Forestry and Wood Update

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# *National Forest Strategy – A vision for the future*

On 12 March, IFIC (in association with ITGA, SIF and COFORD) will host a conference on a vision for the future of the forest industry in Ireland. The event will be held in Johnstown House, Enfield, Co Meath, and will feature a number of high profile European and Irish speakers. The agenda includes four formal presentations and a panel discussion featuring a number of the key industry leaders within Ireland. Given the pending review of the Government's National Forest Strategy, Growing for the Future, this promises to be a lively and most timely event.

Full details, including booking form, can be downloaded from [www.coford.ie/conferences/conf-12-03-04.pdf](http://www.coford.ie/conferences/conf-12-03-04.pdf). For further information, contact the Society of Irish Foresters (email: sif@eircom.net).

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# Broadleaf management series

Plans and preparations are well advanced for the first in the 2004 series of the workshops on managing our broadleaf resource to produce quality hardwood timber. The workshop will take place on 15 and 16 April 2004, in the Mallow area of Cork. Full details will be presented in the next issue of this newsletter.

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# Conference on future issues for forest industries in Europe

Considerable interest has been expressed in the special Forestry/Wood Products event to be held at the Alexander Hotel, Dublin, from 28 April to 1 May 2004. InnovaWood and COFORD have joined forces to arrange the conference and field trip to highlight issues facing the future of the European Forest-Wood Chain. The agenda includes sessions on:

* European policy in relation to forest-based industries
* Integrated forestry-wood chain
* Biomass – feedstock for energy generation or panelboard production
* Innovation in wood products
* Education and training in the forest-based industries sector - influencing the future

The conference will overlap with the COST Technical Committee meeting (for members only).

The conference will be followed by a choice of field trips to (1) a forest nursery and a forest management site, or (2) a sawmill and/or panelboard mill on Saturday 1 May.

Full details will be made available via the COFORD website as soon as the programme is confirmed. To request further information on the event, contact [InnovaWood](mailto:denis.mcgowan@innovawood.com) or [COFORD](mailto:info@coford.ie).

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# Conference: Better trees, better profit

The Royal Agricultural Society of England (RASE), in collaboration with the British and Irish Hardwoods Improvement Programme (BIHIP) and the Royal Forestry Society of England, Wales and Northern Ireland, is hosting an International Hardwood Improvement Conference entitled *Better Trees, Better Profit* at Stonleigh Park, Warwickshire on 4 March 2004. The conference programme is supported by the NDG James Memorial Fund. It is planned that the proceedings and related papers will be published in a special issue of *Forestry* in 2005. Conference participants are also invited to a special field day at the Northmoor Trust Forestry Research Centre at Little Wittenham, Oxfordshire on 10 June 2004.

The conference programme includes the following presentations:

*The present quality of British hardwoods* – Paul Newman, Wood Bros (Furniture) Ltd

*Tree improvement – definition, relevance, advantage and dangers* – Jason Hubert and Steve Lee, Forest Research

*BIHIP – Current approaches and the future –* Gabriel Hemery, Northmoor Trust and Karen Russell, Horticultural Research International

*Adaptive variation* – David Boshier, Oxford Forestry Institute

*Climate change and the future for broadleaves in European forests* – Mark Broadmeadow, Forest Research

*Hardwood tree improvement – American perspective* – Charles Hichler, Hardwood Tree Improvement and Regeneration Centre, Indiana, USA

*Tree improvement in Italy* – Fulvio Ducci, Instituto Sperimentale per la Selvicoltura, Italy

For further information and booking please log on to [www.rase.org.uk/conferences/better.html](http://www.rase.org.uk/conferences/better.html)

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# Carbon Corner

## Pools of Carbon

Rules for the accounting and reporting[[1]](#footnote-1) of carbon stocks and stock changes in forests subject to activities under Articles 3.3 (afforestation, reforestation and deforestation since 1990) and 3.4 (changes in carbon stocks due to forest management since 1990) of the Kyoto Protocol are set out in the Marrakech Accords. While the accords form the basis for reporting carbon stocks there are areas where advice and guidance is required for Parties, including Ireland, who have to report carbon stock changes and emissions, not only in relation to the protocol but also under the Climate Change Convention.

The Intergovernmental Panel on Climate Change (IPCC) Good Practice Guidance on Land Use Land Use Change and Forestry (LULUCF) which were agreed recently at Milan provides such advice and guidance. They extend to almost 600 pages of detailed advice on how to represent land areas, how to calculate carbon stock changes and emissions, how to estimate uncertainty, together with many examples and flowcharts. Among the issues they deal with are how to calculate changes in carbon pools.

The Marrakech Accords recognises five carbon pools for reporting purposes: above ground biomass, below ground biomass, litter, deadwood and soil carbon. Such a partitioning reflects not only functional aspects but also how the pools are calculated. For example below ground biomass is very difficult and expensive to measure *in situ*. Above ground biomass, on the other hand is relatively easy to estimate, albeit through the algorithms relating wood volume to carbon content. Below ground biomass can be estimated through its relationship with the above ground part or through an overall relationship of biomass with stem volume. Mostly a biomass expansion factor that relates total biomass to the above ground portion is used. Recent research by Brian Tobin in the COFORD-funded CarbiFor project has shown that this ratio changes over time. It ranges from values that are in excess of 4 in a 9-year-old crop (Sitka spruce) but these drop exponentially to values of closer to 1 in 30-year-old crops.

While changes in the live biomass pools can be calculated using direct and indirect measurements there are great difficulties associated with assessing change in the litter, dead wood and soil organic carbon pools. The litter pool is a significant carbon store in many forests. Inputs measured by Tom Bolger and his team at the CarbiFor project site are of the order of 3.5 to 7.5 tonnes of CO2 per year. This information is, however, difficult to extrapolate to all crops because amounts change with age and location. For this reason accounting for changes in the litter pool presents considerable difficulties. However, the Marrakech Accords provide that Parties may choose not to account for a particular pool if transparent and verifiable information is provided that the pool is not a source of emissions. Information from the CarbiFor project and similar studies reported in the peer-reviewed literature can be used as a basis to demonstrate whether or not litter is an overall sink for atmospheric carbon.

The two remaining pools also present computational problems. In particular changes in soil organic carbon pools are very difficult to estimate, against the background, in most cases, of a very large pool to begin with. Work in the CarbiFor project will shed light on these issues and how best to approach them.

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# Young Scientists Award

**COFORD sponsored a special award in the biological and ecological category at the ESAT Young Scientist Exhibition 2004. The prize was awarded to the project that** best depicts the positive role of trees and forests in the landscape/environment. Dr Eugene Hendrick (Director COFORD) presented the winners of the award, Aine Gildea and Sharon Keegan of the Mohill Vocational School, Leitrim, with the COFORD prize for their project entitled Land zoning for forestry and agriculture in Co Leitrim.



*Dr Eugene Hendrick (Director COFORD) presenting the COFORD award at the ESAT Young Scientists Exhibition 2004 to Aine Gildea and Sharon Keegan.*

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# Forest Service to begin field sampling phase of the National Forest Inventory

The Forest Service will begin data collection for its long awaited National Forest Inventory (NFI) this summer. Data will be collected on a range of timber, biodiversity, forest health condition and other parameters. Results from this work will serve a variety of functions:

* It will help to meet our obligations under the Kyoto Protocol and Marrakech Accords in relation to carbon reporting;
* It will provide information required to monitor sustainable forest management under the Irish National Forest Standard;
* It will provide information required to answer queries from the public, parliamentary questions and international queries (e.g. FAO/ECE Forest resource assessments);
* The NFI will aid planning in the processing sector.
* It will aid in the regulation of the annual cut.

The NFI is a statistical-based inventory, based on the measurement of sample plots in the field. Sample plots are located according to a systematic 2 x 2 km grid placed over the country, resulting in 17,500 primary sample plots. Each plot is then identified as a forest or non-forest plot using aerial photographs. Plots classified as forest (ground sample plots) are then sampled in the field. Currently 1,850 plots will be measured in the field.

A percentage of ground sample plots (40 – 50%) will be used as permanent sample plots, the remainder will serve as temporary sample plots. As the grid is permanent it allows for the re-assessment of the primary sample plots at future dates, to monitor forest land use change (i.e. afforestation, deforestation). The re-assessment of permanent sample plots will allow for the calculation of increment (growth and removals) of growing stock to be generated.

The collection of data in the field will be achieved using computer-aided field data collection techniques. The GPS and laser technology will allow for future measurements of permanent plots. The analysis of this information should serve as a valuable resource in achieving the diverse objects of the forestry sector in the 21st century. Results from the NFI will be made publicly available.

For further details or expressions of interest in carrying out data collection work, contact Niall Farrelly at the Forest Service (email: [niall.farrelly@dcmnr.gov.ie](mailto:niall.farrelly@dcmnr.gov.ie)).

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# Code of Practice for Managing Safety and Health

The *Code of Practice for Managing Safety and Health in Forestry Operations* was published in May 2003 by the Health and Safety Authority, and came into effect on 1 July 2003. The Code of Practice provides practical guidance to the observance of the provisions of the Safety, Health and Welfare at Work Act, 1989, and the Safety, Health and Welfare at Work Regulations, 1993, for forestry operations.

Recognising that the forestry industry in Ireland has evolved in recent years to a situation where contracting is the norm, the code highlights the fact that there may now be many links in the chain between forest owner and forest worker. Whether you are a timber grower or purchaser, contractor or sub-contractor (operator), you have legal duties to fulfil in order to ensure people’s safety and health is not put at risk during or as a result of forestry operations. When planning and carrying out forestry operations, the law requires a number of safety and health duties to be carried out, including

* Preparing written risk assessments;
* Selecting suitable equipment for the job;
* Protecting public health and safety;
* Setting out safe working procedures;
* Ensuring operators are competent;
* Supervising and monitoring the work.

Depending on the contractual relationship, different role holders may share duties. In order to successfully manage safety and health it is necessary to co-ordinate activities and pass information up and down the contract chain. To help this flow of information and to ensure that the right people carry out their tasks, the code sets out four management roles:

1. The landowner role;
2. The forestry work manager role;
3. The contractor role;
4. The sub-contractor role.

For each of these roles, the code sets out the general duties attached to the role and explains the duties and responsibilities. For anyone engaging in forestry activities, the code is essential reading and each operative should be supplied with a copy. Copies of the code are available from The Health and Safety Authority, 10 Hogan Place, Dublin 2. Tel (01) 6147000 or email: [infotel@has.ie](mailto:infotel@has.ie)

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# Atmospheric pollution changing the shape of Christmas trees

Research carried out by scientists at Cambridge University in the UK have found that Christmas trees are becoming shorter and wider at the base. The traditional tree shape (wide at the bottom and tapered to a pointed top) is changing to one that is more squat and bushy. Scientists have shown that the change is due to extra nitrogen in the air caused by pollution which is acting like fertiliser and making the trees grow more branches.

Dr David Hanke, who led a three year study into the phenomenon in which trees were sprayed with a range of chemicals to see how they are affected by pollution, concluded that this is because of the extra nitrogen in the air. We found that nitrogen caused a big rise in levels of a hormone called cytokinin which causes Christmas trees to grow more branches,” said Dr Hanke. The trees easily absorb ammonia, which contains nitrogen and is present in the waste. The nitrogen comes from agricultural sources such as fertilisers and animal sewage. Pigs and battery chickens are two of the biggest culprits. The discovery explained why unusually shaped Christmas trees have been observed growing in more polluted areas.

Mr Roger Hay, secretary of the British Christmas Tree Growers Association, welcomed the result, saying “We have to make Christmas trees bushier by pruning, shearing and other cultural work, so this will save the growers some work”

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# Energy plant planned for Wales

*Source: TTJ Online 12 January 2004*

Plans have been submitted to build a £20m wood-fired energy plant in South Wales.

Western Bio-Energy, a joint venture between the [Western Log Ltd](http://www.ttjonline.com/intextlinkresult.asp?companyID=3147) and a major blue-chip utilities company, has submitted an application to build a 10MW capacity plant in Port Talbot. Neath Port Talbot County Borough Council will make a decision by the end of February.

The government-backed proposal is seen as providing a timely boost to the Welsh timber industry, offering a new outlet for forestry and sawmill wood. It is expected to use about 100,000 tonnes of timber annually.

Adrian Whittall, Western Bio-Energy spokesperson, said: "This is an exciting project that will deliver green power and energy, using local biomass resource. It will take up major slack in Welsh output of timber caused by lessening demand from paper plants in North Wales."

The plant, which aims to generate power for 20,000 homes, is scheduled to open in 2005 and will create 20 jobs on-site.

Port Talbot-based Western Log Ltd, a major timber supplier to the leisure industry, will take responsibility for supplying fuel and hopes to use local firms at all stage of the project.

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# Symposium on Climate Change and Irish Agriculture

The Irish Committee on Climate Change, Joint Working Group on Applied Agricultural Meteorology, Royal Irish Academy and AgMet are hosting a symposium on climate change and Irish agriculture on Thursday 26 February 2004, at the Royal Irish Academy, Dublin. The programme for the day will include:

* Welcome from RIA
* Keynote address: *Climate change and agriculture: the view from the inter-governmental panel on climate change* by prof. Martin Parry, Chair: Working Group 2 (Impacts) IPCC
* *Mid century climate scenarios for Ireland* by Dr John Sweeney and Rowan Fealy (NUIM)
* *Estimating the impact of climate change on grass production and dairy systems in Ireland* by Dr Anthony Brereton and Nicholas Holden
* *Using simulation models to predict the impact of climate change on crop yield in Ireland* by Dr Nicholas Holden and Anthony Brereton
* *Methane from farm livestock - quantification and reduction* by Dr Frank O'Mara (UCD)
* *The direct effects of increasing atmospheric carbon dioxide concentrations on crops in Ireland* by Prof. Michael Jones and Clare Byrne, (TCD)
* *Measurement of green house gas fluxes from agriculture in Ireland* by Dr John Clifton-Brown (TCD)
* *Carbon cycling in forest ecosystems: bridging the gap between science and policy* by Dr Ken Byrne (UCD)
* *Agriculture and the National Climate Change Strategy* by Mr Micheal Young, Department of the Environment, Heritage and Local Government

For further information, contact Ann Gilsenan, AgMet, c/o Teagasc, Grange Research Centre, Co. Meath.

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# Coillte’s E-newsletter proves popular

*Log on..to Coillte*, the E-newsletter which was launched last summer to inform and update stakeholders of current news and activities in Coillte, recently released its third issue.

Coillte is happy to announce that the e-newsletter has continued to grow in popularity and has received a steady flow of subscribers requesting to receive it.

*'Log on..to Coillte'* is designed to complement other Coillte communications tools such as the Annual Financial and Social and Environmental Reports, and the website, www.coillte.ie. It has covered topics such as the Soil Association audits of the forests for certification, the review of the recreation policy, details of timber sales figures and general issues like forestry funding and the Bacon report.

Stakeholders can continue to provide feedback through the normal consultation channels including the website, social and environment panels, Coillte’s on-going consultation meetings, and direct contact with Coillte staff.

To subscribe to *‘Log on..to Coillte*’, visit the e-newsletter section of Coillte’s website at [www.coillte.ie/newsletters/index.htm](http://www.coillte.ie/newsletters/index.htm).

For further information, contact: Mairin Delaney, Public Relations Manager, Tel: 01-6635279/086-2529609, or Cliodhna Parker, Public Relations Executive, Tel: 01-2011143/086-2236493.

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This newsletter was compiled and edited by   
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1. Reporting relates to the provision of information on carbon stock changes and emissions of non-CO2 greenhouse gases in forests that come under the framework of Article 3.3 and 3.4. Accounting refers to the calculation of credits and debits arising from LULUCF activities and how these are be used to meet emission reduction targets. [↑](#footnote-ref-1)