

6. Base Scenario – with Illegal Logging and Russian Log Export Tax

6.1 Export Market Price and Production

The base scenario (with illegal logging and a Russian log export tax) shows Global Forest Products Model projections for the world. The base scenario uses current estimated rates of illegal logging and associated trade. It takes into account the Russian log export tax. Key trends include:

- The global trade and production of wood products is dominated by the developed economies¹.
- Developed countries will remain significant producers, importers and exporters out to 2030 (Table 6.1). The developing countries will, however, generally experience stronger growth in production and imports, so that they will partly close the gap with developed countries.
- In developing countries the growth of production of wood panels (128 percent increase from 2006 to 2030), wood pulp (126 percent increase) and paper products (178 percent increase) are particularly strong, though growth is slightly less than without the Russian log export tax (Section 3).
- To support this increased production the developing countries increase their harvests (82 percent from 2006 to 2030) and imports of industrial roundwood (205 percent).
- Due to lower Russian log exports, harvests in developing countries are higher, while log imports are lower, compared without the Russian log export tax. Developing countries import industrial roundwood in large part from developed countries.
- Developed countries increase harvests and exports of industrial roundwood by 62 percent from 2006 and 2030.
- Growth in exports of industrial roundwood from developing countries is a much more modest 5 percent over the same period, due to increasing domestic consumption.
- Despite the implementation of a log export tax by Russia, the average world log price² is projected to decline 18 percent from 2006 to 2030, suggesting the global oversupply of wood will remain (Table 6.2).
- The average prices of manufactured wood products are also predicted to decline; between 5 percent and 13 percent from 2006 to 2030.

¹ South Africa, Canada, United States, Japan, Australia, New Zealand, Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Netherlands, Norway, Spain, Sweden, Switzerland, United Kingdom (FAO 2006).

² prices are real (2004 base year) at a free-on-board pricing point

Table 6.1: Wood product production, imports and exports for the base scenario simulation with the Russian log export tax. Source: Global Forest Products Model

Region	Product	Production (000 m ³ or 000 t)				Imports (000 m ³ or 000 t)				Exports (000 m ³ or 000 t)			
		2006	2010	2020	2030	2006	2010	2020	2030	2006	2010	2020	2030
Developing	Industrial roundwood	460,911	511,169	643,079	836,523	44,682	49,219	78,775	136,459	22,552	22,786	20,843	23,712
	Sawnwood	97,336	105,427	129,034	163,490	20,492	22,061	28,940	38,226	16,799	17,015	19,748	23,734
	Wood panels ²	71,827	81,411	112,400	164,016	13,803	15,518	21,836	33,626	20,328	20,560	22,834	31,091
	Wood pulp ³	30,038	35,062	48,053	67,724	12,908	14,975	22,479	35,294	9,070	9,313	10,994	14,631
	Paper ⁴	102,125	124,424	188,256	283,758	25,263	27,189	33,484	46,834	10,916	11,139	11,491	13,082
Developed ¹	Industrial roundwood	1,255,757	1,357,471	1,648,303	2,029,797	112,056	106,960	99,513	103,725	133,141	132,348	156,398	215,427
	Sawnwood	312,408	328,006	366,025	408,365	106,372	103,434	105,996	112,478	112,632	111,047	117,754	129,536
	Wood panels ¹	144,962	163,495	213,925	281,393	48,427	50,944	64,726	90,161	44,054	48,052	65,880	94,847
	Wood pulp ²	161,302	173,676	205,243	246,436	25,753	24,622	23,808	24,854	31,051	31,742	36,753	46,976
	Paper ³	256,996	274,429	319,382	377,895	70,729	71,064	73,531	82,303	90,645	92,681	101,092	121,622

¹ South Africa, Canada, United States, Japan, Australia, New Zealand, Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Netherlands, Norway, Spain, Sweden, Switzerland, United Kingdom

² plywood and veneer, particleboard, and fibreboard, ³ Mechanical and chemical pulp, ⁴ newsprint, printing and writing paper, and other paper and paperboard

Table 6.2: World wood product prices¹ for the base scenario simulation with the Russian log export tax. Source: Global Forest Products Model

Product	Unit	2006	2010	2020	2030
Industrial roundwood	US\$/m ³	63	61	57	52
Sawnwood	US\$/m ³	189	186	177	170
Wood panels	US\$/m ³	266	260	249	240
Wood pulp	US\$/t	360	353	340	327
Paper	US\$/t	688	682	667	657

¹ prices are real (2004 base year) for free-on-board pricing point

6.2 New Zealand Price and Production

This section presents base scenario (with illegal logging and a Russian log export tax) projections for New Zealand forestry and sawmilling sectors from the Radiata Pine Market Model (RPMM) and for the New Zealand wood panel, pulp, paper and secondary processed product sectors from the Global Forest Products Model (GFPM).

Simulation of the base scenario (with illegal logging and Russian log export tax) from the RPMM projects:

- An increase in New Zealand roundwood removals from 19.3 million m³ in 2006 to 31.3 million m³ by 2030 (Table 6.3).
- Slightly greater increase in export log harvests (72 percent from 2006 to 2030) than sawlog and small log harvests (56 percent) (Figure 6.1), due to both a growing log export market and increasing availability of export quality logs.

Table 6.3: New Zealand industrial roundwood and sawnwood production and prices for the base scenario, with a Russian log export tax. Source: Radiata Pine Market Model

Product	Production (000 m ³)				Average price (US\$/m ³ , 2006 values)			
	2006	2010	2020	2030	2006	2010	2020	2030
Sawlogs & small logs	9,143	10,720	12,572	14,379	35	39	42	45
Export logs	5,531	6,885	8,308	9,774	20	34	25	14
Peelers	1,168	1,329	1,581	1,813	25	34	40	47
Pulp & chip logs	3,411	3,745	4,645	5,358	-4	2	6	9
Total roundwood removal ¹	19,254	22,679	27,107	31,325	23	31	30	29
Sawnwood	4,188	5,022	6,123	7,087	273	329	277	293

¹ Includes all species from plantations and native forests

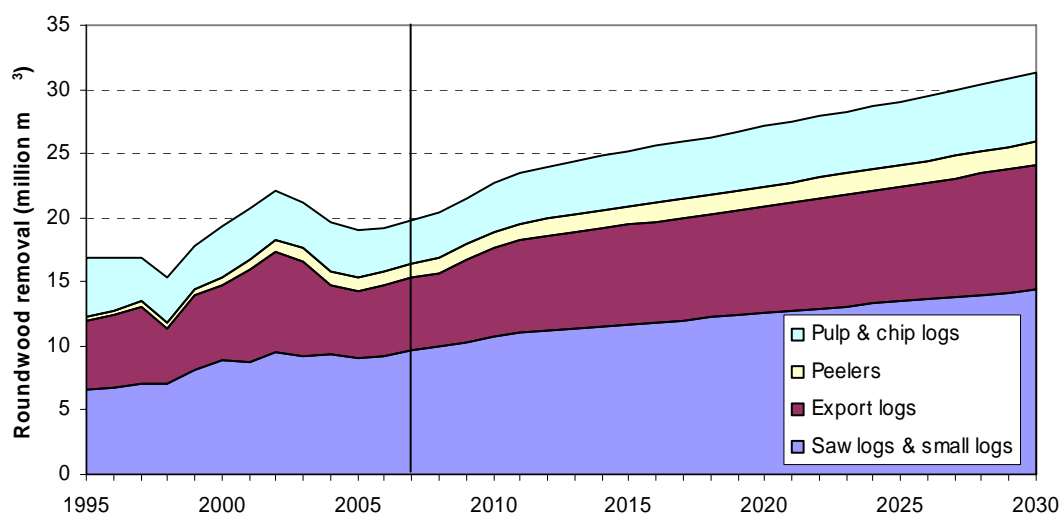


Figure 6.1: Roundwood removals by log type for base scenario with a Russian log export tax. Source: Radiata Pine Market Model

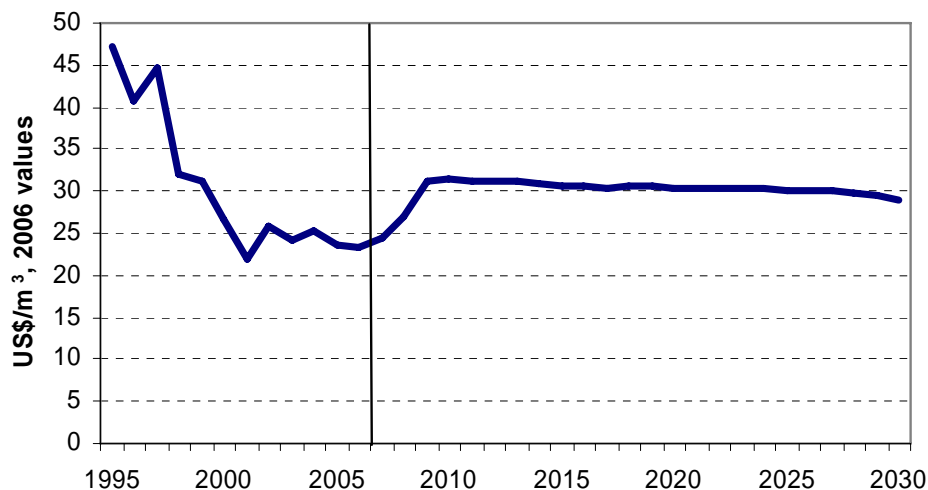


Figure 6.2: Average New Zealand radiata pine stumpage values for base scenario, with a Russian log export tax. Source: Radiata Pine Market Model

With increasing harvests there is

- Increasing prices across most log grades up to 2010.
- Average stumpage values rise from US\$23 to US\$31 by 2010, after which they remain relatively stable in real terms, with prices in 2030 projected at US\$29/m³ (Figure 6.2).
- A notable exception is the export log price, which after climbing initially from US\$20 in 2006 to US\$34 in 2010, declines to US\$25/m³ in 2020, due to log availability increasing more rapidly than market demand.
- Sawnwood production increases from 4.2 million m³ in 2006 to 6.1 million m³ in 2020 (Table 6.3).
- Average sawnwood price increases from US\$273/m³ in 2006 to US\$277/m³ in 2020.
- Domestic log prices also increase as demand increases, from US\$57/m³ (delivered at mill) in 2006 to US\$67 in 2020.
- As a result, sawmill operating margins remain relatively constant, fluctuating around US\$73/m³.
- Value of sawnwood production increases from US\$1,141 million in 2006 to US\$1,694 million in 2020.
- Value of exports increases from US\$553 million in 2006 to US\$988 million in 2020.
- Exports increase their share of production from 48 percent in 2006 to 58 percent in 2020.

The base scenario from the GFPM shows New Zealand production and export of processed wood products increasing (Table 6.4). There is especially strong growth in wood panel production (76 percent growth from 2006 to 2030), and secondary processed wood products exports (61 percent).

Table 6.4: New Zealand wood product production, export and prices for the base scenario with a Russian log export tax. Source: Global Forest Products Model

Product	Production				Export				Price			
	(000 m ³ or 000 t)				(000 m ³ or 000 t)				(US\$/ m ³ or t)			
	2006	2010	2020	2030	2006	2010	2020	2030	2006	2010	2020	2030
Wood panels ¹	2,183	2,437	3,130	3,846	945	1,031	1,199	1,185	310	311	315	321
Wood pulp ²	1,681	1,784	1,945	2,211	765	797	888	1,002	333	333	336	339
Paper ³	999	1,099	1,241	1,511	552	580	555	653	599	599	592	592
Secondary processed ⁴					147	177	179	237	1,065	1,061	1,261	1,373

¹ plywood and veneer, particleboard, and fibreboard, ² Mechanical and chemical pulp, ³ newsprint, printing and writing paper, and other paper and paperboard, ⁴ builder's carpentry, mouldings and millwork, and prefabricated buildings