

Forestry and Wood Update ………………………….May 2003 - Volume 3 Number 5

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# COFORD Conference: Forest planning – policy and practice

COFORD will be holding a conference on Forest planning – policy and practice to be held on Friday 23 May 2003 at the Tullamore Court Hotel. The objective of the conference is to demonstrate to policy makers, planners and foresters the how and why of planning forest location and design, in a national forest policy context and at regional and local levels.

Forest location and design are two key issues for the future development of forestry and landscape in Ireland. A number of factors such as environmental designations, landscape considerations, site suitability and the ability to generate a commercial return constrain forest location, type and design. The challenge is to work within these constraints to achieve the increase in forest that is foreseen by Government policy, while ensuring that new forests and forest practices sit well with good landscape design and land-use planning.

Over the past three years these challenges have been addressed at a new level. The Forest Service introduced a consent system in October 2001 to deal with input from prescribed bodies[[1]](#footnote-1) (and in certain cases from the public) on forest location issues, including forest design. New forest landscape guidelines have also been issued by the Forest Service. These outline required practice in relation to forest location and design. Coillte, in the context of forest certification and sustainable forest management has established a forest management unit approach to facilitate consultation with local stakeholders on forest location and operations. In the meantime tools such as indicative forest strategies have been further developed, that include soil and other layers that greatly facilitate forest planning and location, particularly matching species to site.

Notwithstanding these developments, new ideas and research continue to inform the debate on forest location and design. Research work carried out on public preferences on forest location deserves to be brought to a wider audience. New approaches and research ideas related to forest location and placing forest operations in a landscape context need airing. Approaches in countries with similar levels of afforestation continue to develop.

It is timely, therefore, to outline existing practice, and how it is operating, and look to new ideas and approaches. To this end COFORD has assembled a group of leading experts and policy makers in forest location and landscape design. Their contributions are intended to move the debate beyond reactionary approaches to forest location and operations, to deal more with where and how forests should be located, how best to deal with the impact of forest operations and how we should consider and manage the landscape as an ever-changing asset modified by both man and nature.

The programme for the conference includes:

* *An overview of Forest Service national policy and instruments for forest location and design*, by Damien Allen, Forest Service
* *Forest location planning and design in Denmark*, by Dr Frank Søndergaard Jensen, Danish Forest and Landscape Research Institute
* *GIS in landscape design – things to consider*, by Pat Farrington, Forest Service
* *Forest design practice in the UK*, by Dr Simon Bell, Edinburgh College of Art
* *Coillte’s forest planning system*, by Vivian Ryan, Coillte
* *Forest location planning – indicative forest strategies and the FIPS system*, by Mike Bulfin, Teagasc
* *Forest productivity a key layer in FIPS*, by Niall Farrelly, Forest Service
* *How the Irish public view forests in the landscape – results from research*, by Tomas O’Leary, UCD
* *Making forests work in the landscape*, by Michael Cregan, Michael Cregan and Associates
* *Challenging the consensus*, by Terry O’Regan, BHL Landscape Design

For further information, please contact COFORD, phone 01-7167700 or email info@coford.ie, or download the registration form from [www.coford.ie/newsandevents/ForestPlanning.pdf](http://www.coford.ie/newsandevents/ForestPlanning.pdf)

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# Annual Conference:Wood for Energy

Following on from the success of last year’s ***Wood for Energy*** Conference in Carrick-on-Shannon, COFORD will again link up with Sustainable Energy Ireland to host ***Wood for Energy 2003***. The event will be held at the offices of the EPA at Johnstown Castle Estate in Wexford.

A new format will be employed this year. Seminar sessions will be held on:

* Wood Energy in Ireland and Europe
* Wood-fired CHP
* Heat from Wood
* Wood Pellets

A series of interactive workshops will be included to discuss key issues in greater details. Demonstrations will be available for a range of technologies for converting wood to energy. It is also hoped that a large-scale chipping demonstration can be organised in the vicinity of Johnstown Castle. Details will be finalised during the next few weeks and will be outlined in next month’s newsletter.

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# COFORD enters era of electronic publishing

The recent cutbacks in the forestry sector have severely affected COFORD’s publishing budget. The challenge to COFORD is to continue to provide the industry with reports, maintaining the standard and quality established over the years, at a significantly reduced cost.

One way of ensuring the continued and prompt publication of reports is electronic publishing. This is an extremely cost-effective and increasingly popular medium for dissemination of information. Documents presented in pdf format can be read using the software Adobe Acrobat Reader which can be downloaded free from [www.adobe.com](http://www.adobe.com). As COFORD intends publishing this newsletter in pdf format in the near future, you are encouraged to load the Adobe Reader onto your system.

The first electronic document to be launched by COFORD was the proceedings of the seminar held at Carrick-on-Shannon last October on ***Managing our broadleaf resource to produce quality hardwood timber***. This document is only available from the COFORD website and can be downloaded from [www.coford.ie/publications/proc\_broadleaf02.pdf](http://www.coford.ie/publications/proc_broadleaf02.pdf).

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# Seminar Review: Managing our broadleaf resource to produce quality hardwood timber

In October 2002 the first in a series of events on growing and managing broadleaved trees and utilising hardwood timber was organised by COFORD and held in Carrick-on-Shannon. This event proved to be most successful and is part of COFORD’s ongoing commitment to develop all aspects of the forest industry in Ireland. The overall objectives of these events are to:

bring growers and potential growers of broadleaves and processors/users of hardwoods together to increase the level of understanding of each others enterprises, practices, procedures and problems,

demonstrate effective management techniques to ensure the production of quality logs from our broadleaved forests,

showcase the range of products that can be made from home-grown hardwoods,

build momentum towards the reestablishment of a lost wood culture in Ireland.

The second event in this series was held in Kilkenny on 10 and 11 April. A group of about one hundred participants, representing the forestry and processing sector, attended the event, which was based at Hotel Kilkenny.

On the first day, the morning session was chaired by Diarmuid McAree, Forest Service. In his presentation on *The national and local broadleaf resource,* Niall Farrelly, Forest Service, set out to quantify the amount of broadleaves in Ireland, by species and by age classes. He highlighted the importance of up to date information about the broadleaf resource for planners and policy makers and identified several key issues in relation to the inventory and management of the industry in the future.

Michael Gabbett, a farmer and grower from Kilkenny, delivered a paper on *Growing broadleaves – from the growers point of view*. Michael has experimented with a wide variety of species and spoke of his experiences with growing many different broadleaves from the time he commenced planting in 1981 to the present.

Dr Peter Savill, Oxford Forestry Institute, gave a talk on *Producing quality broadleaves – the UK experience* in which he gave an overview of broadleaved woodland management in Britain, where 42% of the total forest area or 1.13 million ha is broadleaves. His paper highlighted seven factors as important in growing broadleaves: correct species choice, best and most suitable provenance and where possible genotype selection, a minimum stocking density, protection from mammals, adequate pruning and correct thinning. Peter concluded with an observation that forest policy is increasingly favouring lower impact continuous cover silviculture as it represents a more natural system of forest management

The final paper of the Thursday session was presented by Mike Bulfin, Teagasc, on *Management of broadleaves: shaping, tending and thinning*. He outlined the objectives of broadleaved management and showed the effect of formative shaping, tending and pruning and presented preliminary data collected from field demonstration plots and introduced the topics for the afternoon field session.

The afternoon session was chaired by Christy O’Donovan, Forest Service. Participants visited the farm forest of Mr Tom Mullins at Castlefield, Dungarvan, Co Kilkenny, where they had an opportunity to see and discuss a number of different treatments in ash, oak and sycamore stands.

Ned Slattery of Coillte had carried out the establishment and management of the plantation. He outlined the background that 10 ha of the farm was planted in late 1984, comprising ash and sycamore with a small area of oak. A further 9 ha was planted in 1997, mainly conifers. The final area, 56 ha, was planted in 1998, again mainly with conifers.

After Mike Bulfin introduced the four treatments at the first stop in the ash plantation, there was discussion about the general quality of the ash stems and the effects of the different treatments. The next stop was at the oak plantation where two treatments were observed and again much debate and discussion ensued. A final stop was made in the sycamore stand.

The second day’s proceedings concentrated on the utilization of Irish hardwoods. The chairman for the morning session was Tim Crowley, Coillte. The opening paper, by Gordon Knaggs, gave *An overview of hardwood use in Ireland*. Gordon described the historical development of trade in hardwood timber and then examined the situation today. The pattern of trade and imports was outlined and the properties of Irish-grown hardwoods were compared to imported species. He concluded that due to the pressure on many traditional sources of overseas supply, there is ample opportunity for further development of Irish hardwood sector.

Kevin Maye, University of Limerick, presented *Making the grade – appearances matter*, addressing the question of maximising the value of the Irish hardwood forest resource through the appearance grading of planks. Grading adds value to the material, addresses the quality issue, which is the traditional reason, joiners/furniture makers cite for not using Irish timber. It also allows for standardisation of product.

Seamus Heaney, Coillte, delivered a presentation on *Experiences in the processing of our native hardwoods*. In the processing and use of native hardwoods, much basic knowledge is required on wood quality of the different species. The importance of correct drying schedules and handling procedures as well as storage can never be overstated. All these factors are critically important to the development of a successful hardwood industry.

*ABOVE: The group in the log yard at Kingsriver Furniture.*

To conclude the morning session, Pat Phelan, Kingsriver Furniture, spoke of *The joinery sector and its material requirements*. Pat highlighted a number of critical areas for the full development of the sector, especially the development of a proper visual grading structure. He concluded by welcoming the group to his furniture workshop in the afternoon.

The afternoon session took place at Kingsriver Furniture, Stoneyford. Pat Phelan led the group on a guided tour of the company’s premises, commencing in the log yard and moving to the sawmill, the kiln, and the machining shed. The visit concluded with a visit to the assembly room and the showrooms, followed by a question and answer session. Kingsriver Furniture specialises in the production of high quality, freestanding furniture, made from Irish wood such as beech, Spanish chestnut, ash, oak, elm and sycamore. All pieces are constructed from solid wood, using traditional fixing and jointing techniques. Kingsriver Furniture was the winner of the 2000 Irish Timber Trades Association joinery award.

The event was organised by COFORD in co-operation with the Forest Service, Teagasc, Coillte, Kingsriver Furniture, Kirklands Forestry and Mr Tom Mullins, forest owner. The co-operation of all these organisations and individuals is greatly acknowledged and their commitment very much appreciated. The COFORD team is already starting preparations for the next seminar, which will probably be held in the Munster area towards the end of the year. Details will be published in the newsletter as they become available.

*ABOVE: The group in discussion at the ash plantation.*

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# Carbon and Forestry: industry briefing session

COFORD hosted a ***Carbon and Forestry*** briefing session for industry on April 2, 2003. The objective of the workshop was to bring industry representatives up-to-date with developments relating to forestry, carbon sequestration, emissions trading and emissions reduction potential of wood biomass. The following papers were presented:

* ***Carbon Trading and Land Use Projects*** by Rebecca Carr and Willie McGhee, Edinburgh Centre for Carbon Management
* ***National Climate Change Strategy, the role of forestry in the context of the NCCS and carbon trading in Ireland*** by Dr Conor Barry, DoELG
* ***Forest and Carbon – What’s it all about?*** by Dr Kenneth Byrne, FERG, UCD (and Carbifor project)
* ***FAPRI – modelling GHG emissions from agriculture and forestry*** by Trevor Donnellan, Teagasc
* ***National Carbon Accounting and CARBWARE*** by Dr Eugene Hendrick and Dr Gerhardt Gallagher, COFORD
* ***Carbon emissions reduction potential from Wood Biomass*** by Mr Joe O’Carroll, COFORD

The main finding of the meeting was that forestry, through carbon sequestration and the displacement of fossil fuels with wood biomass, can make a major contribution to the achievement of our Kyoto targets for emissions reductions. However, this contribution will not happen organically. A national forest inventory is required to verify species and volumes in the forest estate. In addition, an appropriate support mechanism must be put in place to realize the potential of wood biomass. The supports currently available are well below European norms. The introduction of a carbon tax, from which wood biomass will be exempt, will help to improve the competitiveness of wood biomass as a fuel source. COFORD has made submissions to the review of the National Climate Change Strategy to outline the contribution that forestry can make.

The presentations from the workshop are available on CD from COFORD at a price of €15 (inclusive of packing and postage). Alternatively, the papers can be downloaded from [http://www.coford.ie/workshops/carbon/
carbonandforestry.html](http://www.coford.ie/workshops/carbon/carbonandforestry.html)

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# Timber in farm buildings - new opportunities for Irish timber

As the volume of farm-grown roundwood begins to increase, it is timely to explore new potential markets for Irish timber. One of the obvious places to begin this search for new markets is on the farm. To this end, the Forest Service supported a project with the Timber Development Centre of DIT to develop design options for agricultural buildings that would maximise the use of Irish timber. This project is now complete and COFORD held a workshop on 8 April to discuss the findings and plan for the implementation of these new designs.

It was agreed at the workshop that a demonstration building should be constructed to show farm building contractors and farmers that the greater use of Irish timber in farm buildings is a viable proposition. A number of possible sites are currently being examined. When one is selected a working demonstration building will be erected and exposed to normal wear and tear to show the robustness and longevity that timber buildings can offer when suitably designed and specified.

One of the most positive outcomes from the project has been the inclusion of timber in the new Dept of Agriculture farm buildings specification. This will give farmers the confidence that specifying the greater use of timber will not compromise the acceptability of the building to Dept of Agriculture inspectors. The new specifications will be available shortly at [www.daff.ie](http://www.daff.ie).

The project report includes a range of detailed drawings for the following building types:

1. Slatted House – 3 No. x 4.8 m Bay
2. Single-sided House - 3 No. x 4.8 m Bay
3. Single-sided House with Creep Area - 3 No. x 4.8 m Bay

The drawings for each of these buildings include:

1. Column assembly details
2. Cross section
3. End cladding
4. End elevation and plan of columns
5. External column head details
6. Front, rear and end elevations
7. General detail – Purlin Fixing, etc.
8. Internal column head detail
9. Longitudinal section
10. Plywood plates
11. Rafter-knee brace-column splice
12. Ridge and rafter splice plate details

These images are available on CD from COFORD at a price of €15 (inclusive of packaging and postage). Alternatively, the papers given at the workshop can be downloaded from [www.coford.ie/workshops/timber-build/timber-farmbuildings.html](http://www.coford.ie/workshops/timber-build/timber-farmbuildings.html)

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# COFORD addresses wood waste issues

Every year Irish business spends €100s of millions on waste disposal. While wood and timber products account for a relatively small proportion of total waste, in excess of 200,000 tonnes of wood waste is generated annually. The construction and demolition sector alone generates 120,000 tonnes per annum. Increasing landfill fees and a changing legal and regulatory environment relating to the landfilling of recyclable materials are forcing companies to seek alternative outlets for their waste. Throughout Europe wood waste is used as a source of energy. Biomass is combusted for both heat and electricity generation by most EU Member States.

COFORD hosted a workshop on 3 April, which brought together the construction, furniture, waste management, and recycling sectors with legislators, local authorities and potential users of wood waste. The objective was to identify barriers to the greater use of recovered wood in the composting and energy generation markets.

The workshop objectives were:

* to identify barriers to the greater recycling and reuse of wood recoverable from the waste stream;
* to bring together all sections of the supply chain to discuss problems and solutions in an open, interactive forum;
* to develop a work plan to redress current problems in the wood waste chain and develop a strategy to ensure optimum usage of the resource.

The plenary session of the workshop was chaired by Joe O’Carroll (COFORD) and the following papers were presented:

* ***Quantification of the problem*** by Simon Dick and Rory McConnon, Clearpower
* ***Current and potential markets*** by James Hogan, Clean Technology Centre
* ***Growing wood recycling in the UK - a question of value?*** by Tom Fourcade, Waste and Recycling Action Programme (WRAP), UK
* ***Thermal treatment of wood******waste*** by Jesper Cramer, dk-Teknik, Denmark
* ***Dealing with the waste wood resource – practical case study*** by Nicolas Bailey, Bailey Waste Recycling

In the afternoon, workgroups were convened to discuss different aspects of the problem. The workgroups and their chairpersons were:

* Construction and demolition industry (Marie Whelan, Construction Industry Federation)
* Waste management companies (Eamonn Horgan, Repak)
* Recycling companies/processors of wood waste (Martin Eaves, Envirogrind Ltd)
* Current and potential consumers of wood waste (Joe O’Carroll, COFORD)
* Government and local authorities (Pearse Buckley, SEI)

Each workgroup chairperson reported back to the plenary session and the following conclusions were drawn up:

* There is a need for more accurate quantification of wood waste arisings;
* A classification system needs to be developed;
* Users and creators of wood waste need to be brought together in to address issues and open discussions with key government agencies and departments;
* Local authorities need to be educated about wood waste and its potential uses;
* The EPA has a key role to play in overcoming the licensing barriers to the large-scale combustion of wood waste.

The workshop proceedings are available on CD from COFORD at a price of €15 (incl. packaging and postage). The papers can be downloaded from [www.coford.ie/workshops/waste/management.html](http://www.coford.ie/workshops/waste/management.html).

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# Carbon Corner

## Carbon stocks and valuation

The previous issue of Carbon Corner indicated that revised estimates of carbon stocks relating to forests planted since 1990 would be issued in the near future. This work has been finished and shows that the forests which have been planted since 1990, the Article 3.3 eligible forest area, will be a considerable carbon sink for the next two decades at least. This is taking into account the releases of carbon to the atmosphere resulting from afforestation operations such as mounding and associated drainage, release from decaying vegetation as the forest closes canopy and removal of thinnings. Over 25 million tonnes of carbon dioxide could be stored in the above and below ground biomass components of the Article 3.3 eligible forest, to the end of 2022, provided a planting rate in or around 15,000 ha/annum is maintained. This carbon would make a significant contribution to the overall greenhouse gas emission reduction rate proposed under the Kyoto protocol and the National Climate Change Strategy.

Putting a value on this carbon is difficult as markets are at a very early stage of development and sinks have been excluded thus far from the EC Emissions Trading Directive (though they are an integral part of the Kyoto Protocol). Trades are however taking place and can be tracked at Point Carbon ([www.pointcarbon.com](http://www.pointcarbon.com)). There are also penalty rates which will apply under the EU Emissions Trading Directive to companies which fail to reach their emissions reduction targets, €40/tonne during the pilot phase (from 2006 to 2008) and €100/tonne thereafter, to the end of the first commitment period. If the penalty rate from the first commitment period is used the value[[2]](#footnote-2) of the 25 million tonnes carbon dioxide stored up to 2022 is €1.74 billion. If a current market value of €10/tonne is used this figure drops to €338 m. The latter figure, substantial as it is, is likely to be an underestimate of the value of carbon sequestration in national terms. First the amounts of carbon sequestered are likely to exceed the estimates, as the models use conservative assumptions that will be adjusted (most likely upwards) over time. This adjustment could be of the order of 20-30%. Second the market value of carbon is likely to increase in real terms over time as reduction targets become more stringent in the second commitment period from 2008-2012 (preparations for which are already underway) and other countries currently outside the process (such as the US) may eventually join and increase demand for carbon.

Building Ireland’s forest cover over the 20 years needed to reap the rewards indicated will need continued government and private sector involvement. Not only must forests be established but forest regulation and protection must be continually enforced to protect and enhance the existing forest resource. If forests are to deliver the climate benefits that are envisaged in the National Climate Change Strategy the reforestation obligation and forest protection measures that are in place (and enforced) at present need to be continued right through the period when they (forests) are projected to play an important role in meeting greenhouse gas emission targets.

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# Biomass project to go ahead in Enniskillen

A Stg£2 million UK government grant to help build a wood biomass heat and power plant in Fermanagh has been announced by the UK Energy Minister, Mr Brian Wilson, MP. The funding from the DTI's Bioenergy Capital Grants Scheme will help Balcas Limited with the construction of a wood biomass-fired combined heat and power (CHP) generator for their sawmill near Enniskillen. The new generator will benefit the company through reduced electricity costs; the environment through reduced emissions and the production of a new source of green fuel; and the local economy and community through the safeguarding of jobs in the forestry sector.

Minister Wilson said: “The benefits of renewable energy are self-evident. Local businesses, the community and the environment all reap the rewards. Bioenergy is especially beneficial to the rural economy. We have supported our commitment to renewable energy with action. A further Stg£60 m has been made available, bringing our total funding to nearly Stg£350 m over four years. It is projects like the Balcas CHP generator that will help us reach our environmental goals, fulfil our energy needs and create employment. It is time for biomass projects to move forward.”

The new plant will use sawdust and woodchips from the business to supply nearly all Balcas’s own electricity needs, saving the company up to Stg£1m per year in electricity costs. The heat from the new plant will be used to produce refined wood pellets - a clean fossil fuel alternative - that will generate enough heat to keep 10,000 homes warm throughout the year. The new plant will provide added security for the forestry sector and help safeguard over 1,000 jobs in rural areas of Northern Ireland. The UK Government's recent Energy White Paper placed the renewables sector at the heart of future energy policy with its commitment to producing 10% electricity from green sources, including biomass, by 2010, as well as a 60% reduction in carbon emissions by 2050. The Balcas CHP generator is one of several applications to be granted funding from a new Stg£30m allocation to promote the use of viable bioenergy technology throughout the UK.

The further deployment of bioenergy in the UK is supported by Stg£66m Capital Grants Scheme made available for electricity, heat and CHP plant by DTI and the New Opportunities Fund, and the Stg£32.5 m for energy crop establishment and infrastructure made available by DEFRA. The Capital Grants should lead to at least 100 MW of electricity from biomass and significant penetration of biomass in the heat market in the UK.

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# Difficult challenges lie ahead for new forest industry team

“The last few months have seen dramatic changes to the operating environment in which forestry companies and organisations must function,” stated George McCarthy when he was elected Chairman of IFIC, the Irish Forest Industry Chain. George is Director of Planning, Research and Environment in Coillte. Joe O’Carroll, Operations Manager at COFORD, has been elected Vice-Chairman. Joe stated that “IFIC needed to reinvent itself to better service its members needs in light of constant policy and regulatory changes affecting the forest industry in Ireland”.

Joe O’Carroll will oversee a review of IFIC’s structure and role, in consultation with each of its member organisations. The review will be completed within two months and will focus on setting priorities and delivering value-for-money from all activities undertaken or funded by IFIC. George McCarthy stated that IFIC, which is affiliated to IBEC, continues to represent all of the principal players in the forestry supply chain in Ireland.

Gerry Farrell, Executive Director of IFIC, expressed his support for the new Chairman and Vice Chairman in their goal of encouraging the refocusing of IFIC to address issues of strategic importance to the sector.

The Chairman is committed to forging new and stronger relationships between IFIC, its executive, and state departments and agencies. IFIC, as the umbrella organisation for the forest industry, will champion the vital role that the forest sector plays in Ireland’s economy and environment.

For further information, contact Elva Duggan, Executive, Irish Forest Industry Chain (email Elva.Duggan@ibec.ie).

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# EPA Conference:PATHWAYS to a sustainable future

PATHWAYS to a Sustainable Future is a two-day conference showcasing environmental research in Ireland and is one of the events marking the tenth anniversary of the establishment of the Environmental Protection Agency. The conference will be held on 15 and 16 May 2003 at the Royal Hospital Kilmainham, Dublin.

The conference includes keynote papers by international speakers on Sustainable Development and on the opportunities under the current EU Research Programme. It will be opened by the Minister for the Environment and Local Government.

Over the two days, more than 40 presentations will be given by leading national and international experts. They will provide up-to-date information and most recent results on a range of environmental research topics (including COFORD/EPA funded projects). These include: Air Quality, Biodiversity and Land Use, Climate Change and Greenhouse Gases, Water Quality, Waste and Resources Management, Environmental and Socio-economics (including transport) and Cleaner Production. There will also be an extensive display of posters to complement the oral presentations.

Through the efforts of the research community, the ERTDI Programme is producing results that contribute to a better understanding of the environment. The programme is funded by the Department of the Environment and Local Government under the National Development Plan 2000-2006.

The conference brochure and registration form are available for download in pdf format on [www.epa.ie](http://www.epa.ie) and registration can be carried out on-line. For further details, please contact Helen Walsh, EPA on h.walsh@epa.ie.

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# Forestry Engineering Group (FEG) Conference

The Institution of Agricultural Engineers (FEG section) will be holding a conference on ***Sustainable Activity and Access Facilities For Rural and Urban Fringe Locations***. It will take place on 4 June 2003, at the Cardrona Hotel and Country Club facility near Peebles in the Scottish Borders. The aim of the conference is to bring together current knowledge and practice in access and activity facilities, an increasingly important sector today. The focus will be on design, construction and maintenance with related issues bringing together new ideas to help designers and practitioners in the field.

For further information, email the conference convenor (geoff.freedman@forestry.gsi.gov.uk).

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# Wanted: Irish Scientists to Champion New COST Actions

COST (Co-operation in Science and Technology), supports the co-operation of researchers around research themes. COST covers all industries and disciplines and has a very active Forests and Forestry Products (FFP) domain. Many of the projects (called ‘Actions’) are nearing completion, creating the opportunity for new Actions to be established over the coming year. While Irish scientists are active in most of the FFP Actions, no Irish scientist has ever taken the lead role in creating a new forestry-related Action. COFORD would like to hear from scientists interested in getting a new Action off the ground. COST adopts a bottom-up approach to allow scientist to come forward with ideas. However, COFORD has identified a few gaps in the FFP suite of Actions, which some Irish scientists may wish to address:

* Multiple resource inventory and supporting decision support systems
* Emerging remote sensing applications and techniques
* Harvesting and wood transport technologies and logistics
* Forest establishment technologies, operations and silviculture
* Wood modification and densification

 If you have an interest in these areas or wish to develop a network in another area of forest or wood product research please contact either joe.ocarroll@coford.ie or eugene.hendrick@coford.ie.

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# Bacon to value socio-economic contribution made by forest industry

The Irish Forest Industry Chain (IFIC) in association with the IFA and self-assessment companies, has appointed Peter Bacon and Associates, Economic Consultants, to carry out a socio-economic review of the forestry sector and its contribution to Ireland’s environment and economy. IFIC, the umbrella organisation representing the sector, believes that this study is both timely and necessary in light of the Government cutbacks in funding.

Announcing the commencement of the study, the IFIC chairman, George McCarthy, outlined the many changes to the environment in which the forest industry must operate: “The enlargement of the EU will increase competition in the key European wood products markets, specifically the UK, where the vast majority of Irish exports of panel products and sawn timber are sold. It is therefore vital that the Irish forest industry attains its critical mass of production as outlined in the 1996 Government Strategy. This objective has been dealt a serious blow by the reduction in Government funding for the expansion of the forest estate”.

Gerry Farrell, Executive Director of IFIC, continued: “In addition to the cutbacks in Government support for forestry, increasing environmental and regulatory restrictions are strangling the sector. It is clear that there is a need to quantify the myriad contributions that the forest industry makes to the country’s economy and environment, so that an appropriate level of state support can be restored”.

The Bacon report will address the wider social benefits forestry in addition to the economic contribution that the industry makes at a rural, regional and national level.

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# FAO-ECE Forest Communicators Network

The 11th meeting of the FAO-ECE Forest Communicators Network, hosted by the Forestry Commission of Great Britain, will be held in Edinburgh/UK from 5 to 9 May 2003.

The meeting will provide a unique forum for:

* exchange of information and views on topical issues and strategic approaches concerning public relations in the forest and forest industries sector,
* presenting success stories and lessons learned, and
* building contacts and alliances with regard to forest related communications throughout the ECE region (Europe and North America).

In support of the overall goal of creating a positive image of the forest sector (including all phases of forest resource management and forest industry), the FAO-ECE Forest Communicators Network (FCN), formerly called the Team of Public Relations Specialists in the Forest and Forest Industries Sector, was established by the UN ECE Timber Committee and the FAO European Forestry Commission with a mandate to:

* promote networking among member states for capacity building and exchange of information in public relations and communication;
* identify key common concepts and promote their incorporation in forest sector communications and public relations activities in the member countries;
* identify key needs for improvement of forest sector public relations and communication and communicate them to the TC and the EFC;
* assist the TC and the EFC to improve public relations and information related to their work;
* promote the development of national capacity in forest sector public relations and communication, particularly in countries in transition;
* stimulate and promote the sound use of wood and other forest products as environmentally friendly and renewable resources.

Participation is open to all, sharing these common objectives. Currently the contact database of the network contains over 120 persons from 30 countries of the ECE region (Europe and North America) representing both governmental and private sector organisations. The team meets annually, has achieved a number of accomplishments and has further projects under way. More information may be found under <http://www.unece.org/trade/timber/pr/pr.htm>

An updated programme and supporting information will be available on the Forestry Commission's website at [www.forestry.gov.uk/fcn](http://www.forestry.gov.uk/fcn) as well as on the FCN’s website <http://www.unece.org/trade/timber/pr/pr.htm>

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# European Forest Map available for downloading

The project “Forest tree groupings database of the EU-15 and pan-European area derived from NOAA- AVHRR data” (EU-JRC contract No. 17223-2000-12 FISC ISP FI) was carried out for the Joint Research Centre of the European Commission by a consortium consisting of the European Forest Institute, VIT Information Technology and the University ofJoensuu.

The main aim of the project was to combine and effectively integrate both Earth Observation data and forest statistical information for the production of value-added forest maps of the pan-European area. A previously developed calibration method was applied to produce comprehensive and complete European maps of forest, and within the forest class the sub-classes coniferous and broadleaved at 1 x 1 kilometre resolution.

A website has now been launched giving information on the project including the possibility to download (1) *European Forest Map images* and (2) *European Forest Map GIS Databases* following a registration procedure:
<http://www.efi.fi/projects/euromap/phase2/index.htm>

The establishment of a downloading facility at the EFI followed the high interest in both map images, and in requests for utilising European Forest Map data for various research applications.

Further, the Research Report 14 'Combining Earth Observation Data and Forest Statistics' and the Internal report 13 'Compilation of a Calibrated European Forest Map Derived from NOAA -A VHRR Data' can also be downloaded in .pdf format.

The forest map website including downloading options will also shortly become available at the Joint Research Centre of the European Commission: <http://data-dist.jrc.it/en/data-dist>

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# Access to research infrastructure

The Laboratory of Ecological Physiology of Forest Trees, Institute of Landscape Ecology, and Academy of Sciences of the Czech Republic programme, MERCI (Methodological and Experimental Research Centre and Infrastructure) for studies of global climate change impacts on forests offers access to its research infrastructure for 30 three-week long periods to users from EU Member States or from Associated States. **The experimental site including all infrastructures, logistical, technical and scientific support, as well as qualified research and technical staff, are at the users disposal during their stay.**

MERCI was established in 1997 to provide a methodological basis for large-scale collaborative research projects especially focused on the impact of Global Climatic Change (GCC) on forest trees. **MERCI is constructed as a cluster of individual special tools used for the long-term ecophysiological research on the level of a forest stand. The basic philosophy of this infrastructure is devoted to the problem of GCC impacts manifested mainly by the elevated CO2 concentration. In principle, MERCI can be regarded as a field research site operating in different regimes (open-stand, experimental chambers) and with different techniques (long-term monitoring, special measurements, impact studies). MERCI i**s located at the experimental research site, Bílý Køíž, in the Beskydy Mountains, close to the Czech-Slovakia and Czech-Poland border. The geographic co-ordinates of this site are 49o 33' N, 18o 32' E, elevation 908 m a.s.l. The forest is composed of Norway spruce, common fir, beech and rowan forms the dominant part of the countryside.

For further information, contact Prof. Michal V. Marek at the Laboratory of Ecological Physiology of Forest Trees, Institute of Landscape Ecology
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# Conference:The question of conversion of coniferous forests

Organised by RPC-Conforest (Regional Project Centre of the European Forest Institute) this international conference is to be held from 27 September to 2 October 2003, at Freiburg im Breisgau, Germany. Renowned forest researchers will present reviews of key research topics in the field of conversion of coniferous forests, regarding forest restoration as well as continuous cover forestry. The aims of the conference are to:

* Present the current results and generate an active discussion of the *status quo* and future;
* Explore links between researchers and disciplines in the field of conversion;
* Encourage dialogue and co-operation.

Until the end of the 19th century many European forests were characterised by devastation and soil deterioration which caused fears of timber shortage. In order to counteract shortages in supply, many forest areas were reforested with coniferous trees. Consequently, even-aged coniferous forests were established on many sites naturally dominated by broadleaves. As a result, damages caused by storm, snow, ice, drought, insects, fungi and possibly soil degradation seem to occur more frequently in these secondary coniferous forests than in forests composed by site adapted species. Conversion or restoration of coniferous stands may reduce these risks and upgrade biodiversity and the genetic potential of forests. As the future wood markets, economic results of forestry, and various other goods and services, which forest ecosystems provide to society, are affected by present and future decision making all aspects of conversion must be well understood.

Further information about the conference can be obtained from the Marianne Stadler, (email: marianne.stadler@iww.uni-freiburg.de) Institute for Forest Growth, Freiburg, or the website [http://www.forst.uni-freiburg.de/Waldwachstum/
Conforest/conference2003.htm](http://www.forst.uni-freiburg.de/Waldwachstum/Conforest/conference2003.htm)

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# Vacancy: FAO - RomeInformation and Documentation Officer

The Food and Agriculture Organisation of the United Nations has advertised a vacancy for an Information and Documentation Officer in the Forestry Department. The duties and responsibilities include gathering, processing and dissemination of information with regard to FO activities through the implementation and maintenance of the FO web-site.

For further information, see the website <http://www.fao.org/VA/PROF/1150fodE.htm> or cotact the Chief, Forestry Information and Liaison Unit (FODA) FAO - Viale delle Terme di Caracalla, 00153 Rome, Italy, Email: fod-coordination@fao.org.

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# Fact, Hypothesis, and Theory

***This article was written by*** Dr David Caprette of Rice University, Houston Texas and is reproduced with his permission, in full. It is available on the Internet at <http://www.ruf.rice.edu/~bioslabs/concepts/theory.html>

Basic research is what I am doing when I don't know what I am doing. --- Wernher von Braun

The following quote, supposedly describing the scientific method, comes from an article in the Houston Chronicle (Barlow, J. Science fiction not just in films. Jan 7, 1996, p. 1D, 8D.).

*It starts with a scientific theory. That's how all science starts. Next you gather evidence to support that theory, publish the results, and let other scientists in the same area of study try their best to pick holes in your conclusions. If most everybody agrees, the theory is proven, and we make changes based on the conclusions.*

Oops. The point of the article was that many costly decisions, especially environmental decisions, have been based upon ‘junk’ science. Typically, someone announces a conclusion prematurely, the media pick up the story, and federal agencies, the public, or Congress act on the decision by banning this or that, tightening regulations, or creating new more restrictive laws. Later, after the damage is done, it turns out the claims were false or greatly exaggerated.

Although the article made a good point, it was written with an anti-environmentalist slant, and I didn’t entirely agree with the sentiment. But, so what? Everyone is entitled to an opinion. What was unforgivable was that the author’s description of the scientific method was completely twisted around, yet it very likely reflects the view many people have of how science is conducted.

*It starts with scientific theory. That's how all science starts.*

Oh, I hope not. This would be science in reverse. A theory has to have a basis, in fact, it must have a very strong basis. A theory is a scientifically acceptable principle that is offered to explain a vast body of facts, and is supported by an overwhelming body of evidence. You can't have a theory before you have the evidence. Science starts out with observations - facts. Facts are not generally disputed. For example, the sky is blue; grass is green; birds migrate south for the winter and find their way to specific locations; the high temperature at the airport yesterday was 52 degrees. Accumulate enough facts and you can ask a general question (why is the sky blue, or the grass green? How do birds know where to go? What makes the weather change?). The author may have been referring to a hypothesis.

*Next you gather evidence to support that theory, publish the results, and let other scientists in the same area of study try their best to pick holes in your conclusions.*

Yes, you are going to need evidence. But what makes you so special, that you know the evidence will support your position? Are you blessed with special powers that enable you to know, in advance, that all of the evidence will support your position? A scientist does not ask what you can do to prove your ‘theory’ correct. To get answers, a scientist asks a testable question, or makes a testable statement. Such a statement is called a hypothesis, and it better be an objective one (see [How not to do science](http://www.ruf.rice.edu/~bioslabs/concepts/objectivity.html)). The statements are then tested by experimentation. When sufficient questions have been answered, and there is at least some consensus that the answers are correct, a model can be formulated. A model isn’t a theory, however; it is an explanation that is based on facts, makes sense, and can be tested and refined.

Sometimes more than one model is proposed to explain a set of observations. For example, a generation or so ago scientists were asking how mitochondria transfer energy from a system of electron transport to the universal energy-carrying molecule ATP. Since virtually all eukaryotic cells rely on mitochondria to provide usable energy, this was an important question. Three models, all fact-based, were in the running. They were the chemical intermediate model, the conformational change model, and the chemiosmotic model. There were high stakes, in fact, Peter Mitchell, who proposed the last model, was awarded the Nobel Prize for his work in that area. The chemiosmotic model was eventually supported by a vast amount of evidence, and became theory.

*If most everybody agrees, the theory is proven, and we make changes based on the conclusions.*

In the nineteenth century most everyone agreed that velocity equals distance divided by time, and that physical dimensions were invariant. Of course they did. No one had ever reported exceptions to those rules. They were part of Newtonian physical theory. Were the principles of Newtonian physics ‘proven’? I doubt that the laws of physics have changed since the nineteenth century, and since classical Newtonian physics has been found to be inconsistent with established facts, the theory behind Newton’s laws was never proven in the first place. Currently, the invariance of the speed of light is under challenge. That principle was never proven either - it is simply consistent with every known physical fact, at least until very recently.

You can prove concepts in mathematics, because you can see every detail of logic from the first fundamental assumptions. In trying to understand nature, we can be quite sure about an explanation, but until we see every single detail, we can’t say that there are no exceptions to current theory, and it just takes one exception to change a theory. For that matter, we can never know that we have seen every detail (particle physicists theorize that it is impossible to ever see all the details).

Human curiosity drives our attempts to understand the workings of nature. Presenting theories without evidence, twisting evidence to make it support one’s personal view of nature, and declaring a human theory to be ‘proven’ are simply examples of human arrogance.

*If an elderly but distinguished scientist says that something is possible he is almost certainly right, but if he says that it is impossible he is very probably wrong. --- Arthur C. Clarke*

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This newsletter was compiled and edited by
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1. Local authorities, Dúchas, Fisheries Boards, An Taisce, Bord Fáilte. [↑](#footnote-ref-1)
2. Discounted to 2008 at 5%. [↑](#footnote-ref-2)