

Predictions regarding FSC

An international perspective

David South¹

Globally, I estimate there were 193 million hectares of plantations in 2000. Plantations increased by about 30 million ha from 1990 to 2000. Some estimate that afforestation accounts for half of this increase while reforestation accounts for the remaining half. I estimate there were 110 million ha of plantations in Asia followed by Europe (32 million ha), U.S. (21 million ha), South America (10 million ha), Africa (8 million ha), Canada (5 million ha), Oceania (2.8 million ha) and Central America (1.3 million ha).

In comparison, there were 3,682 million ha of natural forests in 2000. In just one decade, natural forests in the tropics decreased by 7% (i.e. 142 million ha) from converting to other land uses (e.g. pasturelands) while 0.5% (10 million ha) of tropical forests were converted to plantations (a ratio of 14 to 1). Deforestation concerns those who support the Forest Stewardship Council (FSC). Therefore, FSC encourages socially acceptable and economically viable management of forests and plantations by requiring managers to follow a global set of Principles and Criteria. Principle 10 is geared toward slowing the conversion of natural forests to plantations. However, stated goals of FSC do not focus on reducing the rate of conversion of natural forests to pasturelands and croplands.

In regards to natural forests and plantations, FSC is often an equal opportunity certifier. For example, about 2% of plantations in the world have been certified by FSC (3.8 million ha) and about 0.6% of natural stands have been certified (24 million ha). In contrast, about 24% of NZ plantations have FSC certification (407,000 ha) while less than 0.01% of natural stands in NZ have been certified.

I do not claim nor aspire to be an expert on forest certification. However, in regards to plantation management, I cannot help but notice regional differences in FSC policy. Here is what some may call "Dave's Top-Ten List" of FSC predictions.

(1) Harmonization among countries: According to FSC International, regional and national standards are to be revised on a regular basis. In the U.S., disparity in the nine regional draft standards (i.e. indicators) made it clear that a set of national FSC guidelines was needed. As a result, a national committee helped regional committees modify their drafts. A similar exercise is currently undergoing in Sweden. The original Swedish guidelines were rather vague (which may help explain

why over one-third of FSC stands are located in Sweden). Currently, these guidelines are being modified to fit better with surrounding countries in Europe. I predict the NZ standards will be quite different from other countries. This difference will affect both management costs and marketing. I predict this will eventually lead to a revision that is more "harmonized" with other countries.

(2) Plantation limits: Regional differences exist in the limit to plantations. I believe the most stringent draft is from the U.S. Pacific Coast Region. If approved, it would require plantations to be phased down to 10% to 20% of the forest management unit (this limit would not apply to plantations established on ex-agricultural sites). National standards for the U.S. allow up to 75% of plantations in the forest management unit. Plantations established on natural forest sites after November 1994 are not certifiable (unless they have been purchased by a new landowner after the conversion). Semi-natural forests (e.g. old plantations) converted to plantations after 1994 may be certifiable. Many FSC drafts do not distinguish between plantations established on ex-agricultural sites from those established on ex-plantation sites or ex semi-natural forest sites. As a result, some drafts penalise landowners for planting trees on ex-agricultural sites. I predict future FSC drafts will make it easier to obtain certification of plantations planted on ex-agricultural sites.

(3) Pesticides: Pesticides are used on FSC certified forests and plantations but there has been uncertainty over which types are allowed. A recent FSC International document (Radosivich et al. 2000) provides some clarification as to the definition of chlorinated hydrocarbon. I predict some non-government organizations will challenge FSC certifications after it becomes widely known which food-crop pesticides are prohibited by FSC. I predict some challenges will be made since fence posts are often treated with copper-chromium-arsenate.

(4) Nurseries: FSC requires that forest nursery managers make every effort to move away from using pesticide and inorganic fertilizers. Some FSC certified nurseries could be/(have been) criticized for using food-crop chemicals such as captan, dicofol, oxyfluorfen, trifluralin and fertilizers like urea, diammonium phosphate and sulphur. I predict some landowners will divest themselves of their bare-root nurseries in order to make FSC certification easier.

(5) Adjacency requirements: Some FSC drafts in North America have a 3.1 m adjacency requirement (trees must average 3.1 m tall before adjacent stands can be clearcut). In my opinion, there are almost no publications to support the view that this makes a difference in either wildlife or plant populations. Most papers on adjacency are from the Pacific Northwest and are written to show

¹ David South is Professor, Forest Regeneration at the Auburn University School of Forestry in Alabama, U.S.A. He has just spent 2 months at the New Zealand School of Forestry as a Canterbury Visiting Fellow.



how to cope with adjacency regulations. Although many FSC drafts include a maximum clearcut size, many do not include an adjacency requirement. Due mainly to a lack of clearcutting in native forests, a lack of native mammals and a lack of scientific literature, I predict adjacency requirements will not be part of FSC drafts in NZ.

(6) Reserves (areas not managed for timber production): Some FSC standards require reserves while others do not. One current draft from the U.S. Pacific Coast region requires large landowners to leave 20% of the land in protected reserves. However, national FSC guidelines do not require large landowners to have any reserves. Instead, these guidelines require large landowners to keep at least 25% of their forests in a natural or semi-natural condition. The southeastern U.S. guidelines allow wood to be harvested from this land. I predict FSC requirements for reserves in NZ (as opposed to managing native forests) will make some large landowners think about switching to another certification system such the new "Cross and Globe" brand offered by Scientific Certification Systems (http://www.safnet.org/archive/302_scs.htm).

(7) Name games: I have noticed a range of FSC definitions for words like "plantation" and "retention." In some drafts, a naturally regenerated stand might be classified as a "plantation." This may be an advantage to some in countries like Australia. In other cases, plantations may be removed from the plantation area category. I expect some will take advantage of "fuzzy" definitions. For example, some natural forests harvested and planted after November 1994 may be certified by FSC as long as the stands are not designated as plantations

on a management map. Recently, FAO was told that Canada no longer has any plantations! I think this was allowed because of the current "fuzzy" FAO "plantation" definition. I predict some countries will follow Canada's lead and play "name games" to justify reporting a reduction in plantation acreage.

(8) Paying for the certification number: Currently, some NZ companies supply the FSC chain-of-custody certification number free to customers. I predict in the future a higher price will be required if a customer wants the certification number. I predict a cubic metre plus the certification number will be at least 6% higher than for wood without the number.

(9) Energy from non-certified wood: Currently, there are no FSC requirements for the use of fuelwood. About 60% of the wood harvested in the world is used for energy (note: this figure includes black-liquor). Wood that is harvested but not certifiable may be burned as a replacement for fossil fuels. I predict that FSC will not set up a certification scheme for fuelwood.

(10) Finally, I predict FSC will develop a certification program for beef, lamb, goat and other grazing animals. This program will certify meat and dairy products produced from pasturelands established on ex-forest prior to November 1994. Any meat, milk or cheese products produced on forestlands converted after this date will not be sold with the FSC label.

This process might slow deforestation caused by farmers who intend to export meat and dairy products to developed countries. If this prediction does not come true, there may only be 1700 million ha of natural tropical forests in 2015.

NZIF Kyoto Protocol submission

Focus on carbon sinks and industry's role

Justin Ford-Robertson¹ and Piers Maclaren²

The New Zealand government signed the Kyoto Protocol to the UN Framework Convention on Climate Change, and has now signalled its intent to ratify it by September of this year. If or when certain conditions are met, the Protocol enters into force. Once this happens, New Zealand will be obliged to return its average annual emissions over the first commitment period (2008-2012) to its 1990 emissions level, or take responsibility for the excess emissions. Ratification of the Protocol does not in itself mean anything. It is the domestic policy implemented to achieve the targets that could affect individuals and businesses.

The NZ Institute of Forestry submission to government (available on www.nzif.org.nz) does not question whether climate change is happening, the significance of the NZ role, or what the future value of carbon might be. It instead focuses on the role played by NZ forests as carbon

sinks, and the potential role of the entire forest industry.

The Protocol is primarily interested in the forests established since 1990 on land that was not under forest in 1990. The system proposed in many countries is to allocate credits to owners for any increase in carbon stocks (i.e. growth) during the commitment period. When the stand is harvested the stand owner would have to pay for the emissions associated with the loss of carbon (in logs and other biomass) from the site. Essentially this means stand owners could receive credits as their trees grow, but will have to pay them back again on harvest. Owners would not incur more debits than the credits they had received for that unit of land, but most of them would only gain the time-value of money at best. (Although a forest, averaged over time, contains more carbon than a non-forest, the bulk of the carbon accumulation may occur before 2008 and therefore will not be counted.) On top of that there is a high chance that there would be ongoing costs of monitoring, verification, and reporting at least every five years.

Forests or stands standing on 1 January 1990 are

¹ Forest Research, Private Bag 3020, Rotorua.

² Piers Maclaren & Associates, 115 East Belt, Rangiora.