Transforming forest safety attitudes and outcomes

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Abstract

In 2013, the New Zealand public was highly attuned to failures in workplace safety after so many lives were lost in the Pike River mine explosion and the Canterbury TV building earthquake collapse. The media turned its attention on forestry as a logging boom brought 10 forest industry deaths in a single year. Forestry people everywhere felt the pressure of an unrelenting union and merciless media. Forestry leaders were singled out as poor stewards of workers' safety.

Was forestry always this dangerous? What changed to make it so deadly in such a short period of time? Did inexperienced people put themselves at risk, or were employers blind to their duties to protect people in the face of perceived production pressure? This paper sets out to explain the sequence of events that led an industry of hard-working 'can-do' confident people through a crisis that has ultimately seen radical behaviour changes towards workplace safety.

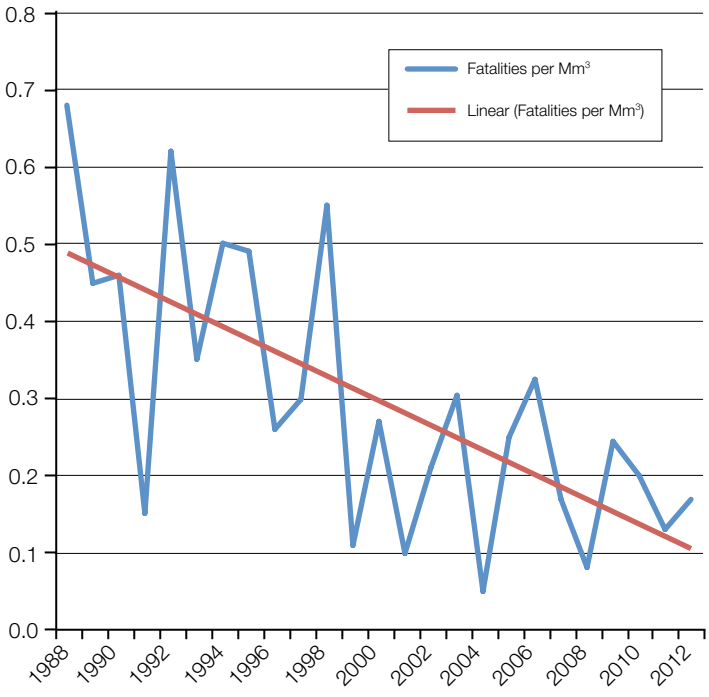

Figure 1: NZ annual logging fatalities per Mm³ harvest

Past experiences

Several studies by the Forest Industry Contractors Association (FICA) have shown that forestry workplaces have become safer in general over the past 30 years. A simple assessment of forestry fatality trends gives insight into changing attitudes to safety resulting in less than one-third of the rate of the early 1990s. With the benefit of industry experience the trend can be explained by factors such as boom and bust production volatility – driven by commodity market troughs and peaks. As a result, many untrained people came and went in the higher-risk occupations in forestry such as tree felling and breaking out (hooking logs on for yarder extraction).

At least twice in the 30-year timeframe, periods of harm reduction have coincided with the release of industry-wide reviews of the health and safety code of practice (ACoP). Anecdotally, the increased communication and awareness associated with the updated ACoP releases show up in reduced fatal harm incidents in the short term.

A strong relationship to overall harm reduction in forestry is the automation of many of the riskier roles in the forest. Prior to mechanisation, manual log-makers with chainsaws worked for many years in close proximity to tracked loaders. Confined workspaces on skid sites contributed to many serious harm injuries as the manual worker suffered most in accidents involving being hit by excavator-based loaders working in close proximity. The deployment of mechanised log processing heads, with associated productivity gains, saw a huge reduction in these accidents.

Moreover, attitudes to safety play an important role in how people plan for their own safety and that of others around them or working for them. In 1999, a confidential face-to-face survey of over 75 loggers included the following summary:

> *The results show that loggers perceive that individual factors such as risk-taking, violation of regulations, training, experience, equipment used, and the physical environment affect safety. The analysis of the data revealed that the impact of all these factors is moderated by the contractor who, in such an isolated environment, has a dominant role in the crew culture. The ability of the contractor to*

organise and motivate workers so that time can be allowed for learning and using appropriate techniques was critical to the safety of the crew. Frequent restructuring of the logging industry, together with falling log prices, have created instability which has impinged on the ability of contractors to run their crews safely. Increased expectations for production have placed pressure on safety systems. Some contractors managed to maintain safety through a proactive approach to training, efficient systems, and a positive safety culture while still being able to improve production. There is a widening gap between contractors who have responded proactively to the changes and those who have resisted them and struggled to manage in the new environment.

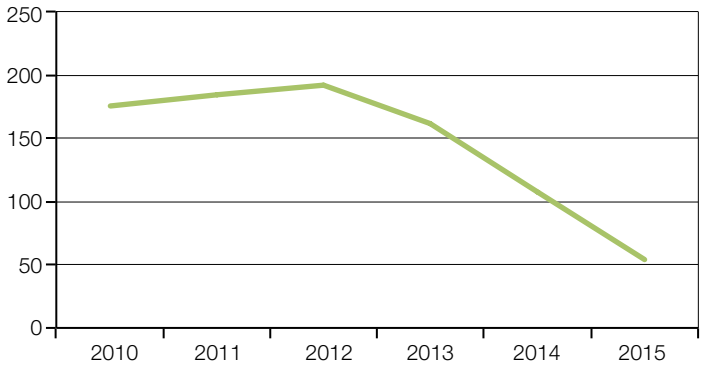

Figure 2: Forestry workplace serious harm notifications (WorkSafe NZ) 2010–2015

Present

Among many other tools, industry health and safety practitioners prefer to use combined harm and fatality rates as a better indicator of workplace safety behaviour than fatality rates on their own. Recent trends for 2010 to 2015 of this combined data show a generally declining trend. Since 2013, there is evidence to support the idea that lower levels of harm resulted from two key interventions. First, there has been increased support, promotion and enforcement of improved worker communication through daily tailgate meetings by industry leaders and through WorkSafe NZ. Secondly, many loggers, with forest owner support, have made massive capital investment in the past two years in machinery specifically designed for mechanised tethered steep slope harvesting.

The strongest driver of safety interventions to effectively target harm reduction is using injury and near-hit data. Major forest owners have collected, analysed and communicated accident information since the early 1980s, using a series of multi-company incident reporting information systems (IRIS). Since 2003, the corporate forest industry has operated a centralised comprehensive reporting and analysis system. Reporting is mandatory for all contractors employed in this part of the forestry sector.

In April 2013, one of the significant findings of the government's independent taskforce on workplace health and safety (www.hstaskforce.govt.nz) was that the current health and safety system was not fit for purpose. This resulted in the formation of a new and better-resourced government agency, WorkSafe. To date the new approach has been refreshing to a large extent. Led by fresh-thinking leaders it has increased in transparency and communication abilities. Having much greater resources has extended its reach. This much-needed change has also seen a better spirit of cooperation between industry and WorkSafe leaders.

Since the terrible 2013 deaths forest industry leaders have taken firm action to intervene. FICA identified early in 2013 that harm was out of control and worked with the NZ Forest Owners Association and the NZ Farm Forestry Association to investigate. The result was to commission an Independent Forest Safety Review to objectively look inside our crews and forests, identify issues, and work on a whole-of-industry solution.

The Independent Forest Safety Review used a panel of independent business leaders and safety advocates to look closely into the people responsible for setting and maintaining safety culture standards across the forest industry. The summary of the panel was encapsulated in their view that forestry people have a 'can-do' culture due to the very nature of and their choice of outdoor physical work. The panel made recommendations (www.fica.org.nz/wp-content/uploads/2014/10/IFSR-ReportSummary-Web.pdf) that they believe can change workplace cultures. Their 'agenda for change' has set out interventions so people in our forest workplaces consider 'can-do-safely' before accepting responsibility to work in the uncontrolled workplaces that forests are by their very nature.

The establishment and resourcing of a new Forest Industry Safety Council in October 2015 was one of the key remedies recommended by the independent review panelists. The concept was bolstered by the existence and effectiveness of a very similar forest safety group set up in British Columbia a decade earlier. Leaders of the BC Forest Safety Council became valuable mentors to our industry leaders commissioned to bring the new Council to life here.

Forestry crews big and small have always had a tight culture. Many have always driven health and safety practices from within. One contractor won a national pan-industry safety award for their work to support fellow crew members with a video produced underpinning their commitment. Strong relationships come with workers whose safety depends on the actions of those around them daily.

During the independent review the three experts touched many people in forestry. As a result, in the corporate-controlled forest sector there has been quick and eager acceptance. Forest managers, contractors and their staff have seen the need to own the problem and work better collectively on solutions. Beyond the

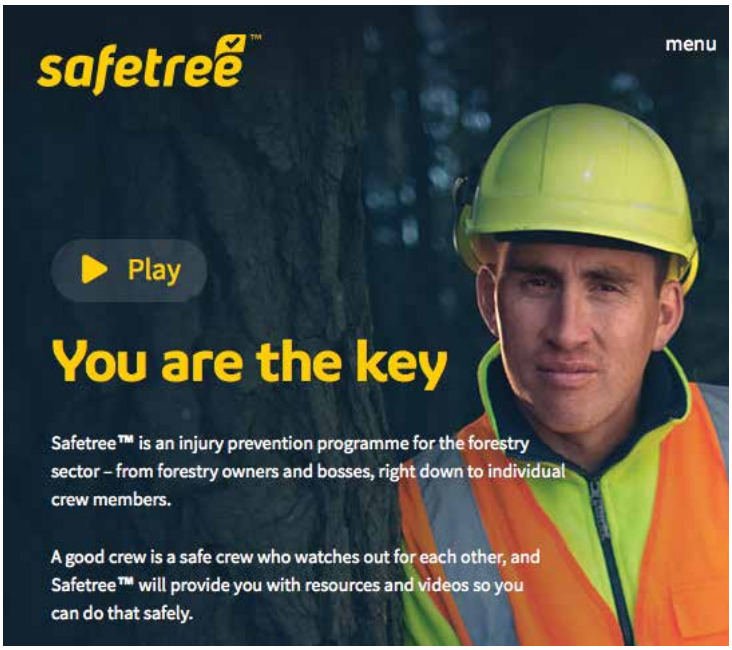

Figure 3: Web-based safety resources

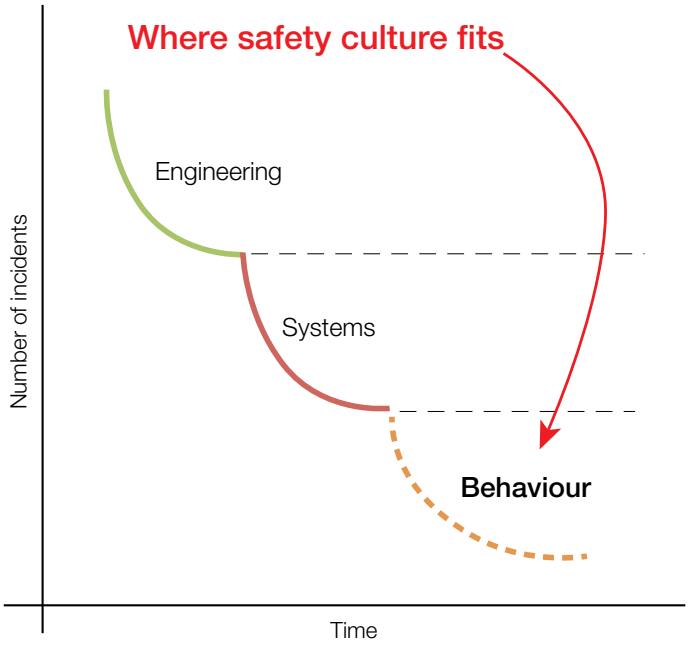

Figure 4: Interventions to reduce harm

control of corporate forestry, there is arguably a greater need for a drive for safety culture change. This can only happened if barriers to entry through safety systems and culture standards are introduced across the wide and disparate forest woodlot sector.

Protecting our workers in the future

Responsible commercial forestry operators including contractors, managers and owners have shown an absolute commitment and responsibility to make a positive change in health and safety for workers in forestry. The tasks outlined by the independent review panel are being systematically planned and resourced by industry and government agencies. The biggest effort to date is the huge effort from committed forest owners, managers and contractors resulting in the formation and funding of the new Forest Industry Safety Council. It is set to take over a range of roles in injury prevention, building and distributing tools for workers and communicating solutions through the industry safety website (www.safetree.nz).

Leading indicators for safety come from safety systems that include reporting of near-hit incidents. Part of the agenda for change called for by the independent review includes future work to create barriers to entry for forest contractors. This planned contractor accreditation system will require meeting more than just legal WorkSafe requirements for health and safety practices. It will include minimum standards for safety communications to be maintained and audited to ensure continued competency and practice. In planning these benchmarks there is a balance to be struck between recognising safe behaviour by conferring preferred contractor status with the need to ensure corrective actions should safety practices at the bushline fall below agreed standards.

Future interventions aside, right now it would be possible for a spike in tree-felling deaths to happen again in forestry if conditions returned where high market prices make it very attractive again for farmers to harvest at or before planned forest maturity. Too many unchecked forest operations are able to operate due to isolated and remote forest blocks on dead-end roads. Sometimes the only sign they are operating is when loaded logging trucks begin operating. These illegal operators are hard for WorkSafe inspectors to find. But more resources must be committed in order to improve safety outcomes.

In future the communication of safety tools and techniques, and the use of websites like the one in Figure 3 (http://safetree.nz) and for the Forest Industry Safety Council(http/fisc.org.nz), will provide continuous updates for crew bosses and other safety leaders on the forest floor. This move beyond printed material will provide more effective ways to communicate safety to more people using smartphones.

As Figure 4 shows, future developments in forest safety interventions are also likely to focus on behaviour modification such as safety culture. As safety principles dictate, solutions to continue achieving harm reduction will need to move beyond the systems (faller and breaker out certification) and engineering solutions (self-levelling and tethered steep slope harvesters) which have already brought significant change.

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