

COFORD Forestry and Wood Update

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## Contents

1. [COFORD Activities](#_Overview_of_COFORD)
2. [WOODSPEC launched](#_Woodspec)
3. [Forest Service NDP measures](#_Forest_Service_launch)
4. [New Projects](#_New_Projects)
5. [Project Updates](#_Project_Updates)
6. [Carbon Corner](#_Carbon_Corner)
7. [National Climate Change Strategy](#_National_Climate_Change)
8. [Irish Joinery Awards](#_Irish_Joinery_Awards)
9. [Pending Publications](#_Fourth_Framework_Programme)
10. [Studies on farmers’ attitudes](#_A_review_of_1)

## Overview of COFORD Activities

June has been a busy month for COFORD in terms of project evaluations. Following the strong response to our Call for Proposals in May evaluation panels are busily scrutinising all submission. The COFORD council will make final decisions on all proposals at meetings in July and September.

On June 1st three new COFORD publications were launched:

* **Forest Residues: Harvesting, storage and fuel values**
* **Intensive Monitoring of an oak woodland in western Ireland – Development of an Irish Ecological Monitoring Network**
* **Carbon sequestration: Policy, science and economics**

Contact the COFORD office to order copies of these reports.

The circulation list for this newsletter continues to grow at an impressive rate. Anyone wishing to be added to the circulation list should visit <http://www.coford.ie/frames/newsletter.html> and enter their details. Back issues of the newsletter are available to download at: <http://www.coford.ie/newsletter/issues.html>

Our website now hosts the WOODSPEC web pages. More information on this follows below:

## Woodspec

The Wood Marketing Federation has published a comprehensive new guide on wood design and specification. *Woodspec: A Guide to Designing and Specifying Timber in Ireland* was launched in the Visitor Centre, National Botanic Gardens, Dublin on Wednesday June 27 by Mr. Hugh Byrne TD, Minister of State at the Department of Marine and Natural Resources.

The Guide is the first of its kind to be published in Ireland and "reflects and increasing confidence in wood usage and design in Ireland" said Mr Ciaran O'Connor, award winning architect and chief technical advisor to the *Woodspec* project team. Mr. O'Connor who is Senior Architect with OPW said "The guide recognises wood as a renewable and ecologically friendly resource awaiting architectural and engineering development and it will provide users with comprehensive information to ensure the efficient production of precise specification in relation to the appropriate use of timber".

Minister Byrne said he was delighted that his department had supported and part-funded the project, because it represented an important step in promoting wood usage in Ireland. He congratulated the project team and hoped that architects and engineers would respond positively to the guide and to using timber creatively in many applications.

The guide is the result of four years work by an editorial, design and management team comprising of architects, engineers, wood scientists, foresters, designers, builders and a range of specialists including processors, wood treatment experts and academics. Donal Magner, Project Manager, said the result illustrates the versatility of wood and will provide the user with large scope for architectural and engineering expression.

Although *Woodspec* is designed with the specialist in mind, its clear and accessible format makes it adaptable to a wide audience. It is the first guide of its kind in Ireland to highlight designing, detailing and specifying timber. "It provides a challenge for architects, engineers, contractors and specifiers to use wood creatively and in turn Woodspec will play a major role in creating a wood culture in Ireland" said Mr Magner. Leonard Gallagher, Editorial Co-ordinator said that *Woodspec* stresses the importance of good practice in the use of timber. The guide will help increase awareness and usage of timber, especially Irish timber. "*Woodspec* has six parts including an introduction on correct timber usage, followed by sections on design practice, detailed drawings, specifications and reference section.

COFORD was responsible for the production of the CDROM and the development of the website. The website is located at <http://www.coford.ie/woodspec> .

## Forest Service launch NDP funding programmes 2000-2006

Mr Hugh Byrne, Minister of State at the Department of the Marine and Natural Resources officially launched the new forestry measures of the National Development Plan, 2000-2006 in Wexford on June 1st.

Further details may be obtained from the Forest Service at Johnstown Castle, Wexford.

## New Projects

COFORD has just completed negotiation on a new project entitled Carbon Sequestration in Irish Forest Ecosystems (Acronym: Carbifor). The Forest Ecosystem Research Group at UCD is leading the project. This multifaceted project pulls together expertise from several different departments with UCD – Crop Science, Horticulture & Forestry, Botany, Zoology and Environmental Resource Management.

The main focus of the project will be the carbon fluxes and sinks of forestry in Ireland. This project is necessary to ensure that the full potential of forestry as a component of the National Climate Change Strategy is realised. The project team will provide national estimates of carbon sequestration as requested by the UNFCCC and IPCC. This reporting work will involve the compilation and updating of above and below ground net C assimilation in certain key forest types. The project will also estimate biomass expansion factors for these forest types.

The project will be recruiting several research staff and further details of these vacancies will follow in later issues of the newsletter.

## Project Updates

BOGFOR

The BOGFOR research team is expanding as a new research assistant is joining the Forest Ecosystem Research Group to work chiefly on the frost study but also to assist the Project Manager in running the 18 tasks included in Phase II of the BOGFOR Programme. Efforts are currently being made to recruit a PhD student to start an ecological and management study of birch (*Betula* spp.) and *Juncus* on cutaway bogs.

The first management team meeting of Phase II has taken place. It was one of three BOGFOR field-day meetings organised for this summer in order to study, in-situ, various difficulties the BOGFOR team has to investigate. The project manager is currently undertaking a lot of fieldwork, ranging from site-selection, for new species and cultivation trials as well as full-scale demonstration plantations, to new experimental sites for monitoring water quality after aerial fertilisation and assessing new management practices to improve tree nutrition while protecting the surrounding aquatic ecosystems.

Further progress reports will be included in future COFORD newsletters and a BOGFOR newsletter will shortly be accessible on the BOGFOR website at [www.ucd.ie/~ferg](http://www.ucd.ie/~ferg) or via the COFORD website [http://www.coford.ie/research/00\_06.html - bogfor](http://www.coford.ie/research/00_06.html#bogfor)

BIOFOREST

You will recall from previous issues of *Forestry and Wood Update* that this project is co-funded by COFORD and the EPA and deals with the impact of afforestation on biodiversity. It is also examining the development and changes of biodiversity in stands of various species composition at different stages of growth.

Site selection and fieldwork is now proceeding and is gathering momentum. The research will focus on pure stands of Sitka spruce and ash, but will also include mixtures of conifers and broadleaves.

Following the lifting of Foot and Mouth Disease restrictions botanists and zoologists have been involved is setting up research plots on the past few weeks and recording will commence shortly. Bird surveys have also commenced. A more thorough update of this project will follow in next month’s issue. The BIOFOREST website will be unveiled shortly and will be accessible via the COFORD website at <http://www.coford.ie/research/00_06.html#bioforest>

## Carbon Corner

In the May issue of the newsletter we referred to the new Pronk paper that was issued by Mr Jan Pronk, the current President of the Conference of the Parties to the UNFCCC. Many of the proposals that are listed in the Pronk paper have been incorporated in the consolidated negotiation text (<http://www.unfccc.de/wnew/index.html>) that is now on the table for negotiation at the resumed COP6, which will take place over the last two weeks of July in Bonn.

 Once again sinks are likely to be a key feature of the negotiations. So what is in the consolidated negotiation text (FCCC/CP/2001/2/Add.3/Rev.1) as far as sinks are concerned? The proposal is that, as before, and as set out in the Kyoto Protocol, net changes in carbon stocks sinks under article 3.3 – afforestation, reforestation[[1]](#footnote-1) and deforestation since 1990, shall be used by Parties to meet their quantified emission limitation and reduction commitments (QELRC).

 As far as article 3.4 is concerned there are number of new or reworked proposals from what was on the table at The Hague. A new proposal is that there would be three tiers to limit credits for forest management and agricultural soils. The first tier applies to those Parties (such as Canada and Finland) which have reported ARD[[2]](#footnote-2)2 activities since 1990 as a net source of greenhouse gas emissions under article 3.3. Almost all parties, which have reported losses under 3.3, are major forest economies whose forests are a net sink for carbon dioxide. The reason they have reported net emissions is that they have significant areas of deforestation, mainly as a result of the development of new roads and other infrastructure on former forest land, which results in carbon losses to the atmosphere. They have relatively small afforestation and reforestation programmes to compensate for such losses and have as result reported carbon losses from ARD. The first tier that is proposed in the consolidated negotiation text would entitle Parties to use net carbon sequestration in managed forest (under article 3.4) to compensate for up to 100% of losses from ARD activities, up to a cap of 30 Mt of CO2 per annum per party. The second tier proposes a method to limit the extent that carbon sequestered by forest management since 1990, net of the first of any compensation in the first tier, could be used by Parties to meet their QELRC. The proposal is to reduce or discount this amount by 85% - in other words the sink for which credits can be claimed would be up to a maximum of 15% of the forest management sink, net of any 3.3 compensation under the first tier. The third tier brings in cropland management, grassland management and revegetation. The proposal is that these would be credited on a net-net basis, that is changes in carbon stocks on such lands could only be credited over and above what the stocks were in 1990. The second and third tiers would be subject to an overall cap of 50% of a Party’s QELRC so as to reduce the scale of sinks and to ensure that emissions reductions would be carried out by Parties.

There are other issues related to sinks which will be under discussion at Bonn. Chief among these will be the extent the sinks should feature in the clean development mechanism (CDM), which is set out in Article 12 of the Kyoto Protocol. The purpose of Article 12 is to assist Parties to the Protocol which do not have greenhouse gas reduction commitments to achieve sustainable development and to assist those which have in achieving compliance with their QELRC. The EU position is that it is opposed to the inclusion of sinks in the CDM. Concerns focus on the potentially very large scale of these sinks, how permanent they are and on overall sustainability and environmental issues.

 Obviously there are many issues to be resolved at the Bonn conference. However the EU is committed to ratification of the Kyoto Protocol in 2002, ten years after the UN Earth Summit in Rio and the agreement of the United Nations Framework Convention on Climate Change.

## National Climate Change Strategy

In October 2000 the Department of the Environment and Local Government published the Government’s National Climate Change Strategy. This is a wide-ranging strategy that covers many diverse initiatives such as:

* Carbon energy taxation
* Use of emissions trading
* Fuel switching to low and zero carbon fuels
* Livestock reductions and lower fertiliser use
* Fuel efficiency and modal shift in transport
* Energy efficiency in construction

As you can see from this list the initiatives are very varied.

So, where do forestry and wood products fit into this mix of schemes? The answer is that forestry has a significant role to play and will impact several of these plans. The role of forestry is explicitly stated in the strategy. However, wood products can also play a huge role, although this is not directly referenced.

 The forestry sector measures, as outlined in the strategy, aim at enhancing the carbon sink potential. This will be achieved by:

1. Reviewing the forestry programme to ensure full achievement of the planting targets and even an intensification of the programme,
2. Research to maximise the sequestration potential of forestry.

This represents the explicit reference to forestry in the strategy. However, if we look at each of the other key measures in the strategy the role of forestry can be seen to have wider implications.

In the **energy** sector – the forest industry, through material from thinnings and sawmill residues, can become a significant supplier of renewable energy. Such fuel sources, coming from Ireland’s Sustainably Managed Forests, are carbon neutral and can displace environmental damaging fossil fuels to a certain degree. The strategy seeks to maximise CHP (combined heat and power) which is a more efficient generation of heat than the boilers currently used in industrial applications around the country. Sawmill residues could certainly be used to fuel such a plant to give not only greater efficiency, but also lower net carbon emissions.

In the **transport** sector – as cooperation continues to develop between the growers of wood and the processors, the forest industry can become the model for other industries to follow. By optimising wood harvesting and haulage the industry can ensure that efficiencies are maximised and fuel wastage minimised. This makes good economic, as well as environmental, sense.

In the **agriculture** sector – making REPS, other agricultural schemes and forestry schemes more compatible would greatly promote the uptake of the afforestation grants and assist in the achievement of the planting targets. In addition, as fuel markets develop for forest residues, greater market pull will led to greater change of land use from livestock to forestry (both normal and short-rotation forestry).

In the **built environment and residential** sector – the strategy refers to more efficient new buildings. Building regulations will be tightened to reduce energy use in new housing by up to 20% in 2002 with further reductions in 2005. Increased use of wood products in housing can impact energy savings in several ways. First of all, timber-framed housing has naturally higher insulation values than conventionally masonry-based construction. This leads to lower fuel requirements to heat the house, which in turn reduces our dependence on fossil fuels. Finally, the embodied energy values of wood products are significantly lower than those of steel and concrete based building components.

Research projects funded through COFORD’s programme will assist in ensuring that each of these positive impacts of forestry and wood products on the environment is realised.

## Irish Joinery Awards

**FINAL REMINDER** Every year the Irish Timber Trade Awards (ITTA) organises the Irish Joinery Awards. Entries are now open for the 2001 Awards. The closing date for submissions is July 27 and winners will be announced in November.

There are five award categories:

* a building accessible to the public;
* a commercial project;
* a private/residential project;
* a conservation/restoration project; and
* furniture commissioned, designed and manufactured in the Republic of Ireland.

The last two categories are new to this year’s awards.

This is the third year of these awards, which are sponsored by the American Hardwood Export Council.

## Pending Publications

A number of reports will be published by COFORD in the coming months.

The COFORD Annual Report 2000 will be published on 11th July 2001. Details of the New Forest Research Programme funded under the National Development Plan (2000-2006) are given as well as examples of successful projects completed during the 1994-1999 programme. Hardcopies will be available free of charge from COFORD. Alternatively, a copy may be downloaded from the COFORD website.

Two new newsletters in the 'COFORD Connects' series will be published at the end of August 2001, covering the areas of Timber and Harvesting and Reproductive Material. The former describes the development of a decision support system (DSS) to provide the timber procurement manager with estimates of key attributes of log assortments in a standing timber lot. The latter outlines effects of lifting and cold storage on field performance of important conifer and broadleaf species.

A study commissioned for the Irish Forest Industry Forum by COFORD and completed by Dr Brendan Kearney will be published in mid-September. The review principally examines farm forestry trends and farmers attitudes to forestry as well as issues concerning the availability of land for forestry.

Also due out in September is a report commissioned by COFORD on behalf of Coillte addressing the issue of carbon credits, particularly aimed at the forest grower wishing to know the prospects and potential for earning money from carbon sequestration in Ireland.

Details of all COFORD publications are available at the COFORD website [**www.coford.ie**](http://www.coford.ie)

## A review of relevant studies concerning farm forestry trends and farmers’ attitudes to forestry.

COFORD recently commissioned a study by Dr Brendan Kearney, the well-known agricultural economist, to review studies concerning farm forestry trends and farmers’ attitudes to forestry. The findings of the study were presented to the Forestry Forum on the 28th of June. The following is an extract from the summary and assessment section.

This review of relevant studies concerning farmers’ attitudes to forestry also covered forestry trends since the early nineties and the factors associated with the evolution in farm forestry. It also took note of a few recent studies which may be helpful in contributing to an understanding of future forestry trends by reference to comparative returns in forestry and agriculture.

By and large the studies/surveys cited fell into four categories:

1. those which are largely desk research and concern the availability of land for forestry and comparative returns in forestry and agriculture;
2. those which relate to surveys of all farmers and their attitudes to and/or their experience of forestry where relevant;
3. those which relate to surveys of farmers with forestry; and
4. those surveys of the general population with reference to their views on forestry and its attributes.

A brief summary of the key findings/conclusions/issues from these four categories follows.

With respect to **Category a),** there is abundant evidence that it would be financially worthwhile for many farm operators to plant their land, compared with the level of returns which it generates in its present use. Yet this is not happening to the extent that one might expect from a “rational” perspective.

A study concluded that in general terms, the availability of land for afforestation is dependent on the interplay of five sets of factors: restructuring in the farm sector, the diversification of the rural economy, public policies, landholder responses to structural change and public policy, and implementation strategies in afforestation programmes.

The study also carried out an investigation of the underlying reasons why low output/income landowners do not afforest their land. With regard to the type of landowners afforesting, in the North West, full-time farmers predominate, planting poorer parts of their holdings. Part-time farmers or inheritors who no longer live locally, and private operators make up the second and third most important categories respectively. Landholders on the dole or having the NCOAP (Non-contributory Old Age Pension) did not seem to participate.

With respect to the applicants for forestry grants and premium roughly half were from full-time farmers. Another 12% were from part-time farmers while another 15% were from landholders who do not directly or seriously farm. Interest in forestry is less among "retired" and elderly farmers and landowners and consequently recipients of dole and old age pensions maintain a negative attitude to forestry because of its implications for means test assessment in their circumstances.

In summary there appears to be three main types of constraints operating: (a) factors diminishing “awareness” and “interest” in the afforestation scheme, (b) strong negative attitudes to forestry, *per se,* which appear to be still characteristic of most West of Ireland areas and (c) income maintenance programmes.

**In Category b),** the main findings from a Western survey indicated that most of the farmers who had planted had done so on bogland or on land that had previously been used for rough grazing. Eighty four percent of respondents indicated that their farm output had not been affected by planting part of their land with trees. Furthermore, the majority of respondents indicated that planting trees had not affected the workload on the farm.

Lack of suitable land and a limited land resource were the two most popular reasons given for not planting trees. Many of those giving the former reason indicated that their land was “put to better use in agriculture” or was not “bad enough” for forestry.

Only ten percent stated that they would plant. The most popular reason given for future planting was to use up poor ground which was “good for nothing else”. Fifty nine percent of the respondents stated that they will not plant trees in the next ten years. The most common reason given for not planting was lack of suitable land.

From another study, it is clear that the vast majority of farmers in a Western county were not considering afforestation on their own farm despite the incentives available. More than half of farmers indicted a favourable attitude towards ‘forestry in general’ while another 20 percent had no view either way. Only three percent had some forest planted. The main difficulty with the idea of farm forestry was that farms were seen as too small to allocate some land to forestry because existing enterprises would have to be scaled back.

In another study farmers indicated broadly similar views. County estimates show that six percent of farms had a forest enterprise with another four percent considering afforestation. Farmers’ ratings of forestry as a farm enterprise on their own farm were mixed, with 38 percent not in favour and another 22 percent neutral or indifferent. Thirty percent indicated a favourable attitude. The most often cited difficulty was the view that ‘good land’ should not be planted. Positive attitudes were supported by the belief that forestry was a good use of marginal land or otherwise yielded favourable or guaranteed returns.

In the **Category c)** studies, the most often cited reason for planting was that the land was of limited utility for other enterprises; this response was especially associated with the Western area where land quality is generally poorer. Premia incentives and better returns from forestry account for a quarter of responses and this economic logic was more prevalent in the Midland region. Long term investments were also cited by 8 percent of the sample but this too was associated with the Midland region.

More than 90% of planters were satisfied they had planted some forestry and this view held in both regions. Financial gain and a good investment were most often mentioned by more than one in five. When taken together those responses indicate that two thirds of planters regarded the economic aspect as the main justification.

Less than a quarter of respondents indicated they would have no difficulties in planting good farm/grazing land. Of the remainder, who were either strongly opposed or those more modestly opposed, the main difficulty was an attitude one. Forty percent of farmers indicated a preference to farm good land or were of the view that good land ought to be farmed. Income considerations, such as less returns from forestry and more oblique economic problems such as limited options, were not the dominant factors in regard to afforesting good land.

With respect to the farm forest, while there are significant differences between regions, a general profile of the farm forest is described as (i) being composed of a mixture of conifers and especially sitka spruce, (ii) on soils which are generally marginal to grazing such as peat or wet lands, (iii) where the previous use was either rough grazing or summer grazing, and (iv) usually at low altitudes.

Private forest owners’ objectives for their woods were investigated in another study and their level of participation in forest management activities determined. Most of the forests were very young, with 70% less than four years old and over 60% of respondents indicated that the previous land use was rough grazing or wasteland. Ninety percent of owners intended to produce timber for sale. The vast majority (80%) had little or no involvement in management and rely on management companies. Most forest owners have no tradition, experience or knowledge of woodland management, and they are not taking advantage of the available extension services.

The first study reported in **Category d)** was the ESRI Wicklow and Mayo/Roscommon comparative project. In Wicklow 53% of respondents expressed themselves as ‘strongly in favour’ of forestry development compared with less than 6% in Mayo, while a further 34% in Wicklow and 47.5% in Mayo were ‘in favour’. In Wicklow a slightly higher proportion of people with other occupations was in favour of forestry than those with agricultural occupations. In the Western region similar differences were apparent in the responses of persons with non-agricultural occupations but the opinions against forestry were much more strongly felt by those in the agricultural sector than in other occupations. The dominant reason by those opposed to forestry in Mayo was that it was inimical to agriculture, while other reasons most frequently mentioned were that it caused depopulation and isolation or gave little employment.

In Wicklow nearly 70% had a positive attitude to forestry because of its perceived significance in the local economy with regard to employment. In Mayo the most frequent response given related to the use of forestry for exploiting marginal land.

This category also includes an assessment of the **Irish public’s attitudes** to afforestation especially their impressions regarding the impact of the present afforestation programme upon the environment. A majority of the public feels that afforestation will improve the landscape and provide better habitats for wildlife. Fewer are convinced of the merits of afforestation for recreational opportunities. Over two thirds of the population believe that, on balance, afforestation will have a beneficial effect on the countryside.

 Younger people are more favourably disposed to forestry than are older generations. While farmers are the least well disposed to afforestation, a substantial majority have a favourable attitude to the environmental impact of afforestation.

A survey was also undertaken on the perceptions and attitudes of two case study populations, one of which was positively disposed towards forestry (Wicklow) and the other highly critical (Leitrim).The object was to introduce a social dimension to the discussion regarding forest policy pertaining to landscape planning and design. It would appear that the Wicklow respondents have a closer cultural relationship with forests and forestry than do those interviewed in Leitrim. Taking the responses to relevant questions, it is suggested that the Wicklow population is considerably more positively disposed towards forestry generally than are residents from Leitrim.

Another survey was carried out on forestry awareness and investigated general issues such as the level of environmental awareness and concern of the Irish public as well as a limited number of other more specific matters such as, for example, perceptions regarding forestry and its role in relation to nature, landscape and recreation. The main conclusions were that most people believe that the Government should continue to provide financial incentives for planting forests and that forests contribute to the national economy and, especially, help to create jobs in rural communities. Most also believe that forests are good for the environment, and that more farmland should be made available for forests, and the general public are also strongly in favour of forests being used for leisure purposes.

The full report by Dr Kearney will be published shortly by COFORD.

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1. Not reforestation as defined in Ireland, which uses the FAO definition, which is regeneration after harvest. The consolidated negotiation text defines reforestation as “the direct human-induced conversion of non-forest land to forest land through planting, seeding and/or the human-induced promotion of natural seed sources, on land that was forested but that has been converted to non-forest land. For the first commitment period [2008-2012], reforestation activities will be limited to reforestation occurring on those lands that did not contain forest on 31 December 1989”. [↑](#footnote-ref-1)
2. 2 ARD: afforestation, reforestation and deforestation [↑](#footnote-ref-2)