criticisms still apply. In the meantime however SNH piloted the successful preparation and management strategies for three NSAs in south-west Scotland. Sadly a similar effort in the north-west ran into local and political opposition. We are currently completing a re-assessment of the special qualities of all NSAs, to provide a clear statement of what it is we are seeking to safeguard when managing change in these locations.

All this has left the nature of landscape protection, and the role of specially designated areas, a bit in limbo for some time. During that time the competition for space in the landscape has intensified – some of it from expanding cities and infrastructure, but much of it from renewable energy developments; mainly windfarms. It is this latter factor more than any other that has stirred up a debate about landscape protection and how we seek to manage landscape change.

Levels of interest and debate

Overall, the feeling of the last ten years, from an SNH perspective, has been one of intermittent and patchy interest in the issue of landscape protection from both politicians and the media. It's hard to discern much interest at all from most national politicians. It may be that the quality of Scotland's landscapes is taken too much for granted – tourists will always want to see them because they always have. It's a 'free good' – a resource that does not require investment to maintain its value. Given the value of that asset within an £8billion-a-year tourist industry, that may be seen as a brave assumption.

Undoubtedly though there is another factor at work at the political level: a view that concern with landscapes is a middle class obsession – that it's about elitists trying to preserve a world that they like, and in so doing restricting the opportunities of others. In fact there is little evidence that pride in Scotland's landscapes, or a sense of attachment to local and distinctive landscapes is confined to any one social grouping. Nevertheless it is perceived by some as a threat to the Government's overall aim of securing Scotland's sustainable economic growth.

As elsewhere, though, the debate is bedevilled by the accusation that landscape protection is dependent on subjective judgements about what is important or special, what is acceptable by way of change or design, and therefore open to the challenge that these judgements are narrow or personal.

One response to this has been to complete a series of landscape character assessments for Scotland – to use a more systematic and transparent process to describe what is distinctive about every landscape and to assess its capacity to absorb change and new development. This work has proved valuable at a technical level, helping landscape professionals to place their advice in context and explain the basis of that advice. It has been less helpful at the level of national debate as it still leaves us to argue about landscape quality. Is changing the character of some landscapes, for example to one dominated by windfarms, more acceptable than for others? Who decides?

Therefore a focus of SNH's efforts has been to widen the franchise and seek to build broader consensus over what is needed.

3. European Landscape Convention and Scotland's response

Into this largely domestic picture of the last decade comes the European Landscape Convention, and the need to look at ourselves in a broader context.

Having said earlier that we look to Holyrood rather than Westminster, international conventions are not a devolved matter. The Department for Environment, Food and Rural Affairs (Defra) therefore led on the UK's signing and ratification of the ELC, but in discussion with the devolved administrations and adviser bodies including SNH. Mirroring the UK Government's view, the Scottish Government and SNH took the view that Scotland does conform to the ELC's requirements, so that ratifying it would not be seen as bringing additional burdens. This is not to be complacent, and does not diminish the need for Scotland to do more and better on landscape.

Delivery of the Convention and its requirements is almost entirely a devolved matter. However, despite the significant milestone that accession to the Convention marked, it has been the subject of very little public and political attention since. That's not to say we have been idle.

Being close to the development of the ELC, we had already adopted the thrust of its approach before accession. One example, which we mentioned earlier, is the Scotland-wide coverage of landscape character assessments, providing a systematic analysis of our landscapes. Also, in 2005, SNH published its Landscape Policy framework, a statement of our approach that set out four principles in line with the Convention's approach: Scotland's landscapes are a shared responsibility; all landscapes deserve attention; landscapes will continue to change; and landscapes deserve greater care.

In 2006 SNH, with the support of our Minister at the time, established the Scottish Landscape Forum. This brought together a group of public and non-governmental bodies with a common interest in the future well-being, management, and use of Scotland's landscape resource. It included economic development and tourism interests, regulators and landscape professionals, local authorities and NGOs, land managers and community representatives.

The Forum's focus was on national and strategic landscape issues – the first task set for it was to review the Government's landscape policy contained in its planning policy guidelines, and make recommendations for its review. But with the UK's adoption of the convention in 2006 the focus quickly shifted to consideration of its implications for Scotland. This provided the framework for the Forum's report *Scotland's living landscapes – places for people*, published in spring 2007.

Not surprisingly the report recognised the opportunity that the Convention provided for Scotland – as a clear statement of today's approach to landscape, and highlighting areas where Scotland could or should do better, such as enhancing capacity and expertise on landscape issues within public bodies. The report, with its 22 specific recommendations, can be found on SNH's website. In summary, it argues that:

- Effort and attention to landscape should be increased – care for landscape is not an optional add-on to how Scotland manages its resources, but is central to demonstrate good governance
- Broad compliance with the Convention should not be an excuse for inaction, but this requires leadership by Government; and
- Effort for landscape must place people at the centre of its approach.

One of the report's recommendations was to learn from the European experience of implementing the ELC. To aid Government's consideration of the Forum's report they commissioned a study of good practice from countries implementing the ELC, undertaken by ICPL in Aberystwyth (summary report available on the Scottish Government website). The report highlighted the fact that Scotland already contains several examples of work contributing towards the convention's objectives that are good practice. These included the pilot management strategies for 3 NSAs that we mentioned earlier, work with schools, and setting landscape objectives in the Rural Development Plan.

Drawing on its findings from countries as varied as the Netherlands, Spain, Turkey, Italy, Slovenia, France and Poland, the report argues for a 'mainstreaming' of landscape in public policy to fulfil the opportunity provided by the Convention. European experience seems to point to the need for a national landscape strategy, a clear spatial vision for landscapes, and a comprehensive programme of landscape training and education.

In 2009 SNH prepared a 'gap analysis' for the Scottish Government of activity for landscape against the key articles of the Convention – the idea being that we both need to raise awareness of the existing activity and promote further action where we ought to strengthen performance. This is still a working draft document, although it will have been submitted to Government by the time of the Conference.

4. Challenges and opportunities for Scotland's landscapes – looking forward

SNH has long argued that landscape is the unique responsibility of no single body, which can result in its care being overlooked if not neglected. Delivering the ELC is therefore for many interests. The Scottish Landscape Forum attempted to bring many of these together, but did not find political favour and came to an end earlier this year. As a consequence Scotland does not have a mechanism for wider national discussion, debate, and consideration.

One of the Forum's legacies however has been its preparation of *Scotland's Landscape Charter*. The Charter is intended as a prompt to encourage interest and activity. It provides a framework to which any individual, community or organisation can refer if they value the quality of their landscapes, and want to see practical steps taken to safeguard or improve it, with high quality development, located in the right place. It is not calling for a revolution in our approach but it does urge us all to do a little bit better, and to build on current best practice. The Charter identifies four groups of stakeholders to achieve this: individuals, communities and NGOs; land managers; developers; and public bodies. It is hoped that this Charter will gain Ministerial support, strengthening its role in encouraging Government and agencies to do better for landscape.

People and communities

One key audience for the Charter are the public, and the increasing prominence given to their role provides challenges for organisations like SNH. Do we have an adequate understanding of their values? Are they participating adequately in the decisions about their landscapes? Do we have the tools/approaches to support communities in setting out their 'vision' for their landscape? It is clear from many circumstances – not least responses to wind farm proposals – that most communities feel very strongly about their local landscapes whether or not these would be judged as 'special'.

Unfortunately much of this concern is simply dismissed as 'NIMBYism'. No doubt there are cases where landscape issues are used to try to obstruct a development that some people just don't want. But in many cases it is clear that people strongly associate their surroundings with their own sense of identity and belonging.

One project that is seeking to engage with the public and get some debate going is PlaceBook Scotland. It is a web based project about Scotland's landscape and a sense of place – as its communities and the public see it. It aims to:

- Generate interest in, and celebrate local people's sense of place through the arts
- Raise awareness and understanding of Scotland's distinct and diverse landscapes, their condition and evolution
- Create a collection of images, prose and sounds that record local people's perception of, and relationship with, their place (where they live or work, or where they were raised)

The website is open to all; the intention being to capture the sense of place of all of Scotland's landscapes – the rural and urban, the outstanding and degraded, the near and familiar alongside the distant and remote. Submissions can be pictures, video, words, and music, and comments can be posted, and forums for discussion started. The project is still building critical mass but with 1,000 members and 5,000 uploads it seems to be capturing people's attention.

While the significance of Scotland's landscapes for tourism and the promotion of produce is fairly evident, their significance in terms of providing a sense of identity and well-being is not generally acknowledged. This seems at odds with the response to projects like PlaceBook, and the views expressed by community groups in response to developments and local plans.

One particular and long standing challenge though is to join up our approaches to natural and cultural or historic landscape protection. These remain largely separate with SNH's landscape character assessment and Historic Scotland's Historic Land Use Assessment. If local and national governments, as well as communities, are to find these helpful in taking decisions then we need to find a common approach.

This recognition of wider agendas, and how these agendas link up or not, will be increasingly significant as Scotland takes steps to join up its policies and governance in the wake of devolution. This year sees the implementation of major reforms in our planning system and the development of Single Outcome Agreements between central and local government. These agreements set shared objectives across the range of local government activity.

One project that is seeking to deliver a range of objectives is the Central Scotland Green Network, now identified as a national project in the National Planning Framework. The aim is to achieve a step change in environmental quality across central Scotland, with its largely industrial past. It aims to deliver a more attractive physical environment that will encourage investment and economic growth, improve the quality of life of local residents, increase opportunities for physical activity and recreation, and enhance biodiversity. This is clearly a considerable challenge, and SNH is working with local authorities and other public agencies to deliver it.

Climate change

The prominence and importance of climate change continues to grow. The past decade has seen debate focus on particular forms of renewable energy development, and the rising targets required to meet carbon reduction levels (42% by 2020, 80% by 2050). Wind farms remain controversial – larger in number and size, but we are now seeing increasing attention to off-shore development. The pressure on Scotland’s landscapes is immense and SNH has long called for a more strategic approach to locating wind farms in the landscape. We are now seeing this put into practice through spatial strategies being prepared by Local Authorities. Other effects of climate change – such as longer growing seasons and faster vegetation growth, higher rainfall and rising sea level, are not yet influencing policy decisions.

Conclusion

So, after 10 years how are we doing? On one hand we still struggle to get national recognition of the economic and cultural importance of our landscape resource, reflected perhaps in the uncertainty over the future of our National Scenic Areas and lack of significant support for developing and funding further management strategies and delivery mechanisms. However there has been significant and encouraging progress: delivery of National Parks, adopting the ELC, and support for new initiatives like the Central Scotland Green Network. We have well established tools in the form of the landscape character assessment, and we have seen funding schemes for land managers give greater recognition to landscape than ever before. Above all Scotland remains a varied and interesting place to visit and to look at.

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The author

Ian Jardine was born in Edinburgh and educated at the Royal High School. He has a degree in Ecology and a Doctorate in Zoology. He worked for the Scottish Office for seven years in a wide range of policy areas ranging from housing and industry to criminal justice. In the late eighties he led the Castlemilk Partnership Team as part of an initiative to regenerate deprived housing estates. He joined the Nature Conservancy Council for Scotland in 1991 as Regional Director for the North East, based in Aberdeen and continued in that role with the formation of SNH in 1992. Following the reorganisation in 1997 he moved to become Director for the East Areas based at Battleby. In 2001 he was appointed chief executive of SNH. He sits on the reference group for the Scottish Government's Simplification Programme.

BRINGING IT ALL BACK HOME

The Irish Agricultural Rural Landscape

Professor Gerry Boyle, Director, Teagasc

Introduction

Teagasc is the agriculture and food development authority in Ireland. It is the national body providing integrated research, advisory and training services to the agriculture and food industry and rural communities. Teagasc has an influence on the landscape through its Farm Advisory and Training Services and through its Research Programme. Research at Johnstown Castle in Wexford and the Rural Economy Research Centre in Athenry generates new technology and policy information to support the competitiveness and sustainability of Irish agriculture and to enhance the landscape and quality of life in rural Ireland.

The future of the landscape is dependent on the implementation of clear and effective policies that support desired landscape characteristics. This paper on the Irish agricultural landscape details the influence of farming on an ever changing landscape; examines how multiple policies impact on land use; and outlines how the adoption of best practice in landscape management is achieved.

Agricultural influence on the rural landscape

Prehistoric farming has been revealed at Céide, Co. Mayo, where Ireland's earliest agricultural landscape has been preserved beneath the blanket of peat for over 5,000 years. The most visible signs of ancient farming on the landscape, dating from the Early Christian Period (500-1200 AD), are the many thousand ringforts whose circular enclosures were essentially protected farmyards. Medieval monastic orders and Anglo-Norman settlers in the twelfth century brought considerable change and new technology to agriculture. They cleared woodland and founded towns, villages and medieval field systems.

In the sixteenth and seventeenth centuries, land ownership in large areas of the country was redistributed by force to English 'planters' and others. The smallholders generally became tenants. The 'agricultural revolution' involved the introduction of new crops, vegetables, trees, improved breeds of sheep and cattle and new systems of crop rotation. The agricultural boom of Napoleonic times, when there was a shift from pasture to tillage, helped fuel the population explosion in the century up to the 1840s.

Most of the lowland landscape was laid out in the eighteenth and nineteenth centuries when landlords forced tenants to enclose common

land by establishing earth banks, stone walls and hedgerows. Enclosure of millions of hectares of land created the 'patchwork-quilt' appearance of the present rural landscape. Townland boundaries often date from medieval times or earlier and are of greater historical and cultural value. Field boundaries in the lowlands and east of the country contrast with the smaller dry stone walls of the west. Stone walls are the result of the labours of small landowners who reclaimed and 'made' land from the limestone dominated landscape.

Hedgerows are an integral part of Ireland's lowland agricultural landscape. In the book *Irish Hedgerows: Networks for Nature* (2004), aesthetics are used to explore how we see hedgerows in the landscape. They appeal to us visually. They give character and a sense of place to a particular landscape and give an identity to a townland or county, making it distinct from other areas. They are appreciated as part of a working landscape shaped by human hands over time. Order has been created by means of disciplined and judicious management through the centuries. This is evident in an intensively farmed landscape where human mastery and control prevail and are expected. The way we view hedgerows is enriched by an understanding of history, ecology, rural society or farming practices, all of which stimulate interest and deepen our aesthetic appreciation.

Ireland's landscape is enriched by its heritage of farm houses and outbuildings. The original occupants were often also the builders. They made clever use of materials available locally. Traditions that followed were founded on experience of the climate, the locality, and its resources. These vernacular buildings appear very much in harmony with their local setting.

Geology and soil type influence landscape. A Heritage Council case study of High Nature Value farmland in north Connemara illustrates this (Smith et al., in prep.). Siliceous rock types and poor parent material provide limited nutrients for overlying soil whilst influencing poor soil structure through its geochemical make-up. Compounded by high rainfall, nutrient leaching occurs. Subsequent waterlogging influences the colonisation of peatland species tolerant of poor soil conditions, which form large areas of peat that cover or 'blanket' the area.

Knowledge of the distribution of our soils and their properties is important to our understanding of the landscape. The *Geochemical Atlas* provides an overview of the chemical elements found in Irish soils. The development of an Irish Soil Information System, a Teagasc/EPA co-funded project, is currently under way and will be completed in 2013. The first soil survey in the 1970s and 1980s mapped the soils of approximately half of the country. The Irish Soil Information System is bringing together old and new surveys, and will support sustainable land use management.

The unique Irish agricultural landscape is valued by inhabitants and visitors alike for ecological, educational, aesthetic, and economic reasons.

It instils a 'pride of place' in people living in it and inspires those who visit. The 2008 Fáilte Ireland Visitor Attitudes Survey shows that the beauty of the scenery and hospitality of the people continue to be the most important reasons for visitors choosing Ireland as their destination. Ireland's tourism industry generates six billion euro for the economy annually.

Forces of landscape change

In recent years, Ireland has experienced unprecedented urbanisation and landscape fragmentation due to widespread construction of housing and roads. This has affected open countryside as well as villages and towns in all parts of the country. Artificial areas (residential, industrial, and commercial) increased 20% between 2000 and 2006 (epa, 2008). Just as landscape evolved in the past, it will continue to change in the future with agricultural influences remaining significant.

The agriculture and food industry is Ireland's largest indigenous sector. It is of major importance to the economic welfare and development of the Nation and central to the socio-economic vitality of rural communities. It accounts for over half of the country's indigenous exports and almost one-tenth of the economy. The sector is likely to become even more important in the coming years as scientific and market developments find exciting new uses for natural resources and the key dairy sector expands substantially after the European Union (EU) quota system is abolished in 2015.

Teagasc undertook a Foresight exercise designed to establish a broadly-shared vision for the agri-food and rural economy in 2030 (Teagasc, 2008). Agriculture, forestry, the marine and their related processing sectors are on the cusp of profound change so it makes sense to redefine the sector into the broader concept of the bioeconomy, encompassing the traditional agri-food sector and a wide range of novel activities that can now be generated from natural resources. The four pillars of this future bioeconomy, identified by this exercise are food production and processing; value-added food processing; agri-environmental products and services; and energy and bio-processing.

Land use

An ever expanding world population, higher demand for food and increased use of land for the production of renewable energy crops could significantly change the look of the farmed landscape. Over the next twenty years all of Bórd na Móna's 80,000 hectares of industrial peatland will be exhausted of their peat reserves. Decisions on their subsequent use will influence the landscape of the midlands.

The present tillage area of 350, 000 hectares has decreased from a high of 1,867,000 hectares in 1851. By 2030, grass-based dairying will have fewer but generally larger farms producing twice the volume of high quality milk. Grass will provide the basis for a significant beef industry. Sheep farming

will remain an important enterprise on part-time farms and on some mixed large-scale farms and will provide a landscape management function on hills. Tillage farming will occupy 0.5 million hectares dominated by a relatively small number of large scale growers. The next 20 years will see an increase in the area devoted to traditional tillage crops and also to maize and energy crops.

Farm types

Within agriculture, we expect to see a continuing trend towards two contrasting farm types: large-scale full-time farms and small-scale part-time farms. Approximately 40% of farmers will retire in the next ten years and almost all farms will change hands at least once by 2030. The majority of Irish farms are family owned and entry to the industry through channels other than inheritance is rare due to the limited availability and high cost of land. For example, in 2002 just 0.1 % of the total farmland in Ireland was sold. Research shows that less than 10% of farm heirs plan to sell the farm with the majority (approximately 70%) opting to farm on a part-time basis (Hennessy and Rehman, 2007). The extent of part-time farming will depend on the willingness of offspring to continue to hold at least one other job and the availability of additional local employment. Part-time farming is not just an option being pursued by new farm entrants, many full-time farmers are also choosing to supplement declining farm profits with off-farm employment. In general small-scale part-time farms are less intensive.

Climate change

Climate change presents a particular challenge for agriculture to reduce greenhouse gas emissions (carbon dioxide, methane, and nitrous oxide). Opportunities are presented in carbon storage or sequestration; biofuel production; and production of heat and electricity from biomass. Targets for the energy sector include the planting of 70,000 hectares of perennial biomass crops (miscanthus and willow) initially for the electricity and heat markets, but ultimately for second-generation biofuel production; and developing the capacity of existing biodiesel and pure plant oil industries to process up to 50,000 hectares of oil seed rape and all available beef tallow. Willow or miscanthus can also sequester significant quantities of carbon. Currently, 3,500 hectares of energy crops have been planted. Afforestation levels over the past five years averaged 8,000 hectares annually, giving a total of 730,000 hectares of forestry. The national strategic target is to expand forestry to 17% of the land area by 2030, which would increase carbon sequestration and energy production. This increased target area of energy crops and forestry would have a significant influence on the landscape.

Invasive species

Some alien invasive species of flora threaten to alter the landscape they invade. *Rhododendron ponticum* forms dense thickets, out-competing native plants in woodlands. Japanese knotweed *Fallopia japonica*, introduced as an ornamental plant, has infested a wide range of habitats, including river banks. When it dies back in winter the banks are left bare and vulnerable to erosion. Curly leaved waterweed *Lagrisiphon major* is commonly sold as an oxygenating plant. It has had a serious impact on Lough Corrib, carpeting extensive areas, excluding light and restricting angling, boating and other water based activities. These are just some examples.

Species which are native can also be invasive, encroaching on land where it is not being grazed. Examples are blackthorn and even hazel in the Burren where scrub expansion is increasing by almost 5% annually. Land abandonment is of increasing concern because of the decline in traditional agricultural practices which preserved unique landscapes and habitats of high ecological value. Poor market prices, alternative off-farm employment opportunities and certain agricultural policies favour land abandonment in remote, inaccessible areas often with difficult, unproductive soils.

Policy impact on landscape: sustainable farming

In 2001, the European Council added the environment to its economic and social reform pillars to create the 'Gothenburg Agenda', ensuring that environmental protection is systematically integrated into all EU policies. Farms must be sustainable from an economic and environment point of view. To create the reality of a living countryside, people must be able to attain a qualitatively good standard of living. Increasingly, Irish farmers have become more dependent on direct payments for their income. Payments now account for 31% of farm output and 103% of average farm income. CAP and World Trade Organisation reforms in future seem certain to lower the level of taxpayer and consumer support for agriculture in general; in the long-run, direct farm income support is likely to be replaced by support for the development of the rural economy.

Multi-functionality

In addition to food production, farmers, as custodians of the countryside, deliver a wide range of important and socially valuable agri-environmental products and services which include the management of our landscape. Related services include the protection of water, air, biodiversity, archaeological heritage, and the provision of recreational access to the countryside. Less obvious agri-environmental 'products' and services include a clean rural environment, prevention of land abandonment, maintenance of genetic diversity of farm animals and plants, control of weeds and pests, and mitigation of climate change. Agri-food systems also provide security

of food supply, animal welfare, and maintenance of natural amenities, overseeing of rural development, contribution of land use and spatial policy, and support of tourism. This is multi-functional agriculture. It provides an argument for the continued support of farmers.

In the Cork Declaration, the European Commission (1996) expressed confidence that there is acceptance of the need for public funding for management of natural resources, biodiversity and cultural landscapes, and that farmers have a duty as stewards of many of the natural resources of the countryside. The European Model of Agriculture embodied the concept of multi-functionality in 1997. Traditional payments under the first pillar of the CAP, based on agricultural production, account for almost 90% of agricultural support funds and are unlikely to ensure the multiple outputs of agriculture now desired by taxpayers and consumers. Under the second pillar resources are being targeted towards measures addressing the multifunctional agenda of farming. A 2007 Communication on the CAP Health Check stated the aim of the European Commission for increased modulation or transfer of funds from pillar one to pillar two.

Teagasc research

In a Teagasc survey (Hynes and O'Donoghue, 2009) the general public's perception of farmers as custodians of the countryside was seen to be generally positive. While respondents were strongly against: *'farmers maximising their income irrespective of the environmental consequences'*, they agreed that *'farmers should be compensated when environmentally friendly farming costs more'*. In terms of the general public's preferences for future farm landscapes, there appears to be little difference between those living in urban versus rural settings and those on higher versus lower income brackets. The conserved farm landscape is the most preferred indicating the Irish public value the range of agri-environmental products and services that farming delivers. Despite the publicity in terms of the benefits of bio-fuels and renewable energy, the landscape associated with this (rapeseed and wind turbines) was least preferred.

Using the generalized Tobit Interval model the average 'Willingness to Pay' for protecting the traditional rural landscape was estimated at €44 per person (Howley et al., 2009). Income and education had a significant and positive effect. Respondents with siblings involved in farming; with children; and those living in the countryside were also more willing to pay. Features associated with wider biological and cultural diversity of the countryside such as woodland, bogland, wild flora and fauna, water quality and features associated with cultural heritage played a more significant role in influencing 'Willingness to Pay' than more traditional and scenic features of farming activities such as open grass covered fields, grazing farm animals and well maintained farm buildings. The results would indicate a strong justification for increasing the support for second pillar objectives under the CAP such as the protection of the rural landscape.

Policy mechanisms

Sustainable land use is the intention of a variety of policy mechanisms such as Cross Compliance, Disadvantaged Area Payments, Natura 2000, and forestry and agri-environmental schemes. Lessons can and have been learned from past policies resulting in undesirable landscape effects. Headage payments, for example, encouraged overstocking of sheep on upland peatlands, which resulted in overgrazing, loss of vegetation, and soil erosion. Due to a combination of Commonage Framework Planning, and decoupling of EU agricultural support subsidies from production in 2005, overstocking of the uplands has now effectively been resolved. Teagasc research in Leenane in Mayo has developed hill sheep production systems to assist the continued viability of producers while reducing environmental impacts.

Another undesirable landscape effect is scrub encroachment which can impact negatively on natural and cultural heritage. This is a problem in the Burren, one of the most important and best-known landscapes in Ireland and Europe. The obligation to maintain land eligible for pillar one payment under the Single Payment Scheme, in Good Agricultural and Environmental Condition (GAEC) should alleviate the problem of scrub encroachment in future.

The story of hedgerows illustrates the determining influence of policy decisions. Hedgerows are a visual record of the historical processes of land use (McCormack and O'Leary, 2004). Most were planted under obligation of Acts of Parliament in the eighteenth and nineteenth centuries. Until the 1970s, many hedgerows remained. Ireland's entry into the EU in 1973 brought about change with the EU agriculture support system helping farmers to modernise and increase productivity. The rate of hedgerow removal between 1908 and 1998 in a study area in Cavan was 31 % (Keena, 1998). Grant aid for land improvement encouraged hedgerow removal until December 1994. A major impact of the Rural Environment Protection Scheme (REPS) when introduced in July 1994 was the protection of hedgerows. Hedgerows and drains on all farms receiving direct payments may soon become protected as landscape features under GAEC. Since 2004, under REPS 3 and REPS 4, farmers have undertaken to plant or rejuvenate an incredible hedgerow length of over 10,000 km, the largest planting in over 200 years.

Agri-environment schemes

Biodiversity strategies using trees, hedgerows, riparian zones and field margins have positive effects on the landscape. There were very positive conclusions from the study: *Landscape Impact of REPS – a Quantitative Assessment* (O'Leary et al. 2005). Through REPS, this generation of farmers will contribute a lasting positive impression on the landscape, becoming more evident over time as trees, hedgerows and other habitats develop.

Over one million individual native broadleaved trees will be planted. Currently there are 62,000 farmers in REPS, all of whom are involved in the creation of new wildlife habitats on farms in every townland in Ireland.

Over 3,000 km of the stone wall network in the west is being maintained, preserving this unique landscape. One million euro is available each year for the conservation and repair of traditional farm buildings under REPS 4 Supplementary Measure 12. In partnership with the Department of Agriculture Fisheries and Food, The Heritage Council administers this grant for weatherproofing the exterior of farm outbuildings. Our rich heritage of archaeological sites and traditional farm buildings are valued under REPS. Research has shown REPS to have been directly instrumental in protecting both known and previously unrecorded archaeological features (Sullivan, 2006) and through its training courses has increased awareness of archaeological features amongst planners and farmers alike (O'Sullivan and Kennedy, 1998). Future agri-environmental payments to farmers will be designed and financially justified for both direct and indirect costs incurred in the supply of public goods (Finn et al. in press).

The role of Teagasc in landscape management

In accordance with the European Landscape Convention, ratified by Ireland in 2002, Teagasc has a role in increasing awareness of, and promoting, landscape policy. Given their prevalence, farm landscapes are crucial in regard to achieving landscape enhancement at a national scale (Bell, 1996).

Landscape Character Assessment (LCA) is regarded as a key tool for those involved in influencing the landscape. As it concerns all landscapes, not just those of high quality and value, it is relevant on all farms. A report for The Heritage Council recommended that LCAs be used as a targeting and monitoring framework for REPS (Martin and Farmer, 2006). Teagasc research found the language of REPS 4 reveals an expanded emphasis on landscape (Whelan, 2009). Recommendations were made to improve the framework for the treatment of landscape issues in future agri-environment schemes.

Not only are Ireland's landscapes especially rich in historic and cultural features, but historic landscape is a concept that people can readily understand and identify with, which may be a key tool in raising landscape awareness at local level. For example Historic Landscape Characterisation could influence measures undertaken on farms in agri-environment schemes.

When planning new agricultural buildings, farm advisers take account of Local Authority Development Plans and their objectives for the preservation of the character of the landscape, areas of special amenity, and landscape conservation areas, which may impact on the exempted development status of proposed structures. Teagasc has had significant positive influence

on the development of quality farm buildings. Controlled by planning law and encouraged by grant aid, progress has been made in recent years encouraging building design, colour, and landscaping in tune with the locality.

Teagasc's forestry programme gives Best Practice landscape advice using the *Forestry and the Landscape Guidelines* published by the Forest Service. These provide recommendations for various forest development scenarios and for four distinct landscape character types commonly found in Ireland: rolling moorland; rolling fertile farmland; drumlins; and mountain and farmland complex.

Adoption of best practice

The involvement of farmers, advisers, researchers, policy makers and funders in the design of schemes is important; use of pilot schemes, monitoring, and ongoing modification help to achieve the adoption of Best Practice. Multidisciplinary teams with production and environmental skills including basic and applied research using an effective model for technology uptake through the BETTER farm programme and discussion group network will drive the adoption and development of agri-environmental products and services. Examples of Teagasc Best Practice projects are the Lough Melvin Project in Leitrim and the Agricultural Catchments Programme. Researchers and advisers working closely with farmers at catchment scale facilitate the sharing of information and experience, thus speeding up knowledge dissemination and maximising its impact.

In the Burren LIFE Project, Teagasc are taking a lead role in the first major farming for conservation project in Ireland. It is on course to improve the conservation status of Burren habitats with associated landscape benefits. It focuses on the local farming community as key agents for ensuring effective conservation and uses farm-level management plans as the delivery mechanism for effecting change. A Blueprint of Best Practice management is being implemented, using new concentrate feeding systems on winterages developed with Teagasc specialist expertise. Transfer of this technology occurs through 20 Burren LIFE demonstration farms. Even in the Burren with its important species-rich grasslands, choices regarding the desired landscape must be made as hazel scrub is also a priority habitat under the Habitats Directive.

Teagasc aims to provide evidence-based knowledge to support policymakers in designing, implementing and evaluating programmes; and develop quantifiable agri-environmental measures targeted at spatial variation and different farming systems. The support and advice that intensive systems need to meet basic levels of environmental regulation differ greatly from those required by extensive farming systems that receive payments to provide agri-environmental benefits.

The Teagasc Environment Programme is not just essential for maintaining biodiversity and prudent stewardship of natural resources; it also makes sound economic, commercial and financial sense. Sustainability is vital for future success and, significantly, the environment is now a 'product', with economic value, and is of immense importance to society. The result of Teagasc's environment research and dissemination programme provides a double dividend, or 'win-win' situation for farmers, the rural economy, the bioeconomy, and Ireland as a whole.

Conclusions

Agriculture always has, and will, continue to mould the landscape. The landscape as we know it needs farming activity. Land use policies which shape our future landscape must ensure viable and sustainable farming systems. Teagasc will continue to influence the adoption of Best Practice landscape management.

* * *

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Professor Gerry Boyle is Director of Teagasc, the agriculture and food development authority, which provides an integrated research, advisory and education service for the agriculture and food industries. He took over as Teagasc Director in October 2007. Since his appointment he has led a foresight process which culminated in the publication of the Teagasc 2030 report in May 2008, which looks forward to the anticipated changes in the agriculture and food industry out to the year 2030. Previously Professor Boyle worked in the National University of Ireland (NUI), Maynooth where he was a former Head of its Economic Department. He is a former member of the Governing Authority of NUI Maynooth and is a director and secretary of the Maynooth University Foundation. He is a co-chairman of the FAPRI-Ireland Partnership and the founding Director of the National Institute of Regional and Spatial Analysis. He is also a past member of the Senate of the NUI. He holds adjunct Professorships at the University of Limerick and at the University of Missouri, Columbia. He was previously a senior research officer with the Agricultural Institute (now Teagasc) and an economist with the Central Bank of Ireland. From 1995-1997 he served as economic adviser to the Taoiseach (Prime Minister). He has worked as a senior associate with Farrell Grant Sparks consulting and a senior international consultant, specialising in agricultural policy, with the World Bank on a number of their projects in Eastern Europe and Central Asia, including Belarus, Molodva, Russia, and Tajikistan. Professor Boyle is a past president of the Irish Economic Association and of the Agricultural Economics Society of Ireland. He has also served as editor of the *Economic and Social Review*, the *European Review of Agricultural Economics*, and the *Irish Journal of Agricultural Economics and Rural Sociology*.

The Environment and Landscape Land Cover and Land Use in Ireland - Key Issues and Challenges

Dr Mary Kelly, Director General, Environmental Protection Agency,

Abstract

Land use practices directly influence both landscape and quality of life, particularly in relation to where people live, the surrounding environment and the associated infrastructure and services that are required. The rate and nature of land use changes indicate where future environmental pressures are likely to arise. By European standards, Ireland has experienced a relatively high rate of land use change since the early 1990s. The growth of commuting catchment areas around major cities, together with the development of suburbs and dormitory towns, has increased environmental pressures. More compact urban forms are required, together with increased investment in public transport. In this regard, it is important that all sectors fully engage in the process of addressing the requirements of the Strategic Environmental Assessment Directive, to integrate environmental considerations across national, regional, and local plans and programmes.

Nationally the quality of the coastal environment has been impacted by increased urban development resulting in habitat loss and impacts on the landscape. An Integrated Coastal Zone Management strategy is required so that pressures on the coastal zone can be balanced in an environmentally sustainable way.

Introduction

Land is subject to many competing demands. Land is a resource for food, energy, agriculture, forestry, recreational opportunities overall, for a good living environment. Current land use is the result of a sequence of past human interventions on the natural landscape; decisions made today will shape the environment of the future, whether in cities, towns, suburbs, rural villages, or on the land.

The rate and nature of land use changes indicate where future environmental pressures are likely to arise. By European standards, Ireland has experienced a relatively high rate of land use change since the early 1990s. While agriculture remains the predominant land use (EPA, 2003a), improved economic conditions, and population growth (due mainly to immigration) have led to a dramatic increase in the extent of built-up areas, with growth rates surpassing those of all of our European neighbours.

This paper provides an overview of land cover and land use in Ireland and outlines some of the key issues facing the country in relation to the development of environmentally sustainable land use policies and practices. The paper is based largely on material presented in the EPA's most recent State of Environment Report Ireland's Environment 2008.

Land use and land cover

The terrestrial environment may be described by its land cover (a biological and a physical description of the earth's surface) and, from the social perspective, by its land use. There is a scarcity of high-resolution data on land use and land cover at national level in Ireland. Information on land cover is mainly derived from a series of spatial datasets provided as part of EU initiatives and national research projects.

- CORINE (Coordination of Information on the Environment) Land Cover, with 44 hierarchical classes, which provides information for the entire country for 1990 and 2000. An update to Corine Land Cover for 2006 is being finalised and the results will be available before the end of 2009.
- MOLAND: The MOLAND dataset is a land cover dataset with a more detailed urban classification scheme, is available for the border counties and the Greater Dublin Area (Counties Dublin, Meath, Kildare and Wicklow) for 2000 (Lavage C. et al., 2004). An update, covering County Louth and the Greater Dublin Area, was commissioned for 2006 as part of the Urban Environment Project (UEP, 2006). An extract from the 2006 UEP update to the MOLAND land use map for Dublin and environs is shown as Figure 1.

Occurrence of land cover/land use classes

The relative distribution of land cover/land use classes in Ireland, according to the Corine Land Cover dataset, is shown in Figure 2. The major land cover class in 2000 were pasture (55%), followed by wetlands (16%), water (9%) and forests (8%). Forests now occupy 10 % of national land cover. Preliminary results from the 2006 Corine update indicate that the main changes in land cover are an increase in the extent of artificial surfaces, such as urban developments, roads and commercial and industrial infrastructure (15 % increase between 2000 and 2006) and the continued growth in forestry.

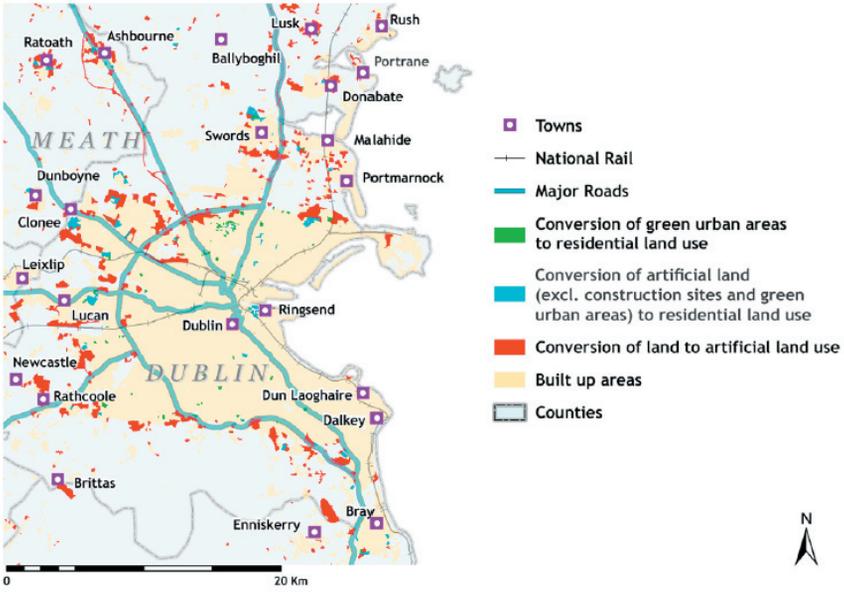


Figure 1 MOLAND Land use in the Greater Dublin Area, 2006 (source: JRC/UII)

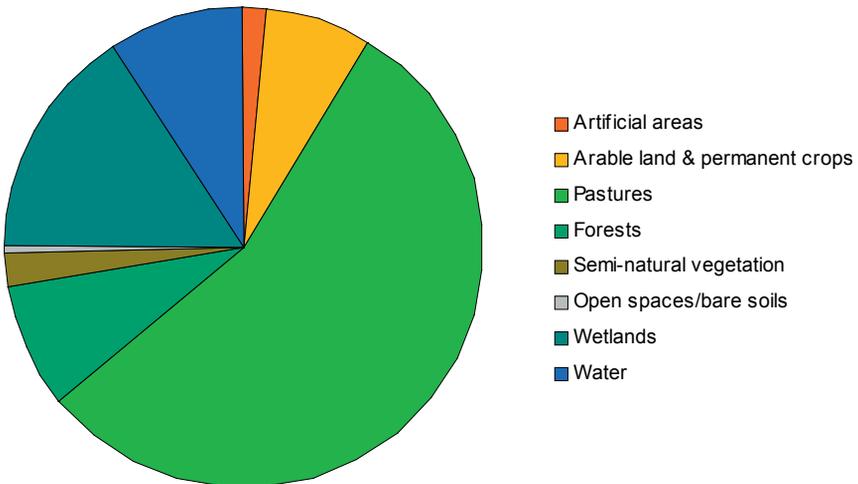


Figure 2. Land cover/land use in Ireland, 2000 (source: EEA /EPA)

Urban settlements

The principal causes of recent land use changes in urban areas have been the development of housing and associated commercial services built to cater for the growth in the population and the migration to suburbs, satellite towns, and villages. Figure 3 shows the level of changes in MOLAND land cover classes in the Greater Dublin Area between 2000 and 2006.

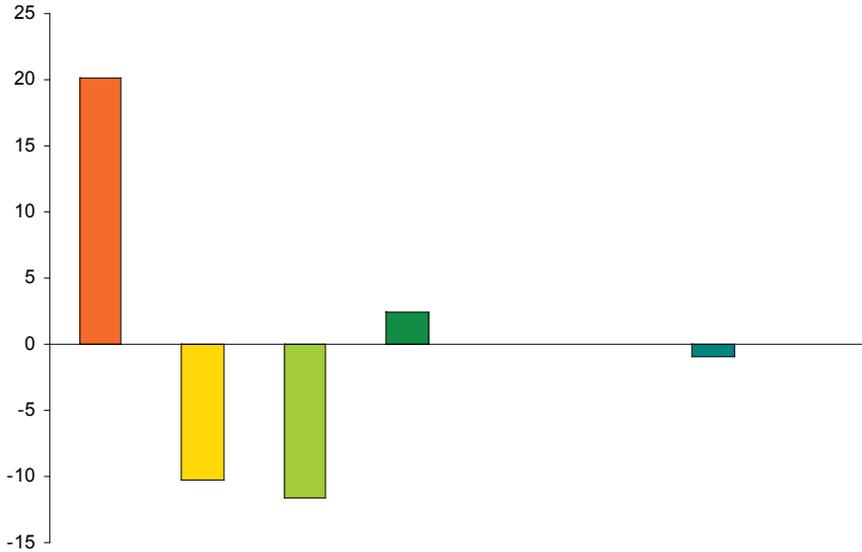


Figure 3 Percentage land cover changes in the Greater Dublin Area between 2000 and 2006 (source: data, JRC/UII; analysis, EPA)

In 2006, 2.57 million people, or just over 60 % of the population, resided in 600 urban areas, i.e. cities, towns and villages with a population of 1500 or greater (CSO, 2006). While the population of the state increased by 8.2 % between 2002 and 2006, established inner city areas showed only a small increase. The core (legally defined) city areas of Limerick and Cork both recorded a loss of population; however, there was a net increase when the suburbs and environs were taken into account. Galway city core recorded a moderate increase.

The greatest percentage increase in county population (22.2%) occurred in Fingal, on the periphery of Dublin City. These figures confirm that the urban spill-over, into hitherto rural areas, identified in the 1990s is continuing. Figure 4 shows the change in artificial land use in the Greater Dublin Area between 2000 and 2006 and illustrates that increases in the extent of artificial land use in Fingal and the counties surrounding Dublin are quite marked.



Figure 4 Artificial land use (MOLAND) by county in the Greater Dublin Area, 2000 and 2006 (source: data, JRC/UII; analysis, EPA)

Improvements in road infrastructure have facilitated the growth of the Dublin commuting catchment area and the further development of suburbia and dormitory towns. Residential development in urban areas has typically comprised low density suburban development; this has the effect of increasing the land take required and putting systems for the delivery of public services under increasing stress. A natural consequence of peripheral development is increased traffic volume; this often results in congestion and longer commute times on radial routes. As some villages and towns grow beyond the capability of the local infrastructure to support them, overloaded wastewater treatment plants or inadequate drinking water supplies pose a risk to health and the environment.

Figure 5 shows the extent of artificial land development in the Greater Dublin Area between 2000 and 2006. Most housing development occurred on the fringes of the city with most of the land resource for housing and other artificial land uses (including golf courses) coming from pasture and mixed farmland (EPA, 2003a). Within the city some medium-scale infilling of green urban space is apparent. Data from An Post (GeoDirectory) shows that there has been some small-scale (<1 ha) residential redevelopment in the city centre.

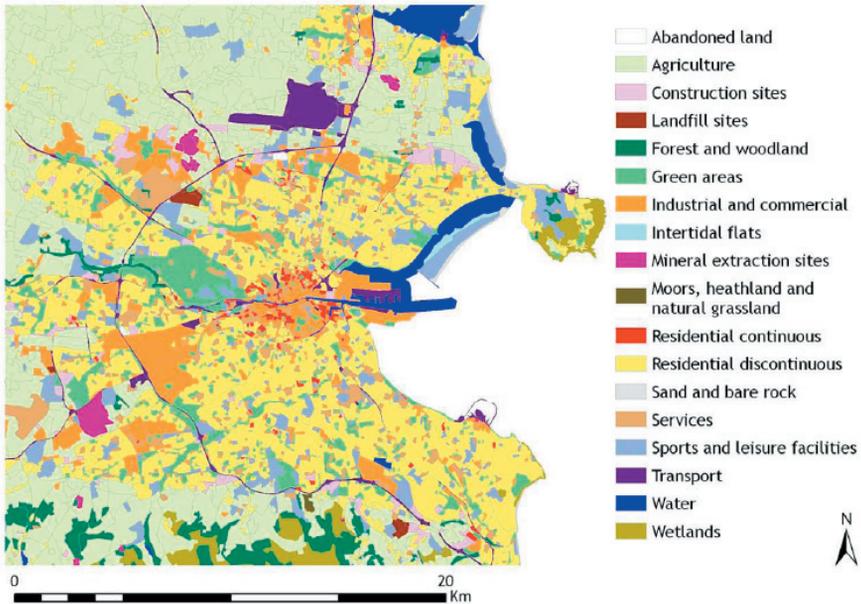


Figure 5 Areas converted to residential use, Dublin Area, MOLAND 2000–2006 (source: data: JRC/UII; analysis: EPA)

Rural settlements

The rural settlement pattern in Ireland is predominantly dispersed, unlike that of many other European countries, where there is a clearer distinction between urban and rural areas. The practice of locating dwellings in the open countryside (particularly adjacent to urban centres), in preference to consolidating the development of rural villages, has intensified in recent years (Keaveney, 2007), particularly in the south and southeast. Figure 6 shows the locations of new residential addresses recorded by An Post between 2005 and 2007 inclusive. Significant housing development in rural areas can be seen, with a noticeable density of coastal development in Counties Donegal and Wexford. The rural environment in the counties bordering large cities (especially Dublin) is also coming under pressure from incremental residential development for city commuters.

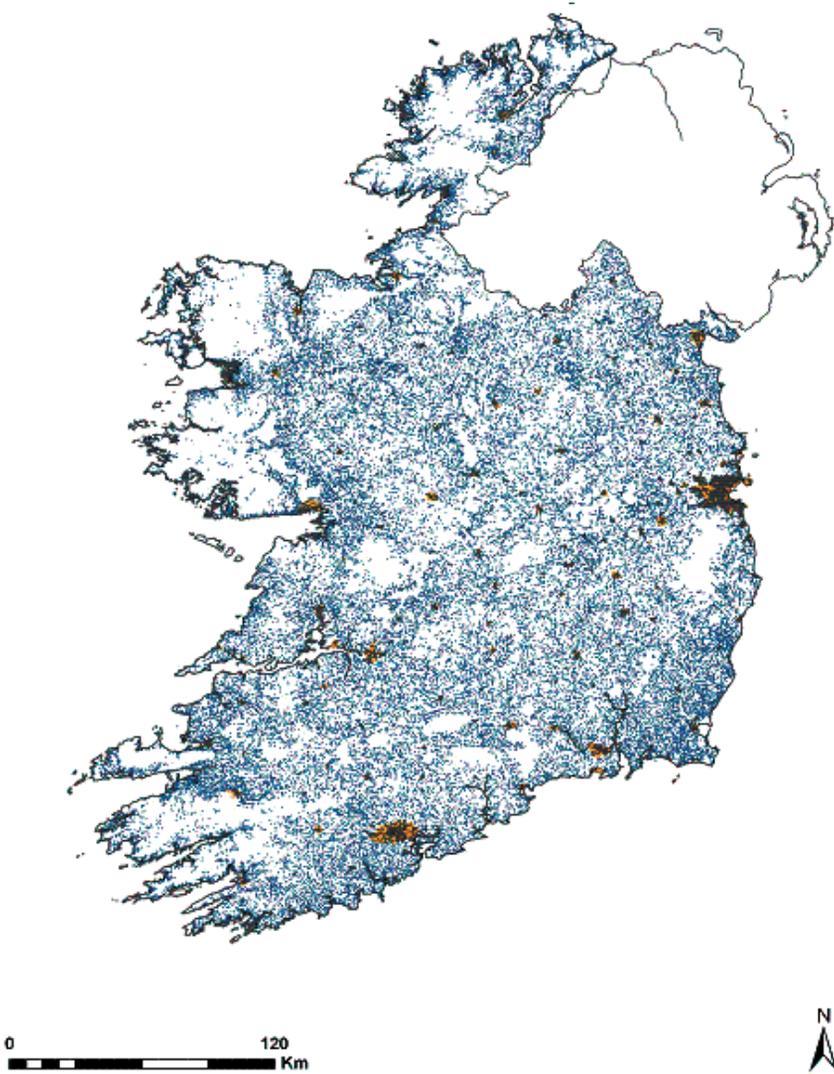


Figure 6. New residential addresses recorded by An Post 2005–2007: each dot represents at least one new address (source: An Post GeoDirectory)

The population increased from 2002 to 2006 by 21.5 % in Co. Meath, 13.7 % in Co. Kildare and 10 % in Co. Wicklow (CSO, 2006). Of the houses occupied at the time of the 2006 Census, 56,186 (22.5%) were reported as one-off houses in rural areas. Loss of rural lands to residential development is of concern, as it tends to result in an irreversible land use change.

Figure 7 shows the amount of agricultural land consumed for other purposes in the Greater Dublin Area, together with the increase in the extent of artificial areas, in the period 2000–2006. It may be noted that these values almost match, as most development land is converted from agricultural land. Most of the differences involve afforested agricultural land.

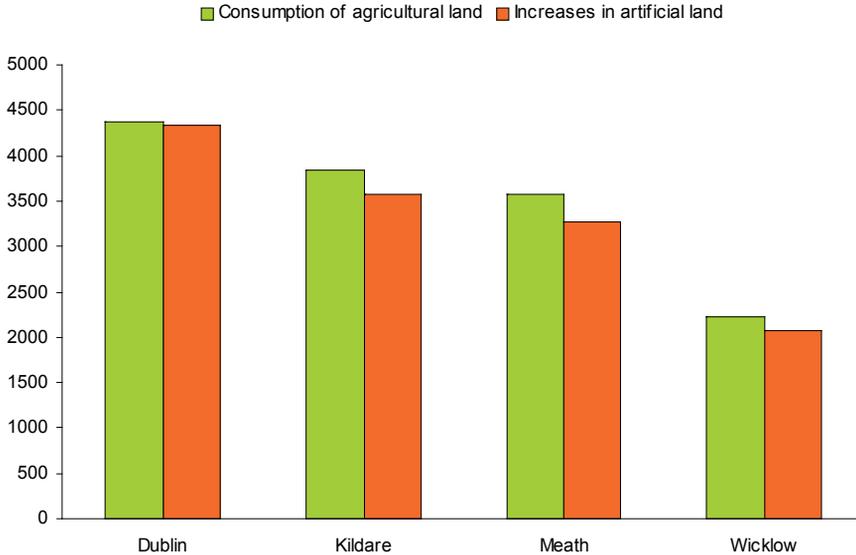


Figure 7 Consumption of agricultural land and increases in artificial land in the Greater Dublin Area, 2000–2006, MOLAND 2000–2006 (source: Data, JRC/UII; Analysis, EPA)

The scattered nature of Irish rural development has made the provision of public services more expensive and less economically viable. In many rural areas the majority of the population use individual septic tanks which, if poorly sited and/or not properly maintained, can pollute ground waters, surface waters, and public water supplies. In the open countryside typically less than half of the houses are attached to public sewerage systems. Figure 8 shows the areas where public sewerage systems or individual septic tanks predominate.

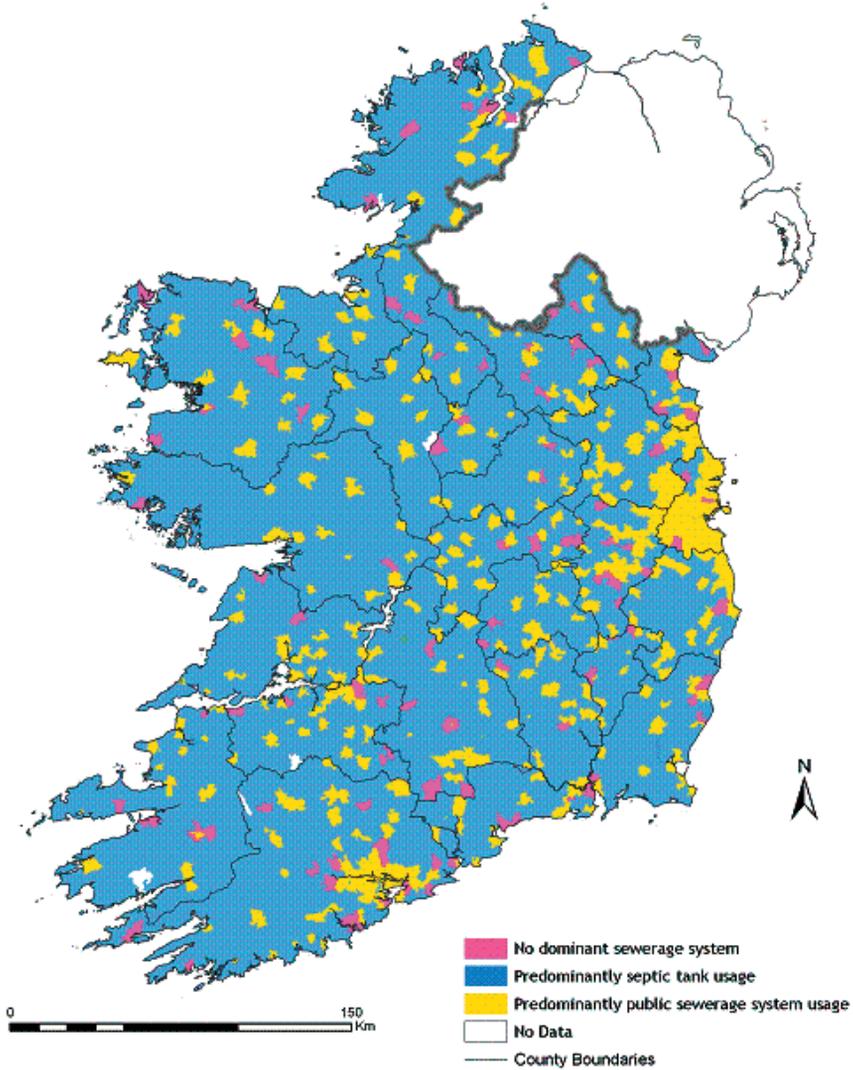


Figure 8. Use of sewerage facilities (Source: CSO , 2006)

Agriculture

Good farming practice plays an important role in maintaining and improving the quality of the Irish environment. Over 60 % of the land in Ireland (~4.3 million ha) is devoted to agricultural activities, with an additional 10 % (~0.7 million ha) currently devoted to forestry.

Irish agriculture is predominantly extensive and grass-based (Figure 9). Tillage occupies some 10 % of utilisable agricultural area (UAA); most of the remainder is devoted to dairy cattle and sheep farming. The most

noticeable recent trend in changing agricultural land use has been a continuing increase in the land devoted to silage (Figure 10). Ireland opted for full decoupling of direct payments from production with effect from 1 January 2005. It had been projected that decoupling would result in a general reduction in stocking levels, with more farmers withdrawing from full-time farming. However, this tendency may be offset by the increased attractiveness of farming due to improved market prices and future market prospects following expected increases in global demand.

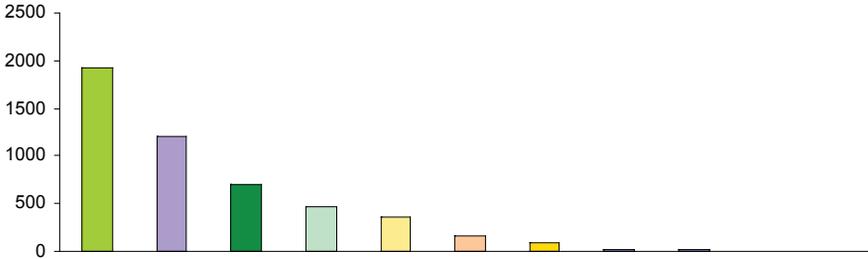


Figure 9 Agricultural land use (source: CSO, 2008)

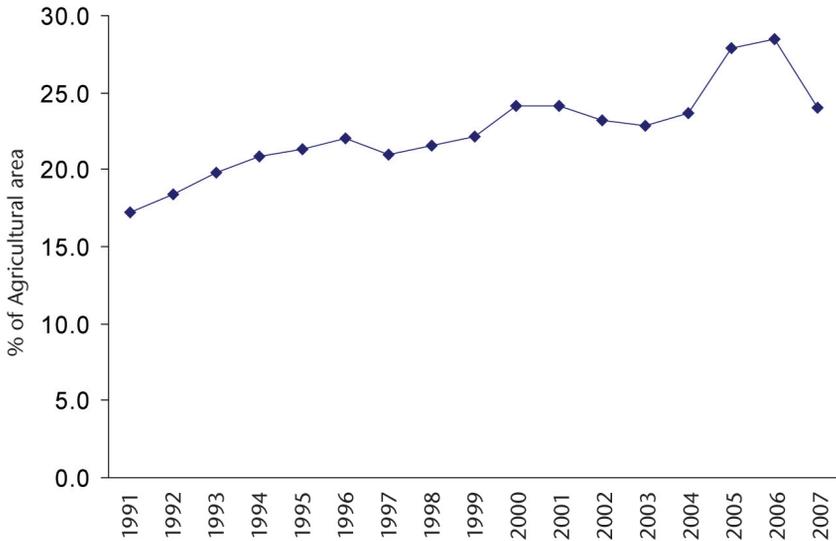


Figure 10 Area devoted to grass silage (source: CSO, 2008)

Rural Environment Protection Scheme (REPS)

In 2007 approximately 54,200 farmers participated in REPS. The latest phase, REPS4, will run until 2013. It encourages farmers to enhance the environment through a range of actions including reduced use of fertilisers and pesticides, reduced greenhouse gas emissions, as well as improved water quality. The scheme also assists in maintaining existing hedgerows and planting new ones, growing crops to provide food for wild birds and preserving traditional breeds of animals.

Biofuel crops

Under the reform of the Common Agriculture Policy, farmers now have an incentive to focus more clearly on exploiting market-driven farming opportunities, including the production of energy crops. The main energy crops that can be grown in Ireland include oilseed rape, cereals, hemp (annual crops) and willow, miscanthus, and reed canary grass (perennial crops) (see Figure 11).

The EU Biofuels Directive (2003/30/ EC) sets a target of replacing 5.75 % of all transport fossil fuels (petrol and diesel) with biofuels by 2010. According to this Directive, biofuel production will have to comply with a set of sustainability criteria. The intended effect is to disallow fuels produced on land 'with recognised high biodiversity value', such as forests and nature protection areas (CEU, 2003).

In March 2007 the European Commission endorsed targets for the use of biofuels and renewable energies in overall EU energy consumption by 2020. These include:

- A target of 20 % for the share of renewable energies, with differentiated national targets
- A minimum target of 10 % for the share of biofuels used in transport

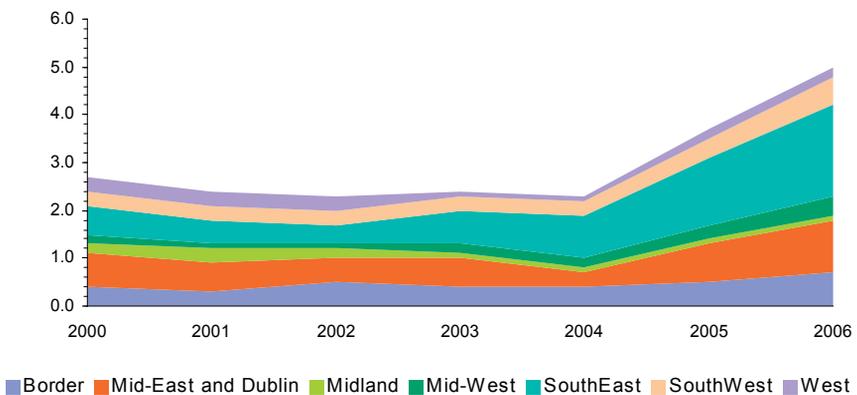


Figure 11 Area devoted to oilseed rape (source: CSO, 2008)

The Government has committed itself to achieving, and if possible exceeding, the mandatory 10 % target by 2020 (DCMNR, 2007). However, the Government has shelved the intermediate target of 5.75 % set by the Biofuels Directive as it was considered to be over-ambitious and would increase greenhouse gases through the accompanying land use changes.

Wind energy

By mid 2007 there were 36 wind energy projects (35 onshore and 1 offshore) in operation in the Republic of Ireland with a total installed capacity of 230.8 MW (www.sei.ie). To reduce losses caused by interference between turbines, a wind farm requires roughly 10 ha of unobstructed land per megawatt of nameplate capacity. This indicates a current total land take of approximately 2300 ha. The land area used and modified by a wind farm site is rarely greater than 4 % of the total site area. The remainder can still be used for farming.

The Irish government supports the development of all renewable based electricity generating plants including wind turbine generators. A new renewable energy support mechanism known as the Renewable Energy Feed in Tariff (REFIT) was launched in 2006. This is a fixed 'feed in tariff' mechanism; any applicant, whether an individual or a company, may submit an application at a fixed price based on technology and, in the case of wind, the capacity of the project. REFIT was launched with the initial aim of supporting the construction of at least a further 400 MW of new renewable energy powered electricity generating plant by 2010.

Forestry

Following a long period of afforestation, which began in 1904, forest cover has increased from 1 % to approximately 10 % of land cover. This compares with a European average of over 30 %. The National Forest Inventory (NFI) shows that Ireland has still the lowest forest cover by percentage of land area of all European countries. The public forest estate accounts for 57 % of the total forest area, most of which is owned by Coillte Teoranta (the Irish Forestry Board). Forested land in the private (grant aided) estate and private (other) estate comprises 30 % and 13 % of the total forest area respectively (DAFF, 2007a).

Sitka spruce is the dominant species, representing 53 % of the national estate. Almost a quarter (24%) of the entire forest estate consists of broadleaf tree species, with conifers and mixed planting making up the remainder. 5 % of the forest estate contains five, six or more mixed tree species growing together.

The strategic plan for the Irish forestry sector sets a national planting rate target of 20,000 ha per annum, and a target for forestry to reach 17 % of all land cover by the year 2030. Recent planting rates have fallen

well short of this target and current indications are that the 17 % target may not be met (see Figure 12). In the past many farmers were reluctant to move out of agriculture into forestry, as joining REPS and remaining in agriculture was more attractive than availing of afforestation premiums (Collier *et al.*, 2002; McCarthy *et al.*, 2002). However, a farmer who plants under the Forest Environment Protection Scheme (FEPS), which came into operation in January 2007, will get the equivalent of the forestry premium in addition to whatever REPS payment would be received on the land if it were in REPS.

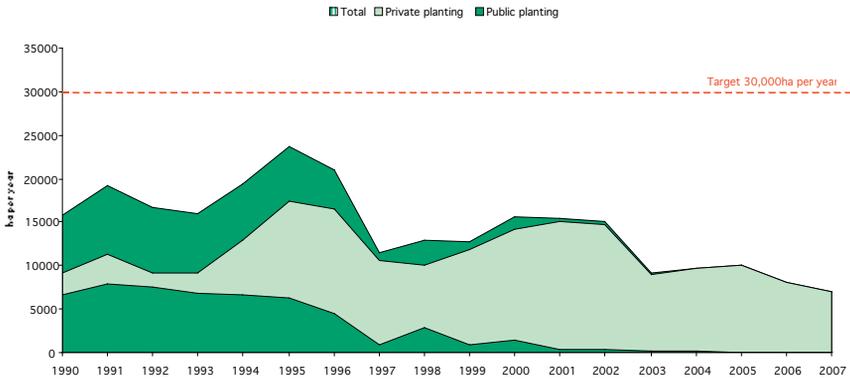


Figure 12 Recent levels of public and private planting set against Annual Afforestation Target (source: Forest Service)

Coastal zone

In 2006 approximately 60 % of the population were living in the coastal zone, that is, less than 10 km from the coast. The coastline of the State is mainly rural and highly scenic in nature and has proved to be an increasingly popular residential location. In recent years an increasing number of second homes and tourist amenities have been constructed in rural coastal areas, encouraged by tax incentive schemes such as the pilot tax relief scheme for selected resort areas (Section 48) (DELG, 2001). Some locations have undergone rapid change (e.g. Bettystown, Courtown, Youghal, Clonakilty, Kilkee, Ballybunion, Bundoran); the scale of recent residential development relative to the original size of such settlements has led to a character-altering effect on the resorts. The quality of the coastal environment has been impacted by the high levels of urban development associated with the economic boom, resulting in habitat loss and impacts on the landscape. Certain coastal recreational developments, such as golf links, have resulted in ecological damage to machair and other dune systems, and conflict as a result of restrictions to foreshore access.

According to the Department of the Environment and Local Government (DELG, 2001), conflicts of this nature will continue to emerge as recreation in the coastal zone expands with the increasing availability of leisure time in society, and in the absence of a national strategy for the provision of recreation space on the coast. A proposed implementation plan for Integrated Coastal Zone Management (ICZM) in Europe was issued in 2000 (COM/00/545 of 8 September 2000). Council and Parliament adopted this Recommendation in May 2002 (CEU, 2002). A formal strategy for ICZM has been under consideration for some time, and a national stocktaking is currently in preparation. This will collate information on current approaches to coastal management in Ireland.

Key issues

Population growth rate, global warming concerns, and competing demands on land for the production of food and biofuel crops have highlighted the importance of environmentally sustainable land use policies and practices. The EPA supports the implementation of environmentally sustainable land use policies and practices, such as those listed by Comhar, Ireland's Sustainable Development Council (Comhar, 2002). These include an emphasis on the need for the use of renewable resources, the maintenance and improvement of soil and water resources, protection of heritage and the need for more balanced development. These are in line with the EU's Renewed Sustainable Strategy, published in June 2006, and should guide national planning and development policies (CEU, 2006).

Strategic Environmental Assessment

Strategic Environmental Assessment (SEA) is an assessment of certain plans/programmes likely to have significant effects on the environment. Its objectives are environmental protection and the promotion of sustainable development. SEA was introduced by the SEA Directive (Directive 2001/42/EC). Topics to be addressed in the SEA process include biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage (including architectural and archaeological heritage), landscape, and the relationships between these factors. SEA is mandatory for certain plans/programmes in the areas of agriculture, forestry, fisheries, energy, industry, transport, waste management, water management, telecommunications, tourism, town and country planning and land use. For minor modifications and for small areas at local level, SEA is mandatory only where the member state determines that there are likely to be significant environmental effects.

SEA has been a legal requirement since July 2004, and has been applied at national, regional, county, and local levels. As of July 2008, a total of 117 SEAs were at various stages. Of the 11 sectors specified in the Directive, Land Use Planning has had the most significant take-up. While many of the economic sectors are now beginning to address the requirements of the

SEA Directive, it is notable that a number of significant sectors, in particular the forestry, tourism and transport sectors, have yet to engage meaningfully in the process.

Urban settlements

In urban areas the trend is towards a continuation of market-driven, low-density residential development on the periphery of cities and the suburbanisation of satellite villages and towns. This trend is unsustainable, given increased commuting times and distances, the expected increase in fuel costs, the lack of adequate extensive public transport, the inefficiency of service provision and the pressure to reduce greenhouse gas emissions. To redress this tendency, a proactive approach to achieving more compact urban forms, which use fewer non-renewable resources and create less pollution, is called for. This may need to include more generous investment in public transport, at both local and regional levels, so as to provide a high degree of access to work and to shops. New and more flexible working patterns may also be required.

A more compact urban form would demand an increase in the population density of urban areas. This implies a need for higher buildings, with an increase in the number of medium-rise apartments, coupled with adequate public green spaces. There should be increased reuse of brownfield land, more intensive use of urban buildings, and sub-division and conversion of existing development. Local and regional development plans should identify brownfield sites within their area and promote the redevelopment of such sites. Local authorities should consider redevelopment of brownfield sites for civic or amenity purposes, such as recreational areas or public parks. Development of such amenities would promote the regeneration of urban centres.

In addition to requiring new infrastructure, the Greater Dublin Area needs land use guidance and appropriate zoning if it is going to achieve a more sustainable form of development in the period up to 2025. A deeper understanding of the factors that drive urban sprawl and the considerations taken into account when deciding on development of cities and regions is required. To that end it is important that research studies into the urban environment continue to form part of environmental research programmes.

Rural settlements

The National Spatial Strategy is designed to facilitate the environmentally efficient delivery at regional level of water, waste management, energy, and related services. The consultation draft guidelines on sustainable residential development in urban areas state that planning authorities should not consider extensive proposals for new development, including residential development, in smaller towns and villages in the absence of an adopted

local area plan. This plan must fit within an overall strategic planning framework at county and regional levels.

Spatial planning is strengthened by the integration of plans at national, regional, and local levels. To achieve these goals it will be necessary to confront the pressures exerted at local level and ensure that local planning decisions are in line with regional planning guidelines adopted by regional authorities.

Agriculture

As a result of the improving market prospects, the extent to which decoupling will impact on beef farming in the short term may be more limited than previously considered (DAFF, 2007b). Some farmers (mainly in the dairying and tillage sectors) are likely to intensify their operations in response to improved market opportunities. The environmental risks arising from intensification should be considered when lands are being identified for this purpose, and only suitable land (in terms of soil type, soil p index, slope, and adjacency to watercourses, etc.) should be selected. With the trend towards part-time farming, there may be a tendency towards more intensified land use in some areas. Although land abandonment is not yet obvious, over time the risk of this happening may increase.

Biofuel crops

Domestically produced biofuels have the potential to reduce dependence on imports of fossil fuels and their contribution to global warming without otherwise harming the environment, provided that they are grown and harvested in an environmentally sustainable manner.

The competitive advantage for producing energy crops within Ireland may lie with grass rather than with other crops, such as beet, willow or oilseed rape (Curtis, 2006). One advantage of grass as an energy crop compared to coppice willow or oilseed rape is the high level of experience and competency relating to grass production. In addition, grasslands are much more widely dispersed than arable land (see Figure 13). A mixture of grasslands, short-rotation biofuel crops, and/or additional long-term afforestation on existing tillage land may be more environmentally beneficial than grassland converted to arable biofuel crops.

In a recent communication, the EEA's Scientific Committee was of the opinion that the land required to meet the European Commission's target (of a 10 % biofuel share in transport by 2020) exceeds the available EU land area even if a considerable contribution of second-generation fuels is assumed (EEA, 2008). The intensification of biofuel production is expected to increase pressures on soil, water, and biodiversity within the EU and result in some unintended effects, difficult to predict and control, outside the EU. The Committee recommended the suspension of the 10 % goal, the carrying out of a new, comprehensive scientific study on the environmental

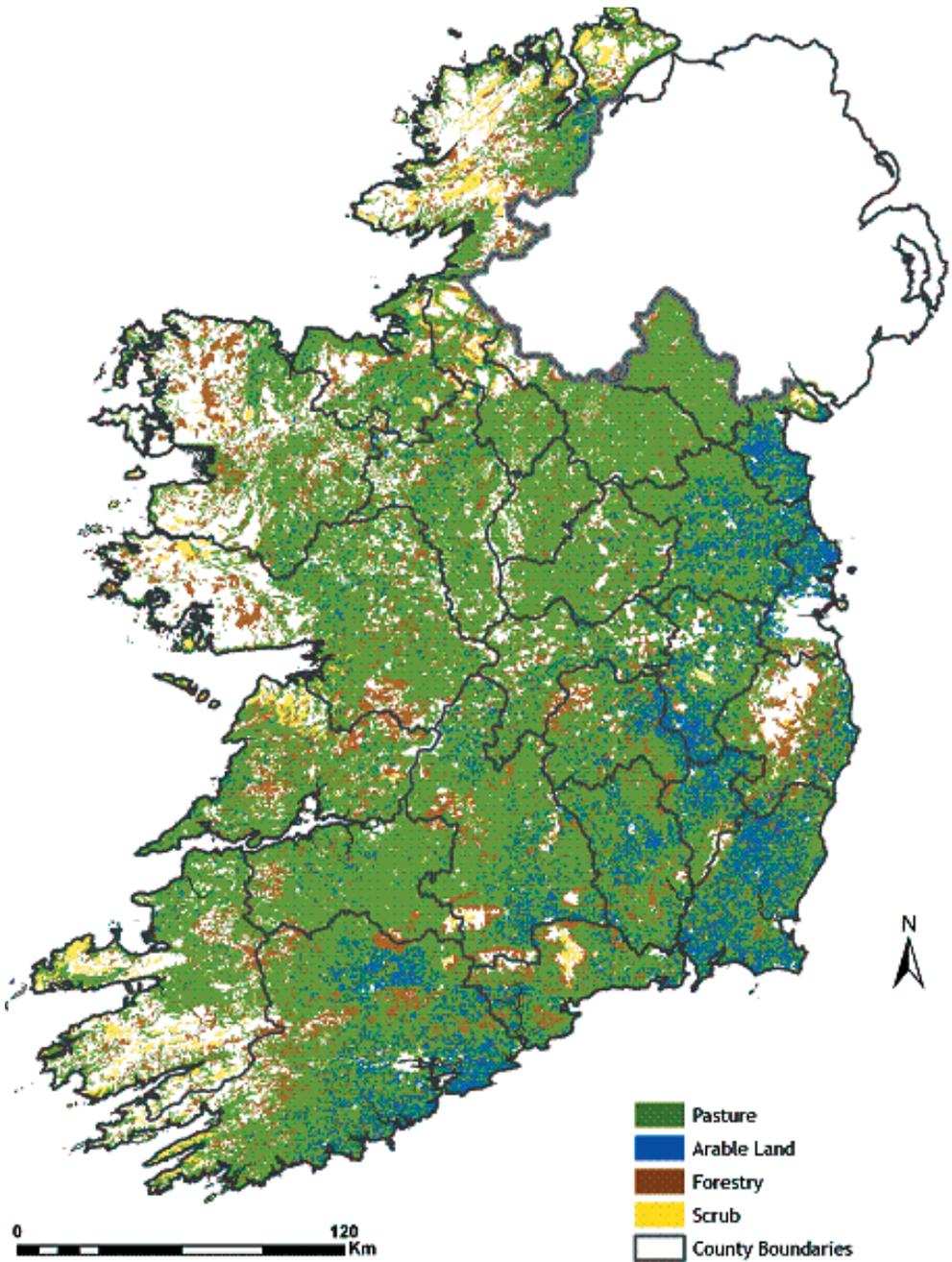


Figure 13 Distribution of arable land and pasture, Corine Land Cover 2000 (source: EEA /EPA)

risks and benefits of biofuels and the setting of a new and more moderate long-term target, if sustainability cannot be guaranteed.

The development of bio-energy has the potential to deliver benefits for the environment and consequently the EPA would like to see the sector grow, subject to sustainability constraints. Further investigation of the overall life cycle of biofuel crops, including the possible conversion of pasture to arable land for this purpose, is needed to ensure that such crops are providing the environmental benefits claimed for them. Such an investigation would help ensure that measurable environmental benefits can be expected from an appropriate national biofuel strategy.

Rural Environment Protection Scheme (REPS)

REPS is particularly important in areas of high nature value (HNV) farmland. HNV farms are mostly marginal: there is a low net income per hectare and per hour of labour. It is important that future REPS schemes remain attractive to the farming community, while at the same time not constituting a barrier to the best economic use of the land.

Forestry

Some of the barriers to extensive afforestation identified by farming bodies are the requirement (imposed on holders of felling licences by the Forestry Act 1946) to re-plant clearfelled land, the requirement for an Environmental Impact Assessment for plots in excess of 50 ha, and competition from REPS (Magner, 2007, 2008).

A report titled *Factors Affecting Afforestation in Ireland in Recent Years* (Malone, 2008) proposed that forestry legislation should be amended to remove the absolute requirement to re-plant forested land. It is important that any such proposed amendment include measures relating to the complete life-cycle of a forest, from the selection of suitable land for afforestation through to final clearfelling, as well as any subsequent treatment required before the land is put back into agricultural production.

Further characterisation of waterbodies for the Water Framework Directive includes studies, undertaken by the Western River Basin District, on possible sedimentation, acidification and eutrophication impacts of forestry. The outputs from the work under way will include an updated acid sensitive areas map, a potential forestry eutrophication map, and a potential forestry sedimentation map, all of which will assist in the selection of suitable land. It is important for site selection to take account of all the available information on suitability so that the best result is achieved.

The Forest Service is implementing Sustainable Forest Management (SFM) with a view to ensuring sustainably managed forests. The Code of Best Forest Practice sets out best practice in all stages of the forest management cycle. The application of this code across the industry, together with the provision of a suitable level of grant aid, will ensure that the beneficial effects of afforestation are not offset by pollution.

Coastal zone

The coastal environment suffers from a lack of coherence between terrestrial and foreshore/marine planning; this has implications for both coastal communities and sectors of activity operating within the coastal environment (Cummins *et al.*, 2006). In addition, in recent years, some of Ireland's coastal urban centres have suffered severe impacts due to flooding.

Against a background of global warming and expected rise in sea level, it is important that an ICZM Strategy be adopted and implemented as soon as practicable so that the competing pressures on the coastal zone can be balanced in an environmentally sustainable way. In addition to considering the marine elements, this strategy must also address and integrate regional and local land planning and should contain measures to balance development pressure with flood risk. An integrated framework for planning and managing such change, bringing together all stakeholders, would facilitate efforts to balance interests and ensure positive interactions.

Conclusions

A well-maintained land resource is essential to a sustainable living environment. Recent developments have led to a renewed emphasis on the importance of breaking the link between economic growth and environmental degradation. Residential and other land use patterns are driven by spatial planning decisions, development pressure and consumer preferences, which often do not fully consider the resultant impact on soil, air and water, ambient noise and the fragmentation of habitats, nor the impact on landscape.

The response to this situation has included the release of strategy documents on sustainable urban and rural housing (incorporated into guidelines for planning authorities), and an urban design manual best practice guide. These are welcome developments, but there is a need to ensure that national development and spatial strategies fully integrate and give more weight to environmental issues. In particular there is a need to ensure that requirements of the Strategic Environmental Assessment Directive are met in relation to integration of environmental considerations across relevant sectoral plans and programmes at national, regional, and local level.

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171

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Landscape and Tourism

Shaun Quinn, Chief Executive, Fáilte Ireland

Introduction

The British writer Lawrence Durrell once said that ‘we are the children of our landscape, it dictates behaviour and even thought in the measure to which we are responsive to it’. Our landscapes and our people are so tightly intertwined that it is impossible to disentangle the character and meaning of landscape from the history and folklore of the people.

This is plain to see in how we express ourselves. The Yeats brothers drew on the primitive natural landscapes of the West for both poetry and paintings. The stony grey soil and drumlins of Monaghan pepper the poetry of Patrick Kavanagh. Connemara and the Achill Island were inspirations for the artist Paul Henry. Whether muse or subject, the Irish landscape has always played a significant role in how we describe ourselves as a people.

Our landscapes and our people are interlinked. These two assets are also the two most significant engines of Irish tourism. Tourism depends on the character and distinctiveness of the Irish landscape. Whether it is craggy coastal headlands or rolling fertile farmland, images of Ireland’s landscape have been used to attract visitors to Ireland for decades.

While tourism benefits from our natural landscapes, there is the possibility for reciprocation. Tourism as an activity can impact on landscape, both positively and negatively, but when it is well planned and managed, it can act as a catalyst for better landscape management. Fáilte Ireland is fully engaged in the debate about landscape change and landscape management and, as this discussion has intensified over the past ten years against the backdrop of rapid physical change in our landscape, we see it as part of our remit as a national tourism development authority to preserve and utilise our natural landscapes in a sustainable manner.

To fulfil this role, we are continually trying to better understand the way in which the tourism sector impacts on our landscape as well as the way in which landscape change can affect tourism.

The importance of landscape for tourism

Tourism is our largest indigenous employer and a significant contributor to the national economy as well as to many local economies throughout Ireland. In 2008, total foreign exchange earnings from tourism were 4.8

billion. Domestic tourism expenditure amounted to €1.5 billion, making tourism in total a €6.3 billion industry last year.

Just as tourism is important for the Irish economy, our people, and our landscapes are equally important to tourism. Indeed, they are the main reasons why our visitors choose Ireland as a holiday destination. Each year, our attitudes survey of overseas holidaymakers reveal that our top two tourism assets are our landscapes and our people.

Our 2008 Visitor Attitudes Survey found that from a wide range of factors that might influence the choice of a holiday destination, the most important in choosing Ireland are the friendliness of the people (81%), the scenery (79%), the natural, unspoilt environment (70%), and the range of natural attractions available (66%).

The beauty of its scenery and the hospitality of its people remain the most prominent positive discriminators for Ireland compared with other holiday destinations.

Moreover, for almost one in three of our overseas holidaymakers, an Irish holiday exceeded expectations while for another 60% it matched their expectations. For those holidaymakers for whom Ireland surpassed their expectations, 42% of them stated that it was because of the scenery, while another 42% stated it was due to the people.

Given its central role, landscape is very often the backdrop to many of our more 'tangible' tourism products such as walking, cycling, cruising, adventure sports, and angling. In 2007, we recorded 511,000 visitors who participated in hiking and hill walking, more than four out of five of which were holidaymakers¹. Also in 2007, 102,000 visitors participated in cycling, 79,000 of which were holidaymakers². For these walkers and cyclists, it is the quality of the landscape that makes these activities so attractive in Ireland.

'Nature-based tourism', 'wildlife tourism', and 'ecotourism' are all terms that we have become familiar with in recent years. This type of tourism, through which visitors can get close to nature and experience Ireland's rich biodiversity up close, while learning more about it, is moving steadily from a niche towards the mainstream. The successful development of nature-based tourism in Ireland is dependent on the maintenance of a high quality landscape and, in particular, the quality of the biodiversity which makes such an important contribution to the character of our landscape.

However, as a tourism asset, the Irish landscape has much more to say for itself than meets the eye. In both cultural and tourist amenity terms, its value extends beyond those visual attributes that constitute a good view and a backdrop for outdoor activities. Landscape also has both a tangible and intangible influence on Ireland's culture, be this music, literature or film. Much of Ireland's most well-known literature is inseparable from the rural and urban landscapes that influenced it.

In addition to the importance which should be attributed to the rural cultural landscape as 'open countryside', Fáilte Ireland also places a significant emphasis on the importance of designed landscapes and gardens as a tourism asset. Visits to gardens in 2007 totalled 768,000, of which four out of every five were holidaymakers.

Satisfaction ratings for our gardens are also high, with 72% of visitors stating they were 'very satisfied'. The importance of gardens as a tourism offering has been backed up financially by Fáilte Ireland under the past three National Development Plans since 1994, particularly through the Great Gardens of Ireland Restoration Programme.

The role of tourism in promoting good landscape management

The contribution of landscape to tourism is obvious but how can tourism contribute to the preservation of our natural landscapes?

We know that the character of our landscape has continually changed over millennia and will continue to change in the future. We don't know, however, how this change, in whatever form it takes, will affect the attractiveness of the landscape for our overseas visitors. Added to this uncertainty are the impacts on landscape from factors over which we have much less control, such as climate change.

While our planning system is meant to provide us with a degree of control over factors which we can influence, the truth is that we are currently managing landscape change in a piecemeal fashion, and our landscape is too important an economic asset to allow this to continue. The introduction of the European Landscape Convention almost ten years ago, was intended to enable us to deal with landscape change in a more conscious and planned fashion. The ratification by Ireland of the Convention in 2002 was a very positive step and we need now to build on this by ensuring that the provisions of the Convention are implemented in Ireland in full.

Fáilte Ireland has continually engaged with the debate about landscape change and use. The tourism authority's interest has ranged from the impact on landscape of certain tourism developments, to how the activity of tourism itself can promote more informed landscape management.

Over the past few years, Fáilte Ireland has been an active participant in Comhairle na Tuaithe which has sought to find a resolution to the issue of public access to land. One of the success stories to emerge from the process in recent years is the participation of 1,200 farmers in a walks scheme, through which they receive a payment to maintain walks, thus providing access for walkers to some of the most stunning landscapes Ireland has to offer. For its part, Fáilte Ireland has developed 130 looped walks as part of a Looped Walks Programme which is currently in its third year of operation. We hope to have a further 20 looped walks in place by the end of 2009, bringing the total to 150. In addition, and in association with the Department of Community, Rural and Gaeltacht Affairs, we plan to

have maintenance plans for each walk in place by 2010, which will ensure a funded maintenance programme together with a designated person responsible for each walk. The appointment of 12 Rural Recreation Officers by the Department of Community, Rural and Gaeltacht Affairs has also been a tremendous boost to the facilitation of managed access to our landscape. Tourism, therefore, has a strong role to play in promoting good landscape management through a realisation of the economic benefits that can result for local landowners and their communities. Ultimately, there is nothing more powerful than the appreciation of the landscape by 'outsiders' and visitors to heighten its value among local people.

Over the last 15 years, Fáilte Ireland (and formerly Bord Fáilte) has also published two significant reports dealing with tourism and landscape.

The first, which was published by Bord Fáilte in 1996, in partnership with An Taisce, is entitled *Tourism and the Landscape: Landscape Management by Consensus*. The second report, published by Fáilte Ireland in 2007 is a *Feasibility Study to Identify Scenic Landscapes in Ireland*.

Central to the more recent report are the results of a survey of the 29 County Development Plans to determine the range of methodologies used in identifying, designating, and mapping scenic landscapes in Ireland.

The report revealed a wide variety of approaches adopted by local authorities in seeking to protect the character of scenic landscapes through their Development Plans. These designated landscapes are very often, but not exclusively, the landscapes that are likely to hold greatest interest for our overseas visitors.

The assessment of County Development Plans undertaken by Fáilte Ireland found quite a wide variety of approaches to the scenic evaluation of landscape, particularly in relation to:

- The methodology used to identify important scenic areas
- The range of designation types and terminology used (e.g. high amenity landscapes; areas of outstanding natural beauty, areas of high visual amenity; scenic landscapes; etc.)
- The level of detail used to describe the designated areas
- The mapping techniques used to illustrate areas of scenic value

The research found that no two local authorities use the same methodology in identifying, designating, and mapping their scenic landscapes, scenic routes and their views and prospects. This appears absurd in a country as small as Ireland, which our overseas visitors view as a single destination. The diversity of approaches, products, and policies would, therefore, make it very difficult to produce a fully integrated national map of scenic areas, routes and views and prospects in Ireland.

If the recommendations of *Feasibility Study to Identify Scenic Landscapes in Ireland* - an agreed approach to the identification and mapping of scenic landscapes as part of the proposed National Landscape Strategy - could

be implemented by local authorities then it would be a step in the right direction.

In the meantime, maybe activity at community level can provide some support to our landscapes. The planning system will never, on its own, be an adequate mechanism to protect the quality, character, and distinctiveness of our landscapes. For this, we need the people who live on the land to realise its value for tourism.

This brings me back to the earlier of the two landscape reports, which was published in 1996 in association with An Taisce and entitled *Tourism and the Landscape: Landscape Management by Consensus*.

This publication reported on a demonstration project which aimed to provide a practical model of ways to protect inhabited scenic landscapes. The project revealed that the stability and appearance of the landscape were inextricably linked to the prosperity and activities of the community who live in these landscapes. From this analysis it was concluded that sustainable communities are a prerequisite to sustainable tourism in the landscape.

The project developed a landscape protection strategy which is dependent upon area-based landscape management involving the local community. The strategy is affected by a widespread dissemination of the mutual recognition of the special qualities of the landscape by both the community and outside agencies – in other words, local commitment with outside support.

This model, however, is very difficult to implement in practice, given the confines of our planning system and the resource constraints of local authorities. But sometimes it happens despite these constraints, because the community has identified a direct benefit for itself.

Sometimes there can be a realisation that through the development of sustainable tourism, the local community can actually 'eat the view' without spoiling it.

The most recent example of this was shown by the community of the Sheep's Head Peninsula who this year won the Irish 2009 European Destinations of Excellence Award (EDEN), which is a competition run by the EU concurrently in 22 European countries.

Sheep's Head case study

Fáilte Ireland hosts the EDEN competition in Ireland which is currently in its third year. The theme this year was 'Tourism and Protected Areas' and the objective was to highlight tourist destinations which are based upon a protected area and in which the local community has developed a vibrant tourism offering without compromising the quality, character and distinctiveness of the protected area.

There are a number of very good reasons why Sheep's Head won the Irish 2009 European Destinations of Excellence Award. The entire peninsula

has been designated a Special Area of Conservation under the EU Habitats Directive. One of the most innovative and distinctive initiatives on the peninsula was the development of the Sheep's Head Way, a walking route which leads the visitor around the entire peninsula.

This marked way, together with a number of Looped Walks which were recently developed with support from Fáilte Ireland, through the protected areas, takes full account of the sensitivities of this environment. The local group worked with the protected areas rather than around them, and it also worked with the authorities responsible for the protection of these areas. This approach had proven extremely successfully. The Sheep's Head Way is the main tourist attraction to the area, and the asset upon which many tourism businesses in the area depend.

The walking route constitutes a low impact sustainable tourism product for the area, respecting the sensitivities of the environment while creating income and employment for the local community.

The committee liaise with all other community groups and businesses in the area and has actively lobbied for recognition for land owners and farmers with regards to access issues. In doing this, they understand that achieving sustainable rural development is primarily about developing sustainable rural communities.

The objectives of the committee included the following:

- To preserve and restore traditional access to foreshore, mass, funeral, fisherman's paths, cliff, shoreline, and bog roads
- To make the landscape available to both locals and tourists
- To highlight and preserve historical and archaeological monuments
- To showcase the peninsula in a fashion which would increase visitor numbers and the local residents' appreciation of their environment

What the local community has achieved in Sheep's Head is the essence of ecotourism – defined as *'responsible travel to natural areas that conserves the environment and improves the well-being of local people'*³. Ecotourism places an emphasis on the presentation and interpretation of local landscapes by local people, a concept which will lend strength to an area-based landscape management approach which involves the local community.

The community on Sheep's Head has demonstrated that real success comes when the community itself has a passion and willingness to make something happen. They demonstrated that it is the community that will turn a nature conservation designation into real understanding and protection. It is also the local people and local businesses that will turn what could be just a scenic walk, which let's face it, you can get anywhere in the world, into an experience which also imparts the immediacy and richness of the heritage and culture of the local people, resulting in a memorable and high quality experience for visitors.

We cannot hope to protect our landscape – in whatever way we think it should be protected – without local community involvement. Likewise,

we cannot develop a successful tourism industry in Ireland without the co-operation of local communities and local businesses.

With all this talk of scenic and special landscapes, we should not lose sight of what we might consider to be our more 'ordinary' landscapes. The lasting impression among visitors of our island is based as much on these 'ordinary' landscapes as it is on those landscapes that cause a holidaymaker to pause and take a photograph. It is important, therefore, that we seek to improve the quality of all our landscapes and not just those that have been recognised for their special scenic qualities. This applies to the quality of design of development within landscapes; landscape design around developments; littering and dumping within urban, rural, and suburban landscapes; as well as physical access for the visitor to and through landscapes.

Further research on landscape

Despite its importance for tourism, we still have quite a lot more to learn about how our visitors wish to engage with the landscape. What we do know so far is that our visitors can engage with our landscape in two fundamental and complementary ways:

- A direct engagement with varying levels of immersion – ranging from sightseeing to bog snorkelling
- A mediated engagement where the landscape and its cultural associations are further brought alive through contact with people

This latter form of engagement reinforces the idea that our landscape is inseparable from the history and culture of the people who have shaped the Irish landscape over millennia. Our landscape has a great story to tell and our people are best placed to tell it.

In books such as *Stones of Aran* and *Connemara*, as well as his map of the Burren, Tim Robinson reawakens for the reader the cultural depths of these unique landscapes and demonstrates just how complex our relationship with our landscape has been and indeed remains. These landscapes are brought alive by recounting the legends of the distant past as well as the social history of the local people, recounted from our recorded history as well as folk memory, and associated with otherwise very ordinary landscape features.

Every inlet, rock outcrop, and turn in the coastline tells a story which collectively provides a fascinating microcosm of Irish culture in a very small patch of land. The question is, however, is it possible to engage the tourist with this level of detail of a single place when the inclination is to take a photo and get back on the bus?

This is ultimately a 'call to linger' and sets a challenge to the way in which we ferry our visitors around the country, in an attempt to provide them with a sense of the breath and depth of our cultural heritage: in other words, a true sense of place.

We need to know more

During the summer of 2009, Fáilte Ireland has been undertaking primary research in our main markets to try to better understand how our visitors wish to engage with our landscape. We know surprisingly little about what exactly it is that interests our overseas visitors in our landscape.

To explore this and other landscape issues, we have recently initiated a survey in several of our main tourist markets - Britain, North America, France, Germany, Netherlands, Denmark and at home here in Ireland - to help us better understand the role the landscape plays in attracting holidaymakers to Ireland and how they wish to interact with it.

Our research objectives include:

- The importance the landscape plays in a holidaymaker's choice to holiday in Ireland
- Specifically what elements of the landscape do visitors find motivating and why
- Whether holidaymakers actively or passively wish to enjoy the landscape / environment
- Other destinations holidaymakers may have visited where the landscape / environment was very important to their holiday and why
- Types of natural heritage / landscape in Ireland with which people are familiar, and with what do they immediately identify
- Means by which holidaymakers want to enjoy the landscape
- Whether holidaymakers are willing to pay to access natural attractions

Conclusion

Tourism is the largest indigenous sector of the Irish economy and Ireland's scenic landscapes represent one of this sector's most valuable assets. The sustainability of the Irish tourism industry in the future will be partly determined by how well landscape change is managed over the coming decades and the extent to which the quality, character, distinctiveness, and authenticity of the Irish landscape can be maintained.

Tourism provides an opportunity to build a better understanding of landscape management among all stakeholders – to realise that we can protect the character and ecological integrity of landscapes at the same time as encouraging greater levels of recreational use. The tourism sector has not always achieved this elusive balance in the past, but we have to learn from the mistakes that have been made and develop better ways of planning for and developing tourism, in a way that is more sensitive to our landscape.

In 2008, Fáilte Ireland was invited by the Department of the Environment, Heritage and Local Government to participate in the Advisory Group for the National Landscape Strategy. Following an initial meeting last year, we look forward to further participation in this group and hope that our perspective on landscape, which is focussed through the lens of what our visitor wants,

will contribute to the formulation of a robust and comprehensive landscape strategy for Ireland. I also hope that this strategy will, in turn, provide a stable basis for the protection of the quality, character, and distinctiveness of our landscape, which is the bedrock upon which our tourism industry is built, allowing it to develop further in a sustainable manner.

* * *

The author

Shaun Quinn from Lifford in Co. Donegal was appointed Chief Executive of Fáilte Ireland in 2003. In this role he is primarily responsible for guiding and supporting the strategic development and promotion of tourism in Ireland, now one of the key indigenous sectors of the Irish economy. Since his appointment he has successfully directed a fundamental overhaul of regional tourism strategy and structures, put in place a medium-term investment strategy for tourism and has repositioned Fáilte Ireland as a credible and authoritative advocate for the sensitive development of Ireland's natural and built heritage. Mr Quinn is currently leading a major change management initiative within Fáilte Ireland to ensure the organisation is well placed to address the significant challenges of the current economic climate. He was previously Chief Executive of CERT, the State Tourism Training Agency (appointed October 1998). Prior to joining CERT, he held the positions of Strategic Planning Director and later Head of Marketing at Bord Bia, the Irish Food Board, where he had responsibilities in both consumer and trade marketing. A first honours graduate of University College Dublin, Mr Quinn subsequently obtained an MBA from the Michael Smurfit Graduate School of Business. He lives in North County Dublin with his wife, Mary Norris, and his two children, Jack and Suzannah.

¹ Fáilte Ireland (2007), *Tourism Factsheet 2007: Hiking and Hill Walking*.

² Fáilte Ireland (2007), *Tourism Factsheet 2007: Cycling*.

³ The International Ecotourism Society, 1990, www.ecotourism.org.

Recreation and the Landscape: Providing Trails – A Consideration of the Challenges Presented in Delivering Trail Networks for Recreation

Dr Caro-lynn Ferris, Director, Countryside Activities Network

Summary

This paper considers how recreational trails can ‘add value’ to landscapes and the importance of good planning and design in this process. It draws on examples of trails developed by the Countryside Access and Activities Network for Northern Ireland (CAAN) during the past five years for off-road cycling, off-road horse riding, and canoeing. The paper also considers, through case studies, the challenges facing the site managers of two of Northern Ireland’s most heavily used recreational landscapes, namely the Mourne Mountains and the Giant’s Causeway, in balancing the desires of the present day outdoor enthusiast with the need to preserve and conserve the unique landscape that has attracted them to the area in the first place.

1. Introduction

Results of a recent study undertaken by CAAN for SportNI and the Northern Ireland Tourist Board (NITB), has shown that during the past decade there has been a significant increase in the number of people participating in outdoor recreational activities in Northern Ireland. This is particularly true for the sports of mountain biking, canoeing, fell running, adventure racing, and surfing. Although the research did not consider the trends in walking over the same period, anecdotal evidence suggests that it too has experienced a significant increase in the numbers participating and in particular large increase in walking clubs, ‘festivals’ and charity events is evident.

The research also showed that the number of venues used by almost every activity has increased and that the number and frequency of events is on the rise for several activities particularly adventure racing, fell running, and walking. It is against this background of needing to provide for this increase in participation, that CAAN has worked to develop new facilities for many of these activities in a sustainable way, recognising the importance of preserving and conserving the very landscape on which many of these activities take place.

2. Developing trail networks

To date CAAN's product development work has led to over 500kms of new walking trails, 350kms of canoe trails, 20kms of off-road horse riding trails, and 30kms of off-road family cycling trails, and it continues to work in partnership with numerous organisations to develop mountain biking trails, coastal canoe trails and multi-use trails in a number of locations across Northern Ireland.

CAAN places great emphasis on developing quality trails that 'add value' to the landscape in which they sit. Much of its thinking has been shaped by the work of one of the world's most respected trail designers, Dafydd Davies MBE, TrailsWales. Dafydd has worked with CAAN on a number of projects in the past and is currently involved in designing a number of its new mountain biking and multi-use trail networks.

3. Why sustainable trails are important?

Developing sustainable trails are important for a number of reasons:

3.1 They add value by connecting people to the landscape.

CAAN recently completed the development of five inland canoe trails across Northern Ireland. The first canoe trails in Europe, their success to date had been remarkable. The trails allow people through exploration, to connect with over 335kms of rivers, inshore loughs and a sea lough. They also provide an excellent vehicle for those paddling to sample the waterways' rich heritage, including locks on the Lower Bann, Castles on Lough Erne, wildlife on Strangford Lough. The trails cater for all levels of ability and consequently encourage people who would have never considered using the waterways to get out and have fun. CAAN has also restored in partnership with the National Trust an old cottage on Salt Island on Strangford Lough – again encouraging people to experience and enjoy a different landscape – one dominated by submerged drumlins.

3.2 They add value by bringing people to the parts of the landscape that they would otherwise never experience.

In partnership with the British Horse Society, CAAN developed Northern Ireland's first purpose built off-road horse riding trail in a private estate in Greyabbey, Co. Down. The 10km trail weaves its way in and out of an ancient woodland, alongside actively farmed land and offers riders the opportunity to experience new landscapes.

This is also true of mountain biking trails, for example in Ballyhoura and Ballinastoe Forests, where the trails draw people from all over the country into a new place, allowing them to experience new landscapes that they would never otherwise have discovered. Parts of the trails in these forests take the rider into wooded areas covered in moss and lichens

up to the skyline where the rider is rewarded with panoramic views over the surrounding landscape

3.3 They add value to the landscape in terms of creating assets.

Trails can create assets in two ways; by providing local facilities for local people using local landscapes and secondly by making best use of an area's landscapes characteristics to develop facilities that can contribute significantly to an area's economy. In 2006, CAAN developed in partnership with Craigavon Borough Council a 10.6km off-road family cycle trail centred on an urban park landscape close to a number of large housing estates. The trail which is used extensively by local people of all ages fits naturally into its surroundings and has been planned and designed in such a way that despite its location in the heart of Craigavon, no hard engineering solutions were used. Without doubt, the development of purpose-built mountain biking trails mostly on forest land had contributed significantly to Scotland and Wales's activity tourism business during the past 10 years. Research undertaken by Visit Scotland in 2008 reported that the 7 Stanes mountain biking project generated £9 million annual visitor income and that there was a 60% increase in visitors from outside Scotland. Anecdotal evidence would suggest that there has also been increased participation in off-road cycling by local people at virtually all of the key sites too

4. Achieving sustainable trails.

In order to achieve sustainable trails and ensure they 'add value' rather than 'devalue' our landscape, a clear process should be followed according to Davies. Firstly, a clear frame of reference should be developed which considers the scope and scale of the project, objectives, users, trail types and systems, standards, delivery, management and budget. This should be followed by a site assessment and consultation leading to the development of a concept plan, and following further consultation the preparation of a prescriptive plan.

Going through this robust planning and design exercise helps prevent site developers creating paths that 'devalue' the landscape. Very often trails that devalue the landscape have been designed by those who have no understanding about the need for trails to 'fit in' with the surrounding landscape. Hard engineering solutions look out of place in the landscape and whilst acknowledging they are valuable in connecting people to the landscape and allowing people to enjoy it – they also have a negative physical and visual impact in the landscape and therefore can contribute to devaluing a person's personal experience of the landscape.

5. Mourne Mountains – footpath erosion

Not all trails that can 'devalue' a landscape are purpose built and this presents different challenges for those who have to manage these

landscapes. Over the past decade many upland areas within Ireland have experienced a significant increase in the extent to which they are utilised for recreation. As a result of this recreational pressure many of Ireland's uplands are experiencing accelerated erosion.

In 1986, the Mourne Mountains, situated in the south east of Northern Ireland was re-designated as an Area of Outstanding Natural Beauty because of its special 'landscape qualities and features'. It is therefore not surprising, that the area attracts a wide range of recreational users particularly walkers, fell runners and more recently mountain bikers. In particular, the 'High Mournes' in the east of the range receive the greatest recreational pressure as the area is served by a limited number of access points through which recreational users are directed into narrowly defined areas or channelled along named paths, such as Brandy Pad or the Glen River path which leads walkers up to the summit of Slieve Donard, Northern Ireland's highest mountain.

Increased recreational pressure in the Mournes, particularly during the past ten years, has led to a significant increase in footpath erosion. Recreational activities are themselves rarely agents of erosion, but they do provide circumstances in which erosion processes can operate more effectively. Footpath erosion is particularly acute in the High Mournes because of their distinctive landscape characteristics. Steep, glaciated granitic terrain with easily eroded soils and sensitive vegetation combine to produce a very fragile environment naturally prone to high rates of erosion and vulnerable to additional forces such as an increase in human impact through walking, fell running, or mountain biking. Soil erodibility results from interactions between a wet climate and hard acidic granitic parent rock. The granite typically weathers to a sandy cohesion-less regolith (grus) from which high rainfall rapidly leaches what nutrients there are, making soils progressively more acidic and less fertile. Loss of nutrients also reduces the vigour of plant growth and this, accompanied by a short growing season, limits vegetation regeneration following damage by trampling. Increased recreational pressure in the Mournes results in three components of path damage: ecological damage to vegetation, soils and landforms; physical damage to the path surfaces and surrounding vegetation; and perceptual damage to landscape and wild land quality by the visual impact and presence of paths.

So the challenge faced by those with management responsibilities for the Mournes is how on the one hand to encourage the population to use and enjoy the Mourne landscape for recreation whilst at the same time recognising that increased use exacerbates erosion and can contribute towards devaluing the landscape they have come to enjoy. There are solutions – management of upland footpaths has predominantly been through capital work, substantial repair, and reconstruction and to a lesser degree through visitor management strategies. Unfortunately many of the

management programmes implemented to date have taken place after extensive irreversible damage has occurred and this makes erosion work extremely expensive. In addition, some of the techniques used, if not done properly, can contribute further to a devaluing of the landscape.

In the Mournes, some excellent footpath management work was done by the National Trust in the past that has 'added value' to the landscape. This is particularly evident in the work carried out on the Glen River path. A slope once eroded to a width of 20 metres, and visible from several miles away was sympathetically stone pitched and the surrounding area landscaped so that the path blended, into the surrounding landscape. Other areas in the Mournes perhaps less favourably addressed include the col between Slieve Beg and Slieve Corragh

6. Giant's Causeway – slope instability

Finally, sometimes no matter how much man desires to visit a landscape for recreation, this is not always possible. The Giant's Causeway, located on the north coast is Northern Ireland's premier tourist location and attracts at present over 600,000 visitors a year from over 50 different countries. It is Northern Ireland's only World Heritage Site and sits within the Causeway Coast AONB, a designation that formally recognises the coast and adjacent farmland as a landscape of national importance.

The site is owned and managed by the National Trust, and the area is renowned for its geology, geomorphology, and coastal habitats. Public access to the Giant's Causeway is limited to a footpath system, the Causeway Coast Way, which provides easy access to the bays and headlands of the coast and also affords walkers the opportunity to see this spectacular landscape from an upper cliff path. The path network is extremely important to the continued popularity of the north coast, but unfortunately the path network experiences problems of path erosion and slope instability resulting not only from natural causes but exacerbated by increased visitor pressure. During the winter of 1993 and spring 1994 an above average number of slope failures occurred along the lower path of the footpath network and concern was expressed by the National Trust as to whether or not the safety of walkers could be guaranteed

Research undertaken by QUB involving geomorphological and hazard mapping along the lower path showed that for much of the lower path it was subject to active slope failure with regular bombardment by block fall, blockages by landslide debris and occasional complete collapse. In places it was evident that this had produced near vertical cliffs in which the path was maintained by excavation into the inter-basaltic bed. In summary, much of the path was classed as 'very' or 'extremely' hazardous.

It was agreed that to keep the path open would require major engineering works if safety hazard was to be reduced to an acceptable level. Techniques

usually adopted to prevent rock fall and erosion include rock bolting, which pins loose rock to the cliff face, or the use of sprayed concrete which glues material to the face. All of these stabilisation methods as well as being very expensive are visually extremely intrusive and in the context of a heritage landscape, none of the measures is compatible with management to preserve a rich variety of habitats. Taking into account these issues, the National Trust took the difficult decision to permanently close the path from Roveran Valley Head to Hamilton's Seat.

15 years later, and with 15 years more research by QUB into slope activity along the Causeway Coast, it appears that the right decision was made. In many sections along the coast there is little if any evidence at all that a path ever existed – a case of a landscape being allowed to return to nature without any human intervention. The new challenge for the Trust is how to increase the quality of the remaining path network around the Causeway so that it still meets the needs and expectations of the visitor.

7. Conclusion

In conclusion, Ireland provides a wonderful landscape resource for participating in recreational activities. Trails or footpath networks provide the opportunity to allow us to enjoy our landscapes whether coastal, mountain, farmed or inland waterways landscapes. However, the very landscapes that people want to enjoy can also become destroyed by man's intervention either through poorly constructed paths or over-use, as evident in the Mourne case study. But this is not necessary, as well designed and planned trails can add value to the landscapes and allow people to experience through recreation, landscapes that they would otherwise never connect with. Finally there is the Giant's Causeway. Despite being one of Northern Ireland's most important sites for recreation it illustrates that the power of a naturally dynamic landscape will always outdo man's intervention, no matter how good the trail planning and design process.

* * *

The author

Dr Caro-lyne Ferris studied Geography and Sports Science at Chester College, Liverpool University graduating in 1990. She then trained to be a PE and Geography teacher at Exeter University, before returning to Northern Ireland to undertake a PhD in the School of Geosciences, Queen's University, Belfast, on 'the management of recreation induced erosion in granite uplands in the UK'. Following completion of her PhD, Caro-lyne worked for a short period on a consultancy basis for Northern Ireland Environment Agency (formerly Environment and Heritage Service), the Northern Ireland Tourist Board and Sport Northern Ireland on a variety of access and outdoor recreation related projects including a Footpath and Visitor Management Strategy for the Giant's

Causeway and the preparation of Northern Ireland's first Countryside Recreation Strategy. In 1997 she took up the position of area based strategy manager for Mourne Heritage Trust and was responsible for delivering the Department of Agriculture and Rural Development's area based rural development programme for the Mourne AONB. In 1999 Caro-lynn took up the position as the executive director of the Northern Ireland Countryside Access and Activities Network which is responsible for the strategic development, management, and promotion of outdoor recreation across Northern Ireland. In 2001, Caro-lynn returned to study on a part-time basis at the University of Ulster where she completed her MBA with specialism in Public Management. Caro-lynn has been a member of the Irish Heritage Council's Board since 2005. Away from work Caro-lynn spends most of her time in the outdoors mountain biking, fell running, and hill walking. She is also a keen skier and dabbles in climbing and surfing.

Local Authorities and Landscape

Pat Gallagher, County Manager, Offaly County Council

Introduction – welcome to County Offaly

This paper seeks to explain the role of local authorities in relation to the landscape, discuss where we as a country are in terms of landscape policy and practice, and make some observations as to where we go from here. In doing so, I will touch on the issue of stakeholders in the landscape and explain the approach to landscape identification and protection taken in County Offaly.

We are glad to have this conference in Tullamore, particularly given that the town also hosted the first landscape conference in 1999. The significance of the first conference's location in Offaly was, I'm told, that the Heritage Council wanted to emphasise that all landscapes have intrinsic value, not just 'special' landscapes which attract significant designations.

I wish to sincerely thank Andrew Murray, Senior Planner and Amanda Pedlow, Heritage Officer, Offaly County Council, for their advice and assistance in preparing this presentation.

How we in Offaly view our county's landscape

We consider that County Offaly's landscape overall is in quite good shape – Offaly has not, for the most part, experienced large scale detrimental development and still has a good canvas to work from. This is not to say that our subtle landscape is totally free from degradation and indeed the threat of degradation in the future.

While Offaly does not have the expansive and dramatic areas of outstanding natural beauty which make the Irish Landscape coffee table books, if you take the time to explore the county it has much to offer.

A good example of this is the Charleville Demesne, just at the edge of Tullamore Town – one of the top five landscape demesnes in the country. The Charleville Forest Demesne Conservation Plan 2003 states: *'Unlike some other demesnes that are situated in areas of outstanding natural beauty, such as Powerscourt, Bantry, Downhill or Castleward, Charleville was created on a relatively flat and featureless bog, which makes the designed landscape all the more impressive'*. When you compare Charleville with the likes of Powerscourt Demesne in County Wicklow, it can be seen that Powerscourt has dramatic topography and features to start with. Charleville did not. However, what was created remains as a fantastic amenity and landscape.

Neither are the Slieve Blooms the most dramatic uplands in the country, but they are an integral part of what Offaly is – it is our mountain range

which we share with County Laois. While the range is far less 'spectacular' than say the Kerry or Connemara mountains, in relative terms the Slieve Blooms contribute significantly to Offaly's landscape.

Another impressive feature, this time in the east of Offaly, Croghan Hill, is the remains of an extinct volcano situated on an otherwise relatively flat landscape. Impressive in its own right as a feature, Croghan Hill is our Croagh Patrick on St. Patrick's Day as people climb the hill in numbers and burn the furze. This is an old tradition probably going back to Pagan times.

Offaly has extensive boglands – people have differing perspectives, some see boglands as peaceful wilderness, particularly when production stops and regeneration starts, some see havens for biodiversity, and some just see vast wasteland. Even within this land use in Offaly (approx. 80,000 acres in Bord na Mona's ownership plus some in other ownership), there are vast variations in the amenity they can offer. One prime example of the after use of peatlands for amenity, environmental and cultural purposes is Lough Boora Parklands in West Offaly. This is an acclaimed and very popular development, and one with which Offaly County Council is delighted to be associated, along with Bord na Mona and the local community. In recent years, the unique 'Sculpture in the Parklands' project has been developed as part of the overall project with the support of the Council.

Offaly does have a dramatic world class landscape too – the Monastic site at Clonmacnoise. This site is currently the subject of an application by the Department of the Environment, Heritage and Local Government to UNESCO as a World Heritage Site, based on 'a cultural landscape', in particular emphasising the interaction between settlement and the physical and natural landscapes.

2. Policy/legislative context & role of the local authority

(a) Statutory. Ireland ratified the European Landscape Convention in 2002 – this requires states to implement a range of actions in relation to the landscape. States are required to recognise landscapes in law and establish policies aimed at their protection, management and planning. An integrated approach to landscapes is required, not just looking at 'special' landscapes. Landscape is to be 'democratised' in that the entire population has the right to benefit from good quality landscapes and to influence future landscape change.

In terms of local authority powers in relation to the landscape, Section 10 of the 2000 Planning and Development Act, 2000 prescribes that a mandatory objective in a County Development Plan is for 'the preservation of the character of the landscape... including the preservation of views and prospects and the amenities of places and features of natural beauty or interest'. Schedule 1 of the Act allows a discretionary objective within

Development Plans for 'Preserving the character of the landscape, including views and prospects'.

The Heritage Act 1995 states that landscape includes 'areas, sites, vistas, and features of significant scenic, archaeological, geological, historical, or other scientific interest'.

At a high level of landscape protection, the 2000 Act provides for designation of areas by way of a Special Amenity Area Order – for example Howth Head. The order can include objectives for the preservation and enhancement of the character of the area or for the prevention or limitation of development.

Section 204 of the 2000 Act provides for the designation of Landscape Conservation Areas which can in the first instance de-exempt development which otherwise would not require planning permission but whose prime aim is to preserve special landscapes. Ministerial regulations are required to bring such de-exemptions into place and there are no Landscape Conservation Areas in place as yet.

The Department of the Environment, Heritage and Local Government Landscape and Landscape Assessment Guidelines which have been in draft form since 2000 suggest that County Development Plans should contain a landscape characterisation, the degree of sensitivity associated with each character area and should state the authority's policy and objectives for that area. They advocate the eventual preparation of a national landscape character map by aggregating individual county maps. As of now, Ireland has no 'top down' national landscape characterisation.

At the level of on the ground decision making, local authorities in Ireland make decisions on approximately 75,000 planning applications per annum ranging from a small extensions to huge housing, commercial, energy or waste developments and a plethora of other projects. Inherent in the assessment of most of these applications is landscape considerations, whether it is explicitly stated in the assessment or not. Decisions on the appropriateness of location, siting, or design cannot be made in isolation of landscape considerations. The draft Landscape Guidelines contain a short section on Development Control (now Development Management) and this section is best summed up by its introductory statement: 'In those decisions where landscape considerations are relevant and this will be in the majority of cases, regard should be had to the policy and objectives of the County Development Plan for the particular landscape character, values and sensitivity in question'.

While it cannot be overlooked that parts of Ireland's landscape resource has been badly damaged by development, particularly in recent years, for the fact that much of it is still in good shape, credit must be given to the local authorities who have, often in difficult circumstances, taken a stance to prohibit inappropriate development. However the local authorities are doing so without the assistance and guidance of a detailed National

Landscape strategy. It is inevitable that some inconsistent outcomes will continue to emerge in the future. A further issue which arises is that certain land uses which have the potential to affect the landscape do not come within the remit of the local authority's functions for example forestry and development on the foreshore.

The Heritage Council's Study of local authority prepared Landscape Character Assessments (2006) found that the process in Ireland 'has got off to a bad start' and cited inconsistency, lack of stakeholder input and lack of distinction between characterisation and judgements to be some of the principal flaws. These Landscape Character Assessments would have been prepared having regard to the (albeit draft) landscape guidelines.

(b) Non-statutory. Local Authority Heritage Plans, while not statutory documents, are potential instruments for identifying landscape assets and prompting both policy and action and I would acknowledge the potential role of heritage officers and heritage fora in each county as platforms for landscape policy development at a local level. It would be remiss of me not to also mention the role of the Heritage Council at this point – the Council has been undertaking considerable work and promotion of the importance of managing our landscape and of course, this conference is an important aspect of that ongoing work.

3: Stakeholders – who should make judgments about the quality of the landscape and how?

I would like to touch on the issue of ownership of the landscape and in particular ownership of landscape protection policies.

Although not a landscape study, I can give an example of Village Design Statements – two have been done in County Offaly – Kilcormac and Pullough. There were considerable differences in approach. Kilcormac was done by consultants with a good outcome at a policy / recommendation level, but little local ownership despite there being two public meetings. Pullough, on the other hand was a long process with the community drawing up the document themselves, working with the facilitator and landscape consultant. This resulted in full ownership but a reluctance to make decisions that might offend members of the community.

The challenge therefore for projects such as landscape studies is to secure an outcome, (for example effective policies / actions) and to secure ownership. This is made all the more difficult of course because opinions on landscape and what it should accommodate can be very subjective.

This similarly has ramifications for landscape characterisation – do we (local government working through the public and locally elected public representatives) have the capacity to make decisions regarding our landscape at local level? Or should this be the role for national policy makers, because it is very challenging to ask local councillors to sign off on potentially stiff protection measures? On the other hand, such decisions made at national

/ EU level without local participation – and I would give the examples of NHAs, SACs, SPAs - are problematic in many respects.

The 'top-down' approach to landscape

One argument is that landscape characterisation is more effectively done by 'outside' persons who are not part of the landscape in question and therefore can be impartial – this suits a 'top down' approach. However it must not be forgotten that actions resulting from the characterisation require judgement, i.e., whether to restrict development etc. Otherwise a landscape characterisation would be meaningless in terms of its impact on development outcomes.

Of course, the issue of judgement and the associated implications of this judgement are difficult; take for example a large employment and economic benefit-generating development in a scenic area. To people not involved or potentially involved in such a project or in its spin-offs, this could be seen as a blight on a beautiful pristine environment. However, those involved in or supportive of the project would argue that the same landscape is 'living', and the visual / landscape impact of the project must be weighed against the social and economic benefits of having the project in an area perhaps facing economic challenges.

The conclusion to the 'top-down' argument would be that in order to be impartial, landscape characterisation would have to be from the 'top down'.

The 'bottom-up' approach.

The converse argument is that those persons who are part of a landscape area should have the right to decide on how valuable it is and what should be allowed within it.

One part of this argument would always state that people have worked on, lived on and created enterprise on the land for millennia, that the landscape is continually evolving and that those who are part of the landscape are guardians of it and will protect it. This would have held quite well up to the previous century, however much of recent development proposals (especially outside of urban areas) is disconnected from the land in terms of a need to locate in the particular area and often disconnected in terms of scale for its location.

In reality, due to our very democratic planning system, arguments against landscape protection can win out, as the perceived 'right' to use land for whatever purpose we wish is ingrained in our society. This is not without good reason as Article 43.1 of our Constitution enshrines property rights to individuals. (Of course, Article 43.2.2 allows the state to delimit these rights in the 'common good' and this is the basis for the Planning Acts). Individual or cumulative interests and the consequent pressures put on the development plan makers (elected members) very often make landscape

'protection' a perceived negative consequence of a plan. As an example of the above in practice, during the preparation of the Offaly County Development Plan 2009-2015, the planning staff carried out a detailed examination of all of the Areas of High Amenity in Offaly at the request of the elected members. The members were fully aware as plan makers that the designations restrict development somewhat. When it came to suggesting quite minor amendments, there was a fairly staunch reluctance on the part of the elected members to extend these areas at all.

As a further example of the potential disconnectedness of the bottom-up opinion approach, a person building a house in an area under development pressure in a scenic landscape may not see their house as a blight on the landscape. However, the same person may well see a proliferation of houses, (theirs being one) as a blight on the landscape and may eventually blame planners and policy makers for the landscape destruction.

Another point to note is that, when adjoining local authorities are undertaking landscape characterisation and policy decisions, the 'value' apportioned to a landscape straddling administrative boundaries may be considerably different on either side of the boundary thus making integrated bottom-up policy making difficult.

Therefore landscape is bigger than a collection of parcels of land. It would appear that at an overall level, there is very good acceptance by the public of the quality of our landscape but not acceptance of decisions regarding how to protect it, particularly when obstacles to development are seen as resulting from these decisions. It seems that the collective position is to value our landscapes, whereas decisions to protect our landscapes are contingent on the sum of many interests, many of them competing with the others. The Government has committed to a National Landscape Strategy (NLS) in the programme for government and the above dichotomy will present one of its biggest challenges.

4. Examples of approaches to the landscape in Offaly.

The previous and current County Development Plans for Offaly were drawn up in the absence of national landscape character assessment (LCA). In fact, the draft landscape guidelines envisage the piecing together of individual LCAs to achieve a National LCA. During the most recent County Development Plan review, we gave a considerable amount of thought about how to approach this issue. What we noticed was the differences in approaches taken by other counties - all working from draft landscape guidelines - and also the relative dissatisfaction with most of these assessments as set out in the Heritage Council's 2006 review.

Offaly has taken the approach of looking at landscape character types, rather than a full blown LCA. These landscape types are identified in the County Development Plan as bogs, uplands, river callows etc. They are not systematically classified into landscape areas, but the more prominent

examples of each are listed, for example the Boora Bog complex, Clara Bog, the Slieve Bloom Mountains, and the River Shannon and its callows. Policies then relate to these landscape types, which, coupled with the identification of the various features or areas in the plan, affords protection to them. In addition and at a more specific level of designation, the plan designates 'Areas of High Amenity' which are aimed at delineating and therefore protecting identifiable amenities, i.e., the Slieve Blooms, Boora Bog, Croghan Hill, Pallas Lake, etc. As you can see, therefore, the continuity between the landscape type classification and the Area of High Amenity designation is largely based on what we in Offaly value as our special landscapes which require their own policy and protection.

The approach outlined above was carried out in the knowledge that a similar outcome did not receive favourable comment in the Heritage Council's 2006 review of Landscape Character Assessments. However we see it as a pragmatic approach in the absence of a national solution. The Council made the decision not to invest considerable time and resources in a comprehensive landscape character assessment and consequent policy revision at this time – especially given that County Offaly shares boundaries with seven other counties – until we know exactly what will work. We do acknowledge that the approach may not weather well in the long term and we envisage carrying out a more systematic analysis when there is more agreement and best practice available. Once done, a comprehensive study could remain in force for years. We really need a national system that will work locally and that we can all sign up to.

Landscape is made up of many constituent parts and in recognition of this and in recognition of the County's rich heritage, Offaly County Council has been progressing with a thematic approach to this heritage. The following studies / initiatives have or are being carried out and will provide information on key aspects of our landscape which will help to inform decision making and works programmes and may ultimately inform a full landscape LCA for Offaly when the conditions are right to do so.

County Development Plan

- Areas of High Amenity and policy as detailed above
- Landscape sensitivity maps and policy as detailed above

Specific Projects / Policy formulation

- Clonmacnoise – World Heritage Site bid to UNESCO – the Council is assisting the Department of the Environment, Heritage and Local Government
- Council involvement in Durrow and Rahan monastic site management plans – landscape is an important issue
- Slieve Bloom joint policy with Laois County Council – landscape is the primary issue

Offaly Heritage Plan

- Study of over 400 bridges carried out
- Study of 170 mills carried out
- Publication of a book on thatch in Offaly which chronicles approximately 75 examples within the county
- Study of hedgerows and esker systems
- Study of 23 monastic sites with guidelines and conservation works in train – landscape considerations are important
- Current joint study of 200 castles with the Department of the Environment, Heritage and Local Government, due for publication in 2010
- In addition, there are 4000 archaeological sites within the county on the Record of Monuments and Places and over 1100 structures on County's Record of Protected Structures. Boora Sculpture Park is internationally acclaimed

5. Summary - current issues & challenges

At a national level, we need 'ownership' of landscape policy, however this is very difficult when the public takes its individual interests into account and transmits them to the persons who are charged with adopting plans, for example County Development Plans, i.e. elected members. It is relatively easy to get local acceptance of the quality of landscape but difficult to develop locally generated protective policies.

There is currently much confusion between landscape 'value' and its consequent 'sensitivity to change' and this needs a lot of work across the national context also.

Landscape is actually a finite 'resource' – people should be entitled to use it and make gains from it, however excessive or inappropriate development within a landscape may cause landscape erosion and may impact on tourism revenue. It is a common resource and therefore decisions must be made in the 'common good'. These two words are the cornerstone of the Planning Acts in Ireland.

A question that should at least form part of a national debate is whether there should be strong protection for a number of key examples of each landscape 'type' rather than trying to protect many pockets of landscape over many counties?

Towards a solution

A solely top down approach would be a National Landscape Characterisation with direction on how to classify landscapes into landscape character areas and direction on how to deal with development proposals within the landscape types. Of course the big issue would be the level of buy in from local authorities. The danger is that demand for protection, if not generated locally, will have less local acceptance.

Alternatively a solely bottom up approach would be the aggregation of individual Local Authority Landscape Character Assessments. In practice and under current legislation / guidance it would appear that this cannot work, in that the Heritage Council's review in 2006, saw no potential for a national framework emanating from the individual 19 county studies carried out at that time.

The middle ground appears to be a top down National Landscape Characterisation which would provide the framework for bottom up Landscape Character Assessments.

So what do we want?

We are hoping for outputs from the National Landscape Strategy, specifically a policy and protection framework together with finalised landscape guidelines which will be workable. This package must be something which all local authorities will buy into.

It is necessary that such a protection framework would provide a universal method of assessing 'what' landscapes are present within individual local authority areas. The resulting work by the local authorities would then be essentially an exercise of characterisation and therefore value free. The national framework would also need to give a national picture of 'how valuable' the different landscape types are and this will be value laden and therefore more difficult politically. The final step is to make judgements about sensitivity and capacity and consistent application at local authority level will be dependent on clear and strong national landscape guidance.

The benefits for planners and decision makers over and above the system we have now would be many, for example:

- Firstly, if local landscape policies and frameworks were developed in light of a national framework – there would surely be more local acceptance of protection policies – a perception of fairness all round
- Universality of application of nationally agreed and locally relevant landscape tools would give rise to clarity and transparency in relation to what are often very difficult development management decisions
- At a national level, there could be a clear (and hopefully evidence based) indication that adverse decisions in relation to the landscape, in particular cumulative impacts, have the potential to negatively impact on the quality of life on this island. Within this informed national realisation it would be easier to make decisions which collectively accept the value of our landscapes
 - There could be a clearly set out link between the value of all the landscape types in the country, not the 'special' ones, and Ireland's attraction as a tourist destination

We are aware that this is quite a challenge because the country has many different landscapes, some are an invaluable resource in terms of tourist draw, and some are far more subtle and more robust to change. However,

if it was said that nationally the Slieve Blooms would not be a top priority landscape, those of us in Offaly would have a problem – they are important to us. Therein lie the underlying difficulties, those of relativity and value judgment. So there is considerable work needed to draw up such a national framework and guidance.

* * *

The author

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Road Infrastructure and the Landscape

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Introduction

The modern landscapes of the world have been shaped by thousands of years of human activity as evidenced by the presence of various landscape types and their associated ecosystems, land-uses and built cultural heritage. With the exception of the existing upland grassland habitats, the current dominance of grassland in the Irish landscape is the result of the anthropogenic activities, mainly agriculture, that altered the predominantly wooded landscape that existed in Ireland some 5000 years ago (e.g. Hall and Pilcher, 1995; Aalen et al., 1997; Mitchell and Ryan, 1998; Feehan, 2003).

Up until the mid-1950s, the extent of undeveloped land and the basic agricultural land-use practices promoted species-rich semi-natural grasslands. However, over the past century, there has been a dramatic change in land-use in terms of commercial forestry, arterial drainage schemes, golf courses and general urbanisation (among others) and more significantly a change in land-use practices on agricultural lands which has been identified in the literature as the most significant factor in the decline of Ireland's semi-natural grasslands. The latter came about as a result of inventions in the mechanisation of agriculture in the 1950s and financial incentives that accompanied Ireland's entry into the European Union (EU) in 1973 (Feehan, 2003).

In the early 1970s, agricultural policy was focused on increasing productivity to improve yields of fodder which resulted in a higher input of natural resources including ploughing and reseedling with 'improved' grassland species mixes consisting of non-native species or foreign provenance grass seed mixes. There was also an increase in nutrient inputs in the form of artificial fertilisers and associated herbicide use. Such practices resulted in the impoverishment of the transient or short-lived seed banks of grassland species that are poorly adapted to the frequent disturbance associated with intensive cropping, ploughing, and reseedling (Bakker et al., 1996, 1997). According to the literature such species are known to decline rapidly after the removal of the surface vegetation (McDonald, 1993; Milberg and Hansson, 1994; Smith et al., 2002) and tend to be replaced by more competitive annual and weedy species (Graham and Hutchings, 1988; Hutchings and Booth, 1996; McDonald et al., 1996; Bekker et

al., 1997; Walker et al., 2003) which are supported by the high nutrient levels. In tandem came the widespread loss of those farming practices that formerly transported the seed of grassland species within the landscape (e.g. shepherding, folding, hay-strewing). These practices have led to the impoverishment of lowland species-pools (or seed sources) and the establishment of Improved Agricultural Grassland (GA1) with the result that semi-natural grassland re-establishment has become 'seed-limited' due to the paucity of propagules in the landscape (Poschlod et al., 1998; Bullock et al., 2002; Walker et al., 2004; Edwards et al., 2007). Where propagules are present, they have become isolated to 'patches' of semi-natural grassland within the greater intensively managed agricultural matrix (Strykstra et al., 1997; Poschlod and Bonn, 1998; Walker et al., 2004).

Agricultural policy also required large-scale field agricultural intensification i.e. the expansion of field size and the removal of stone walls, field margins, hedgerows and woodland (and other habitats) which were subsequently replaced by timber post and strip wire to accommodate electric fences or concrete/timber post and rail. This change has led to severed hedgerow networks or wildlife corridors and the loss of woodland and wetland habitats across the Irish landscape.

In tandem with agricultural intensification, recent years have seen the improvement of the national transportation network. Today, Ireland's total road network is estimated at 97,000km (Irish EPA, 2002) with 5,415km of national road; 2,738km of which is designated as National Primary Route and 2,675.80km as National Secondary Road (NRA, 2008). The remaining and majority of road in Ireland consists of regional and local (or county) road.

While road construction is widely recognised in the literature as a heavy consumer of natural resources (e.g. Forman, 1995) including land, each new kilometre of road and its associated 1ha of roadside landscape, represents an increasingly important opportunity to create, restore and/or extend new or existing semi-natural grasslands and to improve connectivity between designated conservation areas in the Irish agricultural landscape. This insight recognises the significance of Article 10 of the EU Habitats Directive 92/43/EEC, which encourages the establishment of corridors and other landscape features between such areas. Article 10 of the Directive states that: 'Member States shall endeavour in their land-use planning and development policies, to encourage the management of features of the landscape which are of major importance for wild flora and fauna'.

With improved management practices, there is also the prospect of increasing the species diversity of the existing grasslands established on the Irish road network. It is estimated that there are approximately 5,500ha of grassland swards on the Irish road network that can be managed so as to provide species-rich semi-natural grassland habitats.

Up until the 2006, Irish road infrastructure was predominantly designed and managed in an effort to blend the road into the surrounding landscape. While this approach aimed to address impacts on the landscape and visual amenities, for the most part, it failed to provide for the development of species rich grasslands and other habitats for wildlife. In relation to grasslands, there has been the widespread use of non-native and foreign provenance grass and wildflower seed mixes, fertiliser and the use of nutrient rich topsoil on verges, soil slopes and in some cases rock faces. The majority of existing grasslands on national road schemes are therefore highly productive species poor rank grasslands dominated by non-native or foreign provenance grass species. Furthermore, in the absence of an approved source, there was widespread use of foreign provenance tree and shrub plant material in hedgerow and woodland landscape treatments.

In 2006 the NRA published '*A Guide to Landscape Treatments on National Road Schemes*' which espoused national policy in relation to landscape planning and design for national road schemes. Since this time, an ecological landscape design approach has been deployed which integrates the principles of landscape architecture and landscape ecology in an effort to address the retention and restoration of landscape quality as per the European Landscape Convention and the EU Habitats Directive. The approach recognises that the landscape is 'as an area where a cluster of interacting stands or ecosystems is repeated in similar form' (Primack, 2000) and 'that establishing a new road network or segment on a landscape is equivalent to adding a new ecosystem to the existing one' (Lugo and Gucinski, 2000). Miller et al. (1996) concluded 'that roads should be considered inherent components of landscape structure' while Pauwels and Gulinck (2000) stated that 'roads and their adjoining verges are important elements of the ecological infrastructure and influence landscape ecological patterns and processes'.

The ecological landscape design approach promotes the use of (1) subsoil as opposed to topsoil in the establishment of grasslands, (2) Irish indigenous plant material and (3) a reduction in the consumption of natural resources in the establishment of landscape treatments whilst continuing to address impacts pertaining to visual amenities, landscape character, diversity and structure including landscape fabric and a sense of place. The NRA also adopted the certification process that is in place for the Native Woodland Scheme in order to ensure that Irish indigenous plant material would be utilised on national road schemes in tree and shrub treatments. The following section outlines best practice approaches to the landscape design and preparation of the various road components or infrastructure associated with the roadside landscape of national road schemes in Ireland.

Road components – the infrastructure of the road corridor

Forman (1995) defined the road corridor as the surface for vehicle movement, plus any associated, usually vegetated parallel strips i.e. the roadside verges which includes fences, hedgerows, ditches also soil slopes and embankments, exposed faces, reinforced walls, and a centre median. A cross section of a road corridor usually indicates considerable heterogeneity, due to the diverse parallel strips, variable width, vertical stratification and height.

Exposed rock faces

In accordance with Fossit (2000), the following rock surfaces may be exposed in cuttings through localised elevated topography on national road schemes:

Table 1 – Exposed Rock Faces and Disturbed Ground

<u>ER1</u>	<u>Exposed Siliceous Rock</u>
<u>ER2</u>	<u>Exposed Calcareous Rock</u>
<u>ER3</u>	<u>Siliceous Scree & Loose Rock</u>
<u>ER4</u>	<u>Calcareous Scree & Loose Rock</u>
<u>ED1</u>	<u>Exposed Sand, Gravel or Till</u>



*Plate 1 Exposed calcareous rock (ER2)
Photograph: Lisa Dolan*

Where rock is exposed in a cutting and where aspects of safety and stability can be addressed, rock faces can be retained as a locally distinctive feature that can provide a sense of place or orientation within the landscape, especially on long stretches of road which can appear monotonous to the mobile road user. In the past, however, rock faces were sometimes screened by planting or finished as soil slopes and seeded with non-native or foreign provenance grass seed mixes.

Because of the cost and technical difficulty of establishing soil and planted vegetation on rock faces, the NRA Guidelines promotes the use of natural recolonisation as this approach will not only produce more natural patterns but will also allow the development of species rich plant communities and a more specialised biota. Seeding with non-native or foreign provenance grass seed mixes may simply turn the nature of the rock face profile and its scale from grey to bright green and prevent the establishment of native grassland species. Seeding contrasts with the irregular shapes of darker vegetation, e.g. heathers, bracken, gorse, and willows (*Salix* spp.) which are promoted by natural recolonisation. Natural recolonisation allows the rock face to become an extension of existing hedgerow, scrub, or woodland vegetation and to complement any adjacent naturally exposed rock outcrops in the landscape. In this regard an interlocking pattern of shapes is far more likely to be effective and will assist in integrating the road line with the landscape.

Soil slopes, embankments and wider verge areas

Soil slopes (embankments and wider verges) for the most part consist of disturbed soil as a result of a cutting, usually 1 (v): 2 (h) or less. The surface soil type exposed will depend on the soil horizon layers, which in turn depends on the parent bed rock material and whether the soil profile has been disturbed during road construction or by past land-uses. In certain circumstances the contractor may wish to dispose of 'unsuitable' soil (for road bed construction) such as topsoil by spreading it out on the cut slope. In this regard cut slopes can consist of a variety of substrates from topsoil, subsoil, a combination of the latter and indeed in localised areas sand, gravel (eskers) or till.

Table 2 - ED Disturbed Ground

ED1 Exposed Sand, Gravel or Till

ED2 Spoil and bare ground

Semi-natural grassland treatments

In keeping with the principles of the ecological landscape design approach soil slopes where possible, should be finished with subsoil or indeed with a combination of subsoil, gravel or till, whichever is exposed

during construction. Where the earthworks and mass haul programme permits, a topsoil finish should not be placed on slopes or embankments after shaping in order to promote natural recolonisation. This is the most appropriate method for the establishment of grasslands, especially where there are propagules present in the form of patches of semi-natural grassland in the immediate landscape. Where there are concerns with regards to soil stability and the presence of filter drains, annual grass species mixes can be deployed on subsoil slopes, however, this approach should be minimised as such mixes are generally non-native or of a foreign provenance.

In circumstances where propagules are not present in the immediate landscape due to intensive agriculture use, hay strewing can be deployed to provide a source of native grass and wildflowers seed.



*Plates 2 & 3 Soil slopes formerly bare ground (ED2) hjg
Photographs: Lisa Dolan & Pdraig Whelan*

Plate 3 illustrates exposed gravel/subsoil slope outside Urlingford where topsoil and grass seeding were not utilised in the finish to the slope. This contrasts with the low species diversity exhibited by the seeded slope in Plate 2 above. A similar approach can also be deployed on wider verge areas.

Scrub and woodland treatments

Where scrub or woodland areas are encountered or impacted by a road scheme or where screening is required to block views to visually intrusive elements *e.g.* bridge structures and flyovers along a route corridor, Scrub (WS1) and woodland treatments (*e.g.* WN1 and WN2) are generally established. Where the primary purpose of woodland treatments is for habitat creation, such treatments should for the most part be established through natural recolonisation or a combination of natural recolonisation and planting. In this regard the canopy dominant species such as oak (*Quercus petraea*) or ash (*Fraxinus excelsior*) are planted only thus allowing the understorey/fringe and climbing species layers to colonise the treatment

over time. A study of hedgerows in Central Bohemia (Czech Republic) found that three quarters of the 41 plant species present are limited to within 200 m of woods, however, the remaining species can extend along corridors as far as 250-475 m. Wind was found to disperse 63% of the plant species, but vertebrate dispersal was found to be most important over short distances (< 25 m) (Haskova, 1992). Regeneration can also be assisted by retaining, early in the construction stage, the soils of woodlands and hedgerows encountered within the route corridor. Where instant planting is required, certified Irish indigenous tree and shrub material can be sourced from nurseries. Such material needs to be delivered to site accompanied by the appropriate Provenance Declaration Forms in order to ensure its authenticity.



Spindle

Honeysuckle

Guelder Rose

CrabApple

Photographs: Anja Murray and Lisa Dolan

Hedgerow treatments

Hedgerows should be strategically planted within the roadside landscape to link up any hedgerows severed by road construction in order to restore corridors for the dispersal of species moving through the landscape (e.g. bats) and to restore the former landscape character, fabric and a sense of place. Variations in hedgerow 'types' due to local soil geographic factors also means that hedgerows can play a significant role in distinguishing the local and regional character of an area. Acts of Parliament passed in 1697 and 1721, made it obligatory for landowners to erect hedgerow boundaries that consisted of '*ditches, six feet wide and five feet deep, quicked with whitethorn, crab or other quick-sets*'. As a result, most Irish hedgerows were planted during the medieval period 1700s and 1800s. Hedgerows therefore provide a record of the area's history of land ownership and mark townland boundaries and can be of particular archaeological significance. In this regard it is importance to select plant species mixes that reflect the species composition of the hedgerows which formerly crossed the route corridor e.g. in wetter areas willows (*Salix* spp.) often dominate, while in certain parts of the country Guelder rose (*Viburnum opulus*) and spindle (*Euonymus europaeus*) are more frequent. More than one hedgerow mix

should therefore be specified for a road scheme where the soil geographic factors and/or associated hydrological conditions are found to vary considerably along the route.



*PLATE 4 Transition of scale between the rock face and the wider verge
Photograph: Lisa Dolan*

Urban zones and design for the driver within the vehicle

It is without doubt that it is more difficult in the Irish context to make native style landscape treatments 'more attractive' due to the low diversity of trees and the absence of 'more colourful' species that are native to Ireland, in comparison with the greater diversity of native trees in the UK and the rest of Europe. Therefore, Irish landscape designers face a more difficult challenge to present visually attractive landscape treatments within urban settings; which also meet the principles of ecological landscape design.

In urban zones there continues to be a tendency to utilise non-native species or cultivars of native species. Designs should emphasise a native plant palette, whereby the biophysical framework (i.e. the trees and shrubs) is native, but to be acceptable it must take into account formal lines, colours and textures, thus creating culturally sustainable landscaping schemes. Non-native bedding plants can be utilised where they do not display any invasive or other negative ecological tendencies.

In urban zones attention also needs to be paid to the concept of 'optical width' in order to assist in traffic calming at the gateway into towns and cities through the principle: 'that a driver's perception of the appropriate driving speed is influenced by the relationship between the width of the road and the height of the vertical elements'. Optical width can be managed through the provision of boulevards of native trees such as silver birch (*Betula pendula*) and mountain ash (*Sorbus aucuparia*) where the individual trees selected increase in height (and girth at diameter at breast height (DBH) or 1.3m) and decrease in centre spacings as one moves closer to the urban zone e.g. Tralee Town, Co. Kerry. This approach also served to address the transition of scale between the height of the rock face and the wider verge area (see Plate 4).

Transdisciplinary approach

An examination of the factors that influence the selection of landscape treatments, i.e., those pertaining to landscape and visual, built cultural heritage and the natural environment (flora and fauna) requires a transdisciplinary approach by landscape architects and ecologists and collaboration with other experts including archaeologists and architectural heritage experts. Examinations in isolation, by experts, can lead to recommendations for mitigation measures such as planted environmental bunds that aim to minimise visual impacts on a sensitive landscape type or receptor (a residence) within the visual envelope of a road scheme which may also ultimately screen panoramic views from the road to the same scenic landscapes. Such measures may thus impact on the environmental and scenic aesthetics of a road scheme as experienced by mobile local road users and tourists. For example, the N7 Castletown to Nenagh road scheme which runs through Counties Offaly, Laois and (North) Tipperary will present mobile road users with new views to the Slieve Bloom Mountains, the Devilsbit Mountain area and local areas of landscape importance such as the area of cultural heritage at Moatquarter Valley which contains a tributary of the Little Brosna River (see Plate 5). Furthermore, the selection of landscape treatments including the purposeful removal of vegetation to open up of views (i.e., vistas or panoramas) at any location along a route corridor needs to be balanced with the needs of species dispersing through the landscape.

Challenges – 'breaking new ground'

There are a number of challenges which are faced by road landscape practitioners not least is that pertaining to the absence of a certification scheme for Irish indigenous grass and wildflower seed mixes. The development of such a scheme is a challenge for the Irish landscape community as a whole. Until such time as a source becomes available, non-native grass and wildflower species mixes may be utilised on road



Plate 5 View to the Moate in the townland of Moatquarter,
from the N7 Castletown to Nenagh Road Scheme,
Co. Tipperary Photograph: Lisa Dolan

schemes, in urban parks, private gardens, and wildlife gardens in schools. Furthermore, there is no certification scheme for wetland marsh (GM1) plants *e.g.* yellow flag (*Iris pseudacorus*) and heath (HH) plants. There are also a number of tree and shrub species such as bird cherry (*Prunus avium*), purple willow (*Salix purpurea*), dog rose (*Rosa canina*), honeysuckle (*Lonicera periclymenum*), broom (*Cytisus scoparius*) and ivy (*Hedera helix*) which are currently not available under the Native Woodland Scheme. As demand for native species grows it is envisaged that a certification scheme will be developed by the relevant stakeholders.

The presence of nutrient rich topsoil on existing road schemes is also currently limiting the biodiversity potential of 5,500ha of grassland within the Irish landscape. Studies to date have shown that continuous cropping and aftermath removal of cuttings in an effort to reduce nutrient levels could take up to 70 years. The fastest known method in the literature that of soil stripping is not feasible for obvious reasons, however, the use of carbon as a denitrifying agent has yet to be explored.

The SIMBIOSYS project, which commenced in April 2008, involves multi-disciplinary research across three Irish research institutions: University College Cork (UCC), Trinity College Dublin (TCD) and University College Dublin (UCD) and focuses on the sectoral impacts of bioenergy crops,

road landscape treatments and aquaculture on biodiversity refer to www.simbiosys.ie. The project is funded by the EPA under the National Development Plan and the Strategy for Science Technology and Innovation (SSTI).

Ninety roadside sites are being sampled on the N21, N22, and the N25 road networks along a 305km long East to West transect of the Island of Ireland; from Tralee, Co. Kerry to Rosslare in Wexford. The sites include rock faces, soil slopes and wider verges that have undergone either natural recolonisation and planting in an effort to indentify the plants, carabidae, bird and mammal species diversity of Irish national road schemes and best practice management regimes to promote ecosystem services such as invasion resistance to weeds and undesirable species, natural biocontrol and pollination.

A large scale experimental study is also currently being set up under SIMBIOSYS on the N7 Castletown to Nenagh road scheme, where 40 no. 800m long experimental plots are to be established to compare the species diversity associated with commercial grass and wildflower seed mixes, natural recolonisation and hay strewing. yellow rattle (*Rhinanthus minor*) a semi-parasitic angiosperm which parasitises grass species (and promotes colonising opportunities to broad-leaved herbs) and carbon in the form of wheat straw are also being deployed in an effort to identify a cost effective and technically viable means of reducing the soil fertility status of key areas of grassland along the Irish national road network.

* * *

The author

Lisa Dolan is a road ecologist based in the Environmental Research Institute and the Department of Zoology, Ecology and Plant Science, University College Cork, who is currently participating in the SIMBIOSYS research programme which is funded by the EPA, the Strategy for Science, Technology and Innovation and the National Development Plan. The programme was set up to examine the sectoral impacts of roads, bioenergy and aquaculture on biodiversity in Ireland. The primary focus of her research and consultative work to date is to establish a baseline biodiversity database for roadside landscapes in Ireland and to identify and implement best practice in terms of environmental design, impact assessment, and management of national road schemes, in order to promote biodiversity conservation and ecosystem services and to meet with the requirements of Article 10 of the EU Habitats Directive 92/43/EEC in terms of the provision of a network of ecological corridors.

The Irish Coastal Landscape

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Introduction

The coastal landscapes of Ireland are among its best known scenic attributes. As an island, surrounded by water, the coast has a high visibility in people's perceptions. It both isolates from, and provides a link to, the outside world. Until the advent of air travel, the coast was the last thing the traveller saw when leaving and the first thing to see when arriving in Ireland. The childhood memories of most residents almost certainly include visits to the coast, while some of the biggest attractions for tourists are on the coast. Since the earliest days of recreational travelling, writers have commented (usually favourably) on the beauty of Irish coastal landscapes, artists have drawn and painted them and musicians have celebrated them in tune and song (Figure 1).

The Irish coastal landscape, however, is a dynamic one that is affected by natural processes and human activities and is subject to change over time. Similarly, human value judgements also change and for example, a structure on the landscape that is regarded as purely functional by one generation might be viewed as attractive in a later one. Perceptions of the coastal landscape also vary amongst people and one of the particular challenges of management lies in the often-conflicting views of those who live and/or work at the coast and those who visit it on a short or long-term basis. An essential piece of infrastructure to the former, for example, might be regarded as an unattractive intrusion by the latter.

What is the coastal landscape?

The coastal landscape involves both marine and land-based components and it is this juxtaposition that is important in its definition. The observer's perception of the coastal landscape can be quite different depending on whether it is viewed from land or from sea. Sometimes the term seascape is used to refer to this combined unit. Hill et al. (2001, p1.) regard seascapes as including the following:

- Views from land to sea
- Views from sea to land
- Views along the coastline
- The effect on landscape of the conjunction of sea and land



Figure 1. An 1863 engraving of The Giant's Causeway. A coastal landscape long celebrated by travellers and preserved in drawings, paintings, and photographs, it was already a popular attraction for visitors in the 1730s. It was famously described by Dr Johnson (1709-1784) as 'Worth seeing, yes; but not worth going to see.'

The coastal landscape includes both natural and human elements. The most iconic coastal landscapes in Ireland, for example, include high cliffs (e.g., Cliffs of Moher, Slieve League), scenic beaches (e.g., Stocker Strand, Ballybunion), islands (e.g., Skelligs, Aran Islands) and historical sites (e.g., Dun Aengus, Dunluce Castle). In addition, there are several well known cityscapes and seaside resorts. The landscape importance of these landscape features is reflected in their patterns of use; travellers more commonly visit them simply to see them rather than to engage in an activity. Even a beach in Ireland is seen primarily as an element of the landscape and only secondarily as a recreational space, simply because of climatic conditions. This perception is well exemplified by the habit of driving to the coast and simply looking at it through a car window.

The Irish coastal landscape

In global terms, the Irish coastal landscape is quite young. Although it has a basement of solid rock this was sculpted by ice during the last million years by successive glaciations. The modern landscape began to evolve after the last ice sheet retreated as recently as 14,000 years ago and sea levels began to stabilise around the present level about 7,000 years ago. During this period, the first humans set foot on Ireland and the coast has been evolving under the combined influence of natural processes and human activities ever since, albeit with varying levels of human activity. The scale of this

interaction is quite unique among Irish landscapes, because the dynamism of natural coastal processes and geomorphological change is unparalleled in any other landscape. Similarly, because of the long history of exploitation of coastal resources, maritime trade, and defensive structures (Figure 2), the coastal landscape has experienced a high degree of human influence that continues to the present time. Contemporary coastal landscapes are the accumulated result of centuries and even millennia of change.



Figure 2. Dun Aengus, Aran Islands, a historic site dominates the coastal landscape (http://www.conference.ie/imageupload/Dun_Aengus.jpg)

The changing coastal landscape

As in the past, change in the Irish coastal landscape continues to occur under the influence of both nature and humans. On the natural side, waves and tides continue to erode, and thus maintain, cliffs. The eroded material provides boulders, gravel, and sand to sustain beaches and mud for marshes. Beaches and marshes strive to achieve equilibrium with changing environmental conditions through erosion and accumulation. The biggest challenge for preserving coastal landscape quality is to enable these processes to continue. With a global rise in sea level, it is likely that the rates of coastal erosion will accelerate and that coasts will become more dynamic as they respond to these changed conditions. The fact that contemporary Irish coastal landscapes evolved and persisted during several thousand years of sea level change, however, show the coast's resilience to such natural changes. Sea level rise and coastal erosion thus poses no threat to the natural coastal landscape – on the contrary, erosion is a vital process in maintaining landscapes.

Changes in human activities also modify the landscape. New roads are constructed, some railways are abandoned, old buildings decay while others are built, some towns grow while others decline, some coastal towns change their character and function, new buildings have different styles to old ones, and new technologies result in new structures. In the nineteenth century, the 'reclamation' of saltmarshes and tidal flats for agriculture was one of the biggest impacts on Irish coastal landscapes. The embankments built then, and the low-lying fields that now exist behind them, dramatically changed the landscape at that time. The lower relative value of agricultural land and high cost of maintaining these areas now poses challenges for the future management of these landscapes. Probably the most widespread (and controversial) examples of the impact of new technologies at present are the emplacement of floating cages and other infrastructure for mariculture in many inshore waters (Figure 3), and the construction of wind turbines both onshore and offshore. The tidal turbine in Strangford Lough is an unusual example of the impacts of a new technology on the landscape (Figure 4).



Figure 3. These two modern changes to the landscape of Lough Swilly (the new house and the salmon cages) are most likely in conflict with each other.



Figure 4. *The visible section of a tidal turbine in Strangford Lough, County Down.*

Challenges in Irish coastal landscape management

Managing change in the landscape is a big challenge. In part this stems from the fact that various individuals and groups have different perceptions of, and attitudes to, change. Wind turbines as a new technology seem to be loved and hated with equal passion. Second homes at the coast are similarly controversial; to some they provide a comfortable place from which to enjoy the coast, to some they are simply an investment, while to others they are an undesirable intrusion on a scenic landscape.

Natural coastal changes are often unnoticed, but the more dramatic changes such as rapid coastal erosion, are often regarded as undesirable. There were calls for 'something to be done' about coastal erosion at Five Finger Strand in Donegal (Figure 5), for example, even though no infrastructure was threatened. Similarly at Stocker Strand in Donegal (Figure 6), there was public pressure to stabilise a small stream that migrated across the beach, eroding some sand dunes. In both cases the changes were entirely natural and no infrastructure was threatened. Furthermore, costly engineering interventions would have permanently altered the landscape. Such perception underlines a need for better appreciation and understanding of the processes of natural coastal change.



Figure 5. The view of Five Finger Strand includes an eroding dune. This is part of a natural coastal dynamism that shapes the landscape and permits the coast to adjust to changing conditions.



Figure 6. The small stream at Stocker Strand migrates across the beach. Calls to stabilise the stream would have resulted in an unnecessary intrusion into this scenic landscape.

The human and natural elements of the coastal landscape interact with each other closely. Erosion can pose a threat to existing roads, railways, houses and agricultural land. There are essentially three ways of coping with this, each of which has its own implications: hard defences, soft defences, or retreat (Cooper and McKenna, 2008a). In terms of new buildings, roads or railways of course, the issue can be avoided by simply not building in areas that may be susceptible to erosion.

Hard defences typically involve the construction of walls or emplacement of rock armour. These structures in turn, affect the natural landscape by degrading its appearance (Figure 7) but, more importantly, by cutting off the sediment that is delivered to the coast through erosion, they may cause beaches to become narrower, change from sand to gravel, or ultimately disappear. The beaches at Bray, County Wicklow, and Portrush, County Antrim, have diminished greatly since walls were built that cut off the sand stored in coastal dunes and cliffs, from the beach systems. When walls are built, storms cause enhanced erosion of sand from the beach and it is not subsequently replaced by sand stored in dunes or cliffs. Related efforts to halt the loss of sand by building groynes across beaches not only change the appearance of the beach but also reduce the supply of sand to areas further downdrift, causing increased erosion there. The desire to defend land is so ingrained that even temporary structures such as caravans are commonly defended in this way (Figure 8).



Figure 7. *Sea defences built to protect ill-sited houses in County Down both degrade the landscape and damage the natural ecosystem.*



Figure 8. *Sea defences built around a caravan, Inch Island, Donegal. These structures are directly on the beach.*

The use of soft defences is not widespread in Ireland, but there have been minor beach nourishments at Rosslare for example, and several attempts at dune restoration. Soft defences are less visually intrusive than hard defences, but they are still resisting natural patterns of change (Cooper

and McKenna, 2008b) and require an unending commitment that can be difficult to justify economically.

The third approach is to retreat (or live with natural processes). On coasts such as that of Wexford, that have been eroding at rapid rates during the historical period, the coast seeks to achieve equilibrium between sediment losses from beaches and the introduction of new sediment by cliff erosion. Over the years many houses have been undermined as these natural processes continue. The houses have gone but the coast continues to function.

Many cultural heritage sites such as coastal defensive positions and archaeological sites are under threat from erosion (Figure 2) and here the dilemma faced by managers is whether to defend the historic built heritage or sustain natural processes. A more radical step, but one that may have to be considered, is the relocation of infrastructure such as railway lines, roads, and even historical buildings. This is not without precedent; the Cape Hatteras Lighthouse in North Carolina and the Belle Tote Lighthouse in Beach Head, England were moved back from eroding cliffs (McGlashan, 2003); roads in many east coast US states have been reconstructed landward of their former position after coastal erosion; and salt marshes have been reactivated by a conscious decision to retreat from the coast and abandon old sea defences in southeast England.

A particular dilemma is posed in relation to coastal landscapes that are no longer viable, such as reclaimed marshes that were converted to agricultural fields in the nineteenth century and earlier. The cost of maintaining the defences and pumping water from the fields is in some cases becoming unviable and these fields are now being abandoned. There are several instances where fields are now reverting to salt marshes. This change, which simply reflects current economic conditions, is similar to that being pursued as a deliberate strategy in some parts of England called 'managed retreat' or managed realignment' whereby the sea defences are deliberately moved landward.

Human value judgements about what infrastructure constitutes an addition to or detracts from the coastal landscape will continue to change and will no doubt be reflected in evolving county and regional plans. The recent economic boom, however, exposed some serious weaknesses in current practice that was unable to contain an unprecedented rate of construction driven by speculation (Cooper and McKenna, 2009). As a result many parts of the Irish coast have become covered in largely unoccupied houses and apartments. Unlike earlier phases of infrastructural development, these were constructed primarily for the purpose of making money for their owner by appreciating in value rather than by occupation or any commercial activity. The scale of coastal development was unprecedented and it transformed much of the Irish coastal landscape. Such was the speed of the subsequent bust that many buildings remain unfinished shells that scar the landscape (Figure 9).

Figure 9. The unfinished shell of an apartment block, County Antrim, on which work stopped following the economic crash in 2007.



The knowledge that there is a strong interaction between the natural and human elements of coastal landscapes provides a potentially sound basis for their future management. However, the apparently current perception that any human impact on natural processes or impact by natural processes on coastal infrastructure can simply be addressed by building sea defences is short-sighted and damaging to the coastal landscape. Steps necessary to preserve the beauty of the changing coastal landscape must include a halt on building infrastructure in areas that are susceptible to erosion. This entirely proactive step can be achieved by proper land-use zoning and enforcement in County Development Plans in Ireland or Area Plans in Northern Ireland. What to do with existing badly sited infrastructure at a time of increased flooding and coastal erosion risk remains a challenge.

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Irish Landscape and Forest Management

John Landy, Coillte Teoranta

Background to Irish forestry

At the turn of the century Ireland's forested land totalled 52,000 hectares, or approximately 1% of the country. The early 1900s saw an increase in state forestry, beginning in Avondale House, Co. Wicklow, which the state acquired in 1903 and which became Ireland's first forestry training centre.

State involvement in the purchase and planting of land continued over subsequent decades. This strong involvement of the State in forestry is reflected in the fact that 50% of all Irish forests today are owned by Coillte.

In 1923 about 400 hectares were planted in the then Irish Free State. The rate of planting was increased in the following years and reached about 1,400 hectares per annum in 1929; this rate was maintained for several years, gradually rising to 3,000 hectares in 1939. The years of the Second World War saw a setback in planting and afforestation dropped to around 1,600 hectares yearly by 1945

During the years following the war, annual planting programs reached 3,200 hectares in 1950, nearly 4,000 in 1953 and 10,400 by 1961. The increase followed the adoption of an economic plan by the Government of 1948. This program laid down an afforestation target of 400,000 hectares to be achieved over 40 years at the rate of 10,000 hectares per annum.

By the mid to late 1960s, forestry seemed to be moving smoothly towards becoming an efficiently managed national resource. The essential infrastructure, the tradition and continuity of management and maintenance, common in other European countries, but lacking in Ireland, had improved as the Irish forest resource developed.

1970 was the European Year of Nature Conservation and it heralded the beginning of an era in which recreation and nature conservation benefits of forests came to be appreciated. Throughout that decade the maturing forests provided the scope to develop forest parks and other recreation facilities and a network of parks, walks, nature trails, and picnic areas throughout the country.

The 1980s saw an increase in afforestation in the private sector in response to European Union and Irish Government financial incentives for farmers and other investors. In 1985/86 the Government set up a review body to advise on structures for the future management of State owned

forests. Subsequently the government decided to set up Coillte Teoranta as a private limited company to manage State owned forests commercially.

Key facts about Coillte

- Coillte owns over 445,000 hectares of land (approximately 7% land cover in Ireland). Since 1989 Coillte has acquired 52,000 hectares, and increased the estate by a further 12,000 hectares through the Farm Partnership Scheme and leases
- 80% (352,000 hectares) is forested; the remainder comprises areas such as open space, water, roads
- Coillte Panel Products Division consists of SmartPly Europe Ltd. which produces Oriented Strand Board (OSB) and Medite Europe Ltd. which produces Medium Density Fibreboard (MDF).
- Coillte produces a range of hardwood and softwood products at our sawmill in Dundrum, Co. Tipperary. It supplies the construction market and the expanding DIY and leisure sectors.
- The estate managed via three regions, and further subdivided into 13 districts.
- Approximately 1,000 staff are employed around the country.
- Strong emphasis placed on achieving balance between commercial, environmental and social objectives in managing business;
- Coillte implements a programme of excellence when it comes to forest stewardship. This was recognised by the Forest Stewardship Council (FSC) who certified our operations back in May 2001 and have subsequently audited us on a number of occasions; we have continued to demonstrate our commitment to sustainable forest management.

Mission statement

To be an international trading Irish based forestry company, which provides competitive products and services to its customers by harnessing the full potential of all the company's resources its forests, lands. Staff and financial resources in order to generate optimum returns on its investments, and which manages its businesses in an environmentally, socially and economically sustainable fashion.

Coillte's approach to forest management and the landscape 1999- 2009

In 1999 a landscape analysis was carried out and the estate was divided into landscape units in each forest. Plantations which are located in similar landscapes are grouped together to form landscape units, with a rating of high, medium or low, using criteria based on Simon Bell's landscape assessment which takes into account, visual, social, environmental and economic considerations.

Count of NEW_LU	SENSITIVITY				
DISTRICT	County	High	Medium	Low	Grand Total
E1	Wicklow, Dublin	22	60	54	136
E2	Carlow, Wexford, Kilkenny	4	78	92	174
E3	Laois, Offaly, Kildare		37	73	110
N1	Donegal	11	73	22	106
N2	Sligo, Leitrim	12	36	46	94
N3	Louth, Meath, Westmeath, Longford	6	41	113	160
S1	Tipperary south, Waterford	11	64	83	158
S2	North Kerry, Limerick, Tipperary North	7	38	64	109
S3	Cork	3	43	125	171
S4	West Cork, Kerry	11	82	92	185
W1	Clare, Galway	3	14	60	77
W2	Galway & Roscommon	5	28	43	76
W3	Mayo & Galway	24	26	48	98
Grand Total		119	620	915	1654

Table 1.1 Summary of landscape unit sensitivity ratings

All landscape units rated high and medium required a landscape design plan to be prepared. Landscape Units rated low require a design of lesser intensity and follow Forest Service and FSC Landscape Guidelines. Each landscape design plan consisted of a report outlining the main objectives, opportunities, and constraints, description of the landscape and view points. A fell year map and regeneration map were also produced.

In 2001 large even-aged forest blocks were restructured, and felling coupes were redesigned to reduce the impact of felling on the landscape and environment.

In 2005 Coillte updated its approach further to take into account environmental and social aspects. Long-term Forest Management Plans (FMPs) for all 320 forests which make up the estate were developed. These plans incorporated all existing plans (restructuring plans, landscape design plans, biodiversity plans, timber supply plans etc.) into one comprehensive Forest Management Plan.

The review and revision of the 2005 FMPs and existing Management Units will be undertaken in accordance with landscape design principles. This is because Management Units are the expected future felling coupes and restocking sites. Their shapes are therefore key components of landscape

design and the Management Unit restock plan is the vehicle designed to deliver both species and future age diversity.

Contribution made by Coillte towards the specific and general measures details in the European Landscape Convention

Coillte's forests occupy various upland and lowland positions throughout the country and many are in areas that are considered valuable from a landscape perspective, or are sensitive to landscape change. We have inherited large areas of upland forest from previous government policies that favoured large-scale planting of conifers on marginal upland agricultural areas. County Development Plans contain maps of sensitive landscapes and many of these include the upland forested areas, emphasising the sensitivity of the uplands to landscape change.

Forested landscapes add considerable value to rural areas, and forests often form interesting and valued back-drops to rural towns, when they are designed to fit in with the natural landscape. Our objective is to create forests that are productive, attractive, and environmentally sympathetic.

In broad terms this will be achieved by ensuring that the design of forests is in harmony with the landscapes in which they are located and that large even-aged forest blocks are restructured to create greater diversity in age structure and tree species composition into the future.

Coillte recognises as outlined in Article 5 – General Measures of the European Landscape Convention that it is its responsibility, in undertaking activities such as planting and harvesting that can introduce change into the landscape, to work within the constraints of the landscape sensitivities.

Coillte has a landscape policy aimed at landscape protection and enhancement through its management practices, which include participation from the general public, local, and regional authorities Forest Service through the consultation process in the Forest Management Plan.

Landscape planning is fully integrated into each Forest Management Plan taking into account environmental, social, and economic policies as outlined in Part D, Article 5 – General Measures.

Article 6 – Specific Measures include awareness raising, training and education, identification and assessment, landscape quality objectives and implementation.

District foresters within Coillte began receiving training 15 years ago in forest landscape design from Simon Bell, a recognised forest landscape architect. Courses are run every autumn with Simon Bell on new aspects on design. These courses include policy, protection, management, and planning.

Coillte, with a view of improving its landscapes, identifies Landscape Units, assesses the characteristics of each, outlines objectives, opportunities, and constraints. Landscape quality objectives are consulted on during the Forest Management Plan review process. Once the final Forest Management

Plans are agreed by all, these plans incorporating landscape design will be implemented.

Landscape issues currently faced by Coillte

- (i) Historically, plantations have often been laid out in geometric patterns to simplify management, comprising of rectangular compartments laid out in grids separated only by open strips and fire breaks. Harvesting usually follows the same pattern, whole compartments being felled at a time following the sequence of the original planting. It is Coillte's policy to break this cycle by creating Management Units which will help reduce the geometric shapes, increase species diversity and age structure. The change from geometric, single species, to a more natural forest composition and structure will take several rotations to complete.
- (ii) In recent years environmental awareness and protection has increased, there are now many statutory bodies, organisations and individuals who have an interest in how forest management effects the environment. Landscape design through the forest management plan gives Coillte an opportunity to demonstrate and, if required, change our plans to take account of these requirements (e.g. fresh water pearl mussel and hen harrier protection, Water Framework Directive).

Summary

The forestry policies during the last century have increased the percentage of forest cover in Ireland from 1% to 10%; this increase in forest cover has an impact on the Irish landscape. Half of these forests are now managed by Coillte.

Forestry is an activity which can have a significant positive impact on the landscape and, in recognising this, Coillte actively seeks to design its forests so that they enhance existing landscapes rather than detract from them. This is especially important in highly sensitive landscapes where forestry activity can result in sudden changes for, example at clearfelling stage.

In broad terms this will be achieved by ensuring that the design of forests is in harmony with the landscapes in which they are located and that large even-aged forest blocks are gradually restructured to create greater diversity in age structure and tree species composition.

Landscape design gives Coillte an opportunity, in undertaking activities such as planting and harvesting that can introduce change into the landscape, to work within the constraints of the landscape sensitivities.

In practice, this requires us to:

- Have a baseline survey of all our forests to determine sensitivity to landscape change

- Develop and implement forest management plans which incorporate landscape design principles and the gradual restructuring of large even aged plantations
- Further integrate Forest Design into our GIS (Geographic Information System) to ensure that they are clearly recognised in all aspects of forest management
- Develop a monitoring program to ensure that landscape plans are working successfully on the ground
- Continue to routinely undertake landscape design training courses to improve the skills of staff involved with the on-going management of forests

The author

John Landy is a Forest Manager working for Coillte, in Fermoy, Cork, since February 2006. He covers the area of East Cork approx 13,000 hectares. He has many roles but his main duties include timber supply planning, Forest management planning, estate security and development, forest certification and forest landscape design within Coillte. Prior to joining Coillte, John worked in Kilkenny on Geographical Information System (GIS) for 3 years. John also worked in forest inventory and timber measurement for 4 years prior to this. John has a degree in Forestry and Conservation and a diploma in GIS.

LIVING LANDSCAPES – COMMUNITY CASE STUDIES

The Bere Island Conservation Plan 2000 -2009

John Walsh Project Coordinator, Bere Island Projects Group

Bere Island – the place

Bere Island is situated at the mouth of Bantry Bay in South West Cork, separated from the mainland by Berehaven Harbour to the North. It runs west to east measuring 7 miles long by 3 miles wide. The population at this time is approximately 200, occupying 85 permanent resident households. This population increases considerably during the summer months when we have quite a number of holiday homeowners and other visitors coming onto the island. The army camp on the East end caters for FCA and army personnel in training, and this swells the population significantly.

The island, though remote, offers some spectacular views of Hungry Hill, Sheep's Head, and Castletownbere. The Beara Way runs through the island, mainly across the mountainous part where it is over 1000ft. above sea in places.

Bere Island is unique from most of the southern islands as due to its strategic location in Bantry Bay it has many historic sites and buildings which are evidence of the military past of the island. These include two Martello towers, a signal tower, and a number of gun batteries.

The age profile of the population of Bere Island is relatively well balanced, although a significant proportion of the population is over 65. As with many remote parts of Ireland, it is difficult to hold onto our young population as there are very few facilities, and many leave having finished secondary school. The island's childcare facility currently caters for approximately 10 children all year round, with this figure doubling in the summer.

Bere Island in 2000

In 2000 the island community realised that the population of the Bere Island was decreasing and that something had to be done to turn the tide of depopulation and to make the island more sustainable. A number of initiatives were started by Bere Island Projects Group, including the development of a heritage trail, a renewable energy windmill project, and a heritage centre. During the development of these projects the Islanders were in discussions with Beatrice Kelly, Heritage Council, and Louise Harrington, conservation officer of Cork County Council. From these discussions the idea of a conservation plan came about. Conservation plans originated in Australia and the process of conservation planning has developed over



Map showing Bere, Whiddy & Dursey Islands in Bantry Bay

the years in response to the challenges of managing change in historically sensitive environments.

Throughout the process of the development of the plan the island community were kept informed of discussions on the proposal through the circulation of meeting notes and through meetings, at which their support was also sought, before funding for the Conservation Plan was pursued. Essentially, as understood on the island, the aim of the Conservation Plan was to assist the community in planning its future while protecting their heritage. The process of developing the plan to a final document took from the 22nd September 2000 to the 18th of June 2003.

Timing of events:

Autumn 2000/01 - consultation with islanders, and other stakeholders

Spring 2001 - selection of consultants (MCOSullivan)

Summer 2001 - fieldwork, research, and consultation

Winter 2001/02 - final draft report

Spring 2002 - consultation with the islanders (ongoing)

June 2002 - consultation with other stakeholders

Winter 2002 - finalisation and adoption of plan

Summer 2003 - launch of plan

Funding and support

A total budget of £30,000 was secured for the project with two-thirds originating from the Heritage Council and the remaining third coming from Cork County Council. Tender documents were drawn up and interviews held, from this process consultants MC O'Sullivan were selected. During 2001 consultants and a number of sub-contracted experts visited the island to do the field research and BIPG sent detailed questionnaires to all house holds to get the islanders' vision for Bere Island.

Vision for the island

The community of Bere Island has embraced this opportunity to document and plan for the future development of their island's unique human, natural, and cultural resources, and to ensure their future role as a viable and vibrant island community. It is a chance for the community to work together towards the common aim of having a Bere Island of the future where:

1. People can live and work to their satisfaction, while being able to fulfil their social and recreational needs.
2. Traditional skills and ways of life are appreciated and built on.
3. Economic developments go hand in hand with care for our environment and heritage.
4. The community has influence over what developments take place.

While this was happening three working groups were set up on the island, relating to different aspects of island life. These groups undertook to collect information for the consultants and to meet with them in order to expedite more extensive research and active input by the islanders. These three groups were in the following areas:

- Commercial activities incl. agriculture, fisheries and tourism
- Environment, heritage and culture
- Housing, infrastructure and waste management

Recruitment of a development worker

In 2003 the Heritage Council funded the position of a development worker for the plan. The worker reported directly to the steering group on progress made. For the first year the group worked on 5 areas: tourism, waste management, island council, aquaculture and agriculture. A lot of work was achieved during the years 2003 – 2008 in these areas (see list below). The Heritage Council continue to support the development worker and have funded the implementation of the plan over the last seven years.

A second consultant was appointed to oversee the development of the Island council and from consultation with the Island community the Bere Island Projects Group was selected to transform into the council. This was achieved in 2004 when the first secret ballot elections were held on the

island to elect 3 members on to the council. By 2006 the council was made up of all elected members and the turnout by the local community at the election was always greater than 75%, which is remarkable for a small island community.

Projects undertaken

Over the last 7 years a lot of work has been achieved because of the conservation plan and below is a list of some of the projects with a brief summary:

Projects completed as a result of the plan:

- (i) Local area plans: Policies from the plan were adopted by Cork County Council for the 2003 local area plan and were also used for the other West Cork Islands.
- (ii) Aquaculture: An aquaculture co-op has been set up and a number of foreshore licences have been applied for to grow oysters, scallops and seaweed. However we are still waiting for the licenses which are held up due to a national problem with foreshore licences.
- (iii) Heritage Trail and booklet: The heritage trail booklet, which guides walkers on three of the island walks, has been completed and distributed to all Fáilte Ireland bookshops and to many bookshops in local towns.
- (iv) Bere Island Heritage Centre: The centre opened in July 2009 and the official opening will be on the 4th of August 2010.
- (v) Whiddy and Dursey Islands: The Dept. of Community, Rural & Gaeltacht affairs asked BIPG to work with the communities of Whiddy and Dursey Islands where we follow the recommendations of the plan as well.
- (vi) ISLA: European funding was received to fund the building of the heritage centre plus a number of studies have been carried out in the transnational part of the project on the role of government on island issues, island tourism, and the cultural and natural landscape of islands.
- (vii) Waste Management/Environment: Bere Island manages its own waste collection and recycling in partnership with Cork County Council. We provide a weekly waste collection in the summer and twice monthly for the rest of the year. We also run a recycling 'Bring Centre' and recycle over 20 tons per annum. We recently ordered an ultrasonic glass crusher to provide cullet for drainage and non structural concrete and an industrial shredder to provide farmers with shredded paper for animal bedding. Bere Island won the 'Tidy Islands' competition for the last 2 years running.
- (viii) Agriculture: A farming study was done in 2006 and we are now implementing the findings. We encourage farmers to join the rural

environment protection scheme and through the Islands IFA project team successfully lobbied for 15% increase on REPS for Island farmers. Lobbying was also successfully carried out for a cargo subsidy for Bere Island.

- (ix) Archiving and digitising of old films: A resident of Bere Island is the owner to a large collection of film footage from the 1950s and 60s. The Irish film board has put the films onto DVD and will store the originals in their archive.
- (x) Archive: We now have a large database of items incl. letters, maps and implements which records ownership, photographs, and location of items.
- (xi) Natural heritage: We are in the process of completing a booklet of the flora and fauna of Bere Island.
- (xii) Documentation of the graveyard: In 08/09 with the help of two islanders the complete documentation of the graveyard was completed and put on to computer. Now visitors to the heritage centre can locate family graves.
- (xiii) Architectural heritage: With the support of Cork County Council and the Dept. of the Environment an architectural survey was done on every building on the island.
- (xiv) Lonehort Battery: We received permission from the Dept. of Defence to enter the battery to assess it for tourism development. The first work done was a safety audit we also carried out a natural survey and an architectural survey.

Review of plan 2007

In 2007 Dr Harriet Emerson carried out a review of the plan and made a number of recommendations which we are following.

The following is an extract from the report: 'The Conservation Plan represents an impressive document useful for the Island community to guide the selection and prioritisation of actions and their implementation, to raise funds and garner other external support. It is also an immense resource for forward planning on the Island for the local authority, and has provided generic information to the benefit of other island communities. Its incorporation into the Local Area Plan for the Bantry Electoral Area is impressive evidence of its perceived value and status.'

Best practice example

Over the last number of years the Plan has been used as a best practice example in two European projects ESIN, which carried out 18 case studies across small islands of Europe and ISLA which was a transnational project which studied the role of government and stakeholder consultation to deal with island issues.

Points taken from the ESIN Interreg project which used the Bere Island Conservation Plan as a best practice example:

- Awareness by islanders of the richness of their island, including natural, cultural assets. The content of the plan focused on the natural and human heritage of Bere Island, a heritage which must be safeguarded. The professional documentation of this, as well as the professional manner in which it is presented helps to underline its value.
- The success of consultation process which results in consensus amongst all stakeholders. Often small communities are deeply divided due to competing interests and the lack of neutral mediators. The process surrounding the conservation plan allowed actors from diverse and differing perspectives to make their positions known.
- Empowering a small community to make a plan for its own future with the means for implementing it. The fate of most plans developed by a community without outside help is the shelf. The sustained involvement of the outside agencies as well as the financial support to employ a coordinator to implement the plan helps to ensure the plan is more than a paper exercise

Summary of the points taken from the Buiten report from the ISLA project

- (i) The development of the Bere Island Conservation Plan can be characterised as a bottom-up process, in which islanders effectively created a greater role for themselves in the process. While some might feel that compromises were made in the conservation priorities, a rare level of awareness and information now exists within the community about its heritage, as does broad agreement concerning its protection. The island now has a framework through which to achieve a more planned and less incremental and ad hoc approach to heritage conservation than previously.
- (ii) Two interesting points emerged from discussions about the process of developing the Conservation Plan. The first concerned the necessity for the agencies outside the Island to accept in good faith the bona fides of those representing the island community. Interestingly, one of the proposals contained in the Conservation Plan was to establish a clearly representative body for the Island community, and this should shortly be delivered. However, the key concern about whether any such technically representative structure is actually working effectively remains. This point is clearly true for work with any community, but is perhaps particularly pertinent for more impenetrable island communities.
- (iii) The second point relates to how well equipped the Bere Island community is to take advantage of the Conservation Plan. The

Heritage Council has provided significant funding for the three years since the Plan was agreed, and as indicated above, the Plan is itself a useful resource in many respects. However, a high level of professional expertise will be required to achieve ongoing implementation. It may be a significant challenge for a small team of staff and community representatives to be able to deliver on this and meet the raised expectations, alongside the already extensive range of activities, which the Bere Island's Project Group facilitates on an ongoing basis.

Conclusion

It seems like a very long time ago that the first idea of a conservation plan came about and a long road has been travelled by a lot of people to bring the value of the plan to where it is today. Bere Island is certainly a better place thanks to the plan. Definitely some mistakes were made throughout the process but that adds to the learning achieved. The island community owe a debt of gratitude to the Heritage Council and Cork County Council who had faith in the process and who are still working with us today in implementing the plan.

* * *

The author

John Walsh is the project coordinator with Bere Island Projects Group and lives on Bere Island with his wife Sheila and three children. He has been involved with the conservation plan since the start and was a member of the steering group. He is currently the Chairperson of Comhar Na nOileáin which is the new integrated development company for the Islands and he is the Bere Island rep. on Comhdhail Oileain Na hEireann, the national representative body for the Islands.

Perspectives on Farming Community Involvement in the Management of the Burren Landscape

Michael G. Davoren

Introduction

The Burren is a unique landscape, developed over millions of years through the combined efforts of nature and man. Farmers in this tough and sometimes unforgiving landscape have been working for generations to produce what they can from the land, and in recent years it has been proven that those efforts have in turn contributed to the conservation of the world renowned flora, fauna and archaeology of the Burren. The Burren is a tourist's haven with the wild and heavenly views of the Atlantic Ocean and Galway Bay. An astonishing amount of built heritage both visible and yet uncovered are found scattered across the Burren preserved by the solid foundation of rock. A Cromwellian army officer named Ludlow (1651) (cited in Ó'Dálaigh, 1998) remarked that: 'Of this barony it is said that it is a country where there is not water enough to drown a man, wood enough to hang one, nor earth enough to bury them. This last is so scarce that the inhabitants steal it from one another and yet their cattle are very fat. The grass grows in tufts of earth of two or three foot square which lies between the limestone rocks and is very sweet and nourishing'

Farmers have been making the most of the Burren landscape to provide food for over 5,000 years, each generation evolving to meet the needs of the time. Traditional farming practices survived wars and famine, and supported a population four times the size of today's. These same farming systems created the ideal conditions for flora and fauna to take root and survive. It was the farmers who built the monuments and cleared the original forest cover. It is these ancient farming practices that today provide the basis of our new blueprint for farming survival.

Farming survival is an issue of grave importance in the Ireland of the twenty-first century. It is not an easy economic option and, although most farmers in the Burren have owned land for generations and feel that farming is part of their lives, many are obliged to work off farm in order to ensure a reliable income and reasonable standard of living and education for their families. Working the barren land described by Ludlow is not a part-time job, if it is to produce an income and adhere to international and national standards of conservation; it is a time consuming and labour

intensive lifetime dedication. This is the key issue that must be addressed by those designing policies and landscape management schemes.

The Irish government eagerly pursued EEC membership for two main reasons. The first one was the country's desire to loosen up its economic dependence on the UK. A second reason was that the Irish wanted to open their economy and benefit from the opportunities that a continuously developing European market could offer them. In particular, the Irish hoped to benefit by promoting their agricultural exports. Largely thanks to Common Agricultural Policy (CAP) funds, in the first ten years of membership, Irish farmers were able to increase their productivity, and subsequently their output. At the same time, Irish agricultural exports soared. Major changes occurred that affected all Irish farming and the Burren in particular. The state provided grant aid and encouraged the reclamation of land, the fertile valleys of the Burren were bulldozed, and the show began. Bigger and better herds, more milk production, and a dramatically improved standard of living was achieved throughout Europe.

The CAP was very successful in meeting its objective of moving the EU towards self-sufficiency in the 1980s. Suddenly, however, the EU had to contend with almost permanent surpluses of the major farm commodities, some of which were exported (with the help of subsidies), others of which had to be stored or disposed of within the EU. The EU quickly started negotiations with the World Trade Organisation to provide cheaper food for citizens in return for manufacturing exports. It was a win, win situation – or so it seemed. However, this deal had a negative impact upon the farmers of Europe, whose incomes were replaced by farm subsidies in order to keep them farming.

In Ireland the Rural Environmental Protection Scheme (REPS) was conceived in 1994; with the aim of establishing farming practices and environmentally friendly production methods which protect wildlife habitats, flora, and fauna and reflect concern for conservation and landscape protection. At a glance, the scheme would appear to be of particular relevance to a unique landscape and area of conservation such as the Burren, however it soon became clear to local farmers that this scheme would be impossible to implement. The terms and conditions were contradictory to many traditional Burren practices such as winter grazing. In fact it took ministerial intervention to put the derogation in place that allowed Burren farmers to join the scheme, revealing a lack of knowledge from the decision makers on the impact of farming on the Burren.

Alarmed by these facts, local farmers and members of the Irish Farmers Association (IFA) discussed the necessity of having a voice at the decision-making table on issues regarding the Burren. Consequently in 1995 Burren IFA was formed, a local branch of the national body of IFA. Over the past 30 years, Burren farmers have responded to the prevailing demands for more production and are equally capable of responding to demands for conservation if the same resources and support measures are provided.

Farming and the Burren

Teagasc, the national body providing integrated research, advisory and training services to the agriculture and food industry and rural communities provided a scholarship for a research student from the faculty of Agriculture in University College Dublin to analyse the impact of farming on the Burren. The findings of the PhD research of Dr Brendan Dunford were published as *Farming and the Burren*. This proved that farming the Burren with correct stocking density is the only way it can be protected now and in the future. Dr Dunford had a grassroots approach to his research and became familiar with the local community. This was a major factor in his future work.

As a result of this study, Teagasc, National Parks and Wildlife, (NPWS) and Burren IFA came together as equal partners to apply for EU funding through the LIFE programme.¹ 75% funding was obtained with Teagasc and NPWS contributing finance and expertise; the Burren IFA, through its members, contributed time, physical work, organisation, and skills to this unique partnership.

In 2005, Dr Michéal O'Briain from the Nature and Biodiversity unit of the Directorate General responsible for Environment in the European Commission stated that he viewed the Burren LIFE Project as a blueprint for ensuring living rural communities in priority habitats and he noted that the Project was already a powerful tool in terms of the ongoing policy debate on the future of the Burren. Dr O'Briain noted that the 'Partnership Model' developed between the NPWS, Teagasc and the IFA was one of the best models of partnership that he had witnessed. It was an example for others to follow. The farming community of the Burren were leading the way in terms of conservation farming in Ireland. The Burren IFA, in giving such leadership and in entering into the Burren LIFE Project as an equal partner, was investing in the future of the farming community of the Burren.

Building on Dr Dunford's PhD research; a five year project began. 'Burren LIFE Project' team of Dr. Brendan Dunford, Dr Sharon Parr, Dr James Moran (seconded from Teagasc), and Mr. Ruairí Ó Conchúir MA continued researching and implementing a range of 'farming for conservation' practices. Burren farmers contributed the ideas, skills, and physical work on the ground, and the time required to implement the team's findings. The community engaged completely with the whole team and were delighted to be part of something that is seen as protecting the Burren landscape and securing a farming future.

In order to provide office accommodation the unused old school was converted. The renovation and refurbishment of the building included a community meeting room. The offices are located at Carron in the centre of the Burren and have become a focal point, helping the team become part of the community. This integrated approach was a new experience for local people; for years eminent academics published research on caves, archaeology, botany, hydrology, tourism, geology, and ecology in the Burren, but none of those researchers included a local community

or a farming perspective. The farming community are paramount to the protection of every aspect of the Burren. The LIFE Project is holistic in its approach and gives recognition and value to the farming community, allowing them to become architects of their own destiny.

The LIFE Project involved twenty Burren farmers and has the ultimate goal of producing the best crop of species rich grasslands, and maintaining quality wetland habitats by using old fashioned farming systems. Techniques include: maintaining sustainable herd numbers; improving access to ensure grazing of overgrown winterage; the use of a specially compounded concentrate feed to promote grazing while minimising nutrient loss; the removal of scrub from target areas such as species-rich grasslands and monuments; educational farm walks to explain the project; ensuring access to information for all farmers; and promotion of conservation and farming in local schools

Burren IFA was active at every step and organised meetings in each area to inform and, more importantly, to include all Burren farmers in the project. The findings and individual experiences from the LIFE farmers on the ground were shared in discussion groups and produced valuable discourse which was then analysed by the team and implemented in the plans, utilizing the knowledge to best effect. Each and every person who owned Burren land was given the opportunity to be involved. The consequence of this evidence-based practise, used over a period of five years, is the formulation of a blueprint for the future protection of the Burren. Farmers are consulted all the way through, and the methods of farming that are advantageous to man, beast, and the protected landscape have been tested and perfected.

Living Burren

Burren IFA has not lost sight of the bigger picture and is are working closely with voluntary and state bodies to ensure that a 'Living Burren' includes business, tourism interest, private residents, farmers and the general population of Ireland, and that these stakeholders are part of any overall management plan to improve the economy of the region. One such group is the Burren Connect Project, working on environmental protection and sustainable visitor management in the Burren region of County Clare. It works with local stakeholders and community groups, particularly those interested in the sustainable development of tourism, Clare County Council, Shannon Development, and the Geological Survey of Ireland. It is supported by National Parks and Wildlife Services, Monuments Services, Fáilte Ireland, Burren Beo Trust and the Burren Connect Advisory Committee, on which Burren IFA is represented.

As the outcome of this phase of the LIFE project is being analysed, Burren Beo Trust² and Burren IFA, with the financial support of The Heritage Council, employed an independent consultant³ to conduct a survey of Burren farm families. Survey respondents were selected from across the area, a spread

of ages and household types (e.g., single person households, two person households, families with young children, families with older children, etc), across households where farming is a full time occupation and households where farming is part-time, across the spread of farm sizes, and included IFA members and supporters as well as non-IFA members and non-supporters (26% of the survey respondents were not members of the IFA).

Key objectives of the research were: to identify their vision of the Burren; to explore farm families' views on the role of farming in the Burren; to assess the level of interest among Burren farm families in becoming more actively involved in shaping the future of the area; and to identify expectations and concerns regarding the future of the landscape.

A major concern identified was that there is no clear consensus about the role and value of designations in the Burren. Very few people were clear about what might be involved in either the possible UNESCO World Heritage site designation or indeed the UNESCO Geo-Park designation. Most people were however open, and in many cases keen, to learn more about the various designations and the impacts they might have on farming practices.

The second most commonly identified concern (identified 34 times) was scrub infestation and the fear that the scrub will be allowed to take over the Burren due to low stocking levels. Respondents also had concerns in relation to profitability (identified 17 times) and the future of farming (identified 13 times). The comments made by the respondents provide very vivid illustrations of their concerns: 'If profitability does not improve we will struggle to stay farming as a livelihood' and; (about profitability of farming post grant funding) 'The price of cattle and sheep has dropped in real terms in the 20-30 years'.

The issue of public access which was frequently linked to tourism was raised by farm families across the Burren. It was an emotive issue with two very different sets of responses. One response was that if the issue of liability was sorted and access was controlled and managed to ensure the privacy of the farm family and the safety of livestock and crops, then there would be no problem with public access. A minority view linked to this is that access should be provided only in limited areas. The second response was scepticism about whether the issue of liability could be sorted and a view that public access and farming were generally not compatible. There would appear to be very limited connections between farming and tourism; only 8% of the families surveyed had tourism based businesses on their farm. There was a strong view that issues threatening farm futures and the Burren landscape need to be addressed before the Burren is further promoted as a tourism destination. Despite these comments, some respondent suggested that the benefits of tourism should be spread across the wider community to include farmers.

Poor water and waste water management practices were also identified by respondents as having a negative impact on the Burren. Other issues,

identified by respondents, that need to be addressed if the Burren is to be well taken care of would include: the better control and management of the goat population and to a lesser extent the pine marten, badger and mink populations; and the need for greater local input (with farmer input specifically identified by some) into decision making. Burren IFA, Burren LIFE, Teagasc, and Burren Beo Trust were all identified as having potential to represent the views of Burren Farm Families. Respondents also identified concerns in relation to access for visitors and the need for greater levels of conservation of the unique habitat and archaeology of the area. A number of respondents were frustrated by the lack of funding available to support initiatives in the Burren.

However it was revealed that there is wide community support for the Burren LIFE stakeholders and that the project is having a positive impact on perceived prospects for future farmers. 63% of survey respondents said that they have successors for the farm and hoped that conservation farming could provide a viable source of income for the future. Given the difficulties of being a farmer in the Burren, as outlined earlier, this figure is representative of the will of local families to stay farming and to be involved in the bigger picture and management of the Burren landscape. It is also hoped that the Burren Life project will be rolled out to all farmers so that a proper management plan can be drawn up for each field in the Burren. This plan must include provision of a decent standard of living for the farmer in payment for this necessary environmental work. The LIFE team must be kept in place to monitor, continuing research, and advising on best practice.⁴

Summary

It is now widely accepted that farming the Burren is the only way to ensure a responsible and sustainable management of this unique landscape. Therefore the farmer is the foundation stone and must be central in the overall management plan. With such an approach, the Burren living landscape can be conserved, through the guarantee of proper funding, a unified visitor management strategy and the development of agri-tourism projects. These human efforts will ultimately deliver the most important result of protecting a unique national asset and one of the most special landscapes in Europe.

Burren farmers as articulated are committed to the protection of the landscape and are prepared to participate in any future role. But it is public opinion and the availability of resources that will eventually decide on that future. To quote the eloquent words of the late John O'Donoghue (Burren-born poet) when referring to the aging population of Burren farmers (Clare Champion 11-2-00): 'There is a world in the land, a farming world of the most sophisticated complexity and the most astute and rich memory that in the next ten years will have vanished completely'.

* * *

The author

Michael G. Davoren is a sixth generation Burren farmer with a farm of 110 hectares (including typical Burren 'winterage' land and a herd of 40 suckler cows) which requires at a minimum 20 hours of labour a week. Like many Burren Farmers, the farm alone is not a sufficient source of income and Michael supplements this with full time employment outside the farm. He is a founder member and Chairman of Burren IFA and has been involved in negotiations on farming issues for the past twenty years. He currently serves on IFA national executive in the rural development committee; he is a member of the steering committee of the Burren Life Project and on the advisory committee of Burren Connect.

¹ A financial instrument supporting environmental and nature conservation projects in Special Areas of Conservation throughout the EU.

² Burren Beo trust is a local charity dedicated to the sustainable management of the Burren

³ Dr Kathy Walsh, K W Research and Associates.

⁴ Press announcement July 2009 €1 million each year for three years to support high environmental value farming, with tourism spin-off, in the Burren, continuing and mainstreaming the pilot scheme operated by the Department of the Environment, Heritage and Local Government.

Challenges, Changes and Opportunities in the Irish Uplands

Frank Nugent, Irish Uplands Council

Background

Over the past decade and in some cases longer, the development of area-based sustainable management systems through the participatory involvement of those who work in, live in or use the relevant geographic area has been the aim of many agencies, organisations, and individuals in this country. In some cases quite a distance has been travelled along this path, while in others attempts have been made, problems met, and aspirations diminished.

The favoured methodology used to promote this type of participatory planning is often referred to as bottom-up development, its primary premise being subsidiarity – i.e. the devolution of power to local level – ideas and formulations being devised by those who are most aware of the local issues and structures. The Irish Uplands Forum strongly believes that there is nobody more aware of the issues affecting a local area and how they have evolved than the community that lives in that area. They believe that this model of planning and development is worth pursuing and, if it should falter, even more energy must be expended to identify the problems and try to resolve them.

Established following a national conference held in Galway in 1995, at which the issues impacting on the management of the upland regions of Ireland at that time were explored, the Irish Uplands Forum (IUF) is a voluntary group whose primary focus is the pursuit of a partnership approach to sustainable upland management. Upland areas encompass mountain, hill, and moorland environments (usually above 300 metres but in some cases extending down to surrounding lowland) and their associated communities. It is a strongly held belief of the IUF membership that the uplands must be considered, not just in terms of their physical environment, but in a holistic way which acknowledges the role of upland communities. The benefits arising from the development of a positive community network in pursuit of a partnership approach to sustainable upland management motivates and sustains the actions of the IUF (Phillips, WEA 1999).

The theory may be easy, but its implementation is not always plain sailing. Humans agree and disagree. The balance of power and resources available between agencies and local communities varies. The interests of various individuals and groups vary. Within the participatory planning structure

each stakeholder group primarily pursues its own goals. Problems arise when the pursuance of one stakeholder group's goals is at variance with another's. It is the action of resolving these problems and working together towards a satisfactory compromise that occupies much of the energy of the people involved. In order to survive and succeed the group must have enough energy and resources available to see these actions through. The process required for implementation of the theory demands the long term commitment of all those involved and access to resources. If either is not available the process falters and sometimes fails.

The research

Since the Irish Upland Forum's inception in 1995, there have been many political and socio-economic changes at local, national and EU level. Progress has been made in the resolution of some of the issues identified at the Galway conference (Hogan D., Phillips WEA, 1996) through changes in various farm policies, LEADER initiatives, and publication of the National Countryside Recreation Strategy, while new issues and challenges have emerged.

In order to obtain a current status report on the issues identified in 1995, to identify new and emerging issues in upland areas and uncover the opportunities for upland areas in the changed context of Ireland 2009, IUF commissioned the 'Challenges, Changes and Opportunities in the Irish Uplands' research project, which commenced in February 2009. This research is being carried out on behalf of IUF, by Zena Hoctor, of DARE Ltd, a rural development consultancy based in Kinvara, Co. Galway.

The project is currently zoning in on three upland areas:

- North Sligo / North Leitrim uplands
- The Comeragh Mountains in County Waterford
- The Twelve Bens and Benchoonas of north-west Connemara

A local consultation process is being undertaken in order to obtain a comprehensive view of the upland issues within each geographic area from various perspectives. Ideas on the future of the upland economy, how farm incomes can be maintained, improved or supported, how community living can be enhanced, and how challenges of integration are best resolved are being explored with the local people.

This community consultation began in May 2009 and to date (July 2009) approximately two-thirds of the sample group have been interviewed. Three different groups are being interviewed within each geographic area:

- Farmers/landowners (total of 45),
- Local community residents (total of 45)
- Statutory and non-statutory local and regional agencies/organisations (total of 25).

The selection of the sample group is judgement based, with a panel of key informants selected from the following sources:

- Attendees of the 1995, 2002 & 2007 IUF national conferences (Galway, Sligo & Glendalough)
- Participants in local community development organisations
- Contacts identified through rural development agencies and local authority fora
- Media coverage
- ‘Snowballing’ technique (whereby the initial informant gives contact details of further informants)
- The final sample group for each area was selected based on geographic spread.

When all interviews have been completed and returns analysed, the findings will be presented at public workshops held within the local areas, where any further views the community may wish to include will be sought. The final report for the project will be completed in November 2009. The following section outlines some of the views that have been expressed by key informants through the consultation process described above.

The issues

When we look at our upland landscape what do we see? It depends on the section of the landscape we choose to look at – but it also depends very much on our own socio-economic background and interests. The same piece of upland is viewed in different ways by different people depending on their perspective, interest, and lifestyle. This difference in perspective is what we must be aware of, learn to understand, and respect in our desire to create sustainable management systems.

The farmer views the uplands in terms of type and yield quality, but also in terms of family connection. He is the owner or has rights on the land. It is likely to have been in the family for generations. An obligation is seen to protect and keep the land within the family – for self preservation, family loyalty and future generations. One farmer made the comment: ‘it’s like being an alcoholic – the alcoholic can’t stop drinking and I can’t stop farming – it’s an addiction’.

This deep rooted connection to the uplands, the need to work the land, although it may not be economically advantageous, is not easily understood by outsiders, especially those with a business or economic background.

The farmer is concerned with the future of farming. Stock prices have fallen. Very often the amount of money invested in the rearing of an animal is more than the amount returned at market. Compulsory de-stocking of the hills is making hill sheep farming unprofitable. Present farming regulations prevent him carrying out tasks on the farm at suitable times – calendar farming is the buzzword. Farm payments such as the single farm payment and REPS are not secure into the future. Succession is a problem as less young people are willing to take over the mantle of the small hill farm. The farming population is ageing and many older farmers have no immediate

family to inherit the land. The fear is that the level of farming will diminish and the uplands will be abandoned. Scrub and invasive species will take over. Outsiders talk of the uplands being used for recreational purposes – but how does this help the farmer? Currently, in most areas, there is no economic gain from these activities. In some cases it brings trouble – in the instances of gates being left open, fences being knocked, littering, dogs worrying sheep and the fear of insurance cases. It is often stated that if farmers want to benefit from recreational activities on their land that they should provide services for visitors – the often cited ‘agri-tourism’ solution – but to do this requires capital and resources (human and physical) and due to the limited size of the market not every farm in one area can have a viable agri-tourism product.

The developer/entrepreneur’s aim is to utilise the economic potential of the landscape and introduce changes to promote the local economy. However, opportunities to provide services for recreationalists, or develop alternative enterprises such as renewable energy projects, are often hampered by planning issues and conservation designations. Due to their unique habitats, much of the uplands are designated as Special Areas of Conservation (SACs) and/or Natural Heritage Areas (NHAs). This can result in restrictions being placed on development. Through the IUF research project, many farmers expressed the wish to develop wind energy projects but due to designations and the scenic location of their land, they felt that such projects would not pass planning and they could not afford the resources to pursue the planning process which would involve the compilation of complex and costly Environmental Impact Assessments (EIAs).

The ecologist sees a patchwork quilt of upland habitats – supporting a variety of flora and fauna. The patches are interconnected and interdependent on each other. The ecologist is interested in the maintenance of that patchwork quilt – in preventing any fraying at the edges or holes appearing in its centre. The ecologist is concerned with changes in upland habitats and loss of biological diversity. Upland habitats are distinct from the lowland rural habitats that surround them, and the farming practices in the uplands are also different from those in the lowlands. Farming practices are driven by regulations and economic incentive packages which are designed at central level for national use. They are not adapted to variations in local climatic conditions, habitats and traditional farming practices. Headage payments in the past led to overgrazing and subsequent erosion of soil cover on the uplands. Payments for de-stocking have been the answer to this in recent years – but the level of de-stocking is now allowing scrub encroachment in some areas. Bracken is taking over several areas and invasive species such as rhododendron and gunnera are increasing. If farming in the uplands decreases, land abandonment and further scrub encroachment will lead to the destruction of many diverse habitats which require grazing to

maintain a good diversity. Will recently introduced 'burning of vegetation' regulations lead to increased growth of heather and gorse at the expense of other species and lead to further decrease in the diversity of habitats? The effects of climate change on upland habitats are more difficult to identify as the change occurs over a much longer timeframe and may not be so obvious to the eye. But there is no doubt that changes in farming practices are resulting in habitat change in the uplands.

The forester zooms in on specific sections of the upland landscape, assessing mentally the quality and age of existing forestry plantations. Depending on the forester's role in the sector he may assess the area in terms of potential for recreational activity. Coillte Recreation Managers are involved in planning facilities which will enhance and protect the natural environment, while allowing a safe visitor experience. The forester/forestry owner is concerned with the increasing amount of illegal dumping occurring within forestry plantations. Its removal is an extra cost and, if it isn't removed, prosecutions may follow.

Local authority planners see a landscape which is potentially fragile and must be developed in a cautious manner. As with all other regions under their remit, services must be provided for the local community and tourism/recreational demands. But the sensitivities of the upland area may present problems in the delivery of such services. The quality of the water must be protected, a suitable standard of road infrastructure must be maintained, illegal dumping and littering must be controlled, natural and built heritage sites must be protected, scenic views must be preserved, conservation designations must be respected and new buildings must be designed to fit into this unique landscape. Local authorities are constantly being criticised for mismanagement and bad planning decisions. Because of this criticism it is difficult for them to consult at local level. Such consultation is often seen by council employees as the responsibility of the elected councillors.

The local community residents see the scenic quality of the landscape that surrounds them. It is a backdrop to where they have chosen to live. They appreciate the peacefulness of the countryside, the local community togetherness and vibe, the 'feel good' factor of rural living, nice places in which to walk and play with their children and family. It is their 'own place'. The local community want to see their area developed with proper services for themselves and visitors. Water pollution, sewage treatment, litter, illegal dumping, and planning issues especially with regard to one-off housing are major concerns of the local community residents in upland areas. They do not want overdevelopment. In general they do not want large tourism centres. They want a planning system that allows their families to live in the uplands.

Recreationalists¹ see a scenic landscape which provides opportunities for physical exercise and spiritual refreshment. They feel a sense of connection with the uplands. This unique landscape that draws people in is seen as a

'public good' (i.e., that it should be accessible and its use by one individual should not reduce its availability for others). Recreationalists want continuity of access, as well as services and facilities in the areas of the uplands they wish to use for their chosen activity.

A large number of respondents (from each of the three group types interviewed) stated that they wish to see a management plan and system put in place in their area which would address their issues. The majority of the respondents expressed an interest in being involved in the development of such a plan.

The challenges

A diversity of habitats, scenic views and access for recreation have in general been maintained, up to now, in upland areas through extensive agricultural practices with undergrowth controlled by grazing. If such a system of farming is not maintained into the future, whether due to economic reasons or lack of young people taking up farming, the uplands are in danger of becoming under-managed. Reductions in grazing on upland acid grassland can lead to invasion by bracken and gorse species. Lack of management leads to habitat loss, blocking of views in scenic locations and impedes access along paths and trails.

At this current time there is a fear that the small upland farm is in danger of extinction. It can no longer support a farm family. The majority of farm families who own such properties are heavily dependent on off-farm income sources. The age profile of the average upland farmer is increasing and there are fewer young farmers coming forward. In some cases the farms are owned by elderly bachelors with no immediate family to inherit the land. The farmers' view for the future is that land will be abandoned, sold to outside developers, planted with forestry, or amalgamated into larger farms.

Increased pressure on the scenic uplands by visitors from outside these areas has resulted in problems for the landowner and the local resident. Litter and dumping are a major cause of concern. Access to or through privately owned land for sightseeing, hill walking, horse riding, etc., is contentious in certain areas of the uplands. Although many landowners welcome recreationalists onto their land they request that certain conditions are obeyed. These include asking for permission to cross the land, carrying insurance, shutting gates, avoiding climbing fences, keeping dogs under control, not blocking entrances when parking, taking litter home, and generally respecting the landowner's property.

In general the recreationalist is willing to accede to the landowner's requests. However the major problem in seeking permission is the identification and location of all relevant landowners. This is not practical and especially problematic for strangers to an area.

The opportunity

How do we manage our upland landscape into the future? How do we ensure that uplands are included in national, regional and local level planning, (e.g. county development plans, forest management plans and farm plans)? Can this be addressed through an overarching National Landscape Strategy?

Upland landscapes must be allowed to evolve and support communities to live and work there. The difficulties of making a living in an upland area, as opposed to a lowland one, should be recognised and the challenges inherent in this identified and addressed.

- a) The distinctive and high quality natural heritage of the uplands needs to be protected through the development of agri-incentive schemes that are sensitive to local conditions.
- b) Farming needs to be encouraged and supported and alternative on-farm enterprises explored and developed.
- c) Local indigenous industry and the possibilities for sustainable commercial opportunities, such as eco-tourism and the development of renewable energy enterprises, should be explored, encouraged and supported.
- d) Human communities must be provided with necessary basic services such as clean water, sanitation, reliable power supply, internet access, transport and road infrastructure in a sustainable manner.
- e) Access for recreationalists must be resolved. People who live in upland areas should explore ways to allow access that are compatible with their own needs. Those who visit the area must respect and value the property of the local community. Everyone must respect each other's views and the unique environment which surrounds them.
- f) Facilities and infrastructure for the development of tourism and recreational activities in the uplands need to be planned and developed.
- g) There needs to be a consensus on management. An emphasis on identifying issues of shared concern will provide a solid foundation. Development and management plans must be holistic, inclusive, and dynamic. The process of delivering such plans needs to be given careful consideration and time.

With regard to the issue of inclusiveness, the views expressed by the respondents during the IUF research showed that not everyone within the community wants to be involved (or is capable of being involved) in the process of developing plans – but everyone likes to be informed and it is this method of information sharing that is most important – it must allow time for discussion and for expression of views even by those not directly involved. Stakeholder representatives involved in such a process should bear in mind that they are only representatives; they should not make decisions without approval from those they represent.

This may present itself as a cumbersome and arduous task especially to those accustomed to meetings where decisions are made by a small group of people within a couple of hours. Decisions made in this way in the past have created big problems in the development of local management plans and have led to the process being made even longer and more arduous and in some cases failure with large amounts of revenue and resources being wasted.

In order to maintain full inclusiveness and participation, the commitment to the process must be long term. Under present structures, this type of commitment is more suited to community groups than to employed individuals within statutory organisations where immediate results are demanded and there is pressure to move on to the next project. Human, physical, and economic resources must be committed over a longer term to ensure success by both statutory, non-statutory and community organisations. This is a lesson which can be clearly seen in the success of such initiatives as the Wicklow Uplands Council and the BurrenLife project.

Consultation and dissemination of information from the process must be continuous. Resources must be committed to information dissemination from the outset. Technology can be extremely helpful but awareness of those members of the local community who may not be on-line must be included. The representatives of the process must ensure they are getting the message out to those they represent and that they are taking back the views of those they represent to the process table.

These are the views expressed at local level and it is these issues and opportunities for development that need to be included in local, regional and national planning and in the formulation of the National Landscape Strategy.

The IUF's view is that the process required to achieve successful sustainable management of upland areas must be based on the involvement of fully inclusive locally based partnership fora. Development of a National Landscape Strategy provides an opportunity to put such fora in context. A main focus should be on the processes within these fora and the commitment of resources required in terms of size, longevity, and action allocation (e.g., a large amount to information dissemination). Stakeholders within the process must agree to long term commitments. Successful sustainable management systems for upland areas cannot be devised over a couple of months. The resulting system, whether or not it involves a formally adopted management plan, must be dynamic and relevant. Each upland region has its own issues and each management system should reflect these issues. The framework for the management system must be drawn up at local level by local people. It should revolve around engaging with the local community, addressing local needs while also connecting with the broader regional and national issues of upland landscape management. An early concentration on issues of shared concern should strengthen the system. It must be under

continuous review and be updated in the context of changing issues in the upland area. The management system must be capable of adaptation, as must the stakeholders involved in that system, while still remaining focused on achieving set goals within set time frames.

* * *

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¹ Recreationalist is a broad term encompassing both enthusiast and casual participants in sporting, recreation and holiday pursuits which contribute to a healthy, active lifestyle and are based on the use of the resources of the countryside. Due to the limited scope of this research the views of recreationalists included in this paper are mainly those of recreationalists resident in the local community.

Looking around: Looking ahead in the Wicklow uplands

Colin Murphy, Director, Wicklow Uplands Council Ltd

1. Introduction

County Wicklow presents a microcosm of Ireland's landscapes of outstanding quality. The beautiful central area, with its sweep of domed mountains, conical peaks, mountain lakes and deep valleys, forms the largest upland area in Ireland. The sharply stepped eastern and more open rolling valley landscapes to the west are dominated by agriculture, with a richness of broadleaf woodlands, and an architectural heritage ranging from the vernacular to great houses and estates of the eighteenth and nineteenth century with their associated villages. Within the 70km of coastline lie rocky headlands and coves, sandy beaches, dune complexes, saltmarshes and shingle beaches. South Wicklow is a world of its own with major valleys, a hummocked lowland and sharp hills. It is dominated by agriculture and forestry dating back to the eighteenth century whose estate houses and villages still contribute to the distinct character of the area. The county is the most afforested one in Ireland with a 17% cover (c.94% conifers and c.6% broadleaf). Every element of the Wicklow landscape shows the strong impacts of human activity. Continuity of its management is shown by the enduring presence of family names such as Byrne, Doyle, Dwyer, Kavanagh, and O'Toole. Wicklow acted as a spiritual haven for the early Celtic Church, a power base and refuge for generations of rebels against British rule, a settlement area for the wealthy, and more recently a dormitory and recreational resource for the citizens of Dublin (Adrian Phillips 1999).

This story reflects Wicklow Uplands Council's journey over the past 10 years. Looking around, the story attempts to explain what has happened with this unique experiment in 'landscape management and development by consensus' and, looking ahead, a view of the horizon is offered.

Apprehensions around the future of the Wicklow rural and cultural landscape, especially for the farming community are simply put: 'The Wicklow uplands landscape has been fashioned and managed for millennia by human activity, so it follows that people must stay on farms to continue this evolutionary process'. Dealing with this reality exercises minds as much in 2009 as it did in 1999.

2. Socio-economic overview of the Wicklow uplands

Ireland has experienced a population growth of 20.3% between 1991 and 2006. This was exceeded by Wicklow (29.7%; total population 126,000 in 2006), due to its location within Dublin's commuter belt. Despite being a rural county, because of its attractiveness and proximity to Dublin, Wicklow has no rural areas experiencing significant population decline. However the population dynamic is changing, with greater growth on the outskirts of larger towns.

In line with national trends, Wicklow has seen a decline in the number at work in agriculture:

Table 1

	Overall number of farmers	As % of those at work
1991	3,097	11.8%
2002	2,444	5.1%
2006	2,294	4.0%

Central Statistics Office

This decline is having a major negative effect on rural communities. There was a significant decrease in the numbers of full-time and a slight increase in the numbers of part-time farmers during this period, which also saw a significant decrease in specialist tillage, beef, dairy, and sheep farmers and a slight increase in the numbers of mixed grazing farmers. As in other counties adjacent to Dublin, Wicklow has experienced the pressure of 'urban shadow' and has 'lost' some 2,200ha of agricultural land to infrastructure and housing. Land use, which was dominated by traditional agriculture, is changing to include more varied patterns such as alternative crops and animals, farm forestry, tourism etc., (County Wicklow Partnership 2008).

As the late Adrian Phillips shows above, the Wicklow uplands is a microcosm of Ireland's landscape, so it follows that the region is also a microcosm of the nation's agricultural sector. At one end of the spectrum is traditional sheep and suckler cow farming but this is not the full story. Wicklow is the most afforested county in Ireland, with 43,000 ha. of woodland, 13,000 ha. of which are privately owned. 250 Wicklow dairy herds, mostly in the uplands, produce for the (drinking) liquid milk market. The Wicklow average milk quota, c. 80,000 gallons, is approximately 1.5 times the national norm. Average farm size, at 42.2 ha., is also higher than elsewhere. Average suckler cow herd size at 20.5, though appearing small, is among the highest in the country. There are c. 420,000 ewes in the region and 14,000ha. are in tillage. Based on the low uptake of the Farm Assist programme, Wicklow farmers appear to be amongst the most prosperous nationally.

3. Towards local consensus on landscape management

The continuing development and expansion of the Wicklow Mountains National Park, begun in the 1990s, brings major challenges and opportunities to the region especially in terms of agriculture, tourism, recreation, conservation, forestry, and sustainable development in general. In addition, the designation of nature conservation areas outside the Park, and the Irish government's commitment to develop a national landscape strategy, also serve to raise hopes and concerns. Hopefully, these will be allayed when more information and good stakeholder consultation become available.

In developing its responses to these challenges, Wicklow Uplands Council (the Council) has committed itself to engaging in a number of programmes and projects around visitor activity and tourism, most recently, contributing to the development of the County Wicklow Outdoor Recreation Strategy. The latter studies how outdoor recreation activity can be developed and managed in ways that maximise the economic, social and health benefits for local residents and visitors, whilst minimising negative impacts. Finding a balance, as usual, is the task for the council and its partners.

The world of regulation

Everywhere there are new rules, categories, restrictions, conventions, laws, policies. The need to comply creates the sense that everything is getting more and more complicated. In this context, tradition, originality, and raw common sense can easily be ignored. For landowners, and for others who want to be in the uplands, the questions are: 'Who decides? Who are the experts? Where is the balance?'

4. Issues (this list is not exhaustive)

Sustaining rural communities

- The life and landscape of the uplands is inextricably linked to the numbers of people living and working there
- A significantly increased level of economic activity is vital to overall sustainability. The path to this objective is too often strewn with impediments and obstacles

Outdoor recreation/providing for visitors

- Increasing visitor demands for outdoor recreation of all kinds and its planning, resourcing and management
- Congestion on narrow roads, inadequate and inappropriate parking of cars and buses
- Difficulty for visitors in knowing where they are welcome and *vice versa*

Landscape management

- Need for a working definition: 'What is landscape?'
- Control of vegetation, especially heather (are restricted burning periods counterproductive?)
- Over-population of deer
- Signage, maps, interpretation, access
- Resistance by some to further landscape regulation

How the Council addresses these and other issues is the subject of section 5.

5. Profile of Wicklow uplands council

A number of public meetings were held in 1996 with the view to forming a body in the Wicklow/Dublin uplands that would look after the interests of groups and individuals in the area. This was a time of great uncertainty with much controversy in the air. The Wicklow Mountains National Park and the proposed development of a major interpretative centre at Luggala were the issues that galvanized people to come together. There was a strong feeling that not only was it very difficult to get information about what was planned for the uplands, worse, it seemed that the concerns and interests of local people would be largely ignored. So it was at a time when the potential for consensus was realised and what was to become Wicklow Uplands Council began its journey. The founders were inspired by Local Agenda 21 principles: '...governments should invite non-governmental organisations (NGOs) to be involved in making policies and decisions on sustainable development...'; 'NGOs...will require significant additional funding to help them contribute to sustainable development...'

In 1997, a steering committee was formed and a constitution prepared and agreed. Participating groups and individuals proceeded to form the Council, and nominate members to represent them on a 15-member board of directors. (To accommodate increasing levels of interest, the board was later increased to 19 and, ultimately, to 27 members).

In 1999, development of a three year plan for 2000/2002 was undertaken with Heritage Council funding and the Council was incorporated as a company limited by guarantee (with no share capital) and charity status was achieved.

Since its foundation, the Council has worked to deliver on its mission statement: 'Wicklow Uplands Council works for the sustainable use and enjoyment of the landscape in partnership with those who live, work, and recreate there'. This is seen internally as the basis for all actions and externally to underpin the partnerships that are sought, which seek to plug gaps in the provisions of others. Are the absences of national and local remits strengths or weaknesses? Can a local NGO continue to secure adequate funding, and avoid being side-lined or accused of interfering, especially in the statutory sector?

Membership, structure, and governance

Membership comprises more than 20 local and national organisations and a similar number of individual members. The members are organised in four panels which nominate directors to serve for a one year period on the following basis:

Panel	Number of seats
Farming and Landowning	7
Environmental and Recreational	4
Community	4
Economic and Tourism	3
Possible co-options	9
TOTAL	27

Table 2

Working for change and searching for consensus

As well as encouragement and support – which are both frequent and welcome – the Council is also criticised from time to time. This is not surprising, given how easy it can be for some people to feel frustrated, or even threatened, by new ideas, policies or projects like those referred to below.

Nevertheless, the Council is here to act both as a ginger group and a think tank to search for consensus and compromise and, of course, to proceed in ways that are acceptable to members. Given the inevitability of change, its cost, causes, effects and benefits, it is not surprising that it is often opposed and resented and that finding consensus is a tricky business. Differing views on how landscape is to be managed, and by whom, are factors here. There have also been the usual problems that beset voluntary organisations generally. These include: directors espousing projects and ideas beyond the capacity of the group to deliver on; lead times and deadlines set by statutory partners that don't fit and meeting schedules that restrict voluntary peoples' input etc.

When the Council set its hand to this work in the mid '90s, it was a given that, in addition to encouragement, support for and belief in the work – opposition, resentment and competitiveness would also come with the territory. The directors (and most people who know the organisation) are aware of the trouble that is taken to find consensus, to make it acceptable to those directly affected by it and to see it implemented on behalf of those who believe in it, and whose futures depend on it. This is why this unique forum, and its continuing efforts to make change work, deserves context, support, encouragement, and adequate resources (especially in these challenging

economic times). That's what makes this experiment so valuable – and so exciting! It's challenging work but somebody has to do it!

Partnering

From the start, and in the best tradition of Local Agenda 21, the Council's policy has been: partnerships are essential. They are seen as offering creative ways to pool resources, enabling economies of scale, avoiding duplication and being likely to optimise the use of scarce resources. Easy to say! The reality, as usual, is rather more complicated. Experience shows that good ideas and innovative solutions can soon/sometimes become the property of the stronger members of the partnership. When this happens, the originator can be deprived of its PR 'capital' and core fundraising potential. Common traps include the 'logo wars' and the realisation that a successful outcome is for the common good and therefore more important than taking or being given credit.

It remains to acknowledge that the strategic partnership with The Heritage Council has been central to Wicklow Uplands Council's development. Core funding, technical support and advice have been central to sustaining the organisation. Fostering this partnership, and developing new strategic alliances, are of great interest!

Communicating

A small organisation with limited staff and cash resources has great difficulty making a 'noise' out there. Consequently, there is a sense that 'Nobody knows what we are doing'. This ever-present challenge is encouraging us to consider adding an 'e-zine', to take more care of our website www.wicklowuplands.ie, to run more 'Walk and Talk' events that explain our policies and projects to the wider community and to encourage directors to make our work better known in the organisations that nominated them.

Networking

Given the gaps in sustainable development provision, networking offers possibilities for like-minded organisations to learn from each other's experience and provides support and encouragement to directors, staff, and members. Thus, the elements of the sustainable development NGO sector becomes more than the sum of its parts.

Doing programmes and projects

Since 1999, Wicklow Uplands Council has initiated or participated in a wide range of projects, large and small. A representative sample includes:

Theme	Programme/Project *	Partners **
Agreed access over private land to the open hills	* Wicklow Countryside Access Project.	CnaT, CWP, WCC
Budget on-farm accommodation	* Bunkhouse Barns Feasibility Study	CWP
Environmental education	* Schools Environment Project.	HC, primary schools
Heritage interpretation	* Wicklow Village Interpretative Panels.	HC, local communities,WCC, WCT
Ireland/Wales village development	Celtic Countryside Partnership.	CCW, RDCC
Litter and small scale illegal dumping	* PURE 'Protecting the Uplands Rural Environment'.	CT, DCC, DLRCC, DOE, FI, NPWS, SDCC, WCC
Local involvement in countryside management	* Conference	CWP, HC,IUF, WCC
Long distance walking trail development	Wicklow Sustainable Trails Network.	CT, FI, HC, NPWS, WCC,
Making sustainable tourism a foundation of the rural economy	Conference	EAI, HC, WCC
Outdoor recreation	Wicklow Outdoor Recreation Strategy	CT, CWP, FI, IFA, NPWS,NTO,WCC
Private forestry/woodlands	Strategy for community based forestry in County Wicklow. Wicklow Private Woodland Owners' Group.	FS, WCC FS, TT
Statutory/non statutory partnership for sustainable development	* Wicklow/Dublin Mountains Board (suspended 2007)	CT, DCC, DLRCC, ESB, FS, IFA, NPWS,SDCC, TT, WCC,
Vegetation management	* Study of management of heather	NPWS

* Initiated by Wicklow Uplands Council

** Key

CCW: Countryside Council for Wales

CRAGA: Department of Community, Rural and Gaeltacht Affairs

CT: Coillte Teoranta

CWP: County Wicklow Partnership (LEADER)

CnaT: Comhairle na Tuaithe/

The Countryside Council

DLRCC: Dun Laoghaire-

Rathdown County Council

DOE: Department of Environment,

Heritage and Local Government

ESB: Electricity Supply Board

FI: Fáilte Ireland

FS: The Forest Service, Department of Agriculture and Food

HC: The Heritage Council

IFA: Irish Farmers Association (Wicklow)

IUF: Irish Uplands Forum

NPWS: National Parks and Wildlife Service

NTO: National Trails Office

RDCC: Roundwood and District

Community Council

SDCC: South Dublin County Council

TT: Teagasc Teoranta

WCC: Wicklow County Council

WCT: Wicklow County Tourism

Table 3

Summing up

The future of Wicklow Uplands Council will be based on lessons learnt from its past, including:

- The Council was set up to foster consensus amongst diverse interest groups and individuals
- After 10 years, achievements and disappointments are recorded
- Membership is roughly 50% local and 50% interests from outside the area
- The board of directors met more than 100 times and has never taken a vote
- Reliance on public funds for most of the core costs causes some interests to question the Council's independence and autonomy
- The introduction of new ideas is equally challenging to long-standing landowners and incomers alike, making the search for compromise all the more tricky and time-consuming; promoters of change need to take a generational view, and remain good-humoured
- On the whole, recreational users and visitors tend to respond well to exposure to the needs and fears of local people
- Local people, especially landowners, tend to welcome visitors who respect their integrity and privacy
- An internal embargo on discussing landscape legislation gives comfort to some and frustrates others

Things tend to go best in the council when:

- Nothing is imposed
- Meetings are chaired with patience and skill
- As many decision-makers as possible are involved in the preparation of a project or policy
- Time is taken to include those who didn't read the meeting papers
- Even those most sceptical and critical participants see a positive outcome to an action or policy
- Statutory partners take consultation seriously
- The remit-free nature of the Council is used to best advantage with creative, useful and well-resourced policies and projects that really make a difference

6. Looking ahead – the next stage of the journey

Wicklow Uplands Council's achievements since 1999 can take it forward on the next phase of the journey. The frameworks exist to chart the course, provided all voices are heard and heeded. Then the sustainable development of the uplands will rest in safe hands.

Big questions remain:

- What does the Council need to enable it to continue to deliver its mission in terms of consensus, core funding, and statutory partnerships?
- How can it learn from the past and develop positive relationships?

- What is latest international, national, and local thinking on sustainable development in general and Local Agenda 21 in particular? (There are, after all, 90 years of the century to go!)

The Council can play a full part in providing effective and appropriate local leadership in the areas of planning, landscape management, and landscape conservation. It can continue to advocate an integrated, multidisciplinary approach where the voices of the communities are heard and trusted, and to play its part in partnerships and networks as needs and resources permit. This could result in the best outcomes for communities and visitors alike and will sustain the full range of research and practical actions.

After ten years, it is possible to hope that this sustainable development NGO sans frontières will continue to fulfil its mission: To work for the sustainable use and enjoyment of the local landscape, in partnership with those who live, work and recreate there.

* * *

The author

Colin Murphy is Director of Wicklow Uplands Council. Born in Belfast and moving south with his family in 1975, Colin has been a community activist in both parts of Ireland. In addition, he has worked in other EU countries and is currently involved in the Glenree Centre for Peace and Reconciliation's activity in Israel/Palestine. Colin is Republic of Ireland director of EUROPARC Atlantic Isles. His interest in landscape issues centre round a conviction that consensus and partnership provide the best basis on which to manage change and to achieve the maximum positive involvement of local people. He lives with his wife Margaret in County Wicklow.

Tara Skryne Landscape Conservation Area: National pilot project

*Dr Loreto Guinan, Tara Skryne Landscape Project,
Planning Department, Meath Local Authorities*

A living landscape

Landscapes reflect the relationship between people, place, and nature and form the backdrop to our daily lives. Our landscapes are dynamic and constantly evolving in response to natural and human influences and can therefore be defined as *cultural landscapes* (Fairclough *et al.*, 2002). The rate of change is driven by many, often co-existing, forces such as the utilisation of natural resources, settlement patterns, development, urbanisation, tourism, recreation, agriculture, and energy which, in turn, are strongly influenced by economic, social, and political factors (Aalen *et al.*, 1997). Understanding the interrelations between these multiple forces and resulting changes is the basis for developing sustainable landscape management models. High quality landscapes are directly linked to a successful economy and underpin our tourism industry (Department of the Taoiseach, 2008).

The Tara Skryne Landscape has been shaped by human activity for thousands of years and has aesthetic, historic, archaeological, recreational, economic, educational, and environmental significance. A long history of research has revealed its mythical, royal, and symbolic attributes. O'Donovan (1836), Petrie (1939) and Macalister, R.A.S. (1931) provided early descriptions of the landscape and monuments at Tara. The Rath of the Synods was excavated from 1953 to 1954 by Ó'Riordáin and he began excavating the Mound of the Hostages in 1955, which was completed in 1959 by Ruaidhrí de Valera. Grogan (2009) and O'Sullivan (2005) co-ordinated the publication of both these excavations respectively.

The Discovery Programme, a public institution for advanced research in Irish archaeology, initiated research on Tara in 1992, an association which continues to this day. The programme sought to introduce a range of modern non-invasive survey techniques and to bring together historians, anthropologists, archaeologists, linguists and literary critics in an inter-disciplinary approach. Conor Newman directed a major topographical, geophysical and archaeological survey (Newman, 1997) while Roche (2002) published an account of a research excavation of Ráith na Ríg. Carew (2003) described the British-Israelites search for the Ark of the Covenant on the Hill of Tara from 1899-1902 and placed it within its cultural and political context. The inter-disciplinary work resulted in the publication of

a bibliography of Tara (Bhreathnach, 1995) and a major volume, edited by Bhreathnach, on the kingship and landscape of Tara (Bhreathnach, 2005).

Project background

In recent times the Tara Skryne Landscape has been the subject of intense debate in relation to the routing and construction of the M3 motorway. In 2005 the Heritage Council proposed that the designation of a Landscape Conservation Area for the Tara Skryne Landscape under Section 204 of the Planning and Development Act, 2000 offered the 'opportunity to develop a model with national application in the introduction of a national landscape strategy'. Minister Roche when issuing directions on the programme of archaeological excavations to be undertaken prior to the construction of the M3 motorway sought to address concerns raised in relation to how future development should be managed by stating that 'his Department will engage with Meath County Council to ensure appropriate policy objectives are contained in the new County Development Plan, to protect the rural character, setting and archaeological heritage of the landscape in the vicinity of Tara and the new motorway' (May 2005). In March 2007, Meath County Council adopted the County Development Plan 2007-2013 which proposed to designate 'the historic Tara Skryne area as a Landscape Conservation Area'.

This pilot project is a partnership between Meath County Council, the Heritage Council and the Department of Environment Heritage and Local Government, working with the local community and all stakeholders in a collaborative and participate manner. This project will implement the policies and objectives of the County Development Plan 2007-2013 and can be considered as part the emerging National Landscape Strategy (NLS) committed to in the Programme for Government 2007-2012. The experience gained and the issues arising will provide a central input into the development of this strategy.

Legislative and policy context: European Landscape Convention

In 2002 Ireland ratified the European Landscape Convention (ELC), which came into force in 2004, the ELC aims to promote the protection, management, and planning of all landscapes in Europe, and recognises the cultural role and significance of 'landscape'. The convention states that landscape:

- Has an important public interest role in the cultural, ecological, environmental and social fields, and constitutes a resource favourable to economic activity and whose protection, management and planning can contribute to job creation

- Contributes to the formation of local cultures and that it is a basic component of the European natural and cultural heritage, contributing to human well-being and consolidation of the European identity
- Is an important part of the quality of life for people everywhere: in urban areas and in the countryside, in degraded areas as well as in areas of high quality, in areas recognised as being of outstanding beauty as well as everyday area
- Is a key element of individual and social well-being and that its protection, management and planning entail rights and responsibilities for everyone

The principles and definitions of the European Landscape Convention, international best practices in the management of cultural landscapes and international conventions, such as, The Valletta Convention (Council of Europe, 1992) and the Burra Charter (Australian International Council on Monuments and Sites (ICOMOS) charter for places of cultural significance (1999), among others, will guide the development of this pilot and be reflected in the approach and methodologies adopted.

Planning and Development Acts 2000 to 2009 and County Meath Development Plan 2007-2013

The Planning and Development Acts 2000 to 2009 require all planning authorities to make development plans for their functional areas and to review them every six years. The objectives that a development plan must, and may, contain are listed in section 10 of and Schedule 1 to the Planning and Development Act 2000. Section 10 sets out mandatory objectives that must be contained in all development plans whereas Schedule 1 sets out discretionary objectives. The development plan sets out the strategic direction of how the county will be developed and contains policies and objectives against which individual planning applications shall be assessed.

It is a strategic policy of the County Meath Development Plan to protect the historic and archaeological landscapes of the county. It is the policy of Meath County Council to:

- Accurately assess and define objectives and policies for the conservation and preservation of all important historic landscapes and their settings in Co. Meath whilst ensuring the need to allow public enjoyment of them (HER POL 91)
- Preserve the integrity of the landscape setting of important historic landscape features for the purposes of maintaining unique and unspoilt areas of landscape character, visual amenity and character (HER POL 91)
- Protect important archaeological landscapes in co-operation with the appropriate Government agency (HER POL 59)

- Encourage and promote the appropriate management and enhancement of the county's archaeological heritage (HER POL 63)
- Promote the heritage of groups of important national monuments, inclusive of their contextual; setting and interpretation, in the operation of development management (HER POL 64)
- Employ the full extent of the statutory provisions of the Planning & Development Acts and Regulations and all other relevant legislation including the National Monuments Act to ensure the sustained protection of landscapes of exceptional value and sensitivity and in particular to protect the rural character, setting, amenity and archaeological heritage of Brú na Bóinne and the Hill of Tara, and of the surrounding areas including the area in the vicinity of the proposed M3 Motorway and its related Interchanges (HER POL 65)

The Landscape Character Assessment, carried out as part of the review of the development plan, states that 'the historic Tara Skryne area is considered to be of exceptional value and of international importance. The area is highly sensitive to development, in particular large-scale visually obtrusive developments, whether large farm buildings, infrastructure, windfarms, masts or forestry. The area has some capacity to absorb one-off housing, visitor facilities, and conversions of existing buildings. Design and siting will be instrumental in the determination of the nature and scale of development which can be absorbed within this landscape'.

Specific reference is made in the plan to future development in the vicinity of the Blundelstown Interchange in that 'it is not the intention of the Planning Authority to examine the development potential of Motorway Interchanges removed from the development centres'. In addition it is policy to:

- Facilitate the provision of motorway service stations at appropriate Interchange locations in the county subject to normal planning considerations and the undertakings of the National Roads Authority Policy Statement on the Provision of Service Areas and Rest Areas on Motorways and High Quality Dual Carriageways, with the exception of the Blundelstown Interchange having regard to the exceptional value and sensitivity of the Landscape surrounding the Hill of Tara (ED POL 18)

Currently section 204 of the 2000 Act enables planning authorities to designate landscape conservation areas (LCAs) within their functional area to preserve a landscape. It was agreed by all partners that the pilot would test this legislation, and evaluate it, as a mechanisms for the delivery of a proactive approach to landscape management.

County Meath Heritage Plan 2007-2011

In February 2006 Meath County Council established the County Meath Heritage Forum, a non-statutory advisory group to assist in the formulation and implementation of a County Heritage Plan. The Heritage Forum represents a partnership between all relevant stakeholders and includes representatives from local government, government departments and state agencies, local heritage and community groups, NGOs local businesses, local development, the farming sector, educational institutions and the heritage professions. In 2007 the first County Meath Heritage Plan 2007-2011 was adopted by Meath County Council after extensive public consultation. It is an objective of the plan 'promote an appreciation of landscape and heritage as a resource for the cultural and economic development of communities in Meath' and an action of the plan to 'pursuant to section 204 of the Planning and Development Act, 2000 seek to pilot the development and adoption of a Landscape Conservation Area'

Aims and objectives

The aim of the project is to develop a new framework, in consultation with the local community and stakeholders, to manage change within historic landscapes. Our landscapes are places where people live and work so therefore the objective is not to prevent development or change but rather to manage it in a manner which compliments the character and values of the landscape and creates vibrant communities.

The objectives of the project are to:

- Examine, learn from and adapt suitable international best practice models for the sustainable management of historic landscapes and establish long-term partnerships with organisations/agencies responsible
- Raise awareness and understanding of the significance of the Tara Skryne Landscape and the European Landscape Convention (ELC)
- Develop a participative process to collaborate in an inclusive and open manner with stakeholders, the public and residents within the Tara Skryne Landscape
- Implement the relevant policies and objectives of the County Meath Development Plan 2007-2013
- Agree, after consultation, the criteria to define the character and values of the Tara-Skryne Landscape and to designate a Landscape Conservation Area under Section 204 of the Planning and Development Act, 2000
- Prepare a Landscape Management Plan for the Tara-Skryne Landscape Conservation Area
- Review and monitor the effectiveness of the Landscape Conservation Area and to inform the development of a National Landscape Strategy

- Develop protocols and training tools utilising Information Communication Technology for local authority staff and other key stakeholders to inform the management of the Tara Skryne Landscape

Work programme

The project will be undertaken by Meath County Council's Planning Department in partnership with the Heritage Council and the Department of Environment, Heritage and Local Government. It's important to understand what the landscape is like today, how it came to be like that so that we can determine how to manage it into the future. The following is a brief outline of the work programme:

Phase 1:

Conception and research

- Review of existing published material on the Tara-Skryne Landscape (including extensive site visits)
- Review of international best practice in sustainable management of cultural/historic landscapes
- Collating available remote sensing and digital data (geology, soils, geomorphology, topography, archaeological sites, rivers, historical OS mapping data, aerial photography, Lidar data etc.)
- Review of existing land use policy and strategic policy documents (local, regional, national and international)
- Establishing a dedicated Geographic Information System (GIS) to present, display and analyse data, which will be an important tool in the management of the Landscape Conservation Area into the future

Phase 2:

Public participation

- Raising awareness and understanding of the Tara-Skryne Landscape
- Consultation and engagement with the local community and stakeholders in a participative manner
- Establishing a project website to publicise the project, interface with the public and stakeholders and report on progress
- Identifying benefits to partners arising from designation in the economic, social and environmental spheres of activity

Phase 3: Management plan

- Putting in place an agreed Management Plan for the Area

Conclusion

The Tara Skryne Landscape will continue to evolve over time and the challenge is to influence and manage this change in a positive and sustainable manner that can deliver economic, social and environmental benefits such as employment, health, education, recreation and a high quality environment. However we must also ensure that future generations have the opportunity to learn from, appreciate and enjoy the character and values of this special place.

* * *

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The author

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The Landscape Circle

Terry O'Regan, Landscape Alliance Ireland

'And the seasons they go round and round,
And the painted ponies go up and down,
We're captive on the carousel of time.
We can't return, we can only look behind from where we came,
And go round and round in the circle game.'

Joni Mitchell, Circle Game

East Waterford features a landscape of modest rounded hills and valleys, a rolling lowland with the mighty Comeragh Mountains on the horizon to the northwest. Downriver from Waterford city the local highpoint 'The Minaun' hill presides over the erstwhile fishing village of Cheekpoint, Great Island Power station and the stately meeting of the Rivers Suir, Nore and Barrow. It was said that on a clear day you could see five counties from the weathered rocky summit of the Minaun – Waterford, Wexford, Kilkenny, Carlow, and Wicklow. In the early '60s as a teenager I cycled there, climbed the hill, and proved the saying – that was my first satellite landscape circle!

'The Minaun' was subsequently planted with coniferous forestry, on a recent return visit, I failed to find the summit, let alone view the five counties.

This paper is about circles, landscapes and landscape circles – primarily as in the *Landscape Circle Guide Book* published by Landscape Alliance Ireland in October of last year as a landscape awareness-raising and education/training measure in support of the European Landscape Convention.

It is hard to escape circles, though the human race has had a love/hate relationship with them. We try hard to square the circle – with suspect success. It is not easy to cage circles.

It is only a few millennia since Euclid gave us geometry and argued that the shortest distance between two points is a straight line. Ptolemy, Copernicus, and Galileo subsequently threw a few celestial yo-yos, Frisbees, and hula hoops into the debate. And then Einstein really complicated matters with his research into time and space, establishing that the straight line is in fact a curve and every curve is part of a circle. And Beckham went on to give us the bend – a curve with a score at the end.

Such rounded concepts upset those who chose to believe that we live on a flat earth. There are still a few believers today who would have us inhabiting a flat earth – as engineers they now build motorways – flattening

and straightening the landscape as they go. Maybe a few shares in the Flat Earth Society could yet be a wise investment. Just as we ourselves run the risk of detached retinas with age, as communities we run the risk of detached landscapes with our road-building rage.

This came home to me recently travelling the efficient new motorway from Cork to Dublin – it may come close to being the shortest distance between two state capitols, but it might also be the shortest distance to hell – it received some attention by way of landscaping, but lost its landscape context with little or no attempt made to reinstate the stripped cultural and visual diversity – so necessary to relieve the tedium of motorway travel and sustain our intrinsic connection with landscape. Perhaps Landscape Circle guided design would greatly lessen the associated hypnotic, trajectory boredom. The distant landscape views only heighten the sense of isolation.

The circle defines the very existence of our universe; all of the planets are circular or spherical, they move in circular or elliptical patterns. Circles occur again and again both physically and symbolically in life cycles throughout the planet and the story of the human race has marked the landscape with circle after circle as is still so very evident in our rich landscape inheritance with its stone circles, ring forts, and round towers.

Sculpture-in-the-round is an art piece that can be viewed from all sides. Theatre-in-the-round; where the audience surrounds the stage and the players move through the audience originated with the ancient Greeks and Romans is popular again today for high-energy, often interactive, theatrical productions. Even Shakespeare's Globe Theatre was thought to be round (though it was apparently a polygon of 20 sides), nor was it quite in-the-round with its pit in front of the stage.

Landscape-in-the-round is a useful descriptive term for the dynamic, interactive landscape addressed by the European Landscape Convention and the Landscape Circle Guide – the players and audience are interchangeable and the set is under continuous construction, de-construction, reconstruction and too much destruction.

I would hope that the Landscape Circle concept will encourage people to appreciate the wonderful diversity of the local landscape and to not alone study it but to use the information gained to engage in more creative planning processes and lead to us construct more interesting and stimulating motorways, settlements and spaces.

In the book I used the Landscape Circle as a simple scoping tool to assist communities, individuals, groups, and indeed researchers, in undertaking landscape studies.

Such landscape studies might serve for personal enrichment, but I have more ambitious hopes for them – as a community resource and effective participative planning tools.

The guide sets out the seven steps that might be undertaken in order to complete a local landscape study – scoping, research, an image observatory,

information gathering, a SWOT (Strengths, Weaknesses, Opportunities, and Threats) analysis evaluation exercise, an action plan and the completed study or report. The illustrated booklet is available at the conference and the text is also available on our website www.landscape-forum-Ireland.com.

It is a condensed version of initiatives, methodologies, and measures that I have been fortunate to learn of over my 15 years involvement with the European Landscape Convention. I have borrowed from the horizontal layering of landscape character assessment, the visual learning process of the French Photographic Landscape Observatory, the widely used SWOT analysis tool and the consensus action plan approach of the LA21 (Local Agenda from Rio) – I just added the circle scoping technique to gather them all together ‘in the one field’.

I am not going to repeat what is readily available in the guide and on our website; instead I will explore some thoughts on landscape and circles, and even circle the landscape in this short paper.

The European Landscape Convention is a fully integrated approach to landscape care and management and it is interesting to look at it in the context of a complete circle of actions. The LAI ‘Marking Progress’ template is another of our initiatives to encourage implementation of the European Landscape Convention throughout Europe where we assign values to the articles requiring action within the convention. This document is also available on our website combined with the full text of the convention and the explanatory notes.

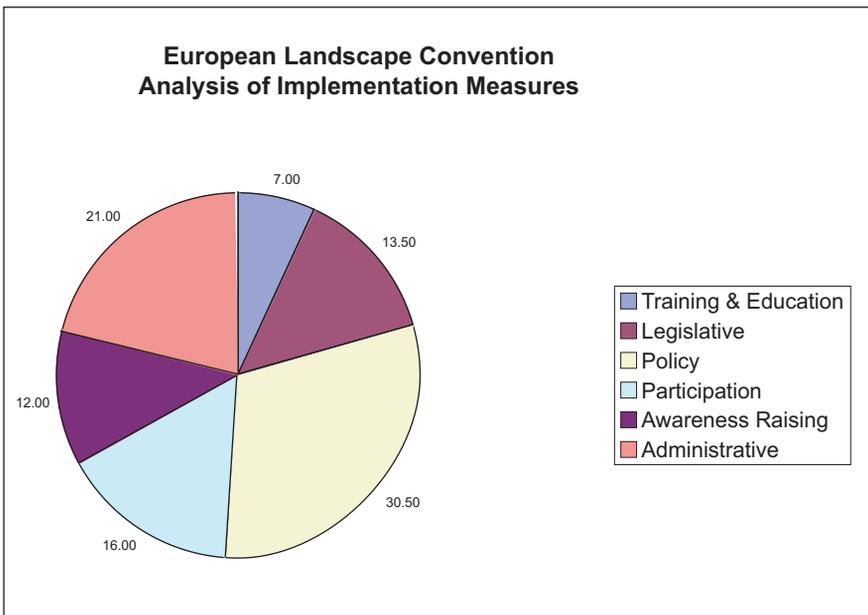


Fig. 1.

Analysing the template into the character of the implementation measures (Figure1) demonstrates that policy is the most important aspect of the European Landscape Convention followed by administrative measures, legislative measures, awareness raising and, finally, training and education.

Illustrating our marking system as a 'circular' pie-chart highlights the fact that articles 5 – General Measures and 6 – Specific Measures are the most critical measures in the convention.

When we finally reach the post legislation stage, awareness-raising must surely become the most important action.

Many attending the 2009 conference are landscape experts, specialising in different dimensions of 'Landscape Gaia'. Appropriate experts are essential for the process of implementing the convention successfully. But experts always run the danger of becoming detached from the landscape by virtue

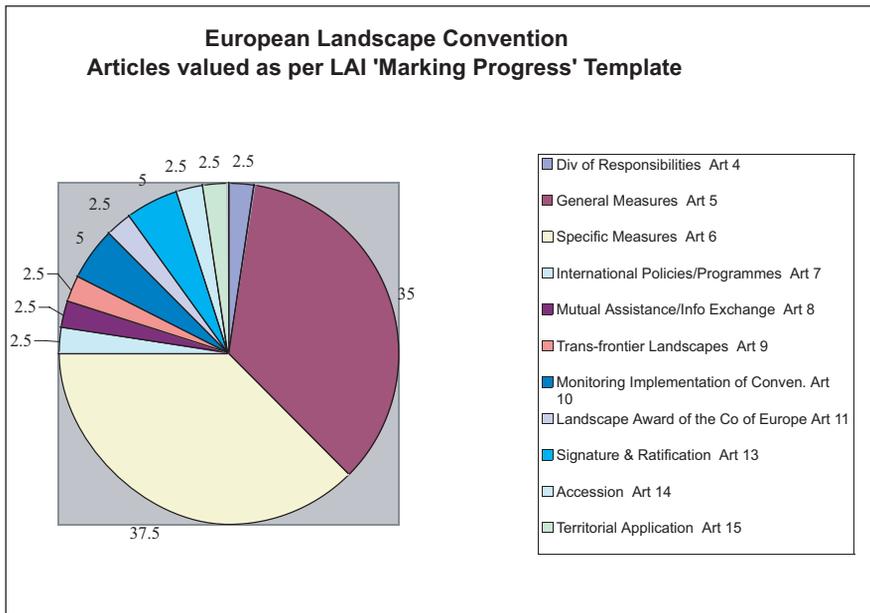


Fig. 2.

of the fact that, in their work, they often must treat landscape dispassionately as a 'laboratory specimen'.

To appreciate the potential usefulness of the Landscape Circle template, I would ask each of you to cast off your expert cloak for a moment and reflect on a personal cherished familiar landscape. Relax and enjoy; then envisage a scenario where overnight that landscape becomes the site for a planning application for a profound, invasive intervention. You desperately wish to

defend the character and essence of your cherished landscape, but have you studied and recorded it in sufficient detail to engage with the planning process within the very short timeframe available under law? That is when you may regret not having undertaken a local Landscape Circle study!

You could of course trust your fellow experts, the authorities, your public representatives, and the national landscape infrastructure. But as an expert you know the system only too well and even if it was perfect, you recognise the need for local, intimate, landscape knowledge.

James Goldsmith the financier, remarked - 'When you see the bandwagon, you are too late'. With landscape change you also risk being too late if you wait until you see the intervention become a reality. To protect, manage and plan landscape responsibly and democratically we must anticipate, prepare for, and be ready to influence interventions.

And we must do this locally! Whatever else it is landscape is always local. By all means think global, continental, European, national or regional but fail to think and act local and the landscape convention will become meaningless.

The convention was very clear on this inclusiveness in Article 2 – where it embraces the entire territory of the parties – every local piece of it.

The convention calls for many actions, the first being legislation (5a). But when you legislate, always remember the horse! 'You can lead a horse to water but you cannot make him drink!' To put that into a landscape context, we can legislate for landscape but we cannot make people respect and care for the landscape. This is a case where legislation is indicative rather than prescriptive.

Participation, awareness-raising, and engagement with landscape must take place in parallel with legislation, regulation, and research.

There are many different ways of achieving such participation and engagement. I was very impressed with the CEMAT Rural Heritage Observation Guide produced in 2003 by the Council of Europe based on original French publications and this led me to write the more landscape-focused *Guide to Undertaking a Landscape Circle Study in Seven Easy Steps*.

The guide is equally applicable for both urban and rural landscapes. I can only hope that you will take from this the inspiration to undertake such a study and to encourage local communities to get involved in their landscape using this template, in the process engaging with legislation, research and record, building up of that vital local landscape database.

I first used the image of the Landscape Circle back in 1998/9 in the context of an art and landscape project organised with Arts Council funding in association with the 1999 National Landscape Forum in Maynooth; there I drew a circle around Maynooth Town and invited five young artists to visit that Landscape Circle and react to what they found.

The project inspired some very interesting work followed by dynamic presentations at the forum and energetic aftermath discussions. We would hope to finally place this data on our website in the not too distant future.

The Landscape Circle surfaced again when I was invited to present the landscape module in a West Cork Leader heritage training course in Bantry in 2006 and as I wrestled with how best to assist the mature students on how best to approach their landscape in the context of the heritage course, I recycled the Maynooth Landscape Circle.

I have had some difficulties with the mapping produced by Landscape Character Assessment in terms of getting to grips with a local landscape and whilst I find Landscape Character Areas to be a useful tool at a county, regional, or national level, it seems to be a little unwieldy at a local level.

The Landscape Circle may be one way of overcoming this perceived limitation. As part of the training course in West Cork I looked at the example of the Rathbarry/Castlefreke landscape just beyond Clonakilty. I had become reasonably familiar with this particular landscape over a number of years and was fascinated by the influences of the Castlefreke Demesne on that local landscape and its very distinctive character.

The circle proved to be quite manageable as the total area as influenced by the Castlefreke Demesne together with the distinctive natural landscape of the area could be enclosed within a circle with a diameter of 4 kilometres.

I have since moved on to looking at the Ballincollig Landscape Circle where I live and again here I found that a circle with a diameter of 2 kilometres is more than adequate to cover a substantial tract of landscape – my local or familiar landscape.

A further more recent brief exercise has been of particular interest to me where I studied the landscape of my childhood in Waterford. Growing up in Waterford City and its hinterland in the 1950s and early 1960s, I walked a landscape into my memory – the streets, parks, and surrounding countryside. From an early age I had freedom to roam, but curiously I did not roam all that far.

I discovered this when I recently revisited this landscape in the context of the Landscape Circle guide. I applied my circle template to 'Discovery Map No. 76' and realised that I rarely strayed more than 1 kilometre from the centre of my young landscape on the Waterside in the heart of the city. The circle did enlarge a bit when I cycled rather than walked and it stretched a bit more when I drove rather than cycled. But I realised that with each outwardly mobile improvement, I experienced a further loss of immediate landscape intimacy, but sometimes added the landscape intimacy of a new usually smaller circle in magical places such as Woodstown, Dunmore East, and Tramore.

I am very aware of the dangers of discussing a very personal landscape, but I make no apologies for doing so, because it is the logical place the start. Landscape is made up of hard data and soft data, I will try to home

in on the hard data, but I will not spare you from soft data, because we are wasting our time talking landscape if we fail to do so using both sides of our brain.

Visiting that landscape today reveals many gaps and changes when compared to the landscape that I experienced in the 1950s.

Today I ask whether I appreciated the quality of that relatively static '50s landscape – the distinctive buildings of the courthouse, churches, schools, the gasworks, streetscapes with smoking chimneys, the twisty maze of streets, the Mecca that was Woolworths, the quays, the ships, the 'strong brown god' of the river Suir and its mud coursed tributaries, the green cast iron urinal, the sagging warehouses, old ruined abbeys silently echoing Gregorian chants, even older crumbling mortared city walls and strategic castellated towers, crowned by Reginald's Tower – did this tapestry map my young mind into a profound lifetime resource?

Obviously I can appreciate them all the more today because I have added layers of accumulated historical narrative and a basic understanding of architecture. I also have the stored images of many other buildings and landscapes to compare and contrast.

I began this paper in Waterford and I have completed a Landscape Circle in revisiting it again.

The landscape I experienced in the '50s was important to me but I had no control over its past, present or future, no expectation, and an un-seeing acceptance of change – if a building was demolished it was demolished, if a new building was constructed it was constructed – I was a witness to the process not a participant. Today there is an opportunity for a citizen to express concern and influence what is happening to a familiar landscape.

Every citizen of Waterford in the '50s carries a slightly different remembered familiar landscape, each equally important and one has to ask the question as to whether the official Irish landscape today or the landscape of official concern recognises the legitimacy of those remembered personal landscapes.

In our lives we go through various periods of intense landscape awareness, followed by periods of dulled awareness. The periods of most intense landscape awareness coincide with our childhood. The intensity can reoccur subsequently on visiting an unfamiliar landscape, either as tourists, visitors, or migrant workers as we mentally mark the strange surroundings. When we return to a cherished landscape after a long absence we also experience a period of intense landscape awareness often sharpened with a sense of loss. But the sharpest sense of loss accompanies the intense landscape awareness experienced when a cherished anchor landscape is changed traumatically.

The European Landscape Convention is in part about this very personal landscape of each individual citizen and the communal landscape we share with its strengths, weaknesses, opportunities, and threats.

The legislation, strategies and instruments put in place to implement the Irish National Landscape Strategy should endeavour in accordance with the spirit of the Irish constitution to address the concerns of citizens individually and communally with regard to landscape.

As I watched the progressive implementation of the European Landscape Convention, and the slow progression of landscape legislation in Ireland, I felt that there was the danger that that personal landscape could get lost in the process and that was my reason for writing the Landscape Circle guide

Going around in Landscape Circles is not a pointless exercise; you may find what you are looking for and in the process save it for future generations.

‘Sometimes you get there in spite of the route,
Losing track of your life and what it’s about.
The road seems to know when to straighten right out...
I could wonder if all of it led me to you,
I could show you the arrows and circles I drew,
I didn’t have a map, it’s the best I could do,
On the fly and on the run.’

Mary Chapin Carpenter, Elysium

The author

Terry O’Regan founded Landscape Alliance Ireland in 1995 and is its on-going co-ordinator; Council of Europe landscape expert and member of the European Landscape Convention steering committee. He is a first class honours graduate in Horticulture (UCD) with some 40 years of experience of the Irish landscape industry, a member of the Irish Landscape Institute and Institute of Horticulture, and practises as a landscape and environmental consultant. A life-long member of heritage/environmental NGOs, he convened the National Landscape Forum series (seven to date). He was founding chairperson of the LA21 body – the Cork Environmental Forum and the first to call for a national landscape policy in Ireland (1995), championing the case for such a policy over the past 15 years. He has since 1996 actively represented Ireland in the development of the European Landscape Convention and writes/lectures on all aspects of landscape evolution, assessment, quality, and management. Participated in the European Landscape Character Areas project; a contributor to the Heritage Council LCA Pilot CPD course and the 2007 KNNV publication ‘Europe’s Living Landscapes – essays exploring our identity in the countryside’. He has recently published the Landscape Circle Study Guide and the LAI ELC Marking Progress Template. He has contributed to and edited the proceedings of the National Landscape Forum and created the web-site: www.landscape-forum-ireland.com.

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