

Farm forestry could drive biofuel for transport

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FORESTRY can best contribute to fighting climate change in Australia by mass planting of trees on farm land to provide biofuels for transport, according to a researcher.

Farm forestry plantations would take up a maximum of 30% of a farmer's land, using wood as a feedstock for bio-methanol, says Barney Foran, a research fellow at the Institute of Land, Water and Society at Charles Sturt University in Albury.

Mr Foran, a former CSIRO agriculture and ecology researcher, envisages a plantation land stock of 40-60 million hectares by 2050 — 7-8% of Australia's land mass. His views are set out in the keynote address today to an Australian Forest Growers' conference in Albury-Wodonga.

Mr Foran says biofuel could remove 4 billion tonnes of greenhouse emissions and be a substitute for the current \$10 billion in oil imports, progressively dominating as traditional oil is depleted.

"Methanol is . . . the simplest alcohol with clean combustion properties, and an effective hydrogen carrier for expected fuel cell vehicles past 2020," he says. "Additionally, a derivative of methanol, di-methyl-ether, is an ideal substitute for diesel fuel." Mr Foran says forestry would be limited to no more than 10% of cropping, planted pasture and rough land categories. The idea is not to take land away from animal agriculture or wheat growing.



Bringing fuel out of the woods.

PICTURE: JOHN WOODSTRA

"Forestry regimes mimic those already in place, but with the addition of a mallee system for drier areas, which is harvested on three- to five-year rotations depending on the rainfall zone," he says.

"The more marginal land for cropping now may at least have lower land prices, while higher rainfall zones will still be required for traditional food and fibre production."

Mr Foran says the wood feedstock would be grown within 40 kilometres of a processing complex where wood is gasified to synthetic gas. It would then be transformed by a catalytic process to bio-methanol.

"This is pretty well established technology. There would be a number of hurdles, such as a lack of hard-nosed chemical industry skills."

Mr Foran said growing trees

would use water, but there would not be plantings in a whole zone that was a major source of water for a river system. Besides, the drier areas of target regions like Western Australia had internal drainage and few major rivers.

"In the Murray-Darling Basin, you could plant in areas where they are not expecting a lot of water runoff," he told BusinessDay. "The plantations

could be a viable production alternative."

Mr Foran said the scheme could be paid for with the billions raised from carbon taxes under emissions trading. "Europeans paid to clear huge swathes of Australia. Why not pay for development that puts land cover back on the landscape?"

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