



## THE OUTLOOK FOR PULPWOOD SUPPLY & DEMAND IN THE ASIAN PACIFIC RIM

*A multi-client report available [December 2017](#)*



## Introduction

During the past 10 years, the Asian market for hardwood chips has surged to 23 million BDMT, from just 13 million BDMT 10 years previously. The surge in demand owes to expanding pulp production, most significantly in fibre scarce China, where a number of large scale pulp lines have been installed since 2004. These large and modern pulp mills have relatively low conversion costs, but the relatively high price of importing woodchips ensures that they (and other Asian pulp mills) are amongst the highest cost pulp producers in the world.

### Chinese pulp mills using imported woodchips



Although China has now overtaken Japan as the leading Asian consumer of imported hardwood chips, the dynamics of Chinese trade are somewhat different. Whilst Japanese paper companies have for many years established their own plantation areas and chipping operations in key supplying regions, the Chinese are largely dependent on third party purchases. In an effort to reduce their exposure to high fibre costs and the pulp cycle, Chinese mills are attempting to follow the Japanese model by forward integrating with paper and board production, and converting production to higher margin specialty pulps. They are also diversifying their sources of chip supply, and seeking to secure volumes on a longer term basis than before.

The rate of investment in Chinese pulp capacity has slowed, but a number of new lines (making chemical, dissolving, and high-yield pulps) are scheduled to start in the next two years, ensuring that the demand for chips will remain strong. The Japanese industry is clearly more mature, however Japanese companies are fully invested in their fibre supply chains and pulp mills provide the main source of energy to the paper industry. Japanese chip imports have remained very stable in recent years. Furthermore, Japanese demand for biomass (which may take the form of chips, pellets, or PKS) is expected to rise sharply in the coming years.



The major suppliers of hardwood chips to South East Asia include Vietnam, Australia, Thailand, Indonesia, South Africa, Brazil and Chile. To date, aggregate chip supply from these regions has been able to satisfy the rapid growth in demand over the past 10 years. However, future export availability from several key regions is increasingly uncertain owing to a combination of declining yields, changing government legislation, and the increased incidence of pest, fire and disease. Supply risks being further undermined by the historic poor rates of return on offer through plantation management; in Australia, record harvests are not being matched by replanting, as the better economic returns on offer from cultivating other crops is incentivising large areas of the plantation resource to be restored to arable farming.

Export availability may also be constrained by investment in new pulp capacity in Latin America (Chile & Uruguay), Vietnam and Laos. In Indonesia, the recent start-up of APP's OKI Pulp & Paper Mills in Sumatra puts further strain on the region's limited pulpwood supplies, particularly after huge areas of Indonesian plantations were lost to fire in 2015. The catastrophic impact has prompted a radical change in forest management legislation, and the Indonesian government has recently established a Peatland Restoration Agency (BRG) which has a five year plan to restore the peatland ecosystem covering 2 million hectares across Riau, Jambi, South Sumatra, Kalimantan and Papua. Given that over 50% of pulpwood plantations are on peatlands, this has already prompted significant confusion about short term harvest volumes. It seems certain to undermine pulpwood supply in the future as the major plantation owners are forced to relocate to degraded and unproductive mineral soils.

An extreme scenario could see a significant reduction in Indonesian BHKP exports, which are currently running at around 4 million t/y, and could rise to 5 million tonnes through 2018 assuming the OKI mill maintains its current operating rate.

Even if Indonesian pulp capacity is fully utilised, these wood supply issues and those affecting other countries will undoubtedly inflate production costs across the Asia Pacific region as a whole.



## Scope of the report

This report provides a high level overview of some of the key factors which may determine the supply and demand of hardwood chips within South East Asia in future years. This report will provide an overview of the plantation resources and forest product industries in each of the major supplying regions, and comment on the likely wood chip export availability over the next five years. It will identify the major consumers of wood chips in each market, their sources of supply, and investment plans. It will describe wood chip price trends according to region and species and explain the influence of supply, demand, species and yield, shipping costs and terms of trade.



**Background** provides an overview of the Asian hardwood chip trade. Trade matrices and historical supply and demand.

**Chapter One** describes import demand by country, profiling the major consumers, product types, investment plans, sources of supply. It will also provide a description of the emerging biomass demand in Japan and Korea and comment on the potential impact to the pulp and paper sector.

**Chapter Two** describes hardwood chip supply to the Asian Pacific Rim. For each country (Vietnam, Thailand, South Africa, Australia, Chile, Brazil) the report describes the forest resource, local pulp wood demand, historical chip exports by country, and future export availability.

**Chapter Three** describes Indonesia in detail, as above.

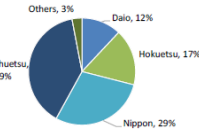
**Chapter Four** describes historical wood chip prices (cif & fob), and the key prices drivers (species & yields, shipping costs, currency). The floor price for woodchips.

**Available from the start of December 2017, the report has been produced through a combination of desk research, and field work in Asia.**

Page extracts

Japanese hardwood chip import demand

Japanese hardwood chip imports, by company (%)



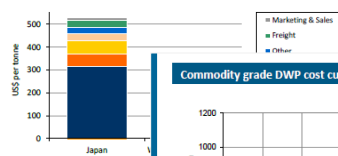
We estimate around 20% of wood chip imports are sourced from affiliated overseas plantations, and the remainder are sourced by Japanese trading houses.

The Japanese also own two thirds of the global woodchip carrier fleet (over 100 vessels), most of which is on long term charter.

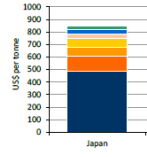
As a result Japanese companies appear to be quite well insulated from any volatility in the wood chip market and prices appear less volatile than in China (see page 45).

Japanese companies have sourced an increasing volume of wood chips from Vietnam over the past five years, displacing supplies from Australia and Latin America. Vietnam supplied 28% of HW chips in 2016, compared to 8% ten years ago. Oji is the biggest consumer of Vietnamese wood chips. In March 2015 Oji – a major shareholder of Chuetsu – formalised a business alliance which included joint purchasing of imported chips. Oji and Chuetsu have total pulp capacity of 2.7 million t/y.

BHKP production costs, CIF China, Q3-2017

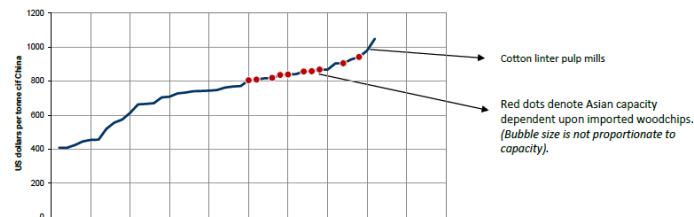


Dissolving pulp production



Source: Hawkins Wright, Customs D

Commodity grade DWP cost curve, CIF China, Q3 2017 (including cotton linter)

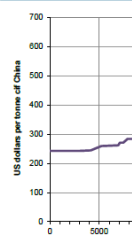


Cotton linter pulp mills

Red dots denote Asian capacity dependent upon imported woodchips. (Bubble size is not proportionate to capacity).

MARKET PULP COST CURVE

BHKP cost curve, CIF China



Source: Hawkins Wright

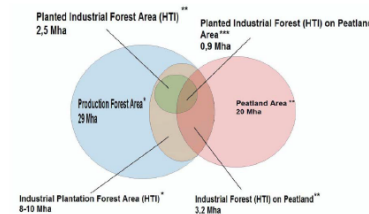
Indonesian pulpwood resources

FAO estimates that the forest area in Indonesia declined from 119 million hectares in 1990 to 91 million ha in 2015. The Indonesian government has apparently allocated 8-10 million hectares to Industrial Forest Plantation (HTI) which may be cleared and established as plantations. As a result both APP and APRIL have traditionally used a mixture of mixed hardwoods and plantation based acacia in their pulp production. However, in February 2013 APP announced a Forest Conservation Policy (FCP) which pledged to cease the clearance of natural forest and use only plantation-grown fibre in pulp production. Since then, APP and the leading NGOs (including Greenpeace) have taken a more collaborative approach. During 2015 APRIL also pledged to cease using wood from natural forests.

Estimates of actual plantation areas vary from 5-7 million ha. Ata Marie (a forestry consultancy) has estimated the area of plantations designated for pulpwood production at around 2.3 million ha, of which 1.6 million are in Sumatra and 0.7 million in Kalimantan.

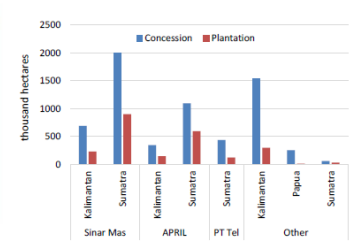
A further 0.5 million ha of new plantations are planned, of which over two thirds will be in Kalimantan and a third in Sumatra. However, there is great uncertainty regarding these targets particularly after major forest fires experienced during 2015 have caused changes in national policy. In fact, due to the extent of the fires and the fact that some continue to burn, it is very difficult to get an accurate and up to date estimate of productive pulpwood plantation areas at any one time.

Indonesian concession land by area



Source: Dr Christian Bachheimer  
Note that these estimates differ slightly from Ata Marie

Indonesian concession breakdown by company



Source: Hawkins Wright, Ata Marie, Industry contacts

INDONESIAN PULP WOOD RESOURCES



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## Contact

To discuss this report or to request more information please contact Oliver Lansdell or Tom Wright at:

### **Hawkins Wright Ltd.**

21-22 Station Point  
121 Sandycombe Road, Kew,  
Richmond  
Surrey TW9 2AD  
United Kingdom

Tel: +44 20 8747 5840

Email: [oliver.lansdell@hawkinswright.com](mailto:oliver.lansdell@hawkinswright.com) or [tom.wright@hawkinswright.com](mailto:tom.wright@hawkinswright.com) Web: [www.hawkinswright.com](http://www.hawkinswright.com)

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