Private Sector Production Forecast Working Group

Meeting at Silvan House
9th March 2009

Attending:

Roger Coppock (Chair)	Andy Greathead
Justin Gilbert (Secretary)	Andy Mason
David Leslie	Oliver Coombe
Chris Edwards	Martin Craig
Adrian Kirby	Mark Lawrence
Steve Lavery (from item 3)	

Ben Ditchburn (PF programme manager)
For item 7 – Barry Gardiner (FR) and John Moore (Centre for Timber Engineering, Napier University)
For item 8 – Esther Whitton (FR)

Roger opened the meeting and welcomed Barry Gardiner,

1. Apologies
Keith Jones – Chris Edwards attending for FCW
Robert Matthews
Andy Mason
Simon Gillam
Gabriel Hemery
Colin Kennedy
Jez Ralph
Graham Taylor

2. Note of Previous meeting – Roger Coppock
Agreed

3. Actions arising – Roger Coppock
Action point BG to produce a discussion paper on stiffness for the next meeting. - agenda item 7
Action point RC to circulate paper that went to Confor processors group and the Treemetrics report for Argyll on breakout optimisation at the pre-harvest stage. (circulated)
Action point JG to produce a revised map (included in minutes)
Action point BD, RC with DL AK MC to get methodology out by mid-Dec. Group members to identify key individuals, bringing this together for early Feb? (agenda item) methodology drawn up but has remained internal – focus on delivering from data that is already within FC or other government sources, Esther Whitton will cover this in agenda item 8.

4. NFIGB and PF 2011 programme update – Ben Ditchburn
Papers approved, merging PF and NFI, process now endorsed, map (with rolling update), 15,000 sample squares including mensuration leading to a forecast which has the potential to be enhanced by use of other data sources such as information from the PS.
NFIGB giving 'State of the Nations' Forests'
PF +/- 2% conifer Private Sector Forecast error targets at GB level.
Map, field sampling including this time top-height, dbh – RC pointed out that extensive discussions have taken place about what should be included within the NFIGB without compromising the data for the PF. Obtaining information about age of

crops in the 15,000 sample squares is really important as well as acquiring information about management intent. Age, YC and species are the main sources of variation in the forecast. Scenario forecasts for headlines and policy evaluations will be carried out. Need to decide what the scenarios that are to be modelled will be. OC asked about the impacts of redband needle blight and the need for felling of Corsican pine. BD explained that this will be reflected in the FE forecast, along with the effects of heathland conversion. There was some discussion about how this relates to the allowable cut and whether it will be compensated for by less spruce and DF? Market conditions will be taken into account but this is really a question for FE England. SL asked if there would be access for the Private Sector wanting to test scenarios in their own right? BD stated that this could be delivered through a 'bureau' service but other aspects of delivery have higher priority at the moment. SL felt that the facility to run forecasts/scenario should be available to the PS. RC said that this was an item for further consideration. BG mentioned scenario modelling that has been done within Eforwood for Craik forest. These assess the impacts of changes and how we forecast to take these into account and how we safeguard data submitted in terms of data protection. The group that works on the scenarios will have PS representation.

BD then covered the NFI sampling which would consist of an 8km x 8km grid plus simple random sampling. Could enhance forecast by putting in more plots through the South West and Yorks & Humberside inventory work as top-up or could use available data in association with existing NFI plots, with calibration to assess data supplied. CE – Wales is one country, one region at 2% target confidence. ML outlined the QA process for the NFI in response to a question from DL.

- Methodology and approach is sound
- Clear Link between what is measured, spent on measurement and confidence in outputs established
- Effective use of new technologies (Aerial Photography, GIS, Remote Sensing)
- Evidence base for timber, carbon and biomass accounting and forecasting established
- Permanent sample squares will allow for increased capacity in change detection
- Reporting boundaries allow for working with less money, shorter reporting cycles and new political structures
- Defined target snapshot dates
- 5 year cycle
- Rolling programme, not boom and bust
- Top up capacity will allow for regional, industry (mill) and country stakeholder specific requirements to be met (e.g. SWE and Y & H top ups)

RC observed that a rigorous approach to gathering data yields good results but also shows how complex the whole process is. It is underpinned by the advantages of having good quality mensurational information.

BD said that there was a need for a communications strategy for the group. SL wondered if we could get the message out through ConFor and present at Regional meetings.

RC welcomed Esther Whitton FR and John Moore from Centre for Timber Engineering Research, Napier University.

5.   ConFor response to stiffness and straightness paper – Roger Coppock

The Confor Processing group said that product breakdown was critical for the 2011 forecast, straightness critical for the 2011 forecast, stiffness was a 'like to have' for 2011 but critical for 2016. The group also wanted further involvement in the quality issues. **Action point:** Roger to circulate this paper.

BD said that this paper has been well-received by the IFOS service board.

6.   Summary statement on statistical methodology for the NFI and PF – Ben Ditchburn

The key aspect of the statistical approach to the exercise is to minimise input but to still get good results. Data requirements and precision drive the sample size and this in turn drives the costs of the PF and NFIGB.

We will gain some sampling efficiency over the previous National Inventory (35,000 squares against 24,000 with improvements to design) but restraints limit us to c.15000 so our estimates will be less precise. However the gain for the PF is great because we will have mensuration content within the NFIGB, which was not present before. BD showed the likely confidence intervals for a range of parameters at different number of samples. The number of samples are based on costs of £250 per day and an output averaging 1.5 squares per day over the year.

With 15,000 samples less precision will be obtained for estimates of area than was achieved for NIWT and this loss of precision will carry forward into the PF. However, the loss in precision will be more than compensated for by improvements in accuracy due to the greater quantity of mensurational data being collected. The shorter resurvey cycle proposed in a rolling programme will also improve the PF.

The FC NFI statistical methodology group would recommend a higher level of sampling than currently set, at 25,000, comparable with NIWT, if the funding were available.

BD explained that the PS conifer samples would be done in time for use in 2011, ML followed this be saying that they would be done again in time for the 2016 forecast.

7. Implications for forecasting stiffness - Barry Gardiner & John Moore

Forecast volumes and product out-turn are not a measure of product performance. Best value will be obtained by matching the resource to industry requirements.

Mechanical stiffness is best measure of performance. To assess this, robust, inexpensive acoustic tools allow stiffness to be measured on standing trees, logs at the roadside or on arrival at the mill. Several companies produce these:

- FibreGen, measures the time for a signal to travel between two probes
- Fakopp Industries have 2 tools; one for standing, similar to the FibreGen tool, other for felled trees, linked to a PDA, other instruments are available.

A sawmill trial on 300 logs has shown that measurement of acoustic properties can be used as grading tool. For Scots Pine, work has been done to relate acoustic data to thresholds (e.g. achieving C22/C24) and pass rate %. New work is underway to reproduce this study for Sitka spruce.

The results have shown that a good correlation between acoustic properties and stiffness. Within two years BG expects that fully validated models for predicting stem stiffness in Sitka spruce and Scots pine will be available. There is a need, requested by the Confor Processor Group, to add stiffness into future inventory and forecasting to aid industry investment.

In response to a question about silvicultural influences on stiffness, BG and JM replied that too wide a spacing drops Sitka pass rates below the C16 threshold. SL asked about breeding programmes and their influence on improved production volume. BG indicated that results of early trials show that faster growth rates from improved stock does not impact adversely on stiffness. BG spoke about the need to have close stocking at the beginning of the rotation to minimise the juvenile core of the tree.

8. PS ownership work – Esther Whitton

Esther has analysed all FC data, IACS, Woodland Trust, RSPB for Scotland and Wales to link forest map polygons with ownership data. There are still a large number of empty polygons – Esther suggested tracing these on a need to know basis – because there are so many. AK has offered all his digital information when it is available – others were asked to do the same. This initial exercise is to determine the extent of the shortfall? There is still a problem with slivers, which could be cleaned, although this is a substantial task.

Need to:

1. target the NFI sample squares

and then 2. tackle the remainder of woodland.

DL said that it was important to target enquiries to the right recipient i.e. letters reaching the right party first time (not necessarily the owner) to get a quick response, speeding up access to the forest; members of the group and their contacts could help with this aspect.

RC said that the exercise is not just about the NFI sample plot forest ownerships. We need to find out about the extent of crop and other data held about the woodlands as a building block for promoting ownership of the forecast by the PS.

BD mentioned the need to maintain the data over time. DL mentioned the data held on ownership by the power companies (power lines go through woodlands) but queries were raised about the likelihood of them being able to release the data to the project.

SL asked what is the best way for the PS to supply data? BD suggested that the ownership map will facilitate access, and could be basis for gathering other data or could be a proxy for some management data.

RC suggested that we gather boundary data from forestry companies as a first stage, then do a pilot gathering data across England, Wales and Scotland, perhaps a dozen 1:50,000 maps and this would give us an idea of the extent of the potential data gathering exercise. This was agreed.

SL asked for a formal letter setting out the data requirement for the companies providing data.

Action point: each of the large companies to provide to JG a main contact person for the company

Action point: BD to draft formal letter to the companies

Action point: Pilot for 10-12 sites; members to suggest Landranger map numbers to JG of areas in which they could fill-in missing ownership information.

This needs to be done soon so we can see progress in time for the next meeting

9. Next steps and moving data collection forwards
(included in agenda item 8)

10. AOCB
None

11. Location and time of next meetings.
Date pending to allow inclusion of the project work. Carlisle was agreed as a replacement venue for Crewe.

Justin Gilbert
Secretary, PSPFWG
10.03.09