

Forestry and Wood Update ……………………December 2003 - Volume 3 Number 12

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***Wishing all readers a
merry Christmas
and a prosperous 2004!***

# New COFORD Connects notes

The latest set of COFORD Connects notes is now available. COFORD Connects is a series of practical information notes, produced on an ongoing basis, which review various aspects of forestry. The original set of notes was presented in a purpose-made folder to which the new issues are added as they are produced. The notes are distributed to subscribers, free of charge, and can also be downloaded from the COFORD website ([www.coford.ie](http://www.coford.ie)). The latest notes address the following topics:

* Poor quality planting of ash - getting to the root of the problem.
* Controlling grey squirrel damage in Irish broadleaved woodlands.
* Continuous cover forestry.
* A survey of Western Package Afforestation Scheme plantations in relation to thinning needs.
* Forest certification - what does it mean for Irish forestry?
* Carbon sequestration in Irish forests.

For further information, please contact COFORD, email info@coford.ie, or tel: 01-7167700

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# Another successful COFORD workshop on the preparation and sale of hardwoods

At an earlier series of COFORD events on the management of broadleaves to produce quality hardwood timber, a major shortcoming was identified in the area of quantification and supply of hardwood material between grower and processor of hardwood logs. COFORD undertook to address this issue by periodically publishing a list of such material. In order to prepare for such a publication, a series of one-day workshops was organised – the second of which was held in Thurles, Co Tipperary on 18 November.

The main speaker was Gavin Munro of T & G Norman, Carlisle, who has spent most of his working life dealing with hardwoods. At a short indoor session the subject of the preparation and presentation of woodlots for sale was introduced. This was followed by a talk on the valuing and grading hardwoods.

Many useful points were made during the day, such as: while conifers can be felled at any time of the year, the time to fell hardwoods is of critical importance and, if felled out of season, serious degrade and even total loss may result. When felling hardwoods it is important to use skilled fellers as inexperience may cause major damage to the log, which will result in substantial reduction in its value. The importance of correct crosscutting was emphasised - substantial loss will be incurred by incorrect jointing. It is becoming more difficult to find experienced and proficient hardwood fellers - a plea was made for the establishment of a special training programme.

Jim Kinsella of Tipperary Forestry Services introduced the afternoon programme by an overview of the Langley Estate at Brittas, Thurles. It includes 58 ha of forests, predominantly hardwoods. Major storm damage occurred at the estate during hurricane Charlie. Today a forest renewal programme is underway.

Much of the site preparation, selection and felling of hardwood logs for the field programme was carried out by Mick Fahy. Mick has many years experience in the harvesting, management, sawing and conversion of hardwoods in Ireland. COFORD acknowledges his contribution to the success of the programme.

COFORD would also like to express its sincere thanks to Ms A M Langley for accommodating the field visit to the Brittas estate.

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*Gavin Munro explaining aspects of selling hardwoods to the participants at the workshop held at Thurles, Co Tipperary.*

# Carbon Corner

## Sinks in the CDM – a key part of the negotiations at COP9

The ninth conference of the Parties to the UN Climate Change Convention begins this week in Milan (COP9). It should mark the final stage of negotiations on how forestry sinks are treated under the Convention and its Kyoto Protocol. The issue at stake is how sinks will be dealt with under Article 12 of the Protocol, the Clean Development Mechanism (CDM).

Essentially this mechanism facilitates the implementation of those energy and sink projects that result in climate benefits in developing countries. By removing carbon from the atmosphere, forest sinks result in such a benefit. Developed countries that invest in sink projects will be rewarded by being able to use the carbon stored in the forest to meet their Kyoto greenhouse gas reduction commitments.

However, it is important for the integrity of the process that business-as-usual in the forestry sector is not rewarded, and efforts are directed towards new, sustainable, long-term projects. This concept is recognised in the Marrakech Accords where only new afforestation and reforestation projects planted since 2002 are eligible for crediting under the CDM. Furthermore, reforestation is defined as areas without forest cover in 1990, hence the perverse incentive of rewarding recent deforestation will be avoided.

In Milan negotiations around sinks in the CDM will focus on a number of key issues. Among the most important of these is permanence. All sinks are capable of being reversed, as the carbon can be returned to the atmosphere through fire, pest attack or harvesting (especially where the area is not reforested). When credits for the carbon that is stored in the forest are issued, the assumption is that this is a permanent reduction in atmospheric carbon, or if the sink is reversed that the credits will be replaced, so that environmental integrity is maintained. In developed countries this procedure has been already been agreed for sinks under Article 3 of the Protocol. However, underdeveloped countries have no such system as they have no greenhouse gas reduction commitments under Kyoto. In order to address this issue the EU has developed a temporary crediting procedure, whereby sink credits issued under the CDM will have a maximum validity period of five years from the date of issuance, after which they have to be replaced by other units. Hence, if the sink is reversed it will be a maximum of five years until the carbon is replaced. During the negotiations leading up to COP9 the EU has won widespread support for this approach and it is likely that it will be accepted.

Environmental and socio-economic issues are also important aspects of sink projects. Here the EU and other Parties, such as Norway, Switzerland and Tuvalu, have proposed a special Appendix to the decision text that lists environmental and socio-economic issues that should be taken into account during project scoping and implementation. Where any of these are significant they should be monitored and addressed during the project lifetime. Negotiations on this text may well prove difficult, given that it is an overarching principle of the Kyoto process that it is up to the underdeveloped country to decide on whether a project assists it in meeting sustainable development.

A number of other technical issues such as baselines and project boundaries will also be addressed in Milan. There is limited time over the next two weeks to reach full agreement on CDM sink issues. However, if the negotiations are successful and adequate safeguards are included to deal with the permanence and socio-economic and environmental issues there is likely be strong interest among project developers in CDM sink projects. Even now a number of projects are underway or are at the planning stage. If these projects are linked to emissions trading within the EU, interest will certainly grow and sink projects are likely to become a widespread activity in developing countries.

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# International fellowship opportunity

The World Forest Institute (WFI) is seeking individuals working in forestry and natural resources to apply for their International Fellowship Programme.

WFI is a division of the World Forestry Center, which is a small, private non-profit educational organisation based in Portland, Oregon, USA. The Forestry Center promotes education and information exchange regarding forests and forestry.

The Fellowship Programme brings natural resources professionals from around the world to work at the World Forest Institute for 6 to 12 months. Over fifty fellows from 17 countries have participated in the programme. They work on a primary research project developed in co-operation with their sponsors, and also participate in group activities including site visits to forestry agencies, universities, companies and mills.

Additional information is available at the website [www.worldforestry.org/wfi](http://www.worldforestry.org/wfi).

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# Biomass heating training and study tour to Austria

Bioheat II is an Altener-funded programme which promotes wood heating in large buildings. Participants are invited to a training course on *The Development and Operation of Medium Scale Biomass Heating Projects*. The five day course takes place in Austria in February 2004.

The training course enables participants to:

1. understand how small biomass heating projects can be developed and operated;
2. develop energy service businesses;
3. support and give advice to other local actors, interested in starting small energy service businesses using biomass heating.

The training course will be an opportunity to see the production and use of biomass heating and includes visits to biomass heating plants and wood chip and wood pellet boiler manufacturers.

Places are limited so early booking is advised*.* There is a special reduced fee for the first 30 participants. For a full itinerary and booking form, contact: Ann Mc Carthy, European Projects Co-ordinator (tel: 023-29171; email: annmccarthy@sws.ie) or visit the website: [www.bioheat.info](http://www.bioheat.info)

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# Better trees, better profits

The international hardwoods improvement conference *Better trees, better profits* will be held on 4 March 2004 at Stoneleigh Park, Warwickshire, UK. It is a joint event arranged by the Royal Forestry Society, the British and Irish Hardwoods Improvement Programme (BIHIP) and the Royal Agricultural Society of England. The conference programme includes the following presentations:

* Welcome and introduction - *Lord Clinton, immediate past President of RFS and RASE;*
* The present quality of British hardwoods - *Paul Newman, Wood Bros (Furniture) Ltd;*
* Tree improvement – definition, relevance, advantages 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 Michler, Hardwood Tree Improvement and Regeneration Centre, Indiana USA;*
* Tree improvement in Italy - *Fulvio Ducci, Istituto Sperimentale per la Selvicoltura, Italy.*

For further information, visit <http://www.rase.org.uk/conferences/better.html>

The conference will be followed by a field day at the Northmoor Trust’s Forestry Research Centre in Oxfordshire on 10 June 2004. The Centre hosts the UK’s greatest collection of experimental broadleaved forestry trials. In collaboration with BIHIP partners, the Northmoor Trust hosts more than 20 projects including provenance and progeny trials, breeding seedling orchards, clonal tests and silvicultural trials in ash, beech, cherry, oak and walnut species.

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# Final workshop of COST E22 (Wood Preservation)

The final workshop of COST Action E22 *Environmental Optimisation of Wood Protection* will be held in Lisboa, Portugal, on 22 and 23 March 2004.

The main overall objective of COST Action E22 is to improve and consequently to increase the cost-effective use of European wood by means of optimising the environmental factors relating to its durability. The final workshop aims to demonstrate the state of the art in wood protection and the achievements of the three working groups:

*Working Group 1 - Performance*:Classifying hazards, including risk mapping (COST index for decay and insects), efficacy prediction (relationship between testing and practice), improved guidance in durability performance, maximum protection with minimum use of preservative chemicals, determining bio-effective life of biocides, and providing a scientific basis for realistic, end-use predictive tests.

*Working Group 2 - Impacts:*Risk assessment methods and rationale, including impact studies, implementing remediation technologies, recycling and disposal, and giving a scientific basis for quantifying biodegradability.

*Working Group 3 - Innovations:*Scale-up and exploitation of non-toxic treatments, physiological inhibitors/attractants, insect growth regulators, scale-up and exploitation of chemical modification systems, and 'natural' biocidal products and systems.

Contributions to the following topics are invited:

* Durability performance, protection of wood by traditional means and new approaches
* Bio-effective life of biocides and end-use predictive tests
* Risk assessment methods, including impact studies
* Remediation technologies, recycling and disposal
* Scale-up of non toxic treatments, physiological inhibitors/attractants
* Scale-up of chemical modification systems, and 'natural' biocidal products/systems

For further information, visit the website [www.bfafh.de/cost22.htm](http://www.bfafh.de/cost22.htm)

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# Management of recovered wood - recycling, bioenergy, and other options

The first conference of COST Action E31 will take place from 22 to 24 April 2004 at the Amphitheatre of the Museum of Ancient and Byzantine Musical Organs, Thessaloniki, Greece.

The aim of this COST Action E31 *Management of Recovered Wood* is the improvement of the management of recovered wood towards a higher common technical, economic and environmental standard. The first conference of this action will demonstrate the state of the art management of recovered wood in the COST member states - the starting point for the activities of the two working groups:

*Working Group 1 - European Management of Recovered Wood:*Analyses of current systems of wood recovery in Europe for reuse, recycling and energy recovery, e.g. technical and legal aspects as well as environmental impacts of the management schemes for recovered wood used in the different European countries; recovered wood potential; criteria for the choice of recovered wood treatment option; logistics and infrastructure of waste management options.

*Working Group 2 - Treatment Options for Recovered Wood*:Analysis of current and future treatment options for recovered wood based on technical, economic and environmental criteria, e.g. preservatives, treatments and coatings on recovered wood; technologies for energy generation; social, economic and environmental benefits/impacts of reuse, recycling, combustion, composting and landfill of recovered wood.

## Scope of Recovered Wood in COST Action E31

Recovered wood covered by the scope of COST E31 includes all kinds of wooden material that is available at the end of its use as a wooden product (‘post-consumer’ or ‘post-use’ wood). Beside forest residues and energy crops, recovered wood is one of the most important renewable sources of biomass and is a renewable raw material and energy carrier. Recovered wood mainly comprises packaging materials, demolition wood, timber from building sites and fractions of used wood from residential, industrial and commercial activities.

Therefore all wood grades from forestry residues including tops, thinnings and branches from forest operations are excluded as they are not in the scope of COST E31. Black liqueur from pulp production is also not within the scope of COST E31.

Recovered wood is described by the following origins: sawmill, wood manufacturing industry, particle board industry, pulp and paper industry, construction and demolition activities, residential and commercial sectors, packaging.

The most important parameters describing recovered wood are size, quality properties, condition, heating value, moisture content, content of chlorine, ash, contamination and heavy metals.

Contributions to the following topics are invited:

* Management of recovered wood
* Technologies of recovered wood for reuse, recycling and energy generation
* Economy and markets for recovered wood
* Environmental benefits and impacts of recovered wood

For further information about Cost Action E31 see <http://www.ctib-tchn.be/coste31>

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# 14th Congress of the Federation of European Societies of Plant Biology

This congress will take place from 23 to 27 August 2004, at Krakow, Poland. The programme will focus on:

1. Plant cell biology
2. Plant development
3. Plant growth regulators
4. Photosynthetic productivity and crop production
5. Uptake and transport of water and mineral nutrients
6. Biosynthesis of plant constituents
7. Biotic and abiotic stress
8. Metabolic engineering for plant improvement
9. Genomics and post-genomics
10. Bioinformatics
11. Plant tissue cultures and biotechnology
12. Physiology and molecular biology in plant breeding

For further information, email the congress secretatiat, fespb.congress@zfr-pan.krakow.pl, or visit the website [www.zfr-pan.krakow.pl](http://www.zfr-pan.krakow.pl)

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# ICECFOP: 1st international conference on environmentally compatible forest products

This conference, hosted by Fernando Pessoa University (UFP), Oporto, Portugal, will take place from 22 to 24 September 2004. The aim is to bring scientists and industrialists together from the forest products and environmental areas, so that they can present the latest research and innovation on wood products with the low environmental impacts, or even with environmental benefits, the so-called ‘clean technologies’.

ICECFOP will be supported by the journal [*Management of Environmental Quality*](http://www.ufp.pt/page.php?intPageObjId=12810)*.* A special edition selection of the journal, containing up to nine of the conference papers, will be published and distributed to participants during the conference.

Topics for communications include:

* Reduction of VOC emissions from wood processing operations;
* Adhesives from renewable resources;
* New environment friendly preservatives;
* Environmental impact of traditional preservatives;
* Innovative non-conventional methods for wood protection (chemical modification, biological methods, trapping, etc.);
* Recycling of wood in general and recycling of preservative-treated wood;
* Life-cycle assessment of wood products;
* Products from non-wood plant fibre resources;
* Application of forest residues on the treatment of effluents;
* Environmental conditions in workplace;
* New environment friendly wood coatings and finishing processes;
* New products and processes with low environmental impact.

**For further information, contact the c**onference secretariat), email pdias@ufp.pt, or visit the website [www.ufp.pt](http://www.ufp.pt)

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# STMicroelectronics makes forest carbon sink investment in Australia

STMicroelectronics (ST) is one of the world's largest semiconductor companies. It is a Europe-based chip maker and maker of analogue chips.

Since 1993, the company has pursued a corporate strategy to become an industry leader in environment protection. ST has set itself the very aggressive goal of becoming a zero greenhouse gas emission company by the year 2010.

The company's strategy includes a reduction in energy consumption, the introduction of cogeneration and a carbon sequestration programme which, through extensive reafforestation, aims to totally offset the residual greenhouse gas emissions.

In September 2003, ST signed a contract with State Forests to establish and manage up to 12,000 hectares of new plantations in northern New South Wales. The plantations will be planted over a period of about seven years, entirely on land that was cleared for grazing and cropping decades ago and therefore consistent with Article 3.3 of the Kyoto Protocol.

The contract is for the planting of both hardwood (*Eucalyptus* and related species) and softwood (*Pinus* species). The area of hardwood and softwood to be planted each planting year is at ST’s discretion, although an approximately even split is envisaged. There are advantages in spreading the risk across softwood and hardwood.

Hardwood plantations are targeted for the mid north coast area between Taree and Port Macquarie west to the mountains. Softwood plantations are targeted for the area around Casino and Grafton. ST will not own the land on which the plantations are to be established - it will be either purchased and rented to the company or rented directly from landowners.

The planted forest programme comprises 30 year rotations of both hardwood and softwood. The management regime will require two thinnings, producing pulpwood grade logs, small sawlogs and poles, before a final harvest at around age 30 producing high quality sawlogs and veneer logs. The focus on high quality log production reflects State Forests' belief that longer rotation crops both improve the level of carbon sequestration and target more valuable markets for final products. There is also a possibility that the ongoing sequestration of carbon in wood products arising from sawlogs and veneer logs in particular will be recognised as part of the overall carbon accounting.

Both the trees and the carbon sequestration rights are owned by ST and will be registered on the title of the land on which those trees are grown. Under New South Wales law, ST's property rights to both the timber and the carbon are separately registered and guaranteed on the title.

These plantations will be established on land that was cleared prior to 1990 and will thus be consistent with the requirements of Article 3.3 of the Kyoto Protocol. However, under current arrangements ST will not be able to use carbon sequestration from this investment to meet any obligations imposed on it in Europe under the Kyoto Protocol, unless and until Australia ratifies the Kyoto Protocol. ST has a number of options open to it to address this issue:

* ST could seek to sell any carbon sequestration credits generated by this investment into a market in Australia such as the NSW Greenhouse Gas Abatement Scheme.
* ST could await developments in international greenhouse gas negotiations beyond the first Kyoto commitment period of 2008-2012, on the expectation that Australia will participate in a future "protocol" (the bulk of the carbon sequestration that will occur in these plantations will occur after 2012).
* ST could choose to use other emission reduction approaches to meet its Kyoto Protocol obligations and use sequestration in NSW as one of the mechanisms by which it achieves its target of zero net emissions. State Forests understands that this is ST’s current position.

In addition to generating income for State Forests, projects such as these have major economic, social and environmental benefits for NSW.

State Forests will be seeking land from landowners to establish the plantations, for sale or annual rental payment. Under ST's investment, State Forests will be contracting out a large part of the establishment of the plantations, which will create employment opportunities. Job opportunities will be created when the plantations are harvested, both in the harvesting operations themselves and in processing of the timber products. An estimated 250 jobs will flow from this investment over time. Large planted forest estates have been shown to produce major economic benefits in job creation in rural areas.

The flow-on from economic growth is enhanced social fabrics for rural communities. The establishment of forest cover on previously cleared areas, supplemented by routine biodiversity enhancement within those areas through rehabilitation of riparian areas and provision or enhancement where appropriate of native forest connection corridors, together produce a superior environmental outcome for the region compared to earlier land use. Not only is biodiversity improved, but water quality will also be higher. Water quantity may be lower at certain times of the year, but water flow will be much more regular and flooding impacts will be substantially reduced.

<http://www.forest.nsw.gov.au/env_services/carbon/investments/stmicro/default.asp>

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# ProSilva Ireland website

The ProSilva Ireland website has been updated and expanded Visit the site at [www.prosilvaireland.org](http://www.prosilvaireland.org) for details of upcoming events, such as the 2004 study tour to Romania, as well as animated diagrams showing conversion to selection forestry over a 200 year period in Switzerland and much more.

Pro Silva Ireland was founded in June 2000. Its membership is made up of forest owners, foresters and others who wish to practice and learn more about Pro Silva forestry techniques. It recognises and values the unique history of Irish forestry and its contribution at local, regional and national levels. The organisation was founded in order to develop and promote Pro Silva Principles as an alternative to clearfelling in Irish forestry. ProSilva Ireland is a non-profit organisation and is a member of Pro Silva Europe, which was founded in Slovenia in 1989.

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