

Pulp & paper and timber plantation sector in Indonesia: current state and future outlook

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11 May, 2012, Pekanbaru, Riau

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6. Implications of the expansion plans
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1. Indonesian forestry sector

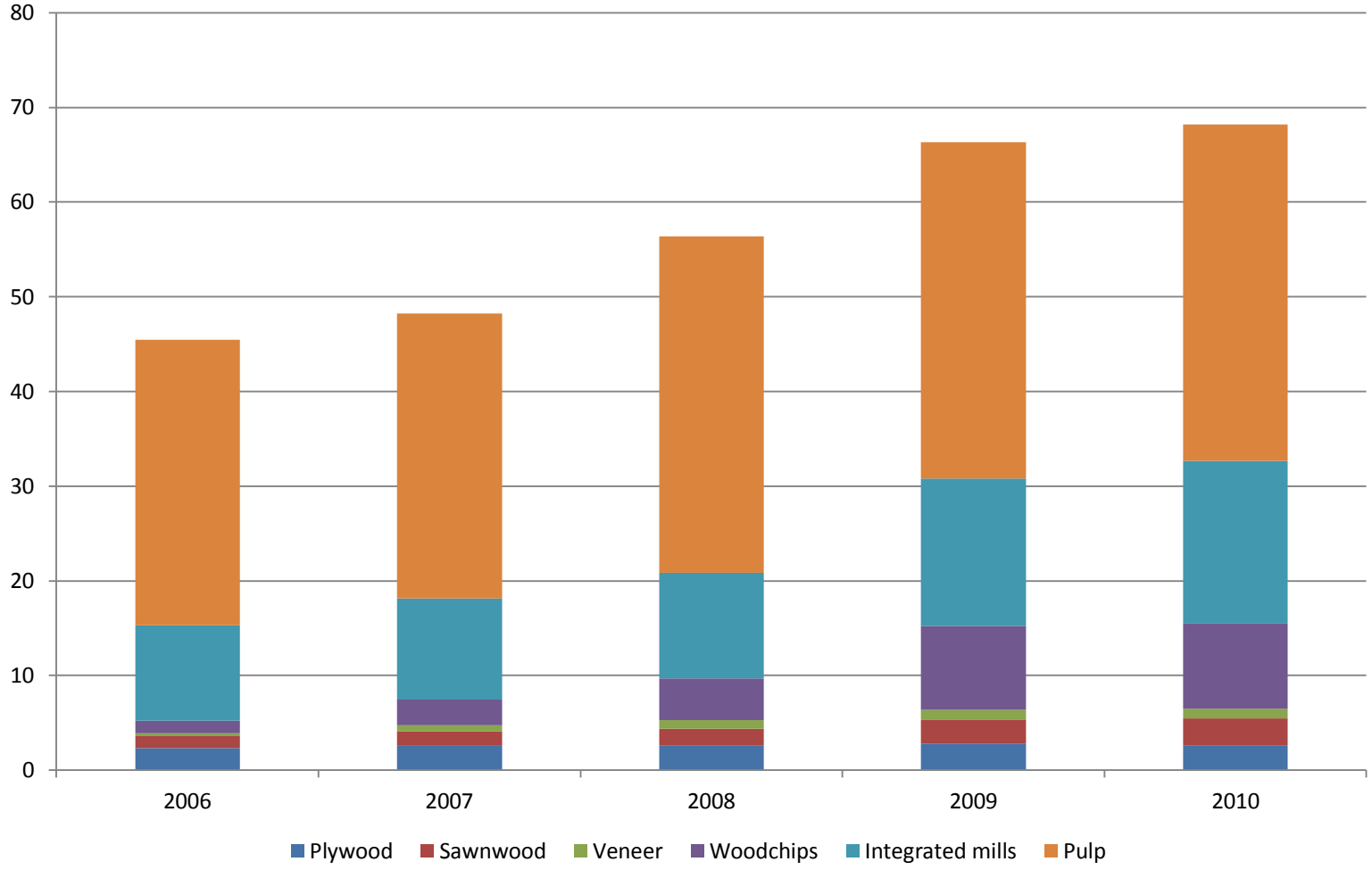
Production capacity of major timber industries in Indonesia

	Unit	2006	2007	2008	2009	2010
Plywood	million m3	2.35	2.58	2.61	2.84	2.65
Sawnwood	million m3	1.31	1.49	1.75	2.54	2.82
Veneer	million m3	0.23	0.65	0.94	1	1.01
Woodchips	million m3	1.31	2.74	4.42	8.87	9.03
Integrated mills	million m3	10.12	10.65	11.12	15.54	17.15
Pulp	million tons	6.7	6.7	7.9	7.9	7.9
Paper	million tons	10.29	10.36	12.18	12.18	12.18

Sources: MOF (2011), APKI (2007, 2011);
APKI (2007); calculated by B. Simangungsong

1. Indonesian forestry sector (cont)

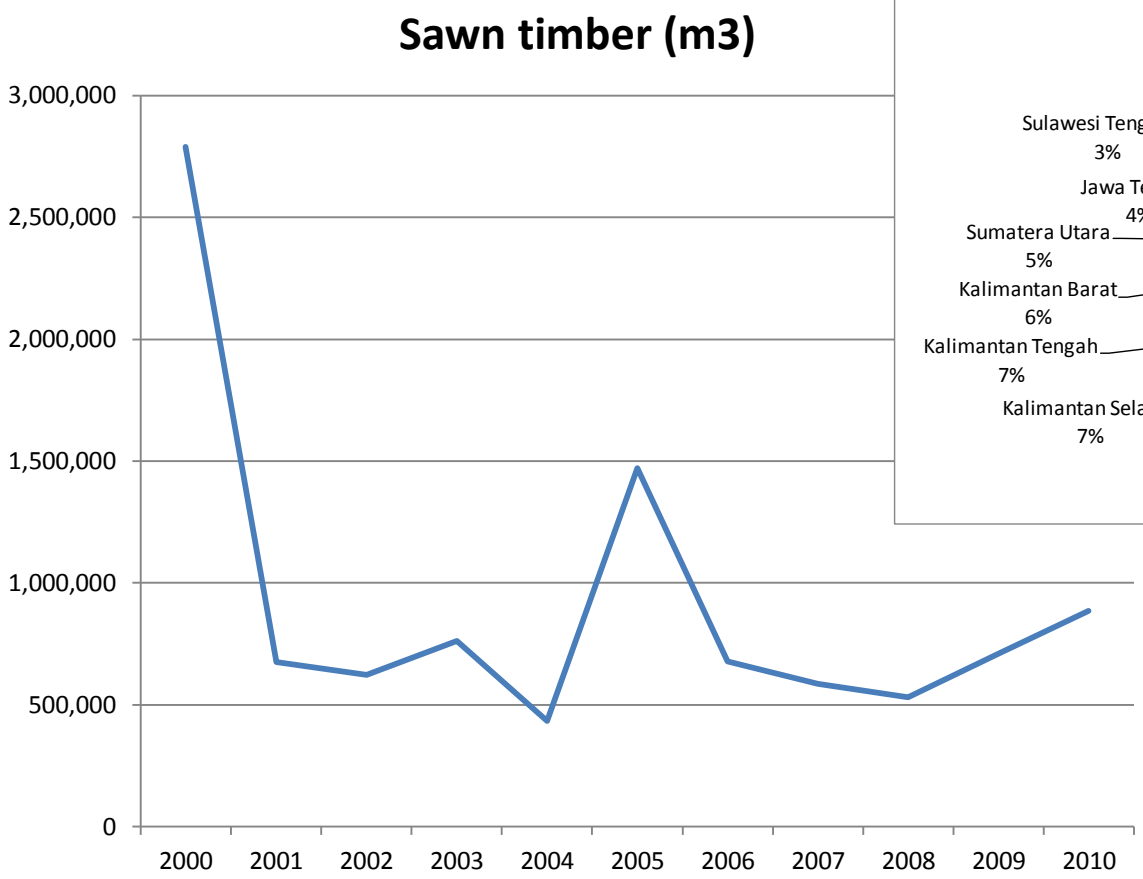
Production capacity of major timber industries in Indonesia



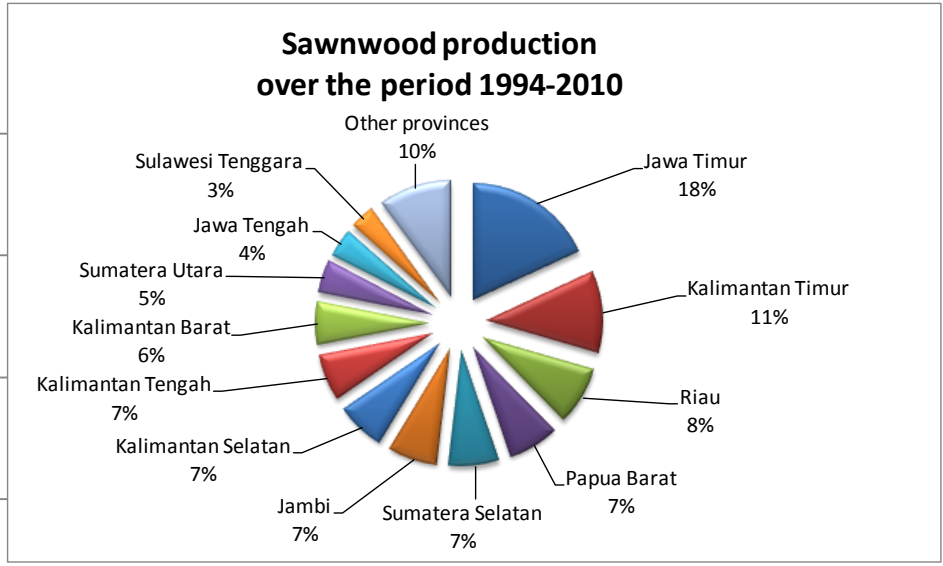
Sources: MOF (2011), APKI (2007, 2011);
APKI (2007); calculated by B. Simangungsong

1. Indonesian forestry sector (cont)

Production of sawn timber 2000-2010



Source: CIFOR analysis based MoF data



Source: B. Simangungsong 2012

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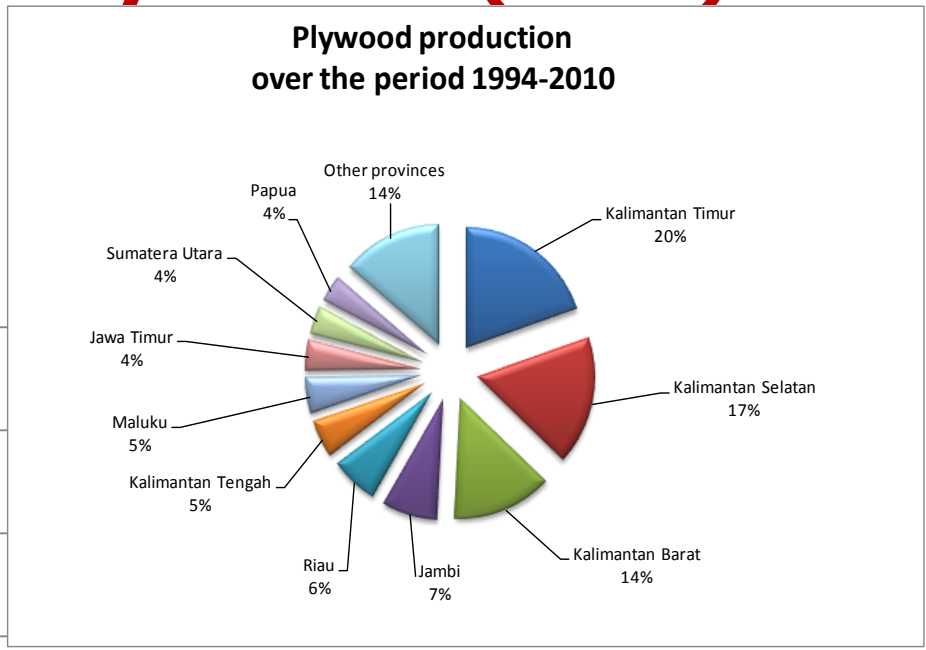
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1. Indonesian forestry sector (cont)

Production of plywood 2000-2010



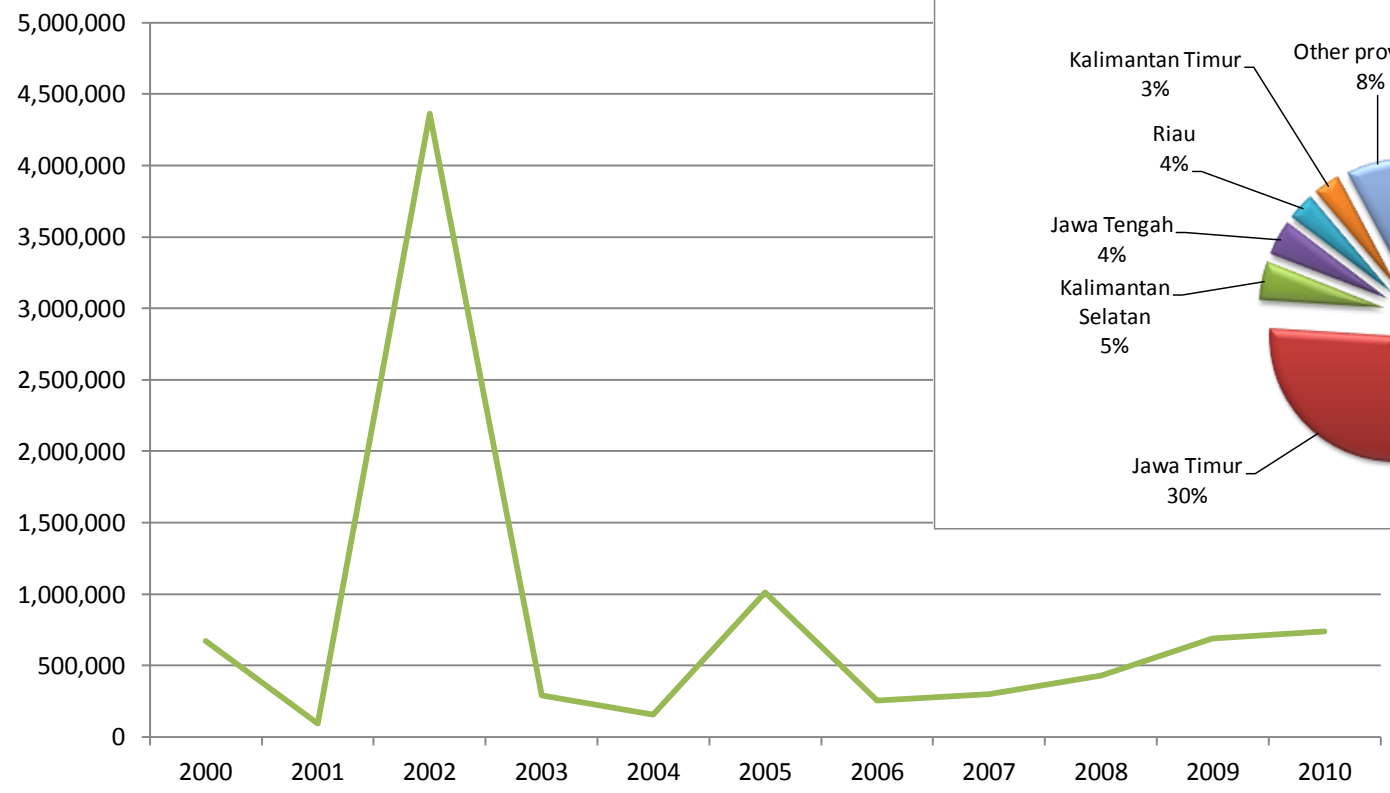
Source: CIFOR analysis based MoF data



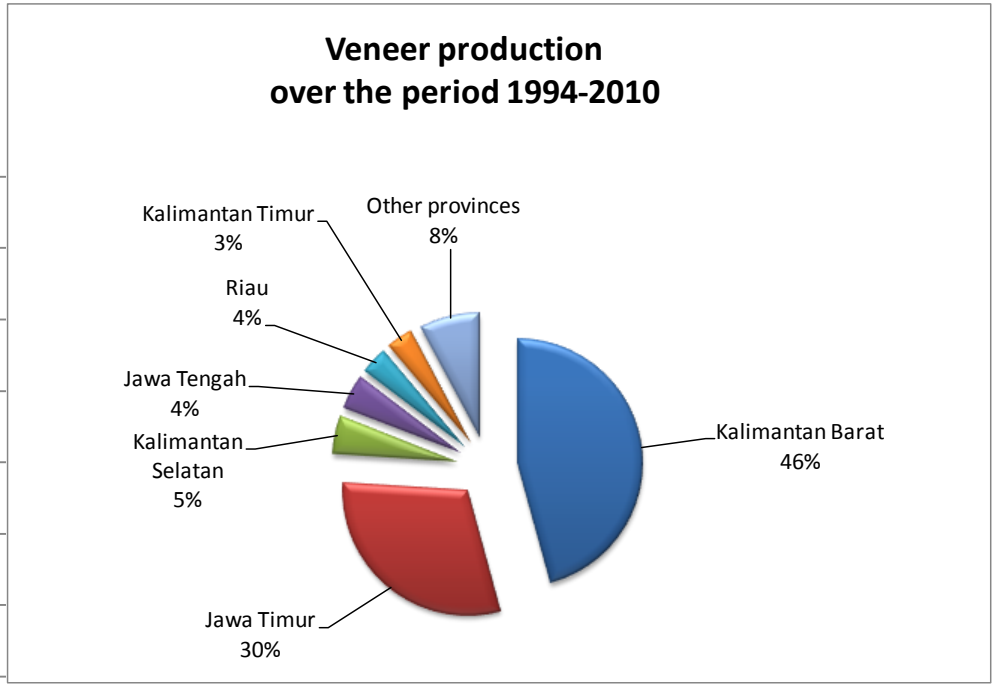
Source: B. Simangungsong 2012

1. Indonesian forestry sector (cont)

Production of veneer 2000-2010



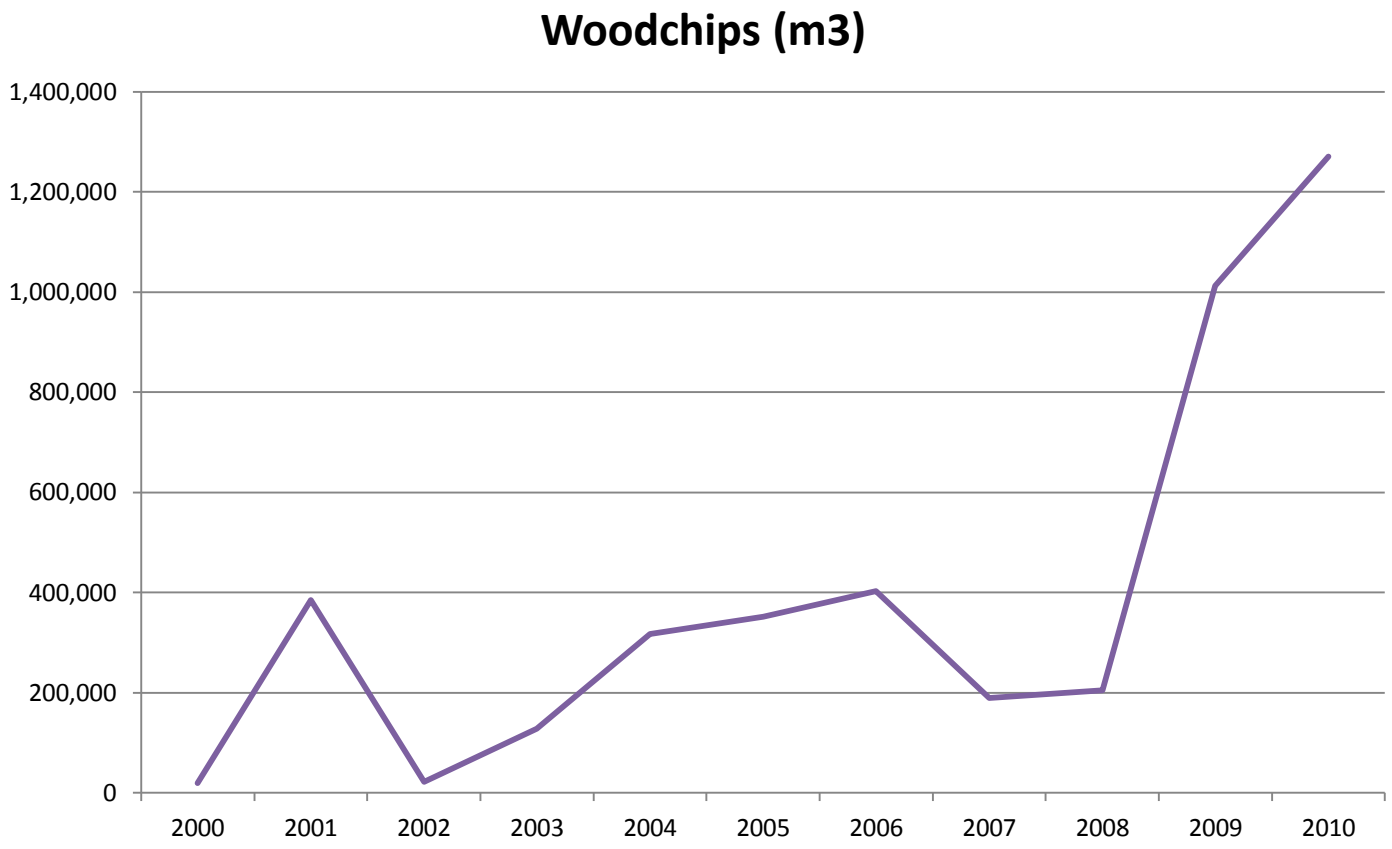
Source: CIFOR analysis based MoF data



Source: B. Simangungsong 2012

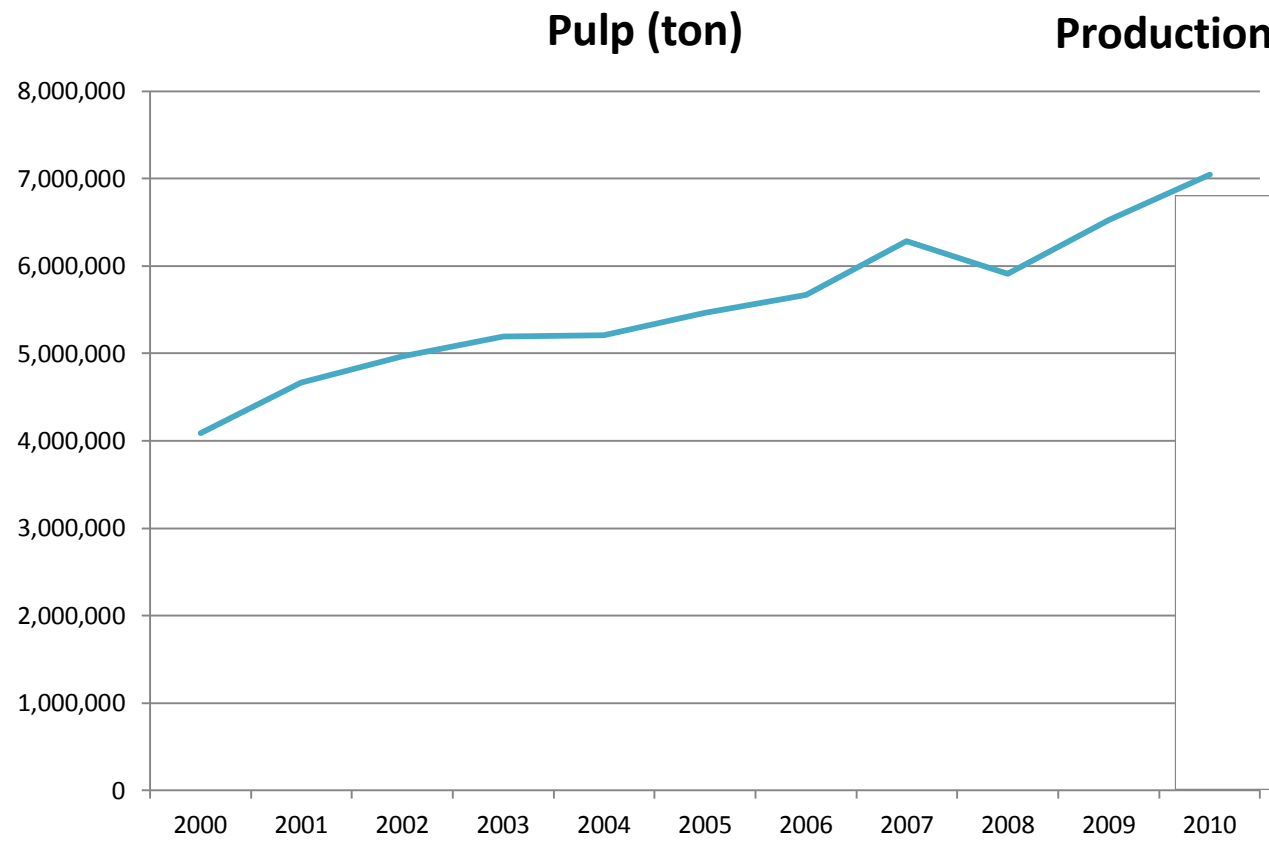
1. Indonesian forestry sector (cont)

Production of wood chips 2000-2010

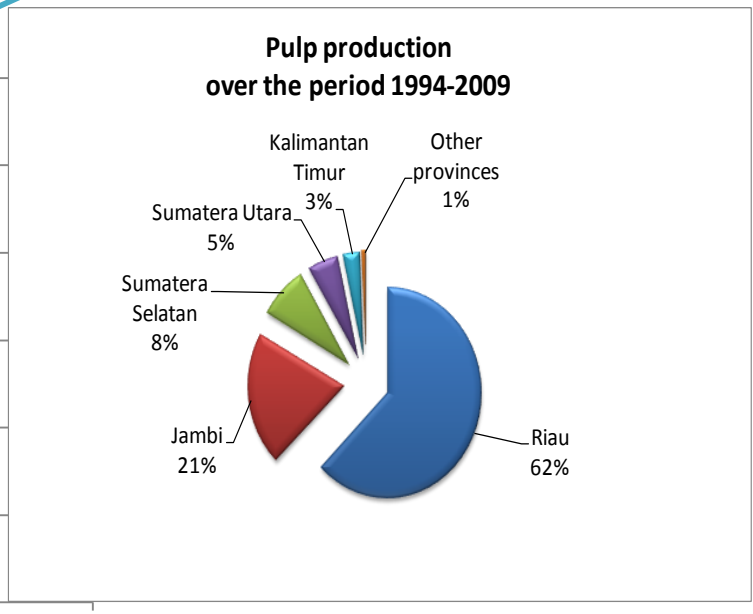


Source: CIFOR analysis based MoF data

1. Indonesian forestry sector (cont)



Source: CIFOR analysis based MoF data



Source: B. Simangungsong 2012

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1. Indonesian forestry sector (cont)

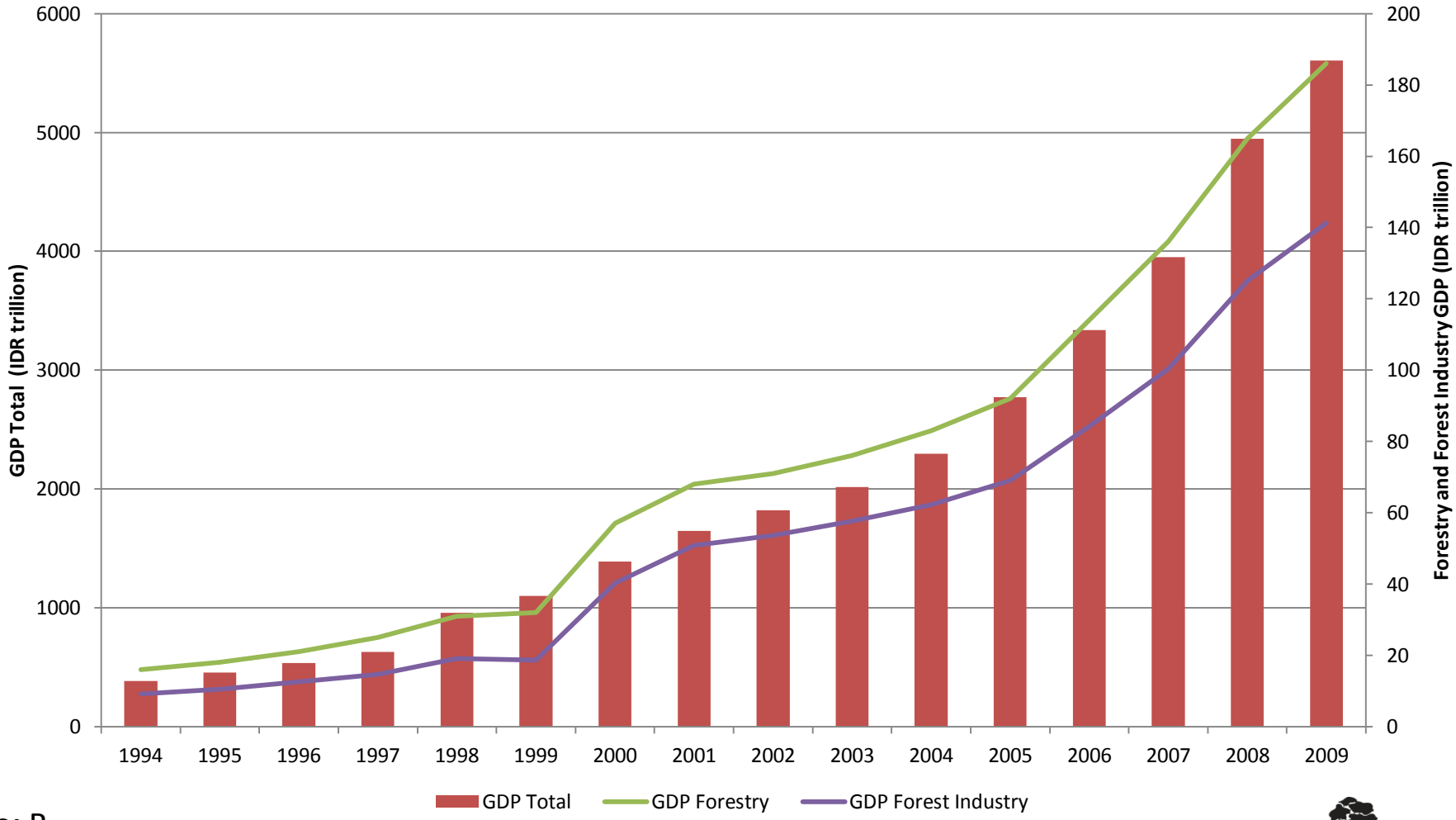
Contribution of the forestry sector to national GDP (Trillion Rupiah)

Year	Gross Domestic Product				
	Total	Forest sector contribution		Forest industry contribution	
		Amount	%	Amount	%
1994	382	16	4.2%	9.1	2.4%
1995	455	18	3.9%	10.5	2.3%
1996	533	21	3.9%	12.6	2.4%
1997	628	25	3.9%	14.7	2.3%
1998	956	31	3.2%	19.1	2.0%
1999	1,100	32	3.0%	18.7	1.7%
2000	1,390	57	4.1%	40.3	2.9%
2001	1,646	68	4.1%	50.8	3.1%
2002	1,822	71	3.9%	53.7	2.9%
2003	2,014	76	3.8%	57.7	2.9%
2004	2,296	83	3.6%	62.3	2.7%
2005	2,774	92	3.3%	69.1	2.5%
2006	3,339	114	3.4%	84.2	2.5%
2007	3,951	136	3.5%	100.3	2.5%
2008	4,949	165	3.3%	125.1	2.5%
2009	5,604	186	3.3%	141.2	2.5%
2010	6,423				

Source: B. Simangungsong 2012

1. Indonesian forestry sector (cont)

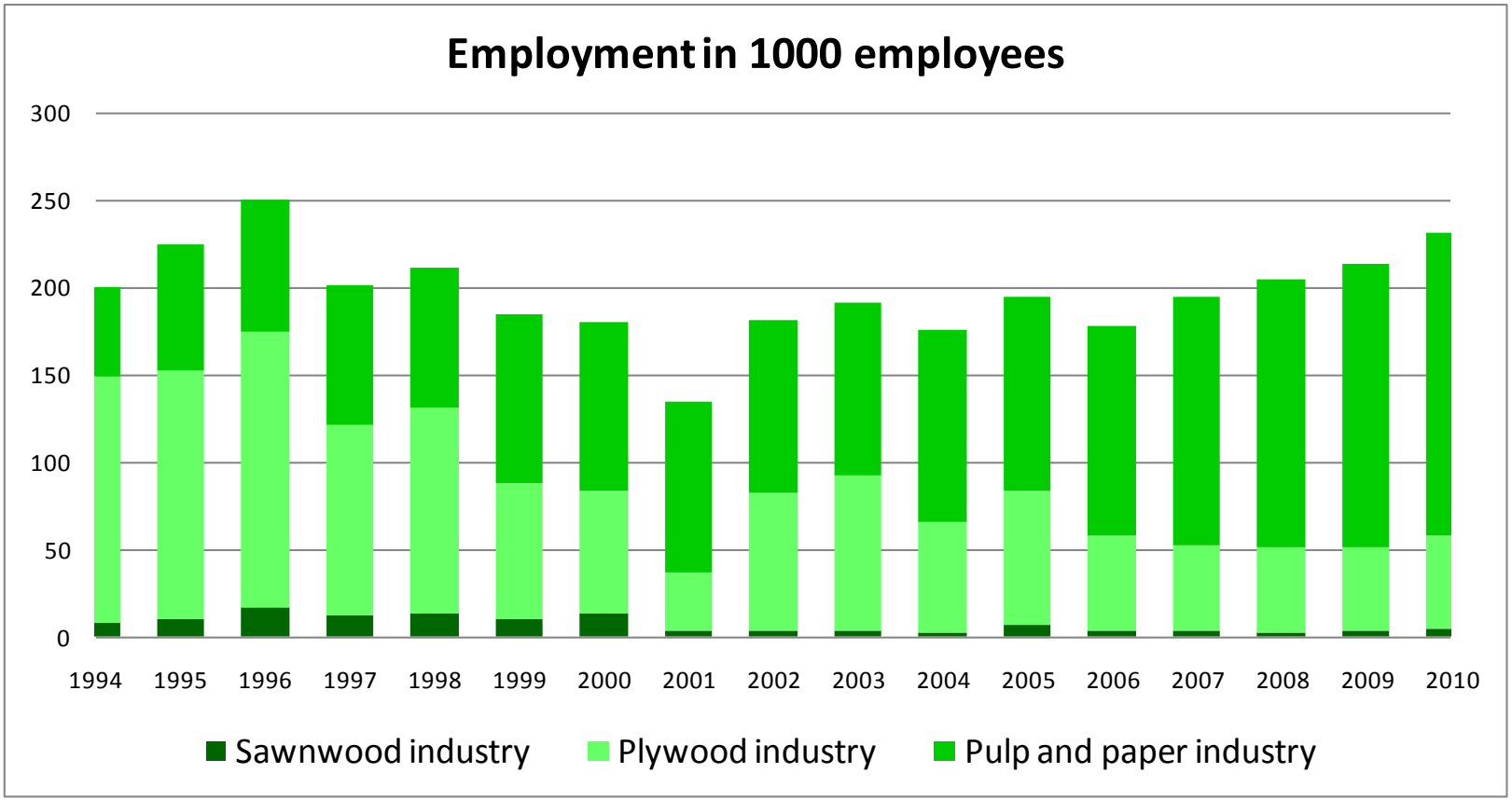
Contribution of the forestry sector to national GDP (Trillion Rupiah)



Source: B. Simangungsong 2012

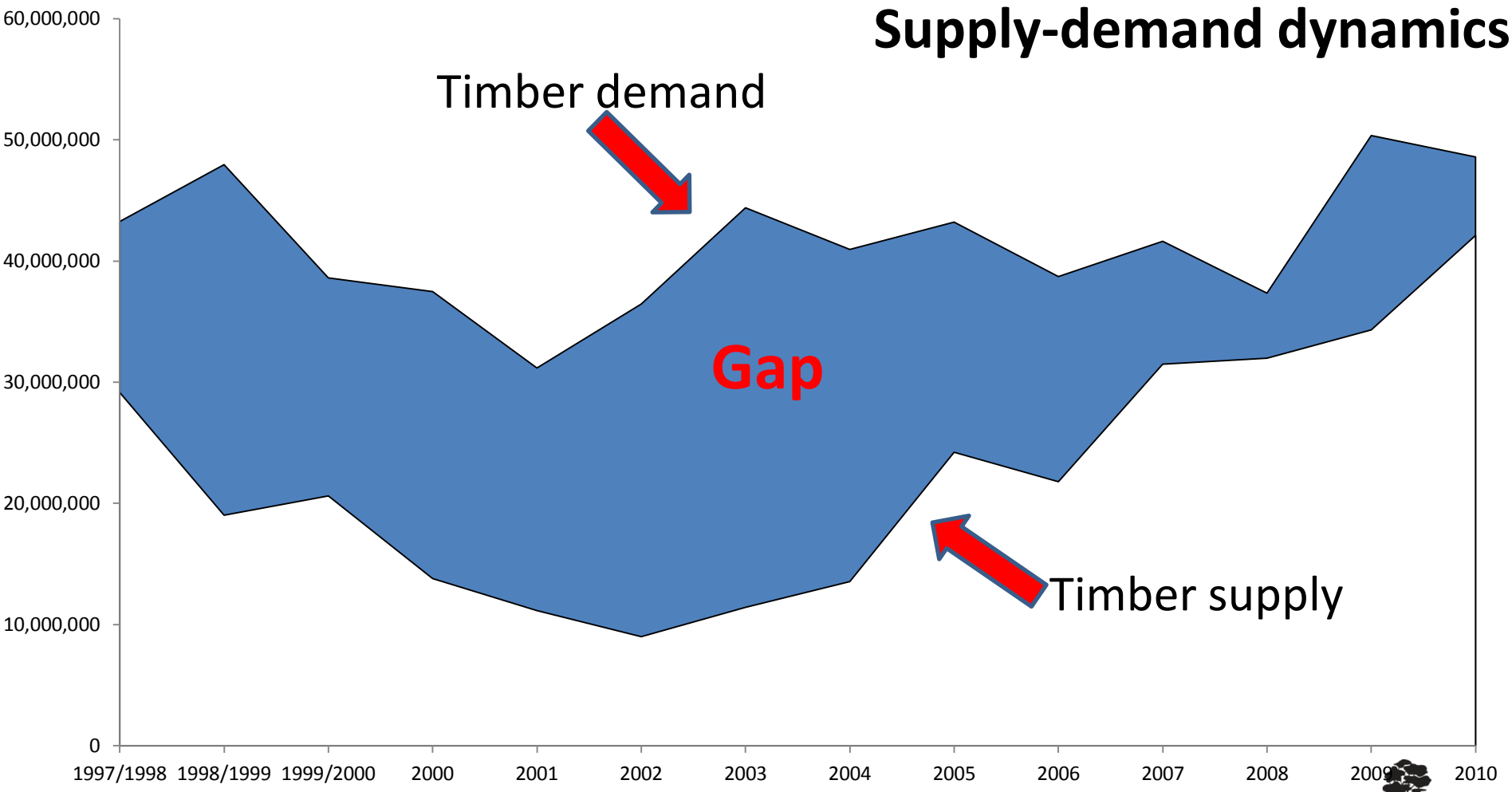
1. Indonesian forestry sector (cont)

Forestry sector employment



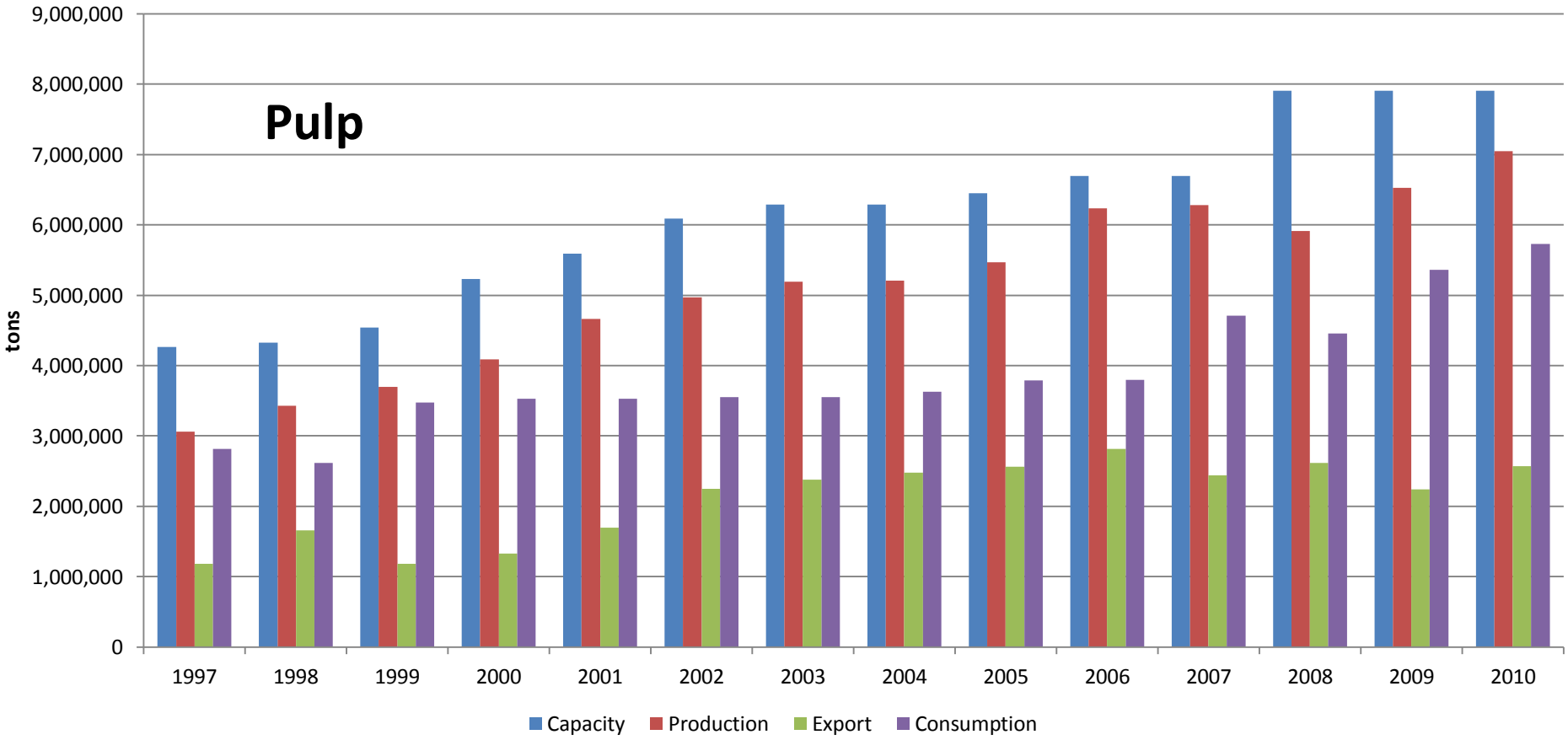
Source: B. Simangungsong 2012

1. Indonesian forestry sector (cont)



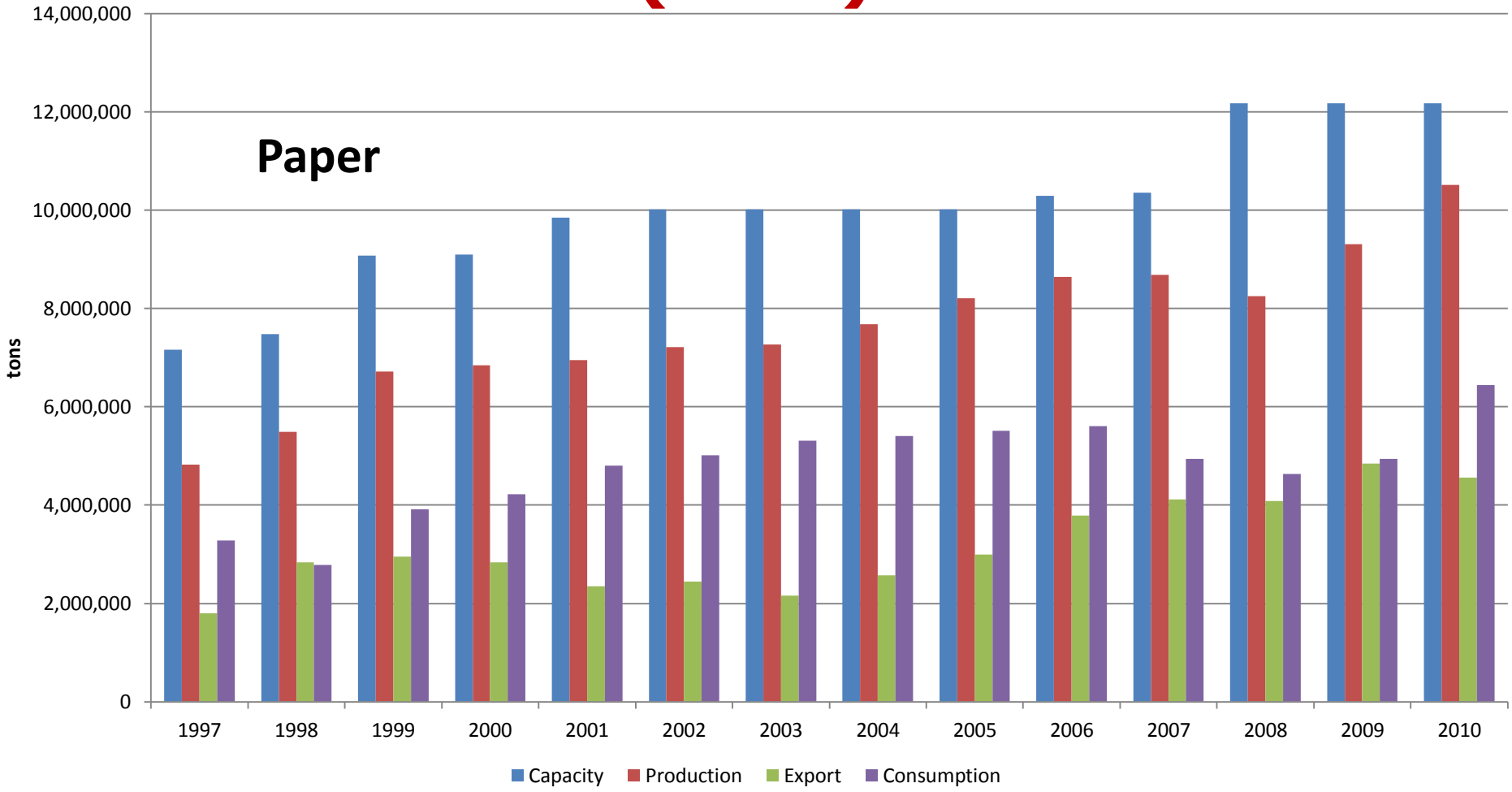
Source: MoF Statistics

2. Pulp & paper sector: key facts



Source: MoF Statistics

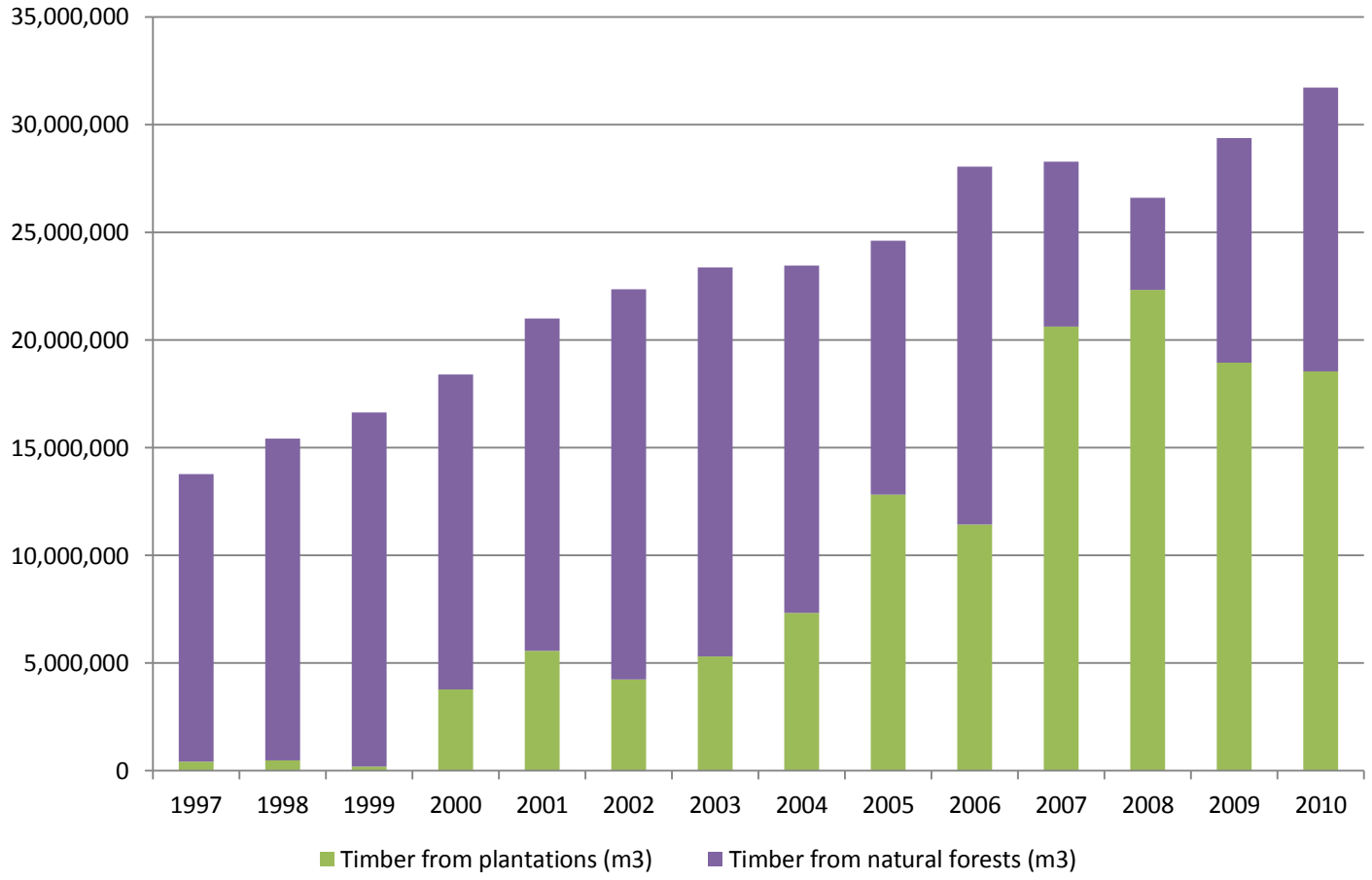
2. Pulp & paper sector: key facts (cont)



Source: MoF Statistics

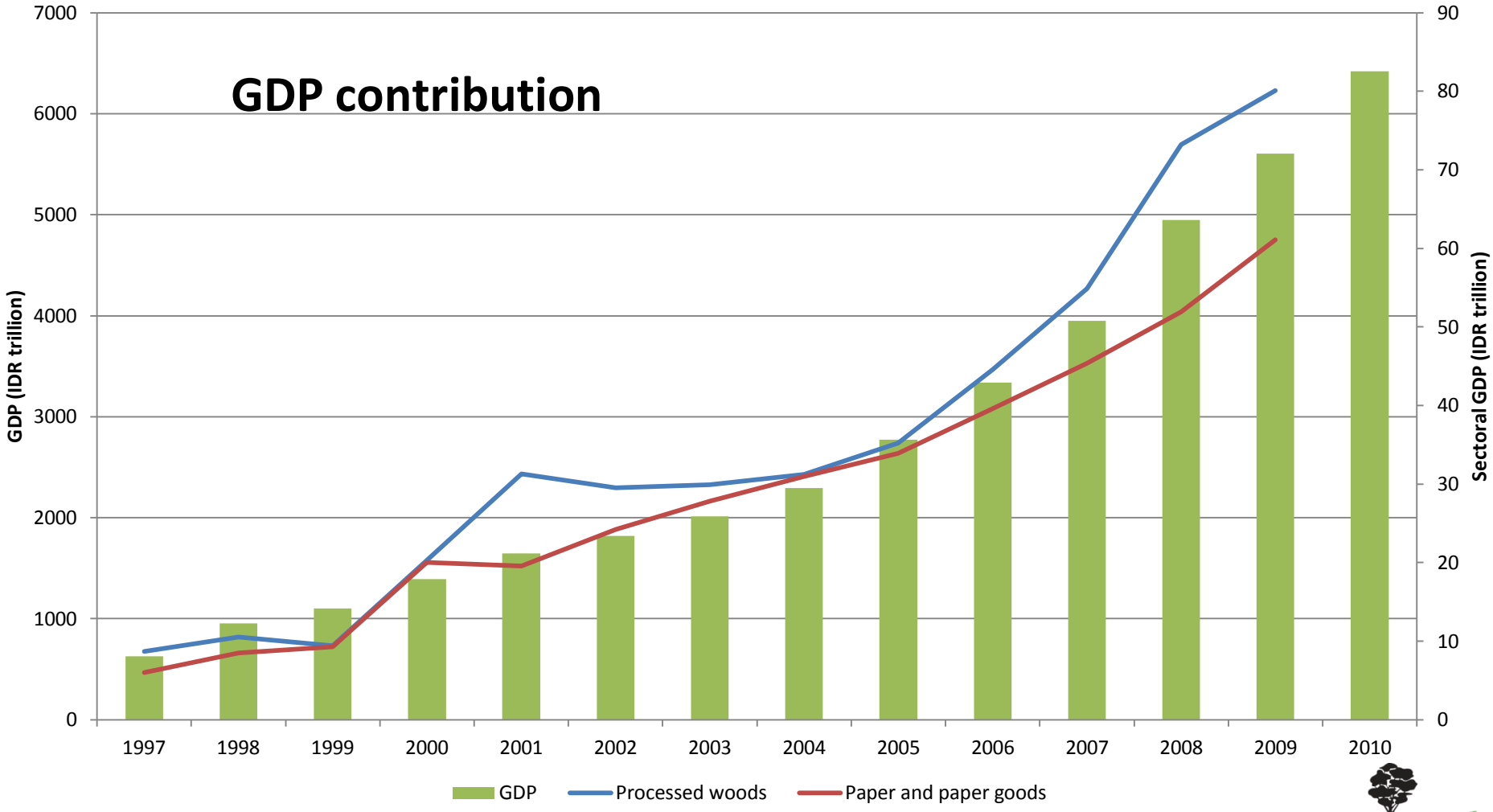
2. Pulp & paper sector: key facts (cont)

Sources of wood fiber supplies



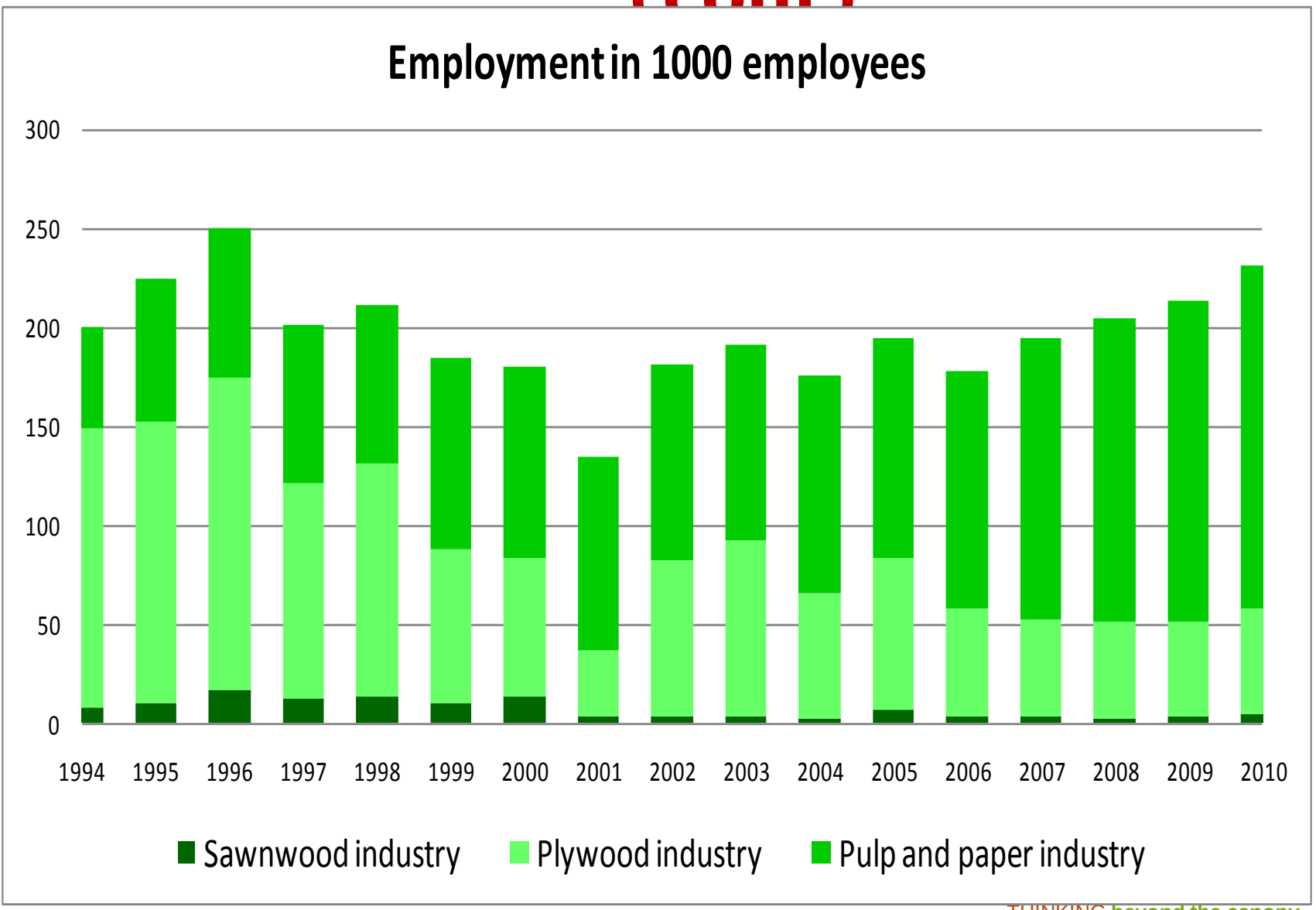
Source: MoF Statistics

2. Pulp & paper sector: key facts (cont)



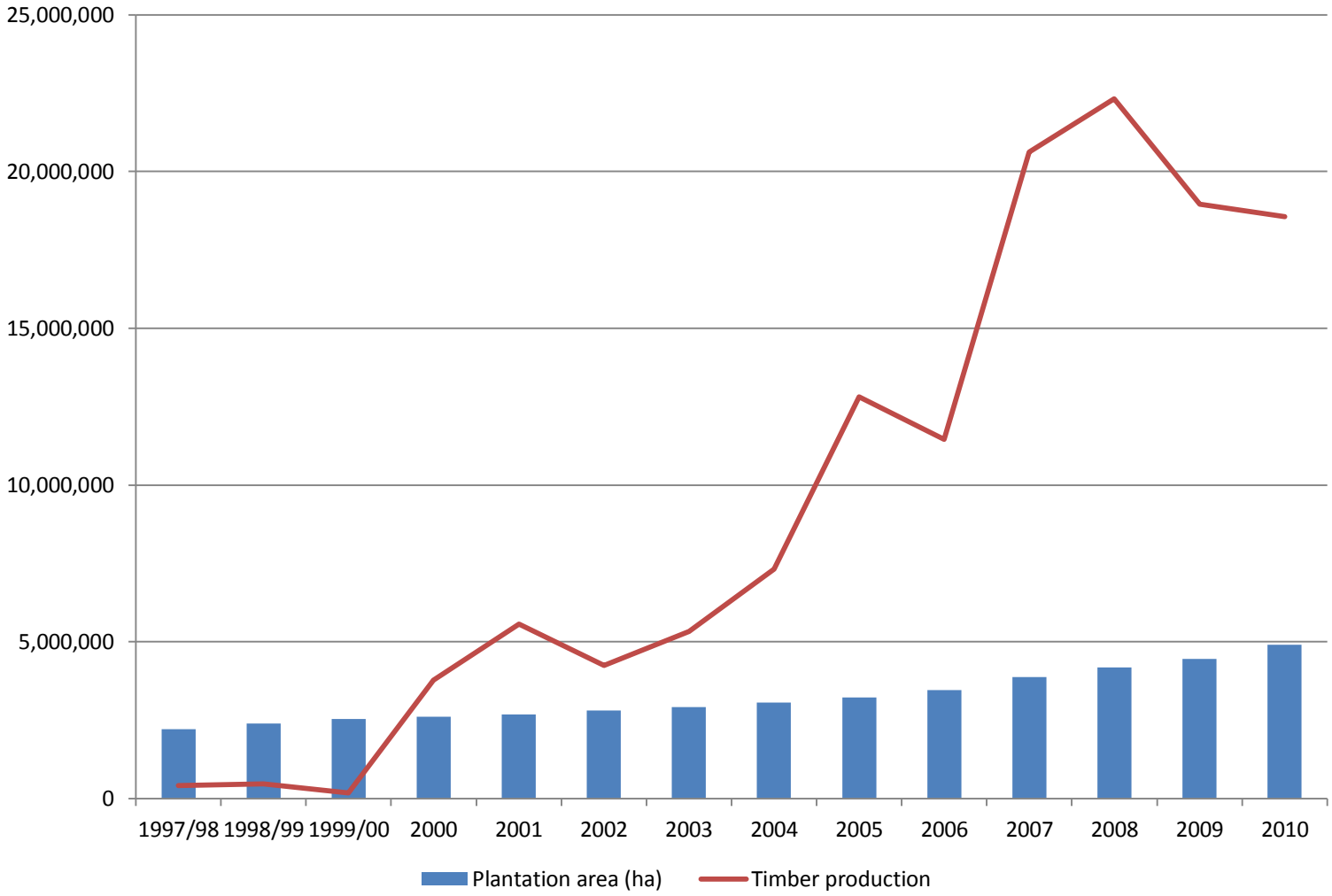
Source: MoF Statistics and BPS

2. Pulp & paper sector: key facts (cont)



Source: B. Simangungsong 2012

3. Wood fiber supply: development of HTI timber plantations



Source: MoF Statistics

4. Issues with pulp & paper and timber plantations in Indonesia

Questionable HTI plantation data

	Wood demand	Legal wood supply	Illegal supply	Log supply from timber plantations (m3)	Timber plantation development (ha)
1997/1998	43,265,097	29,149,419	14,115,678	425,893	269,109
1998/1999	47,957,570	19,026,944	28,930,626	480,210	182,578
1999/2000	38,611,242	20,619,942	17,991,300	187,831	138,662
2000	37,480,910	13,798,538	23,682,372	3,783,604	82,317
2001	31,176,795	11,155,399	20,021,396	5,567,282	67,472
2002	36,453,052	9,004,105	27,448,947	4,242,532	118,508
2003	44,396,307	11,423,502	32,972,805	5,325,772	124,691
2004	40,960,533	13,548,937	27,411,596	7,329,028	131,914
2005	43,215,185	24,222,638	18,992,547	12,818,199	163,125
2006	38,719,901	21,792,144	16,927,757	11,451,249	231,954
2007	41,632,915	31,491,584	10,141,331	20,614,209	334,839
2008	37,308,367	31,984,442	5,323,925	22,321,885	291,984
2009	50,358,772	34,320,536	16,038,236	18,953,930	279,969
2010	48,591,226	42,114,770	6,476,456	18,556,254	457,239

Source: MoF Statistics

4. Issues with pulp & paper and timber plantations in Indonesia (cont)

Small holder timber growing (HTR)

	Target end 2010 (million ha)	Achievement mid 2011 (million ha)
Land designated	5.4	0.65
Area under permit	5.4	0.13
Area planted	1.97	n.a.
Number of permits	-	1,857

- Achievements way below the target
- HTR not attractive financially
- Tenure insecurity a major obstacle

4. Issues with pulp & paper and timber plantations in Indonesia (cont)

Environmental impacts

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Indonesian paper firm logging tiger sanctuary: NGOs

by Angela Dewan | December 15, 2011



A rare 12-year-old Sumatran tiger jumps into the water within its enclosure at Ragunan Zoo in Jakarta in 2010. (AFP Photo/File)

A coalition of environmental groups headed by WWF accused Indonesia's biggest paper producer Asia Pulp & Paper Wednesday of clearing forest in a tiger sanctuary set up by the company.

The report, "The truth behind APP's greenwashing" by the coalition Eyes on the Forest, published satellite maps showing cleared land within the Senepis tiger sanctuary that Asia Pulp & Paper (APP) established on Sumatra island.

"APP has repeatedly used this tiger sanctuary as part of their sustainability campaign. They have lied to the public and their buyers by saying the area is being conserved for tigers," WWF-Indonesia spokesman Aditya Bayunanda told AFP.

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4. Issues with pulp & paper and timber plantations in Indonesia (cont)

Poor performance of companies which receive subsidies from Reforestation fund (DR)

Type of Company	Gross Area (ha)	Net Plantable Area (ha)	Realized Planted Area (ha)	Realized Area as % of Net Plantable Area
93 Joint Ventures	2,957,874	2,070,512	1,296,084	63%
State Enterprises				
PT Inhutani I	163,670	114,569	57,602	50%
PT Inhutani II	100,420	70,294	66,713	95%
PT Inhutani III	377,980	264,586	88,513	33%
PT Inhutani IV	n.a.	n.a.	n.a.	n.a.
PT Inhutani V	56,547	39,583	38,797	98%
Inhutani -- subtotal	698,617	489,032	251,625	51%
Total	**3,656,491**	**2,559,544**	**1,547,709**	**60%**

Source: MoF Statistics

4. Issues with pulp & paper and timber plantations in Indonesia

Social issues

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Hasyim Widhiarto, The Jakarta Post, Jakarta | Wed, 01/11/2012 8:57 AM



Occupy DPR: Protesters erect a camp site in front of the gate of the House of Representatives building in Central Jakarta. JP/Jerry Adiguna

On a breezy, cloudy
45-year-old Yahya
comfort his wife
weak beside
erected in fr
the House
Senaya

Wit
e

Island, Meranti Islands Regency, Riau
his mouth and fear of the worsening health
caught a severe cough and a high fever over the pa

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Residents of Teluk Meranti in Riau
expulsion of forestry industry compa
the district, claiming the companies
nothing by misery.

"We want our forests back," Yusuf, a ch
Paliang tribe, an indigenous ethic group
Miranti district, said in Jakarta on Friday.

"My only mandate from local villagers is to
their strong objections to the presence of the
companies to the central government," he sa
being told at the last minute that his schedule
meeting with Forestry Minister Zulkifli Hasan ha
canceled.

Located on the Kampar peninsula, Teluk Meranti
been in the media spotlight since October, when th
environmental group Greenpeace established a site
called the Climate Defenders Camp to protest agains
deforestation in the district by major forestry
companies, including Asia Pulp and Paper
Pacific Resources International
(APRIL).

5. Expansion plans in the pulp & paper sector and timber plantations



5. Expansion plans in the pulp & paper sector and timber (cont)

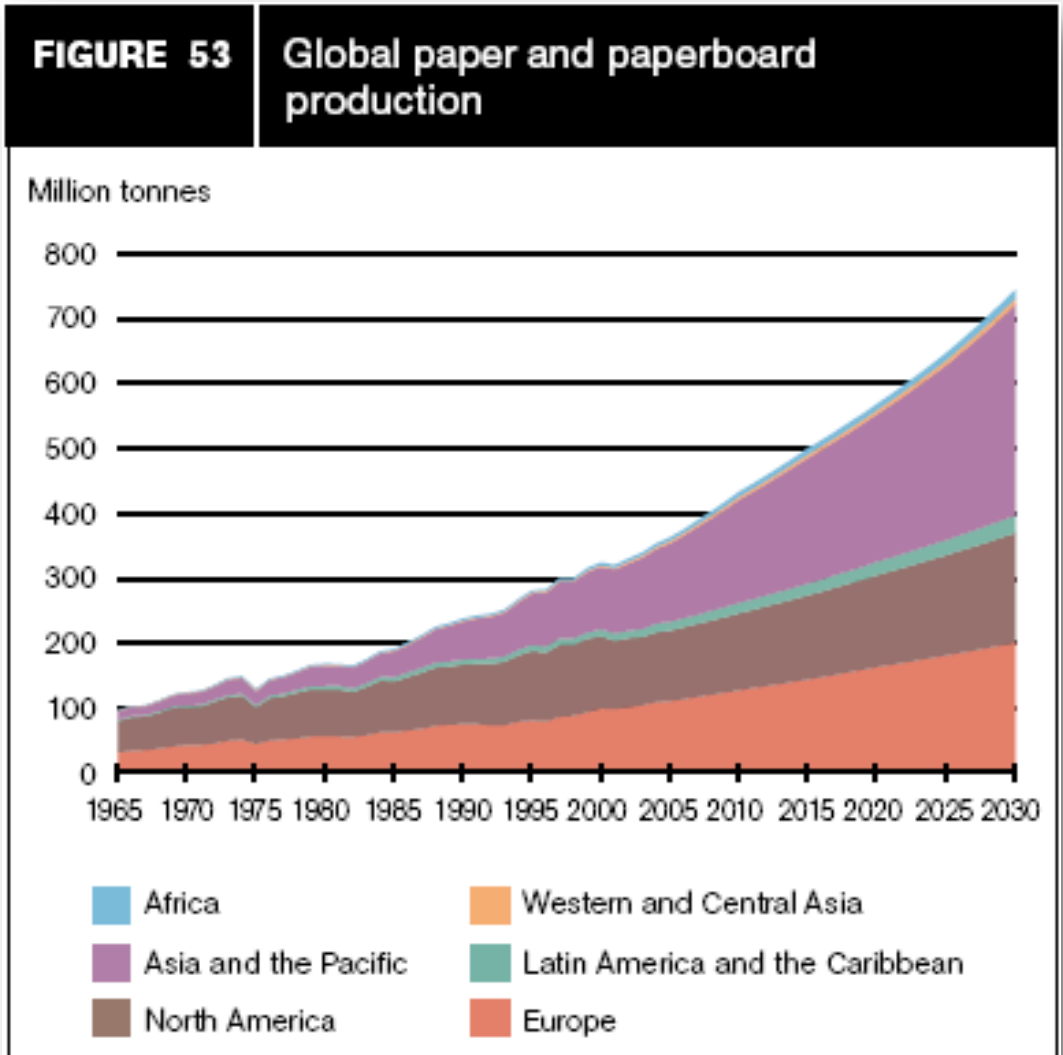
Group	Plantation area (ha)	Plantation investment (USD billion)	Mill capacity (tons)	Mill investment (USD billion)	Total investment (USD billion)	Locations
Barito	153,823	0.27	450,000	1.5	1.77	Unknown
Sinar Mas (APP)	500,000	0.5	4,000,000	7	7.5	South Sumatra; East Kalimantan; Papua
Korindo	150,000	0.2	Unknown	0.1	0.3	Papua
Djarum	700,000	0.7	2,000,000	2	2.7	West Kalimantan; East Kalimantan
Medco	300,000	0.3	500,000	1.5	1.8	Papua
Total	**1,803,823**	**1.97**	**6,950,000**	**12.1**	**14**	

Bisnis Indonesia "Konglomerat kembangkan investasi HTI di Kalimantan dan Papua", 24 April 2011

5. Expansion plans in the pulp & paper sector and timber (cont)

Why expansion? Intl demand projections

FIGURE 53 Global paper and paperboard production

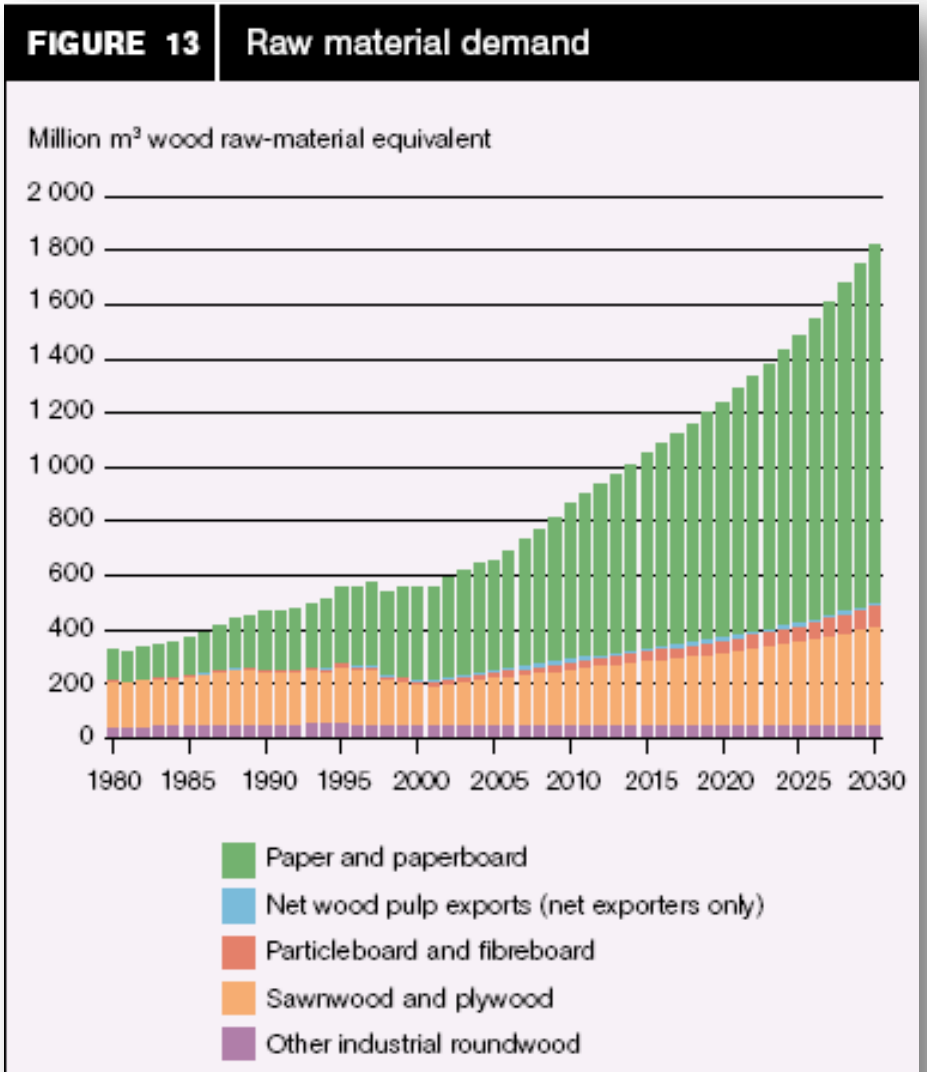


Source: FAO 2009

5. Expansion plans in the pulp & paper sector and timber (cont)

Why expansion? Regional demand projections

FIGURE 13 Raw material demand



Source: FAO 2009

5. Expansion plans in the pulp & paper sector and timber (cont)

Why expansion? National Forestry Master Plan 2030

- GDP contribution to increase 300% from 2005
- HTI and HTR plantation area reaches14.5 million ha
- Timber production from HTI and HTR reaches 362.5 million m3 annually
- Plywood production reaches 37.2 million m3, sawn timber 41.25 million m3, woodworking and furniture 21.8 million m3 and 3.4 million m3 respectively.

- Can these targets be achieved? Should they?

6. Implications of the expansion plans

Group	Planned capacity (million tons)	Raw materials required (million m3)	Net planted area required (Ha)	Concession size 2011 (Ha)	Net plantable area (Ha)	Additional net plantable area required (Ha)
1	*2*	*3*	*4*	*5*	*6*	*7=4-6*
Korindo	1	6.4	266,884	161,866	113,306	153,578
APP	2	12.8	512,400	205,365	143,756	368,645
APP	2	12.8	512,400	772,115	540,481	(28,081)
Djarum	1	6.1	256,209	154,659	108,261	147,948
Djarum	1	6.1	256,209	104,975	73,483	182,727
Medco	2	12.8	512,400	169,400	118,580	393,820

6. Key points

- Indonesian forestry sector is transitioning to capital intensive industries dominated by p&p
- Historically dogged by supply-demand gap
- In recent years the gap appears to be narrowing, but data uncertain
- Pulp and paper is the corner stone of Indonesia's forestry sector: now and in the future
- Economic importance, employment
- But significant ENV downside due to continued reliance on forest clear-cuts for timber
- Ambitious expansion plans – potential benefits & high risks
- Large areas of land needed for plantations to support new mills
- Where will this land be found?
- WB/IFC critical mission to support plantation investments on non-forest, degraded land ONLY



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