The New Zealand Institute of Forestry held a very thought provoking annual conference in Rotorua between the 10 and 12 of June on the value of forests - this being a somewhat topical theme for an industry desperate to get more recognition of the diverse range of economic and environmental benefits that arise from growing trees and forests in this country. Those attending the conference sensed that aside from traditional production forestry activities and the slowly evolving international carbon market, that there is becoming an increasing appreciation of the other wider values of forestry like recreation, biodiversity, watershed management, water quality, landscape enhancement, aesthetics to name a few.

The Institute’s President Dr. Andrew McEwen introduced the first day of the three day conference to an audience of around 150 people. He stressed that the theme for this year’s conference followed on from two previous Institute conferences by addressing quantitative values for non wood benefits from forests. One of the problems is that many of the benefits do not accrue to the land and forest owners. Instead they add value to properties downstream of the forest or to society generally. He had observed a disturbing trend in recent years for society, through their elected politicians at Central and local Government, to “nationalise” the benefits of forest through legislation and regulation, rather than recognising that value through some tangible benefit to the land or forest owner. We see this in the provisions that now apply to land use around Lake Taupo, and also in the Emissions Trading Scheme legislation, which have effectively prevented a change from forestry to some other land use. But for some other land uses, society has nationalised not the benefits, but the liabilities, for example by not insisting on the application of the polluter pays principle that is supposed to be one of the foundations of the Resource Management Act. Society is apparently happy to pick up the cost of rectifying the problems caused by some land use practices and we see this in the $80 million allocated for cleaning up Lake Taupo - and Andrew wasn’t slow to point out that those landowners around Lake Taupo who kept their land in forest and did not contribute to the problem, have been compelled to contribute to that $80 million through their taxes and rates.

Andrew asked the Conference attendees to question how we best value the benefits that forests provide. Consider the following examples of the benefits arising from forests that are not captured by the owner of the forest land. What would be the effect on the value of farmland in the Manawatu-Rangitikei if there were no forests on the unstable coastal sand dunes at Waitarere and Santoft Forests? How much more would be needed to clean up Lake Taupo if some owners had not retained their land in forest cover? What would be the cost of providing clean water to Wellington and the Hutt Valley or the cost of flood protection for Upper and Lower Hutt Cities if all the forest in the Hutt catchment was removed? Would Wanganui City still exist if there was no forest cover in the Wanganui catchment? What would be the value impact on the vineyards of the Waipaoa flood plain if there were no forests in the Waipaoa catchment? Would there have been less financial impact from the Manawatu floods of a few years ago if the highly erosion prone land had always remained in forest? At the Institutes 2008 conference we heard that the main factor that attracts overseas tourists to New Zealand is its landscapes. What difference would there be in the earnings from tourism if there were no forests in those landscapes and what would be the effect on earnings from the film industry?
Unfortunately, rather than these sorts of examples of the value of forests, it is easier for society to focus on some more immediately visible aspects of forestry - significant landscape changes when a mature crop is harvested, logging trucks on roads, increased sediment for short periods associated with harvesting operations, damage from logging waste or windfallen trees during exceptional storm events, conversion of forest to farmland (which is usually seen as the fault of the forest owner rather than the new land owner), logs being exported in unprocessed form and issues around large processing plants. The reaction from society is often to call for more restrictions on forestry operations and to ignore the wider benefits that those forests have been providing for the previous thirty or more years. Unfortunately local government is all too often prepared to act on those calls, rather than to defend forestry. One consequence of this has been for some forest owners to convert their land from forestry to less environmentally benign land uses (effectively to the highest possible polluting state) before local councils can place more restrictions on forestry. Andrew believed that we can see the evidence of this in the Waikato catchment as land owners sought to keep ahead of Lake Taupo land use regulations flowing further down the Waikato River and converted forest land to farmland. How to we reverse this problem? One way is to marshal the facts and to quantify the benefits that flow from forests to other land users and to society generally. And we need to insist that local and central government seek the same sort of information from those sectors that compete with forestry for land so they can make well informed decisions. Andrew hoped that quantification of forest benefits is something that the presenters at this conference would help us to achieve.

In his address to welcome and open the conference Rawiri Te Whare, Kaumatua of the Te Arawa Iwi indicated that forestry needed a long term strategy that was intergenerational, and without being critical there had been examples of forests being raped and pillaged to meet economic imperatives in the past. He encouraged the conference to think about long term vision and strategy and plan for the next generation and provide the building blocks for them to achieve this. What you put into the land is what you will get back - forestry is sustainable from an environmental point of view. Iwi suggest you need to look at your forest stands and see how improvements can be made to increase productivity to them. Rawiri stressed long term planning was essential taking an intergenerational approach - don't always necessarily be guided by your bank. There are some big challenges as forestry has been struggling to be as economic compared with some other competing land use sectors.

One of the conference key note speakers Bill Bayfield, Chief Executive of the Bay of Plenty Regional Council waxed lyrical about the value of the forestry sector and the wide range of benefits it brought to his region and went so far as to say he “loved the industry” but encouraged the sector to think more strategically about the long term and plan for the next generation, and not just be driven by short term economic imperatives - forestry is sustainable from an environmental point of view. It has increasing supplies wood and is a sustainable industry with the public starting to appreciate the value of forest land cover now that we are experiencing more climate variability. While the Councils Regional Policy Statement is “sort of friendly” to forestry, the Water and Land Plan was tougher on certain land based activities around harvesting and roading. The RMA doesn’t focus on the good effects and wider benefits that forestry brings to the community and in today’s technological environment good harvesting practice isn’t that difficult on steeper hill country. While regional councils like Environment Bay of Plenty has a legislative responsibility to stand up and address non compliance under the RMA, it is in reality more focused on the Local Body Act and how the wider economic, environment, social and cultural benefits can be increased from forestry. Bill wanted to see more wood processing out of the Bay of Plenty as he recognised forestry having the greatest potential to contribute of any other sector in the region - he also questioned the strategic sustainability of the increasing level of log exports out of the Port of Tauranga and indicated his Council was currently working with representatives of the industry including the Institute of Forestry whose Vice President is Chairing the Bay of Plenty Forestry Reference Group to address new potential wood processing and allied infrastructure challenges to meet the increasing wood availability coming out of the region in the next decade. His Council was also raising $200 million against its assets to develop infrastructure in the region and forestry will definitely be a beneficiary of that. New forest and forest land ownership structures have changed significantly in the Bay of Plenty and Bayfield was the first to concede he will be the first to be rated on his performance on optimising the outcomes for Maori as a result of the recent successful Central North Island Iwi Collective Treaty of Waitangi forestry land settlements.

George Asher, Chairman of the Lake Taupo Forest Trust also gave a very insightful presentation on the CNI Iwi Forestry Strategy that is currently being managed under the auspices of the Tukia Group Ltd. George who is also a Full Member of the Institute had several of his supporters at the Conference including Tumu Te Heuheu, Paramount Chief of the Tuwharetoa Tribe and members of the Lake Taupo Forest and Lake Rotoaira Forest Trusts who also attended the Conference. George outlined where the CNI Iwi collective was going now that the ownership of the Crown Forestry Land had been resolved, and he stressed that perpetual land tenure was a cornerstone for entry into the market economy and the successful management of production forests into the long term future. CNI Iwi are a force for the future over the next 30, 60 to 150 years and the big challenges will be maximising the long term economic benefits, not just from wood production but from a wide range of environment services and new developing markets like carbon trading. The CNI collective will create long
term benefits to both Maori and the wider community and bring a long term perspective to forest management and business development. George stressed that the CNI Iwi collective strategy was currently focusing on forestry, carbon farming and geothermal business development opportunities. The Tukia Group Ltd has also looked at the feasibility of dairy conversion on some of the returned forest land but deforestation liabilities under the Emissions Trading Scheme currently make this land use option uneconomic to achieve.

A presentation by David Balfour, Joint Managing Director of Timberlands Ltd stressed the fact that well managed commercial forests can provide significant benefits to the community as was reinforced the following day on the conference fieldtrip to Whakarewarewa Forest. Apparently mountain biking has surpassed running shoes and the notion that there are links to nature deficit disorder if kids and maybe some adults don’t get a regular drug free nature tour fix. Environmental benefits are not that well understood by the community. When the conference visited the Green Lake (Lake Rotokakahi) Colin Maudner, Forest Risk Manager with Timberlands advised caution about planting trees around the edges of lakes - don’t expect to have an easy time when you harvest. It cost $75 per tonne to extract the Douglas fir logs from the slopes around the edge of the Green Lake, not including the fun of extracting wind thrown logs out of the lake to prevent anglers from snagging their fishing lines. These costs were a lot more expensive than normal harvesting costs of around $20 per tonne or the extremely low $7 per tonne rate that it was costing in the full stem harvesting operations attended visiting the following afternoon in Kaingaroa Forest (NB although the cost of further processing these long stems at the Kaingaroa Full Stem Processing Facility is between $6-$7/tonne). Anyway getting back to valuing non production activities, landscaping using trees can be used to effectively screen commercial development and improve rural landscapes, and the community likes stands of large trees of mixed ages. Unfortunately forest recreation comes with the ongoing problem of rubbish disposal problems. Interestingly James Turner who is a Forest Economist with the ongoing problem of rubbish disposal problems. Interestingly James Turner who is a Forest Economist at Forestry Australia looked at the economic value of recreation at Whakarewarewa Forest and found that the value walking and mountain biking users placed on visiting this forest was $17.6 million per year although public access into this forest is currently free. There was also no dispute of the value of free public recreation access to our forests and the public relations value of this to forestry companies. There was still a nagging question after these sessions both during the conference and on the fieldtrip to Whakarewarewa and Kaingaroa Forest of what are the forest owners/landowners going to get financially out of recreation after everyone else has clipped the ticket.

A session on commercial forest valuation highlighted the complexity of forest and forest land valuation and importance of consistency and the interaction between land value and crop value. Tradition valuation techniques are going to be challenged when considering other forest values, although there was no disagreement that carbon farming would be a saviour with regards putting marginal forests into the positive from a valuation perspective. Several of the presenters suggested there needs to be more guidance on valuation standards such as getting clarity between land and tree crop valuations with the treatment of roads and challenges facing valuations past the first rotation. After this very erudite session that went over the heads of many of the non-valuers in the audience the last three papers of the day addressed valuing some new up and coming alternative forest products from growing Ginseng through to wood waste and liquid fuels from forests. All these presentations were compelling from the point of view they all identified ways of increasing forest returns in New Zealand. The last speaker in the first day Elspeth MacRae, Group Manager Bioproducts Development at Scion said New Zealand because of its size and location will have problems accessing oil from diminishing international oil supplies and that was a fact of life. As a result we have a real opportunity and an urgent need to start transitioning to a biochemical economy using our trees and other biomaterial to produce biopolymers, bio fuels, transport bio fuels, wood plastic composites, aerospace and automotive components, packaging and nanotechnology formulations. The speed at which bio refinery development will occur in New Zealand will depend on future Government policies, development of the right tree species, GMO, new silviculture techniques, capital investment, new partnerships and research and development in this area. A lot more work also needs to be undertaken to identify the scale of opportunities and future returns from tree based bio energy in this country.

At a breakfast session on the last day of the conference Russell Dale, Chief Executive from Future Forests Research indicated that there had been a much better buy-in from the forest industry as result of FFR being set-up. There was an ongoing need to produce evidence of high quality science with increasing evidence into technology transfer. The Government is not going to put more funding into research and development and instead there will be a shifting of funding across the different sectors. FFR is keen to highlight all the values of forests from direct economic develop through to valuing public good activities and finding a way of putting a value on these.

A session on valuing environmental benefits addressed a wide range of topics and perspectives. Chris Fowler a Partner with Adderley Head stressed that the positive values of forestry were not adequately recognised. One effective way to reduce the way RMA controls forestry is that the industry will have the Forestry National Environmental Standard available for public consultation after July 2010 and in the long term this should ensure some consistency on land where that will apply. Also when applying for RMA consents make some effort to reference FSC and site management plan requirements, environmental compensation via carbon...
understanding of landscape scale processes and dynamics and active management is patchy and there is still limited monitoring, no standards of care, resourcing for forest management perspective still has its challenges - there was still in big trouble despite increasing resources being stressed that at a national level indigenous biodiversity will become very important in the future. Willie Shaw an urgent need to accurately value biodiversity values and to pay for these specific services. Richard Yao a Resource Economist from Scion outlined a contingent valuation approach that estimates the amount people are prepared to pay for an environmental good. Richard stressed there is an urgent need to accurately value biodiversity values and this will become very important in the future. Willie Shaw a Principal Ecologist-Director with Wildland Consultants stressed that at a national level indigenous biodiversity was still in big trouble despite increasing resources being applied to this area. Valuing biodiversity from a plantation forest management perspective still has its challenges - there is limited monitoring, no standards of care, resourcing and active management is patchy and there is still limited understanding of landscape scale processes and dynamics in individual plantations.

The last session of the conference addressed carbon value, markets, risks and measuring carbon from forests and insurance cover. Wayne King from Carbon Market Solutions indicated that once the carbon trade takes off in New Zealand this will undoubtedly be the trigger to get increased forest growing investment in this country. Graham West, Project Leader Intensive Forest Systems at Scion said they have standardised carbon prediction methods and future challenges as far as valuation tools are concerned will revolve around species/site matching decision support and for carbon the need to test and upgrade all species, growth, wood density and related carbon allocation models, and implement all species in one single framework. Work is also being undertaken to improve forest capability mapping to specifically model the influence of microclimate for species siting and impact of pests and diseases. This will help understand the drivers of productivity at farm scale such as slope and topography and impact of erosion effects, roading and harvesting on tree crops. Barry Poole, Managing Director with Hardwood Management highlighted the results of a recent study at the McRae Trust near Wairoa which showed that the revenue for carbon credits can improve Land Expectation Rates from $1700/hectare for pastoral farming to greater than $5000/hectare for some tree crop options - Species that establish quickly and grow fast with moderately dense wood, such as eucalypts and radiata pine are likely to be favoured for farm planting under the Emissions Trading Scheme. The last speaker at the conference was Darryl Hawke from Insurance Facilitators Pty Ltd a company who are at the forefront of providing carbon sequestration related insurance.

The Conference was closed by the President Dr Andrew McEwen who reflected on the past when around two decades ago there were just three entities providing much of the glue that kept the forestry profession together; those being the New Zealand Forest Service, Fletcher Forests Ltd and New Zealand Forest Products Ltd; and today that glue is now provided by the Institute of Forestry. This is the organisation that can provide the linkages between the very diverse group of individuals that make up the Institute, it can provide support to those who are largely on their own or in small entities as consultants and forest managers, it can provide a meeting place where we can put aside our employer views and interact as individuals and it can provide a voice for the profession and for professional forestry that cuts across the vested interests of companies and other organisations within the sector. Our interests span all types of forest and extend from the forest to the processing plants, government offices, research institutes and educational institutions where forestry, in its broadest sense, is undertaken. Our membership spans the full range of experience and status of people in the profession - from students, through recent graduates to Chief Executives (including Chief Executives of most of the large forestry companies, of MAF and of research institutes and sector bodies) and on to those who have retired but want to maintain their links and to continue to apply their experience to the profession. Andrew pointed out that status within the profession is not derived from your position in your paid job: it is derived from the recognition accorded to you, as an individual, by your peers. In that respect Institute Fellows have the highest peer recognition and Registered Members are next on the scale. Andrew was pleased that five new Fellows had been elected to the Institute at the 2010 AGM those being Nicholas Ledgard, Euan Mason, Donald Mead, David Rhodes and John Vaney.

The social event after the AGM was the first opportunity to meet the students who had put time into preparing and bringing along a poster presentation. Andrew strongly believed that an important role of the Institute is to foster the new entrants to the profession. An opportunity for students to present to and to meet and get to know those of us already well established in the profession is a good start to this process. He was delighted to see the interactions around the posters and that this has spilled over into other venues during the conference. He also congratulated Kerry Borkin from the University of Auckland who won this year’s award for the best poster/study titled Are Long-Tailed Bat Populations in Plantations Limited by Roost Numbers?

Andrew announced that the next conference was the four yearly joint event with the Institute of Foresters of Australia as it is our turn to be host of the next event. This will be held at Sky City in Auckland from 2-5 May next year, 2011. The general theme is Pacific Forestry and we want to find opportunities to support our fellow professionals who work, often in isolation and with little outside help in our Pacific neighbours. How can we extend our glue to include others in our region to promote professional forestry?