

TABLE OF TABLES

Table 1: Forest Industry Council 2025 Vision - Targets to 2025.....	2
Table 2: Employment in Forestry, 2008 - 2012.....	3
Table 3: Global Production of Forest Products, 2000 and 2012	4
Table 4: Global Exports of Forest Products, 2000 and 2012	4
Table 5: International Benchmark Rankings, 1997 - 2012	4
Table 6: New Zealand Tree Farm Investment Attractiveness Rankings, 1997 - 2012.....	5
Table 7: Four Country Radiata Pine Lumber Data, 1999 and 2013 (Thousand CM)	7
Table 8: New Zealand GDP Trend, 2008 - 2013	9
Table 9: New Zealand CPI, 2005 - 2013 (June years)	10
Table 10: New Zealand Economic Predictors – 2010 - 2016(F)	11
Table 12: Selected Economic Freedom Rankings, 2004, 2009 and 2013.....	13
Table 13: Selected Corruption Index Rankings, 2003, 2009 and 2013.....	14
Table 14: Selected Ease of Doing Business Rankings, 2013	14
Table 15: New Land Forestry Planting, 1920 - 2012	16
Table 16: New Land Planting, 1996 - 2012 (Ha).....	17
Table 17: National Exotic Forest Estate Net Stocked Area by Species, 2012 (Thousand Ha)	20
Table 18: Forest Area by Forest Owner and National Size Class, as at 1 April 2012	30
Table 19: DANA Estimate of Total Log Volumes Processed Domestically and Exported for year ended 30 September 2013.....	30
Table 20: Overseas Investment Office Approvals for Sale of Plantation Forests, Jan.2010 – Sept.2013	33
Table 21: Major New Zealand Plantation Forest Ownership, 2012 - 2013 (Thousand Ha).....	35
Table 22: Industrial Forest Ownership, 2013 (Thousand Ha)	36
Table 23: HNRG Gross and Net Stocked Planted Production Forest Areas (Thousand Ha) - 31 March 2013	39
Table 24: Matariki Forests - Planted Production Forest Areas (Thousand Ha) - as at 31 December 2012	41
Table 25: Ernslaw One Ltd - Gross and Net Stocked Planted Production Forest Areas (Thousand Ha) as at 31 December 2012	42
Table 26: Global Forest Partners LP – Estimated Gross and Net Stocked Planted Production Forest Areas (Thousand Ha) - as at 7 November 2013	44
Table 27: Crown Forestry / Ministry for Primary Industries - Net Stocked Planted Production Forest Areas (Thousand Ha) - as at 28 February 2013	45
Table 28: Pan Pac Forest Products Ltd - Gross and Net Stocked Planted Production Forest Areas (Thousand Ha) - as at April 2012.....	47
Table 29: Summit Northern Plantation Ltd - Gross and Net Stocked Planted Production Forest Areas (Thousand Ha) - as at April 2013.....	48
Table 30: Roger Dickie (NZ) Ltd- Net Stocked Planted Production Forest Areas (Thousand Ha) - as at April 2013.....	48
Table 31: Hikurangi Forest Farms (NZ) Ltd - Gross and Net Stocked Planted Production Forest Areas (Thousand ha) - as at 31 March 2013	49
Table 32: Wenita Forest Products Ltd- Gross and Net Stocked Planted Production Forest Areas (Thousand Ha) - as at April 2012.....	50
Table 33: Blakely Pacific Ltd- Gross and Net Stocked Planted Production Forest Areas (Thousand Ha) - as at Dec 2012	50
Table 34: Forest Enterprises Ltd- Net Stocked Planted Production Forest Areas (Thousand Ha) - as at April 2012.....	51
Table 35: City Forests Ltd- Gross and Net Stocked Planted Production Forest Areas (Thousand Ha) - as at 1 April 2012	51
Table 36: New Zealand Forest Consulting Firms.....	63
Table 37: Radiata Pine Plantation Forests Management Practice, 1993, 2003, 2008 & 2012.....	66
Table 38: Current Intensive Management Operations (Radiata Pine).....	67
Table 39: Typical Log Grade Out-turns	68
Table 40: Export Log Grades (Percent)	69
Table 41: Land Value Trend, 1978-2012 (Nominal NZ\$).....	70

Table 42: Comparative Forestry Land Costs (in a farmed state) 1992 - 2013 (NZ\$ per Ha)	71
Table 43: Yields For 28 Year Radiata Pine Regimes (CM per Ha)	71
Table 44: Regional Wood Quality Differences	73
Table 45: Radiata Pine Regimes - Financial Returns (Pre-tax IRR)	73
Table 46: 2013 Radiata Pine Returns for an Intensively Managed Stand, Clearfell Age 28, and SI 30 ...	74
Table 47: 2013 Radiata Pine Returns for an Unpruned Stand, Clearfell Age 28, and SI 30	75
Table 48: Douglas Fir Regime Options	77
Table 49: Douglas Fir Regime Yields (CM per Ha)	78
Table 50: 2013 Douglas Fir Costs and Returns - NZ (South Island) Growing-Harvesting Costs, Growth Rates and Returns	78
Table 51: 2009 Growing Costs - NI New Zealand E. nitens/fastigata	79
Table 52: 2013 Costs and Returns, NZ (North Island) Growing-Harvesting Costs, Growth Rates and Returns for Redwoods	81
Table 53: Log Grade Volumes and Percentages: Y/E September 2013	85
Table 54: Production of Plantation Logs, 1960 - 2013 (Thousand CM)	85
Table 55: Japan Log Imports, 2002 - 2012	89
Table 56: Korea SW Log Imports 2000 - 2013 (Thousand CM)	90
Table 57: India SW Log Imports, 2002 - 2013 (Thousand CM)	90
Table 58: China SW Log Imports, 2000 - 2013 (Thousand CM)	90
Table 59: Estimated Log Export Volume by Company, 2012	94
Table 60: Mechanical Pulp Statistics, 1994 - 2012 (Thousand ADTY)	101
Table 61: Chemical Pulp Statistics, 1994 - 2012 (Thousand ADTPY)	102
Table 62: Newsprint Statistics, 1994 - 2012 (Thousand Tonnes)	104
Table 63: Other Paper and Paperboard Statistics, 1994 - 2012 (Thousand Tonnes)	105
Table 64: Paper & Paperboard Export Revenue, 1993 - 2012 (NZD Million)	106
Table 65: NST Newsprint Capacity Changes, 1998 - 2013 (tpy)	108
Table 66: Sawmill Closures, 2003 - late 2009; and to end 2013 (CM - Annual Capacity)	113
Table 67: Juvenile Wood Trends with Age - Percentages of Juvenile Wood	115
Table 68: Sawn Timber Statistics, 1971 - 2013 (Thousand CM)	115
Table 69: New Zealand Lumber Exports by Country of Destination, 1996 - 2012 (Thousand CM)	117
Table 70: Australian Lumber Imports: Total and Selected Major Country Suppliers, 2000 - 2012 (Thousand CM)	118
Table 71: USA Softwood Lumber Imports: Total & Selected Major Country Suppliers, 2000 - 2012 (Thousand CM)	119
Table 72: USA Softwood Moulding Imports: Total & Selected Major Country Suppliers, 2000 - 2012 (Million lineal metres)	119
Table 73: Japan Softwood Lumber Imports: Total & Selected Major Country Suppliers, 2000 - 2012 (Thousand CM)	120
Table 74: China Softwood Lumber Imports: Total & Selected Major Country Suppliers, 2000 - 2012 (Thousand CM)	120
Table 75: Sawmills with Production >100,000 CM p.a.	121
Table 76: Sawmills with Production Between 50,000 - 99,000 CM p.a.	125
Table 77: Sawmills with Production between 25,000 CM and 49,999 CM p.a.	129
Table 78: Sawmills with Production between 10,000 CM and 24,999 CM p.a.	136
Table: 79: Plywood/LVL Production and Consumption, 1971 - 2012 (Thousand CM)	146
Table 80: Regional MDF Capacity and Market Share, 2001 & 2013 (Thousand CM)	150
Table 81: New Zealand Fibreboard* Production and Consumption, 1971 - 2012 (Thousand CM)	150
Table 82: Particleboard Production and Consumption, 1971 - 2012 (Thousand CM)	153
Table 83: New Zealand Particleboard/Hardboard Facilities, 2013	155
Table 84: FSC Certification, December 2013 by Company and area	159
Table 85: Land Suitable for Forestry in New Zealand (Ha)	170
Table 86: Comparison of Regional Potential for Plantation Forestry	171

TABLES OF CHARTS

Chart 1: Graphic of WoodCo 2012 Strategic Vision	2
Chart 2: New Zealand Roundwood Harvest, 1993 – 2013	5
Chart 3: New Zealand Forest Sector Exports and USD FX, 1995 - 2012/13	6
Chart 4: New Zealand Forest Products Export Earnings, Y/E September 2013	6
Chart 5: Long Term USD - NZD FX Trend, 1970 - 2013.....	10
Chart 6: Medium Term USD - NZD FX Trend, 2000 - 2013	11
Chart 7: New Land Forestry Planting, 1920 - 2012	16
Chart 8: New Land Planting, Actual and Forecast Deforestation, 2003 - 2020(F)	18
Chart 9: New Zealand Land Use Percentage by Type	18
Chart 10: Net Stocked Forest Area by Age Class 2012 (Thousand Ha)	20
Chart 11: Predicted Versus Actual Harvest, 2000 - 2013	21
Chart 12: Northland Radiata Pine Harvest Forecast, 2007 - 2040 (Thousand CM).....	22
Chart 13: Auckland Radiata Pine Harvest Forecast, 2007 - 2040 (Thousand CM)	23
Chart 14: Central North Island Radiata Pine Harvest Forecast, 2007 - 2040 (Thousand CM).....	23
Chart 15: East Coast Radiata Pine Harvest Forecast, 2007 - 2040 (Thousand CM)	24
Chart 16: Hawkes Bay Radiata Pine Harvest Forecast, 2007 - 2040 (Thousand CM).....	25
Chart 17: Southern North Island Radiata Pine Harvest Forecast, 2007 - 2040 (Thousand CM)	26
Chart 18: Nelson/Marlborough Radiata Pine Harvest Forecast, 2007 - 2040 (Thousand CM)	27
Chart 19: Canterbury Radiata Pine Harvest Forecast, 2007 - 2040 (Thousand CM)	27
Chart 20: Otago/Southland Radiata Pine Harvest Forecast, 2007 - 2040 (Thousand CM)	28
Chart 21: Otago/Southland Douglas Fir Availability, 2007 - 2040 (Thousand CM)	29
Chart 22: Planted Production Forest Area in New Zealand, 2003 - 2020 (F)	29
Chart 23: New Zealand Radiata Pine Harvest Forecast, 2007 - 2040 (Thousand CM)	31
Chart 24: Map of CNI Forests.....	60
Chart 25: AAGR Rural Land Prices, 1978 - 2012 (Percent, Real NZD 2012).....	70
Chart 26: Radiata Pine Wood Density by Region	72
Chart 27: Radiata Pine Pre Tax IRR Returns, 1992 - 2013	74
Chart 28: New Zealand Radiata Pine Pruned Log Availability - MMCM.....	76
Chart 29: Douglas Fir Yield by Region, 45 year Rotation and No tending - CM per Ha.....	77
Chart 30: Log Export Volumes and Values, 1991 - 2013	87
Chart 31: Log Exports, 1960 - 2013	87
Chart 32: Major New Zealand Log Export Markets: 2002, 2009 & 2012	88
Chart 33: Major New Zealand Log Export Markets, Y/E September 2013	88
Chart 34: Log Export Revenues, 1994 - 2103	89
Chart 35: K Grade Log Price Trends, 1991 - 2013	91
Chart 36: KI Grade Log Price Trends, 2002 - 2013	92
Chart 37: China A Grade Log Price Trends, 2002 - 2013	92
Chart 38: Domestic P1 Grade Log Price Trends, 1991 - 2013	93
Chart 39: Domestic S30 Log Price Trends, 1991 - 2013	93
Chart 40: New Zealand Log Export Volumes by Port, 2008 and Y/E September 2103	94
Chart 41: Portland, Australia Softwood Chip Price Trends, 1990 - 2013 Real 2013 NZD.....	96
Chart 42: Softwood Chip Export Volumes, 1991 - 2013	96
Chart 43: New Zealand Softwood Chip Export Revenue, 1991 - 2013.....	97
Chart 44: Pulp Capacity Trends in Selected Countries 1990 -2015(F) - (Thousand ADTPY)	99
Chart 45: Paper Capacity Trends in Selected Countries (Thousand Tonnes)	100
Chart 46: Mechanical Pulp Exports, 1994, 2003, 2009 & 2012 (Thousand ADTPY)	101
Chart 47: Mechanical Pulp Export Revenue (NZD Million)	102
Chart 48: Chemical Pulp Export Volumes (Thousand ADTPY).....	103
Chart 49: Chemical Pulp Export Revenue 1994 - 2012 (NZD Million)	103
Chart 50: Paper & Paperboard Export Markets, 1994 - 2012 (Thousand Tonnes)	105
Chart 51: New Zealand New Dwelling Consents, 1991 - 2012.....	116
Chart 52: Major Lumber Export Markets, 1996 - 2012.....	117
Chart 53: Sawn Timber Exports, 1993 - 2013 Volume, Value and Unit Value	118
Chart 54: Plywood/LVL Exports, 1994 - 2012.....	147
Chart 55: Plywood/LVL Export Revenue, 1994 - 2012	147

Chart 56: Fibreboard Exports, 1994 - 2012 (Thousand CM)	151
Chart 57: Fibreboard Export Revenues, 1994 - 2012 NZ\$ Million	151
Chart 58: Particleboard Exports, 2003 - 2012	154
Chart 59: Particleboard Export Revenue, 1994 - 2012	154
Chart 60: Native Forest Log Harvest, 1959 - 2013	158
Chart 61: Options for Use of Wood in Bioenergy-Biofuels	165
Chart 62: Rubicon Share Price, January 2012 - December 2013.....	169