

# In the Green or In the Red?

## Environmental Concerns and Risks for Forestry Listings in Hong Kong





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## Introduction

Forests are an extremely important part of the planet, providing food and protection to millions of people and countless wildlife, they are also an important source of medicinal products and a crucial sink for carbon in the global warming aware world that we live in. Greenpeace believes that deforestation is one of the biggest crises facing the world today.

This report aims to study the adequacy of environmental disclosures with regards to the current listing requirements in Hong Kong. It briefly reviews the forestry sector, related environmental issues and the main industries derived from forestry. Although many industries are related to and affected by the forestry sector such as timber, wood products, paper & pulp, construction, biofuels; this report focuses mainly on the logging and paper & pulp sectors. This report reviews the listing documents of forestry companies over recent years for environmental awareness and risks for investors, concluding with recommendations for investors and regulators to take away.

## Executive Summary

The forested areas of the earth cover approximately 30% of its landmass. The World Bank estimates that 350 million people depend on forests for much of their livelihoods with almost a fifth of the global population relying on agro-forest farming systems. The varying tropical, temperate, boreal and rain forests in the world each have their characteristics in terms of climate and precipitation but more importantly, the uniqueness of the ecosystems house millions of species that have lived in harmony with the earth for millions of years. Many species are facing dangers in terms of limited food and diminishing living area.

### ***Asia is home to many important forest regions, as well as endangered species***

The Asian region is home to approximately 14.5% of the world's forested area with the main forest regions in Indonesia, Papua New Guinea, Malaysia and China. The Paradise Forests, the Kalimantan Forests and the Riau Forests are facing considerable threat from illegal logging and the destruction of peat-lands. There are endangered animals like the orang-utan, whose numbers have declined to critical levels, (many organisations have conducted research into this area so this report does not provide in-depth details on endangered species) and the Sumatran tiger.

### ***Deforestation and illegal logging has far reaching adverse effects***

Illegal logging has been a problem in many areas of the Asian region for many years. Deforestation caused by the conversion of land for agricultural use is particularly acute. Companies that buy concessions of forested land are known to pull down the trees in order to clear the land for more profitable crops such as oil palm. This destruction has been known to alter the water holding capacity of the soil which causes changes in surrounding ecosystems whilst related downstream industries are potentially causing dangerous pollution of water sources.

Global warming has become a very visible part of many of the environmental problems faced by the world and deforestation is a major contributor to global warming. Trees are one of the earth's natural carbon sinks as CO<sub>2</sub> is absorbed by trees and converted into biomass. It is estimated that forested ecosystems in the United States alone absorb between a quarter to a half of the CO<sub>2</sub> emissions within the country each year. Various reports also show that global deforestation contributes around 20-25% of CO<sub>2</sub> emissions annually, a contribution which could be mitigated to some extent.

Government involvement or its interference and incompetence has an enormous impact on logging practices and illegal logging in the region. The allocation of forest concessions are not always allocated in the best interests of the country because corruption is an issue.

The logging industry and derivative industries such as wood supply, wood products, paper & pulp, and oil palm plantations suffer from the inability to trace the wood to sustainable supplies which are harvested using acceptable means. The sustainability of wood supplies and the accurate reporting of exports by timber-rich countries and imports by other countries are crucial. Pulp is an important resource although it can be easier to export and use pulp without tracing its ultimate forest source.

The clearing of the Kalimantan, Riau and Sumatran forests have been linked with oil palm plantations, UNEP considers this to be one of the primary causes of rainforest loss in Malaysia and Indonesia. The increasing use of palm oil as a vegetable oil or its use in derivative products in the oleo-chemical industry is fuelling plantation growth. The misguided global warming solution of biofuels is also significantly contributing to the loss of forested areas in favour of oil palm plantations.

### **Hong Kong has no specific requirements for forestry listings**

We are not aware of specific disclosure requirements from the Hong Kong Exchanges in relation to the environment for general corporate listings, nor for the forestry sector specifically. Although there are additional requirements for mineral and natural resource companies, they are not concerning environmental issues such as emissions and pollution control.

In contrast to the Hong Kong Exchanges, both the Shenzhen and Shanghai Exchanges have issued their own guidelines in recent years to encourage regular disclosure and evaluation of the environmental performance of listed companies. These initiatives stemmed from the emphasis on environmental performance and compliance as required by Chinese regulators – the China Securities and Regulatory Commission (CSRC) and the Ministry of Environmental Protection (MEP).

Without proper guidelines on environmental disclosure, in our review of listing documents from recent forestry listings, we found that most companies considered their products to be “environmentally friendly” by way of default, rather than through any particular process or systems. A few companies considered their environmental friendliness as a competitive strength, and highlight ISO certification as evidence.

Company highlights of compliance with local and national regulations do not necessarily show the company's commitment to the environment. Use of proceeds, supply chain choices and establishment of effective environmental committees are better indicators in our view. Management often reveal that they are aware of many issues but external organisations continue to find areas where all may not be what it seems - being aware does not equate to taking steps to resolving issues.

### **Conclusions & Recommendations**

It is very difficult to find defined links between stock prices and environmental issues, although we found that from our sample of companies, not a single stock managed to outperform the Hang Seng Index since its IPO up to 12<sup>th</sup> September 2008. We highlight a few companies such as *Asia Pulp & Paper* and *Rimbunan Hijau* which appear to be aware of environmental issues although they have faced considerable negative press with regards to their operations.

We recommend a number of changes to the listing requirements for the stock exchange to consider, including an environmental section within listings documents and the publication of a CSR report on a regular basis. For forestry companies, we recommend additional requirements covering the sourcing of raw materials, independent verification of wood yields, and a variety of continuing obligations with respect to environmental disclosure and the maintenance of an environmental liabilities reserve account.



# The Forestry Sector – An Overview

The forestry sector is vast with forested areas encompassing 30.3% of the world's landmass in 2005 (*Global Forest Resources Assessment* (GFRA) 2005)<sup>a</sup> or just under 4 billion hectares and contributed to 1.2% of global GDP in 2000 (*Global Environment Outlook 4* (GEO4)<sup>b</sup>). There are many types of forests, each performing different functions as their wood is used for a wide range of materials. According to *Global Forest Watch*<sup>c</sup>, an estimated 60 million people inhabit forests and depend on them for their livelihood, they have mostly lived in harmony with nature for thousands of years, especially indigenous people.

Economically, almost half the jobs worldwide depend closely on fisheries, forests or agriculture (GEO4<sup>d</sup>); with around 60 million jobs directly linked with forestry according to the *Counting on the Environment* (COE) report by the World Bank<sup>e</sup>. As a result, forests are a direct income source for millions of people worldwide, especially the poor. The World Bank estimates that 350 million people depend on forests for a high degree of their income and 1.2 billion people rely on agro-forest farming systems. The availability and accessibility of forests makes them an especially important asset for those living in and around forested areas and their sustainability is crucial. Often these people have limited choices of employment and sustenance outside of the forest.

## Forests are diverse in location and form

Forests are often classified by their location and annual precipitation received. We briefly describe below forest types, where they can be found and their significance.

### Tropical zone forests

Tropical forests mostly occur in the tropic zones which are above and below the equator. Rainforests are often classified as tropical and the terms are used interchangeably although this is not always the case, as certain forests within tropical zones receive much less precipitation due to their altitude such as dry-coastal or cloud forests. Tropical forests tend only to host a rainy and dry season, this homogeneity in climate allows almost constant regeneration where life is able to grow continuously throughout the year. Precipitation in most tropical forests is typically over 2,000mm annually.

### Temperate zone forests

Temperate forests occur in the earth's temperate zone although the zone excludes the far north which houses boreal forests. Temperate forests experience four well-defined seasons which can range anywhere between freezing temperatures with snow and frost to hot summers. The spring and summer seasons offer a four to six month period where life can regenerate. Approximately 750mm – 1500mm of precipitation in the form of rain and snow falls evenly throughout the year.

### Boreal zone forests

Boreal forests are also known as “taiga” and can be found in the “boreal zone” which is in the upper northern regions of the temperate zone. It encompasses a large area of the earth including parts



Sawn lumber from tropical rainforest being handled in port of Leixoes, Portugal  
© Greenpeace/Daniel Beltrá

of North America and Eurasia. Regeneration periods tend to be short, around four months whilst the rest of the year is spent in cold but drier weather. Precipitation is typically much lower than tropical or temperate forests and ranges between 400mm - 1,000mm annually.



Destruction of Canada's Boreal Forest in the Kimberly-Clark pulp mill in Terrace Bay, Ontario.  
© Greenpeace / Andrew Male

## Rainforests

Rainforests are a special class of forests which make up around 6-7% of the earth's land surface, they are located in areas where the climate is usually warm but steady and rainfall is constant. Rainforests tend to occur near the equator in the tropical zone, but can also be found in the temperate zone if conditions allow. The temperature is a steady 24-27°C almost all year round and rainfall can be more than 2,000mm each year. Rainforests are very important because they house a vast amount of life - millions of species of animals, plants and other life-forms. So much water passes through a typical rainforest means that they play a vital role in the water cycle, cleaning water and returning vapour to the atmosphere. They have often been referred to as the "earth's lungs" as they process much of the air within our atmosphere, taking in somewhat polluted air and returning cleaner air.

## Greenpeace's Zero Deforestation Policy and Forest for Climate Proposal

Tropical forest destruction is responsible for about one-fifth of current global greenhouse gas (GHG) emissions. Ending deforestation in tropical forests is critical to protecting the global climate, biodiversity and forest dependent communities. Eliminating deforestation in just eight tropical countries – Bolivia, Brazil, Cameroon, the Democratic Republic of the Congo, Ghana, Indonesia, Malaysia and Papua New Guinea – would nearly halve the annual rate of global forest loss.

Historically the main driver of deforestation in Brazil and Bolivia has been the expansion of the beef and soya industries; the main driver of deforestation in Indonesia and Malaysia – and one of the key drivers in Papua New Guinea and the Solomon Islands – has been the expansion of the palm oil industry. The logging that precedes these industries in most cases opens up the forest and provides additional financial incentive towards deforestation for agriculture.

**Forests for Climate'** is a proposal for an international funding mechanism to protect tropical forests. The mechanism would become part of the second phase of the Kyoto (post-2012) agreement on climate change. If countries commit to *Forests for Climate*, funding to protect tropical forests could become available as soon as 2009. It is estimated that halving emissions from deforestation will cost US\$10-15 billion per year. For more details, see <http://www.greenpeace.org/international/press/releases/greenpeace-unveils-new-plan-to>





**Amazon Rainforest in Burning Season**  
An aerial view of the rainforest during the burning season in the Amazon, photographed during a flight from Itaituba to Alta Floresta. Most of Brazil's greenhouse gas emissions result from deforestation, with the majority coming from the clearing and burning of the Amazon rainforests. Tropical forest destruction is responsible for up to one fifth of global greenhouse gas emissions, placing Brazil as one of the top climate polluters in the world. Ancient forest protection is crucial to preserving biodiversity and the global climate.  
© Greenpeace

## Asia is rich in forests

The Asian region is home to approximately 14.5% of the world's forested area (Global Forest Resources Assessment 2005)<sup>9</sup> with forests covering about 18.5% of Asia's land mass. The major forests in the region lie mainly in China, Indonesia, Papua New Guinea and Malaysia.

The main forest areas in Asia under threat from illegal logging include the Paradise Forest which covers a large area across Indonesia, Papua New Guinea and the Solomon Islands, the Kalimantan Forests in Borneo and the Riau forests in Sumatra, Indonesia.

## More Information of Main Forest Areas in Asia:

Paradise Forests - <http://www.greenpeace.org/international/campaigns/forests/asia-pacific>

Kalimantan - <http://borneoproject.org/article.php?id=544> and [http://www.bagus-discovery.com/map/map\\_kalimantan\\_info02.html](http://www.bagus-discovery.com/map/map_kalimantan_info02.html)

Riau Forests - [http://eyesontheforest.or.id/index.php?option=com\\_content&task=view&id=8&Itemid=17&lang=english](http://eyesontheforest.or.id/index.php?option=com_content&task=view&id=8&Itemid=17&lang=english) and [http://www.eng.walhi.or.id/kampanye/hutan/shk/070825\\_riau\\_forests\\_cu](http://www.eng.walhi.or.id/kampanye/hutan/shk/070825_riau_forests_cu)



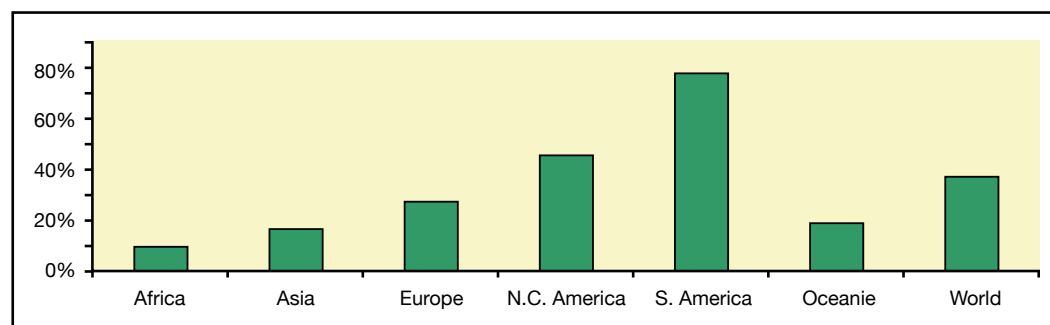
Map for the basis of zero deforestation in Southeast Asia and Western Pacific: Remaining tropical rainforests as of July 2007 and areas of deforestation since 2000 (Source: *The Climate Bomb is Ticking: Call for Zero Deforestation to Protect the Climate*, p.8)<sup>10</sup>

## Environmental themes and issues in the forestry sector

There are few remaining primary forests – forests of native tree species which have been largely untouched by humans, there has not been noticeable logging and it remains broadly as nature would have it; the ecosystems within have not been significantly disturbed by humans. Forests which have been modified through logging or some other major disturbance, such as a forest fire, and have thereafter re-grown are known as secondary forests. The proportion of primary forests relative to forested areas in the world is around 36%; as shown in Chart 1, for most regions, including Asia, this proportion is much less.

Man can disturb the forest in many ways but logging and the planting of non-native species are primary methods which can cause numerous problems for nature. We highlight a few of the major issues associated with forests below.

**Chart 1: Proportion of primary forest out of forested areas by region in 2005**



Source: GFRA 2005.<sup>1</sup>

### Deforestation and illegal logging

Illegal logging or timber theft is a problem in many areas of South East Asia. Local authorities often lack adequate resources to police forests or to supervise logging activities, the problem can be seen on two levels:

- 1. On a large scale basis** - individuals and companies remove timber in large quantities illegally and export them for hefty profits. A scarcity of timber has driven this trade in recent years and has led to high log prices for downstream industries such as construction and paper. Sometimes, corporations hold licences to harvest in certain areas but they harvest logs illegally beyond those areas.
- 2. On a smaller scale** - the local population, which in most Asian countries is likely to be growing, take more and more wood for fuel or other uses from the forest leaving it little chance to regenerate itself.

## Case-in-Point: Rimbunan Hijau

Rimbunan Hijau is a global conglomerate of companies controlled by the Tiong family from Sarawak in Malaysia. Initially built as a timber empire, the company now has extensive interests in logging, timber processing, publishing, property investment, new technology and travel. Rimbunan Hijau dominates the logging industry in Papua New Guinea and is a powerful industry player in Malaysia and Equatorial Guinea. It also has significant forestry interests in Gabon, Indonesia, Vanuatu, New Zealand, and Russia.

Three reviews on logging projects operated by Rimbunan Hijau in PNG (Wawoi Guavi, Vailala Blocks 2 and 3 and Passismanua) found that the extensions to all three projects were unlawful as they breached legal requirements and had not followed due process, saying “there have been serious departures and breaches from due process and there are serious anomalies in the timber permits and agreements” *Independent reviews ordered by the PNG’s government, Review of Disputed Allocations (2003).*

In September 3<sup>rd</sup> 2008, at the invitation of local resource owners, activists from the Greenpeace ship, Esperanza, stopped the loading of the Harbour Gemini, a log ship carrying timber from a logging operation riddled with illegalities to China. The buyer of this shipment of logs is the Hong Kong-incorporated Qianglin Timbers Limited, and the logs are headed to China for processing.

Greenpeace investigation found that Qianglin is closely linked with Turama Forest Industries, a Rimbunan Hijau Group company.

For more information, please refer to: <http://www.greenpeace.org/international/news/paradise-forest-timber-stopped>

Deforestation is not always caused by man, sometimes, nature has its own way to clear forests and this is known as natural deforestation. Man can accidentally induce deforestation through negligence.

1. Forest fires occur naturally almost every year among certain forests if the weather conditions are appropriate. Such fires are important to the regeneration of the forested ecosystem if they occur at the appropriate time, place and temperature. Fires can be equally destructive when started deliberately in order to clear land, or accidentally in forests as a result of negligent flames, usually such induced fires do not bring regenerative benefits.



An aerial view shows hotspots of forest fires in the Riau region. Palm oil companies have recently cleared forest and peatlands in preparation for oil palm plantations.  
©Greenpeace/Vinai Dithajohn

2. Volcanic eruptions and tsunamis are able to clear forests as part of nature's long term cycle of regeneration. Land and forests cleared by volcanoes tend to be especially fertile afterwards and can be seen as nature's method for bringing useful minerals and other substances up from the heart of the earth.
3. Excessive air or water pollution, often caused by man, has the potential to kill off trees and cause deforestation on a minor scale.

### **Reforestation and non-native species plantation**

Forests which have been downsized or depleted through the years can be re-established by planting trees through reforestation programs. Properly managed reforestation programs seek to replenish the numbers of native species in existing forests.

The invasion of foreign tree species into forested land can alter the delicate balance of the ecosystem and cause the natural forest to decline. Non-native tree species are often brought about accidentally as trees are planted without due diligence on their suitability for the surrounding habitat. In many cases, the tree-count remains the same but as the natural forest declines, the ecosystem is irreversibly changed. Insects feed-off of certain trees and also keep in check native species on certain lands.

Reforestation is distinguished from afforestation which is the planting of trees on land which has not been forested for a long period of time. The planted trees may or may not be native species.

### **Land conversion for human purposes**

Deforestation by the conversion of land into secondary forest, agricultural uses, or even degraded land is a major problem in Asia. These conversions have arisen for a number of reasons, including:

1. **Population growth** - the populations of some countries within the region have grown so large that the people need more land to live on and more resources to build homes from. As a result, they move into previously forested areas by clearing the trees and building dwellings on the land.



2. **Animal grazing or cattle ranching** - land is required for grazing for animals which can either happen “naturally” as animals are naturally pushed deeper into forests by the ever expanding human population, or “commercially” as lands are deliberately cleared with the intention to provide livestock with grazing land. Cattle ranching was a major problem towards the end of the last century in South America and is still an issue as global societies become more affluent and consume more meat in their diets.
3. **Agricultural clearance** - land is required for agricultural use and forests are uprooted to make space for non-tree plantations. Sometimes, small scale farmers increase their land space in order to grow more crops because they cannot afford yield gains which might come from fertilisers or irrigation; at other times, companies offer to buy forested land from a group of owners and in turn pull down all the trees to be sold as timber and subsequently convert the forests into fields for growing more profitable products such as palm oil and soya. (see page 23 for more on palm oil, soya in Amazon and Greenpeace’s win on a moratorium )

### Water effects – pollution and holding capacity

Forests play an important role in the water cycle, both directly and indirectly. Forests regulate the mineral content and salinity of surrounding waters and hence play a key role in maintaining safe ecosystems for many life forms around the forest area. Forests provide a natural “water-treatment” system as trees absorb water from the ground and release water as vapour into the atmosphere. The water entering the roots is full of minerals and potentially harmful

pollutants, whilst inside the tree, the water is processed and cleansed with many pollutants removed.

The water holding capacity of soil is greatly affected by surrounding forest areas. On the soil surface, forest canopies and debris protect the soil from splash erosion; deeper down, the roots of trees give the soil structure and channels for water to seep through. Roots are incredibly strong in holding soil together and thus are able to prevent large areas of soil moving in the form of landslides. The resulting structured soil naturally holds water until it is released slowly into the surrounding ecosystem. Around 300 million hectares of forests worldwide have the purpose of conserving topsoil and water (GFRA 2005)<sup>i</sup>.

**Example:** The Panama Canal Authority is expanding the capacity of the canal, and in order to do that, it will require more water to fill its complicated system of lock gates. The Authority is looking at replanting recently-logged forests in order to conserve the natural water from the surroundings. (*‘To save its canal, Panama fights for its forests’*, *New York Times*, 24<sup>th</sup> May 2005,

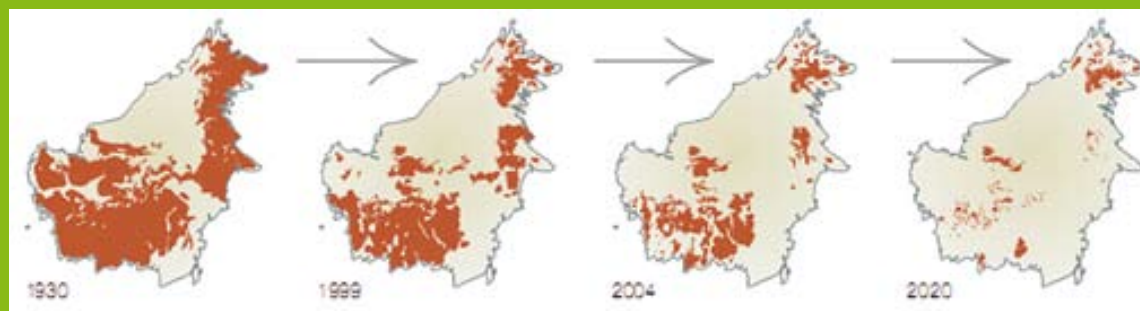
<http://www.nytimes.com/2005/05/24/science/earth/24pana.html?ei=5088&en=e22c2693ed1d81fc&ex=1274587200&partner=rssnyt&emc=rss&pagewanted=all> )

Some research has shown that deforestation can actually increase the water yield of the surrounding area although the same research suggests that in either case, deforestation seriously alters the hydrological state of the surrounding area and this can have devastating consequences such as flooding, erosion and sedimentation.

## Orang-utans at the Brink of Extinction

Kalimantan, the Indonesian portion of the island of Borneo, which it shares with Malaysia and Brunei, has some of Indonesia’s largest remaining areas of forest habitat. This is home to most of the world’s remaining orang-utans<sup>1</sup>.

Orang-utans – one of our nearest biological relatives – survive only in the dwindling tropical rainforests of Borneo and northern Sumatra: they depend on the forest for food and nesting sites. Cutting down forest for timber or conversion to plantations is the main cause of their decline, and today orang-utans are at high risk of extinction in the wild.



Orang-utan distribution in Borneo: population loss 1930-2020 (Source: *The Hidden Carbon Liability of Indonesian Palm Oil*, p.38)<sup>iii</sup>

### *Ecosystem upset, endangered species*

Wildlife of all kinds can lose their homes and even more lose their source of food as forest areas are reduced through logging and fires. In the Kalimantan forests in Borneo, Orang-utan populations have seen vast reductions as their habitable area declines at disturbing rates. A recent publication *Burning Up Borneo*<sup>k</sup> by Greenpeace argues that deforestation for timber or plantation purposes is one of the main causes of Orang-utan decline. The WWF has carried out extensive research on the decline of the Sumatran tiger due to deforestation and poaching.

Wildlife can be upset directly by aspects of deforestation such as loss of habitat or fires or a decline in food. The natural balance of a forested ecosystem can be lost if deforestation is too quick and animals can sometimes venture much closer to human populations and dwellings than they otherwise might which can cause friction and undue animosity between man and beast. Orang-utans have been known to descend upon human areas when their forests have been destroyed; this causes the further unnecessary culling of or un-objective fear of such an endangered species.

Indirectly, local communities as well as wildlife lose a critical defence barrier from the elements. The wind is not broken as easily and sweeps into areas allowing wildlife to be exposed. The sun can creep through to the forest floor where canopy cover has been lost causing overgrowth or overexposure. Also, precipitation can fall more directly and without hindrance onto wildlife such as flowers and fauna which are usually protected from 'direct hits'. These seemingly trivial indirect consequences may upset the balance of ecosystems and change the populations of species within.

### *Climate change, carbon sink and source*

Trees are one of the earth's natural carbon sinks. Although some CO<sub>2</sub> is released through respiration, more CO<sub>2</sub> is absorbed through the process of photosynthesis and converted into cell structure as biomass. It is very difficult to estimate the amount of CO<sub>2</sub> that the world's forests absorb annually. The US Global Change Research Program estimate that forested ecosystems in the United States alone absorb between a quarter to half of the CO<sub>2</sub> emissions within the country each year. Globally, forests currently store up roughly 283 billion tons of carbon in their biomass. The soil and ecosystem within forests are also rich in carbon. It is very difficult to accurately measure the amount of carbon stored up in trees and especially in their roots which can grow very deep into the soil; a wide range of estimates attribute roots to between 10% and 65% of a trees biomass, and hence carbon content.

As well as being a carbon sink, trees become a carbon source when they die and begin to decay as they no longer possess the ability to photosynthesise. Approximately half the dry weight of a mature tree is carbon and this can be released as CO<sub>2</sub> through the process of combustion or decay. The earth's natural cycle of growth and decay moderates the balance between carbon sink and source. Problems arise when one side of the scale is accelerated through forest fires or deforestation. It is thought that global deforestation contributes nearly 17% of CO<sub>2</sub> emissions annually, which is approximately 2bn tons of CO<sub>2</sub>.

## Deforestation and Climate Change

Protecting ancient forests is vital to tackling climate change, preserving global biodiversity, and protecting the livelihoods of millions of forest peoples.

Tropical forest destruction is responsible for about one fifth of global greenhouse gas emissions, more than from the world's entire transportation sector.

To prevent dangerous climate change, we need a global effort to end forest destruction, as well as a revolution in the ways we produce and use energy.

Greenpeace has the solution. **Forests for Climate** is a landmark proposal for an international funding mechanism to protect tropical forests. The mechanism would become part of the second phase of the Kyoto (post-2012) agreement on climate change. If countries commit to **Forests for Climate**, funding to protect tropical forests could become available as soon as 2009. It is estimated that halving emissions from deforestation will cost US \$10-15 billion per year. **Forests for Climate** has the potential to raise these funds, and more.

For more details, please refer to: [http://www.greenpeace.org/international/press/reports/forests\\_for\\_climate\\_brochure](http://www.greenpeace.org/international/press/reports/forests_for_climate_brochure)

### Local peoples and native tribes

Many indigenous peoples live within or in close proximity to forested areas as the forests provide a great portion of their sustenance. Wood is the main source of domestic energy for a vast number of people, it is usually a renewable source as forests continually replenish themselves. Cutting off this source can cripple many forest-dwelling peoples who cannot afford or do not have access to alternative energy forms. As mentioned above, the harmonious way in which these people live with nature can be upset as they are exposed to more elements caused by loss of forested areas, or as deforestation forces animals to foray outside of their usual wandering zones and enter into human populated areas.

### Non-wood forestry products

Non-timber forest resources are very important to populations which depend on the forest for their survival. Anything that is supported by the forest but is not wood is generally considered in this category, for example berries, mushrooms, edible plants, including fodder and wild meat.

As recently as the 1980s, the WHO estimated that 80% of people in developing countries used traditional medicine for basic illness and health issues. More recent data is not available and whilst this number is most likely to have fallen, we believe that the use of traditional medicine for basic health would still be significantly high amongst peoples in developing countries, and incidentally a growing trend amongst developed countries.

Historically, almost all medicines came from plants and other specimens of the forest. It is estimated that 25% of the active

ingredients of medicines available on prescription in 1993 have in some way been derived from the forests. There are a myriad of other products, both commercial and non-commercial which are derived from forests, including cosmetics, fibres, honey, nuts, oils, gums, pesticides, etc.

### Infrastructure concerns

Often, timber companies bid for and obtain concessions from local governments on the promise that they will build appropriate infrastructure in and around the forests, as well as for the communities that they might disturb. The infrastructure includes roads and bridges into otherwise inaccessible areas, these are usually built because the companies require access in order to harvest logs. However, schools, clinics and other facilities are often promised to communities that have to move but these are not always completed. Other companies promise to offer employment to the local people but such promises are often broken.

Documentation obtained by Greenpeace (*Greenpeace Exposes Broken Promises Of Logging Companies And Debt Bondage*) show that many of these problems are prevalent in PNG. Certain companies such as *Rimbunan Hijau* were exposed as showing disrespect for sacred sites, not delivering on development promises, and endangering local food supplies. Infrastructure is built only with the purposes of the company in mind and schools and clinics are shell-buildings with no facilities or equipment provided for. (For more details, please refer to: <http://www.greenpeace.org/australia/news-and-events/media/releases/deforestation/greenpeace-exposes-broken-prom>)

## Case-in-Point: Rimbunan Hijau

Several Rimbunan Hijau companies were among the logging companies reviewed by the World Bank Independent Review in 2003/2004. Concerning Rimbunan Hijau's Wawoi Guavi Timber Company, the review report stated that the 'treatment towards citizen employees in many aspects of their employment reflects labour exploitation and slavery, and should be condemned at all levels.'

A report published in *The Australian* newspaper on 15 October 2008 revealed that the indigenous employees of Rimbunan Hijau in Papua New Guinea (PNG) were paid less than one Australian dollar an hour, with most or all of their wages being spent on bills chalked up at company canteens.

For further information of the report, please refer to: *Papua New Guinea logging firms paying 'slavery rates'*  
<http://www.theaustralian.news.com.au/story/0,25197,24497843-16953,00.html>



## Government involvement, interference and incompetence

The involvement of governments, whether directly or indirectly, has an enormous impact on logging practices. The allocation of forest concessions can be done in a number of ways; governments may not necessarily give concessions to the bids which are best for the country, local peoples, or the environment, but instead possibly to the highest bidder or even at times under corruptive duress. In certain countries, the tax collections from the forestry sector are too great an incentive for authorities to resist.

The 'Eyes on the Forest' network in Indonesia has discovered that logging permits were sometimes issued by agencies who did not have the legal authority to issue permits. For example, licences were issued to affiliates of APP by District heads who do not have the authority, which instead is held by the Ministry of Forestry. One of the District heads who issued the aforementioned licence is now on trial for corruption charges. (Minister of Forestry blames Riau Police over corporate crimes: [http://eyesontheforest.or.id/index.php?option=com\\_content&task=view&id=128&Itemid=6&lang=english](http://eyesontheforest.or.id/index.php?option=com_content&task=view&id=128&Itemid=6&lang=english))

**Table 1: Recent examples of corruption and illegal logging**

Date	Brief explanation of case	Region	Source/Discovered by
2008	Rimbunan Hijau Loses Supreme Court Battle Over Timber Permit: Rimbunan Hijau (RH) conceded in the Papua New Guinea (PNG) Supreme Court that National Court Orders it had received with the cooperation of the PNG Forest Authority in March 2006 were improperly obtained.	PNG	Greenpeace Press Release, Port Moresby, October 29 2008
2008	Rimbunan Hijau Slavery Labour Revealed: The indigenous employees of RH in Papua New Guinea (PNG) are paid less than one Australian dollar an hour, with most or all of their wages being spent on bills chalked up at company canteens	PNG	The Australian, 15 October 2008 Port Moresby
2005	In March 2005, following police raids combating illegal logging in Papua, the director of PT Wapoga Mutiara Timber, Tan Eng Kwee, and two further members of his managing staff, were detained for suspected involvement in illegal logging.	Indonesia	Legislator wants inquiry on cops over logging crime, The Jakarta Post, Sec. National News, 03-15-2005
2004	The New Zealand Timber Importers Association expelled from its membership Rimbunan Hijau's subsidiary company, The LumberBank. When the company challenged this action, the New Zealand High Court ruled in favour of the Timber Importers Association and found that The LumberBank was unable to prove that they operated legally and sustainably	New Zealand	New Zealand High Court Ruling. The LumberBank New Zealand LTD vs The New Zealand Timber Importers Association Inc, December 9, 2004
2003	Three reviews on logging projects operated by Rimbunan Hijau in PNG (Wawoi Guavi, Vailala Blocks 2 and 3 and Passismanua) found that the extensions to all three projects were unlawful as they breached legal requirements and had not followed due process, saying "there have been serious departures and breaches from due process and there are serious anomalies in the timber permits and agreements"	PNG	Independent reviews ordered by the PNG's government, Review of Disputed Allocations (2003)
2002	The Deputy Prime Minister of PNG was criticised in an Ombudsman investigation for unlawfully pressuring the National Forest Board to favour Rimbunan Hijau with an illegal timber permit extension	PNG	Ombudsman Commission (2002)
2000	A National Intelligence Organisation report alleges a provincial Governor and two Members of Parliament were on Rimbunan Hijau's payroll	PNG	National Intelligence Organisation report (2000)

Source: Greenpeace research

In many countries, governments find it difficult to enforce the rule of law in remote areas such as forests. The companies which operate, whether legally or otherwise, have the resources to employ a large number of “security personnel” who do not necessarily take heed of advice given by park rangers. Indeed, a report by UNEP (*The Last Stand of the Orang-utan*)<sup>n</sup>, suggests that in Indonesia, rangers receive less wages than perhaps members of other law enforcement agencies or even the regular police. Consequentially, they are ill-trained and ill-equipped to deal with company personnel who come in greater numbers, are better-trained, and have better equipment to counter any enforcement tactics by the relevant authorities. The risks and consequences are sometimes lethal. Table 3 on pg 39 of the UNEP report provides a host of suggestions as to what governments might do to tackle the problems associated with illegal logging.

### Supply Chain Pressure

Customers' increasing concern on the sources of wood products in their shopping cart is evident in larger retailers' and buyers' heightening environmental standards on their suppliers. Pressure built up along the supply chain is a key driver pushing forestry companies

to establish product traceability and sustainable forestry management through certification bodies and third party monitoring, such as the Forest Stewardship Council and Smartwood.

Below are actions taken by big retailers and buyers to clean up their supply chains.

**B&Q:** In June 2007, B&Q, the world's third-largest home furnishing retail chain, announced plans to overhaul its supply chain and take steps to guarantee the legality of all the timber products on the shelves of its 60 stores in China.

The company will gradually tighten controls over its supply chain within the next two years in order to ensure that all the product lines it sells in China come from certified ecologically responsible forestry operations, such as those certified by the FSC. The company has also immediately stopped selling flooring made from merbau, an endangered tropical species that almost exclusively comes from Papua New Guinea. (For more details, please refer to <http://www.greenpeace.org/china/en/press/release/bnq-commission-press>)

## Due-diligence on Anti-Money Laundering in the Forestry Sector is Essential

In 2001 the new Anti-Money Laundering Guidance Update issued by the Jersey Financial Services Commission recognized the politically exposed person (PEP) as a new category; the new laws mandate that, where it is known or suspected that a business relationship exists with a “politically exposed person,” detailed due diligence is required at the outset of the business relationship and also on an ongoing basis. Many cases have shown that forest crimes in Indonesia are closely linked to politically exposed persons (PEPs).

Indonesia was also the first country in the world to include forestry and environmental crimes as predicate offences, or crimes subject to prosecution as money-laundering offences. The Indonesian anti-money laundering law makes banks and other financial institutions liable for transactions involving forestry and environmental crimes. In October 2003, the Indonesian government enacted Law No.25/2003 as an amendment to Law No.15/2002. Among the changes under this new law was the categorization of forestry crimes and environmental crimes as new predicate offences for money laundering.

The Indonesian Financial Transaction Reports Analysis Center (Pusat Pelaporan dan Analisis Transaksi Keuangan (PPATK) in collaboration with the Indonesian Working Group on Forest Finance (IWGFF) are developing guidelines for forestry stakeholders on submitting reports relating to forestry crimes to PPATK and for financial institutions in assessing high-risk customers operating in the forestry sector. Banking regulations require that banks know their customers, manage risk, and avoid financing projects that may be harmful to the environment. Failure to address these regulations can result in banks losing their licenses, facing administrative sanctions and even having criminal charges brought against them.

Source: *Debt Settlement of Indonesian Forestry Companies: Assessing the Role of Banking and Financial Policies for Promoting Sustainable Forest Management in Indonesia*<sup>p</sup>

**Staples and Woolworths:** Staples Inc., the largest U.S. office supplies retailer and Woolworths, Australia's biggest supermarket chain, ceased sourcing paper products from Asia Pulp & Paper (APP) from January and August 2008 respectively because of concerns over APP's problematic environmental practices.

<http://www.reuters.com/article/environmentNews/idUSN0847096820080209>

<http://www.environmentalleader.com/2008/08/13/woolworths-drops-app-as-supplier/>

## Industry – from land clearing to logging to end products

The forestry sector can be separated into three parts in terms of industry:

- 1. Upstream timber supply:** forestry concessions may be sold by governments to companies for a number of years. During that time, the company is able to harvest trees from the forest to produce logs which it will then sell to downstream mills for conversion to wood products or pulp. In a sustainable forest, new trees will be grown in place of those removed, however in non-sustainable forests, the land is slowly cleared as all the trees are harvested and may be sold for other agricultural purposes.
- 2. Downstream wood-related products:** logs are supplied to downstream processors and manufacturers. The logs can be turned into two main categories of products – a) wood products such as plywood, veneer, sawn timber, furniture and construction parts; b) fibrous products such as pulp & paper which are the constituents for containerboard, packaging materials and printed products.

- 3. Land clearance for oil palm plantations:** palm oil can be harvested from oil palm trees. Forested or peat lands are often deliberately cleared to make way for oil palm plantations. Palm oil is used in a variety of products such as cooking oil, food (margarine, chocolate, ice-cream), biofuels, cosmetics, lubricants, and household products.

## Logging, the timber trade and wood products

Forests have complex ownership structures; the right to harvest logs from forests are called timber concessions and these can be granted, sold and leased in a variety of forms.

Trees are harvested from forested areas to supply logs which can then be further processed into wood products such as plywood, MDF and furniture.

### Sustainable wood certification

Markets in the West are increasingly demanding wood that has been harvested from certified sustainable forests. Forest certification allows consumers to trace the origin of the wood and whether it was harvested in a sustainable way. As of mid-2006, only around 7% of the world's forests were certified. Certification is voluntary but is seen as a commodity as environmental awareness grows worldwide. The FSC (Forest Stewardship Council) is seen as the main global body which provides certification but many other organisations offer some form of recognition for responsible forestry including the PEFC (Program for the Endorsement of Forest Certification Schemes) and the SFI (Sustainable Forestry Initiative).



Deforestation in Sumatra  
A tree stump is visible in an area which has recently been deforested to expand the Duta Palma Palm oil plantation.  
© Greenpeace / Natalie BehringChisholm



## Comparison of Commonly Available Forestry Certifications

The first ever forest certification was launched in 1992. Back then, the problems of illegal and destructive logging activities by the timber industry in forest abundant countries caught the attention of many NGOs. The idea of establishing a third-party certification and accreditation system was triggered by the limited capacity of inter-governmental bodies to tackle the problem, as well as the existence of products of unidentifiable source within the supply chain of the processed wood products industry. The Forest Stewardship Council (FSC) was formally established in 1993, and the principle is to guarantee certified products to be “environmental appropriate, socially beneficial and economically viable”.

Working within market mechanisms, the smooth operation of forest certification depends on the comprehensiveness of the certification system. There are 3 basic elements in any forest certification system:

1. **The Standard:** forestry related industries and companies involved in wood-processing are required to meet the standards set - this constitutes the basis of assessment.
2. **Certification:** the process to verify whether timber industries and corporations meet the required standards.
3. **Accreditation:** assessing the capacity, reliability and independence of the certifiers, to make sure the legitimacy of the third party certifiers.

The Forest Stewardship Council is not directly involved in the process of certification itself, as this is done by independent certifiers. The Forest Stewardship Council consists of 3 committees – economic, social and environmental – whose membership is open to representative from corporates, NGOs and academic institutions. The 3 committees decide on the standards and management structure of the FSC through voting. They also commission the Accreditation Services International (ASI) to monitor the performance of the certifiers through world-wide consultations and handle complaints. As a result of the strong faith given to sustainable forest management, reliable and stringent standards, open and transparent management structures with economic, social and environmental concerns, the FSC has now become the most recognised forest certification system world-wide.

Inspired by the FSC, countries and timber corporates have consequently devised their own forest certification systems on global, regional and national scales. However, the FSC challenges other certification systems in terms of acceptance by the market, reliability and legitimacy of the certification, and the standards of sustainable forestation.

According to the latest available data, over 300 million hectares of forest in over 90 countries have been qualified by various forest certification systems, meanwhile the market for certified timber products is also expanding continuously. In the US and Europe, certified timber products already exhibit a competitive edge over and above uncertified products of the same kind, there is also a trend among retailers to change their policies towards selling only certified timber products. Meanwhile, different certification systems are also expanding, from exclusively timber products to include products such as fruits, bamboo and rattan products, paper products, fragrance and rubber.

There are currently 4 major forest certification systems in the world, namely the Forest Stewardship Council (FSC), the Programme for the Endorsement of Forest Certification scheme (PEFC), the Canadian Standards Association (CSA) and the Sustainable Forestry Initiative (SFI). Various NGOs and academic institutions are trying to assess these certification systems according to criteria such as transparency of the auditing system, fair and equal participation and decision-making, stringent and reliable operations, ecology protection and rights of social and minority groups – the FSC overwhelmingly shows its strength and comprehensiveness.

**Table 2: Comparison of commonly available forestry certifications**

	FSC	PEFC	CSA	SFI
Prescription of specific baseline social and environmental impact	✓	X	X	X
Adoption of fair and reciprocal decision-making mechanism	✓	X	X	X
Adoption of reliable system for monitoring production-distribution chain as the basis for product labeling management	✓	X	X	X
Mandatory auditing by independent third party to carry out annual on-site assessments	✓	X	✓	X
Open participation and transparent information	✓	X	X	X
Certification specific to definite forest areas	✓	X	✓	✓
Voluntary basis, especially for indigenous people and other forest inhabitants	✓	X	✓	✓
Requiring explicit commitment of sustainability as the principle of forest management	✓	X	✓	✓
Applicable to different ownership systems by virtue of its international standards	✓	X	X	X

Source: Greenpeace research

## Timber and its products

There are many methods for harvesting trees from forestry concessions. Done correctly, harvesting should be planned in advance and carried out according to appropriate, sustainable practices with all aspects of the supply chain fully traceable from tree to wood to pulp. Cutting outside of concessions, harvesting of non-mature trees, or using non-standard methods is unacceptable. The original location of the forest a wood product was harvested from is important to curb illegal logging. Schroeder-Wildberg and Carius argued in a 2005 paper (found in UNEP's *Last Stand of the Orang-utan*, pg 27) that import data from many countries in Asia show discrepancies with official export data from Indonesia, indicating that smuggling is major problem.



Cut lumber stacked and ready for transportation, Douala harbour, Cameroon  
© Markus Mauthe/Greenpeace



Logs are typically separated into hardwood and softwood depending on the species; hardwood has a higher fibre density and is useful for its qualities such as durability and colour although softwood is also highly workable and is widely used in construction. It has been suggested that sawmills in certain countries such as Indonesia have much larger capacities than sustainable wood sources can supply (UNEP *Last Stand of the Orang-utan*, pg 23). We briefly outline below the lumber and plywood processes.

**Lumber process:** after trees are cut they are sized depending on how much wood they are expected to yield. The logs are debarked

before being trimmed for maximum yield and allowed to dry to the appropriate degree as different species require different drying times. The lumber undergoes a final grading before it is sold downstream for use in construction etc.

**Veneer & plywood:** debarked logs are conditioned so that they are soft enough to work with. They are then cut using a lathe into thin slices known as veneer. The veneer is sorted out either for sale as veneer or for further processing gluing, pressing and clipping before it can be sold as plywood which is also used in construction, furniture and panelling etc.





Plywood is a major component of the furniture and construction sectors with China, Japan and the US major consumers. The furniture market is a rapidly growing sector with China emerging as a large player. China is not yet able to meet all its wood demands domestically however and so must import many logs before processing and exporting finished furniture products. Flooring, wood panels, MDF and sawnwood are also common wood products that are seeing Asia take an increasing role both in producing and consuming these products.

There are many areas in the lumber and plywood manufacturing process that require careful environmental monitoring aside from the sustainability of the logs themselves. The chemical residues should be non-toxic after use, as the water should be before it is returned to the source, solid waste and effluent likewise should be disposed of responsibly so as to have no impact on the environment.



© Greenpeace

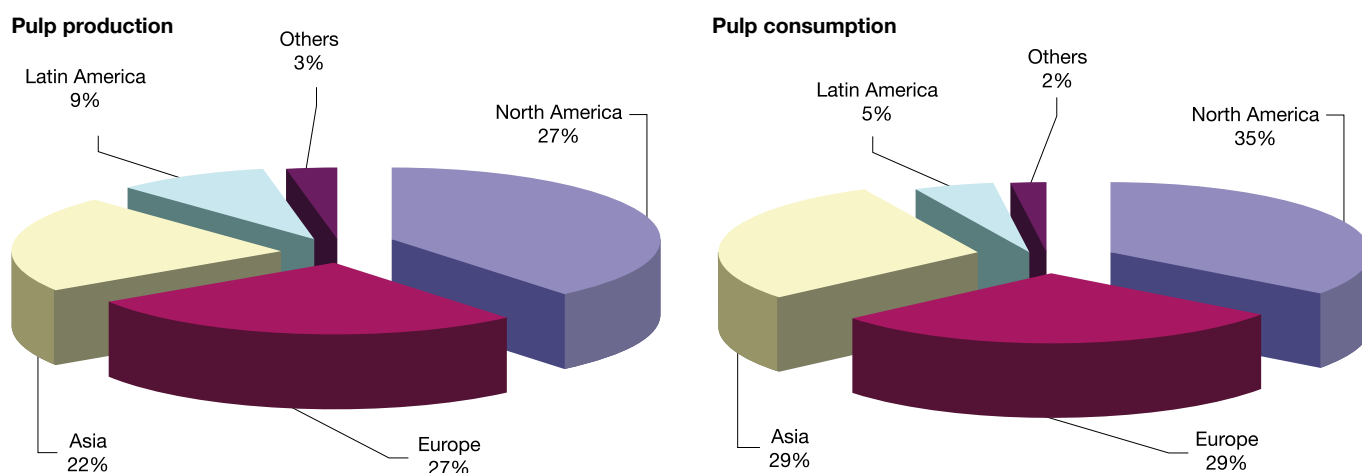
## The paper & pulp industry

Timber can be processed into pulp and then further into paper in all its various forms.

### Where does the pulp come from?

The main raw material used in making woodpulp (besides recovered paper), is the residual wood chips from sawmills and plywood mills. Ideally, these could be traced to sustainable forests and responsibly harvested trees although this is not often the case. Many pulp mills in Asia have very large capacities which can only be fully met by using cheap and illegal logs chips. The export of pulp is less restricted than the export of logs which makes them an attractive avenue for bringing illegal logs to the marketplace.

**Figure 1: Global pulp production & consumption by region in 2006**



Source: CEPI

The chips and recovered paper are pulped either by mechanical means or by using chemicals and a variety of pulping processes. The pulp may be bleached if white paper is required otherwise it can be transported to the paper mill where it can be turned into a variety of paper and related products.

## Case-in-Point: Initial Public Offering of a Paper and Pulp company in China

Gold East Paper (金東紙業) is an affiliate to the Indonesian logging giant *Asia Pulp and Paper*, which is suspected of illegal forest destruction in Indonesia and China. As a pre-requisite for its IPO, the Chinese Ministry of Environmental Protection initiated a 10-day consultation period from 5<sup>th</sup> to 14<sup>th</sup> August 2008 to gather the public's opinion about the company. In MEP's announcement, it detailed the factories and other business operations that Gold East Paper intended to seek public listings for.

Investigations by Greenpeace China and fellow green groups, including Global Village, Friends of Nature, Green SOS and Green Watershed have found that since August 2005, Gold East Paper and its seven subsidiaries in China have been guilty of eight serious environmental offences. In light of these shocking environmental pollution incidents, Greenpeace and local green groups recommended that the MEP carefully consider whether this company is fit to raise capital by listing its shares on the Chinese stock market.

For more details: <http://www.greenpeace.org/china/en/news/app-paper-tiger>

## Pulp & paper products

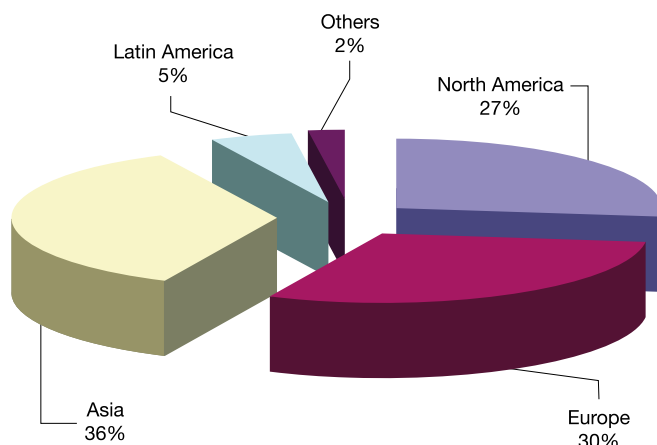
There are many, many products which are made from pulp and paper. Pulp producers supply certain categories of pulp depending on the requirements of the paper mill who in turn produce paper according to the needs of its customers. Different qualities of paper are used in a myriad of different products. The more obvious everyday products include the white-stock paper that we write or print on, newspapers and magazines, tissues of various forms, and card for display or greetings, etc. There are many industrial uses for paper products including tubes and cores.

The packaging industry requires a vast amount of paper products for use in boxes for consumer goods and labels on consumer products. Asia has seen tremendous growth in recent years in its packaging industry as many companies shift manufacture of their products to where they can take advantage of cheaper labour and lower production costs. These products require appropriate packaging so that they arrive in destination countries and ultimately the consumer in pristine condition.

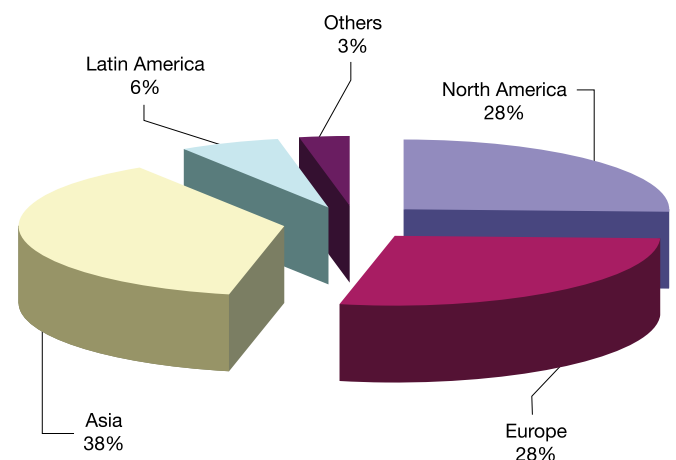
The pulp and paper industry has come under scrutiny on a number of environmental issues, not least because of its link to logging and perceived deforestation. Other aspects to be considered include the array of chemicals used in the pulping process, related gases which might be given off during the process; the vast amounts of water used, its source, its proper treatment and appropriate discharge back into the source.

**Figure 2: Global pulp production & consumption by region in 2006**

### Pulp production



### Pulp consumption



Source: CEPI

## The palm oil industry

The rise of the palm oil industry and its product derivatives has accelerated the deforestation of many precious forests around the world. The clearing of the Kalimantan, Riau and Sumatran forests are often linked with oil palm plantations. The economics of palm plantations is a complicated issue but we believe that seeking short term profit is forfeiting the much larger longer term profit and benefits of maintaining forested areas. The United Nations Environmental Program (UNEP) considers palm oil plantations as one of the primary causes of permanent rainforest loss in Malaysia and Indonesia (as detailed in its report *The Last Stand of the Orang-utan*, pg 28).

Oil palm plantations in southeast Asia are often grown on previously forested or peat lands. Before the oil palm can be planted, the lands must be cleared. In the case of forests, the trees are harvested and sold on as timber but for peatlands, the area is drained and then burnt to make way for plantations. Once the soil is ready for planting, oil palm trees are planted and usually do not produce a crop until after five years. The fruit is picked with the oil further processed into downstream products.



### Land clearing and misguided short term economics

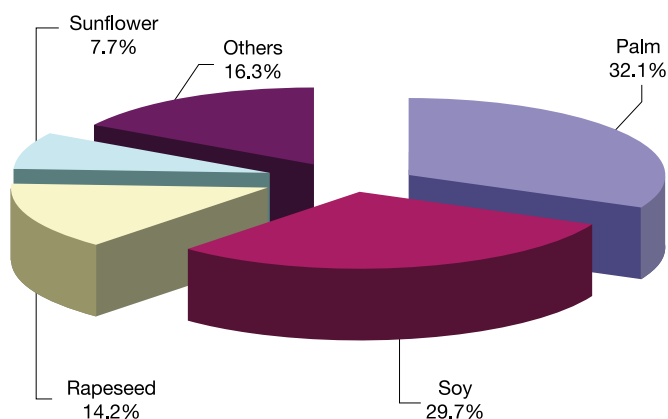
The benefits of forests have been described in the sections above yet they are being cleared to make way for oil palm plantations. Companies who hold permits for oil palm concessions are keen to plant upon forested lands because of the possibility to make short term profits from harvesting and selling timber. In their 2005 report *The Oil for Ape Scandal*, Friends of the Earth estimates that “between 1985 and 2000 the development of oil-palm plantations was responsible for 87% of deforestation in Malaysia”.

### Palm oil products – cooking, cosmetics and transportation

Palm oil is harvested from the oil palm tree and is a very useful substance as it has a high yield ratio (higher than soy or rapeseed) and can be turned into a whole host of derivative products. We highlight only a few of these in the following discussion.

Palm oil has become the most significant vegetable oil in the world, making up around one third of the world's edible oil production in 2007/08 as can be seen in the chart below. Its high yield as a crop makes it an affordable cooking oil.

Chart 2: Global production of major vegetable oils, 2007/08



Source: Foreign Agriculture Service, USDA

A handful of powerful players control much of the international trade in palm oil from Indonesia, among them Cargill, the ADM-Kuok-Wilmar alliance, Sinar Mas and Golden Hope.

Palm oil can be used in biofuels or so-called biodiesels where the oil is mixed-in with conventional petrol and used in motor vehicles. The enthusiasm with which governments in the West have taken to biodiesels as a supposed “quick-fix” to their emission limits has been a contributing factor to the rise in popularity of palm oil.



## Feeding the Food Chain

Riau, Indonesia



Small holders



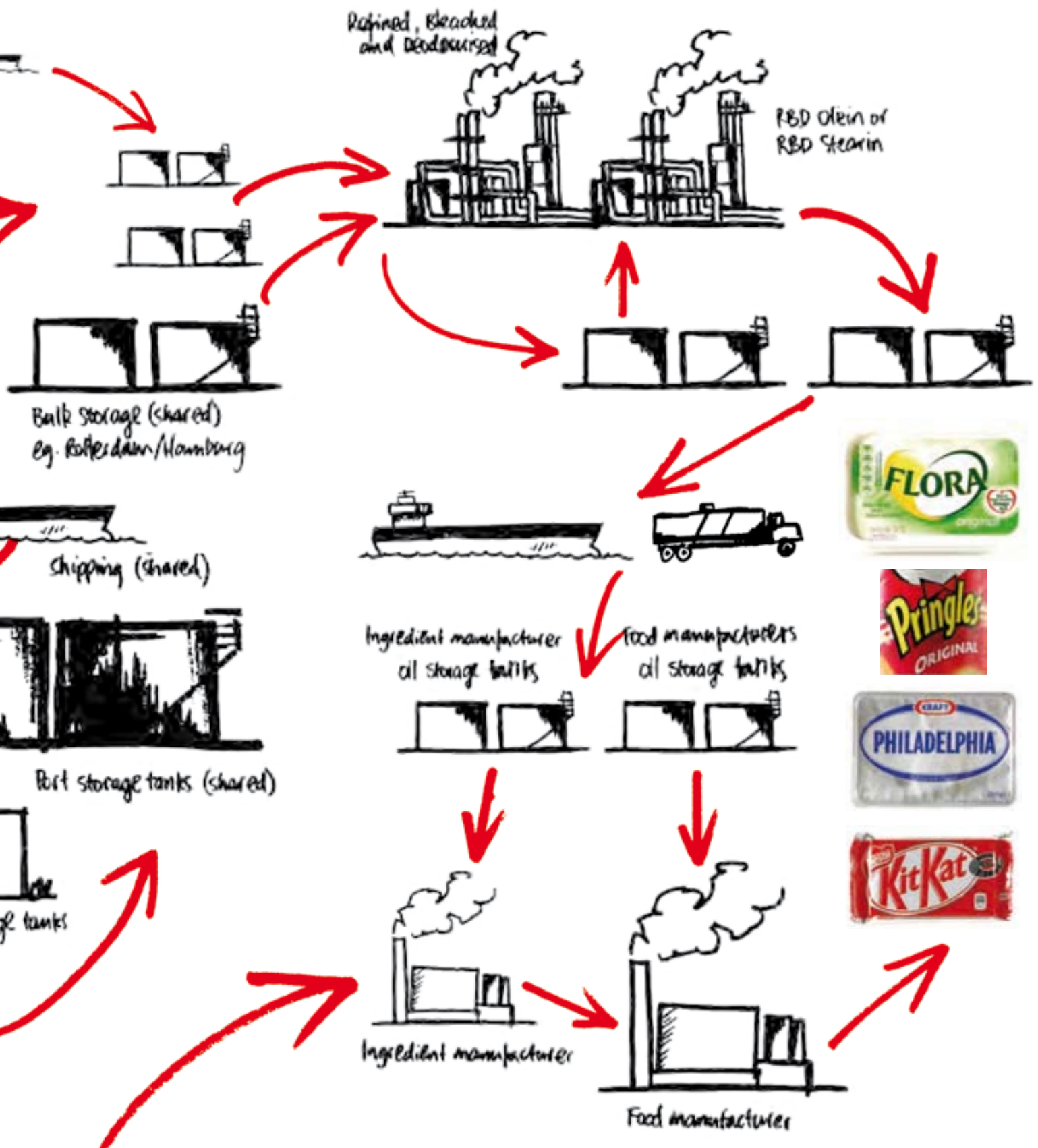
Plantation



CPO mill

Source: Cooking the Climate, Greenpeace International 2008





The oil or its derivatives is also used in food processing as it provides a good alternative to trans-fats and is useful in the production of hydrogenated “fat-free” products. It is also used as a base substance for many cosmetics, soaps, detergents and other household products, as well as in engines and industrial machinery as a lubricant oil. It is commonly used in what is known as the oleo-chemical industry.

There are waste clean-up concerns with palm oil. Empty fruit bunches and the fibre and shell waste from palm oil production should be disposed of responsibly. There are methods for treating POME (palm oil mill effluent) and other solid oil waste which must be carefully implemented with due concern for the environment.



Riau, Southern Sumatra, Indonesia. An aerial view shows degraded land after fires have destroyed the forest in preparation for oil palm plantation. Palm oil companies have recently cleared forest and peatlands in preparation for oil palm plantations.

©Greenpeace/Vinai Dithajohn

## Peatlands Clearance, Oil Palm Expansion and the Climate Crisis

Peatlands are also very important because they are a highly effective carbon store. It is estimated that they cover around 3% of global land mass yet store 20-33% of the carbon contained in the ground. In Indonesia, many plantations have been established on peatlands; the Riau Plantation Service believes that 37.7% of oil palm concessions in Riau are on peat (Hooijer et al. 2006)<sup>9</sup>.

Fires are sometimes used to clear land, especially drained peatlands. Not only does this rapidly release vast amounts of carbon dioxide into the air but there is little regard for the life of the ecosystem, including bird, non-tree plantlife and other wildlife within the burnt land.

It takes around 5 years for an oil palm plantation to yield fruit (*Oil Palm, World Rainforest Movement*, Sept-06)<sup>9</sup> which is why clearing forested land and selling the timber is attractive for companies who eye short term profits. The plantations are most productive at the age of 25 years; during their “growing up stage” they have sapped the land of most of its nutrients and much of its ability to regenerate itself, as a result many plantations are left to waste after that time, leaving in its wake mostly infertile land. Also, palm oil plantations require a large amount of fertilisers and pesticides because the single crop occupies such a large area of land that varied nutrients are not always available.

# Review of Recent Forestry Listings in Hong Kong

There have been a number of forestry related company listings on the Hong Kong stock exchange in recent years, the tables below shows key data from certain listings since 2003.

**Table 3: Key data from certain forestry listings in Hong Kong (1)**

Company	Ticker	Listed	Country of origin	Amount raised (HK\$ mn)	Amount raised (US\$ mn)
Hop Fung Group Hdgs	2320 HK	Sep-03	China	119	15
Lee & Man Paper	2314 HK	Sep-03	China	782	100
Huali Holdings	3366 HK	Nov-05	China	65	8
Nine Dragons Paper	2689 HK	Mar-06	China	3,931	504
Samling Global	3938 HK	Mar-07	Malaysia	2,512	322
Vinda	3331 HK	Jul-07	China	1,104	142
China Sunshine Paper	2002 HK	Dec-07	China	600	77
Shandong Chenming	1812 HK	Jun-08	China	3,201	410

Source: Hong Kong stock Exchanges, Company reports, Dow Jones news.

**Table 4: Key data from certain forestry listings in Hong Kong (2)**

Company	Banks involved	Business
Hop Fung Group Hdgs	DBS Asia Capital / Guotai Junan Capital	Corrugated paper-ware products
Lee & Man Paper	CLSA	Containerboard products
Huali Holdings	Anglo Chinese Corporate Finance	Paper-based packaging
Nine Dragons Paper	BNP Paribas / Merrill Lynch	Containerboard products
Samling Global	Credit Suisse / Macquarie / HSBC	Logs & wood products
Vinda	Merrill Lynch	Tissue paper products
China Sunshine Paper	BNP Paribas	Linerboard
Shandong Chenming	Guotai Junan Capital / Macquarie	Paper products

Source: Company reports

## Roundtable for Sustainable Palm Oil

There is growing pressure on the palm oil industry to break the link between palm oil, deforestation and climate change. The industry (producers, traders, manufacturers and retailers), and some governments have placed their faith in the RSPO (Round Table on Sustainable Palm Oil) as the solution to the problems in the palm oil sector.

This voluntary initiative has developed a certification system for the production of sustainable palm oil based on a set of principles and criteria, which has taken four years to develop. This includes expecting companies applying for certification to refrain from clearing primary forests and areas of High Conservation Value (HCV) within any of their operations.

These criteria have been criticized by various environmental NGOs for not stopping the clearing of vast forest areas that are still of high significance for climate protection - as carbon stores or otherwise. The RSPO principles and criteria also only vaguely limit the development of plantations on peatlands, even though these comprise one of the largest carbon stocks on earth and the protection of these soils is crucial in the fight against climate change.

A recent Greenpeace investigation showed that United Plantations, the first company group certified by RSPO, have been conducting destructive practices in Indonesia. (For more details, please refer to *United Plantations certified despite gross violations of RSPO Standards* <http://www.greenpeace.org/raw/content/international/press/reports/united-plantations-certified-d.pdf>)

The issues mentioned in the environmental section above can be linked to a number of these companies although it is difficult to quantify the impacts. The use of logs from non-certified sources to make wood products and pulp, and the pollution of water are the most easily identifiable issues.

## There are currently no specific requirements for forestry listings

We are not aware that the Hong Kong Exchanges requires any specific disclosures with respect to the environment for general corporate listings, and none for the forestry sector specifically.

There are however specific additional requirements for companies relating to the minerals and natural resources sector which can be found under Chapter 18<sup>8</sup> of the listing requirements on the exchange. The documents state that these are “special requirements apply(ing) to issuers whose activities include exploration for or production of natural resources....”. It further states that listing applications “will not normally be considered, unless...” certain qualifications are established which include the existence of adequate reserves, specified areas, and various cost estimates; there is also the need for a qualified technical advisor. We suggest that the exchange considers similar additional requirements for companies relating to the forestry sector.

## IPO documents reveal little about true environmental standards

We have reviewed the listing documents for a number of forestry-related companies which listed on the Hong Kong stock exchange in

recent years. We found that there is no standard or format by which companies have to make their environmental records known. Mostly, the information contained were statements referring to commitment and licences obtained as opposed to data for external assessment. We also found that more recent listings contained more references to environmental issues than older IPOs. We highlight below some common entries with respect to the environment contained within listing documents of recent forestry-related listings. (The listing documents, prospectuses can be found in the website of the Hong Kong Exchanges ([http://www.hkexnews.hk/listedco/listconews/advancedsearch/search\\_active\\_main.asp](http://www.hkexnews.hk/listedco/listconews/advancedsearch/search_active_main.asp))

### *Environmentally friendly products?*

Most companies considered their products to be “environmentally friendly” by way of default, rather than through any particular processes or managed systems. For example, Hop Fun Holdings’ use of recycled paper and a large percent of material sourced from by-products of the timber industry (p43 of prospectus); or Lee & Man’s use of old corrugated cardboard for 80-90% of its raw material uses; Huali Holdings’ use of containers which “can be recycled and reused many times” (prospectus pg68); or Sunshine Paper’s high recovered paper ratio (pg1 of prospectus) were qualities considered by the respective companies that made them environmentally friendly.

### *Company or competitive strengths include environmental friendliness*

A few companies state that their supposed environmentally friendly products, practices or operations are a key selling point and that their stated commitment was thus a positive in this regard. Lee &

## Global Reporting Initiative (GRI)

To avoid ambiguity, or even misleading claims, in the “Environmental Friendly” label, companies are recommended to disclose their environmental performance with reference to guidelines such as the Global Reporting Initiative (GRI). According to their website, GRI’s vision is that “reporting on economic, environmental, and social performance by all organizations is as routine and comparable as financial reporting.”

The Sustainability Reporting Framework - of which the Sustainability Reporting Guidelines are the cornerstone - provides guidance for organizations to use as the basis for disclosure about their sustainability performance, and also provides stakeholders a universally-applicable, comparable framework in which to understand disclosed information.” (<http://www.globalreporting.org/AboutGRI/>)

For example, recycled materials are clearly defined in their Environment Performance Indicators as **Recycled Input Materials**:

“Materials that replace virgin materials that are purchased or obtained from internal or external sources, and that are not by-products and non-product outputs (NPO) produced by the reporting organization.”



Man considers its environmentally friendly operations to be a key strength (pg 3 of prospectus) of the group and its maintenance of high environmental standards to be a valuable asset and competitive strength; Nine Dragons expressly state that they are committed to environmentally responsible practices and that is one of their competitive strengths (pg2 of prospectus); Vinda & Sunshine Paper both list the environment as one of their strengths; Chenming believe they have “devoted much attention to environmental protection” (pg2 of prospectus).

### **ISO certification**

Hop Fung, Nine Dragons, Vinda, and Sunshine Paper mention their obtaining ISO 9000/14000 series certifications. We believe that whilst it is good that the companies have made an effort to obtain these, we highlight that there is no specific mention about what the companies are doing in response to these certifications. The ISO 9000/14000 standards do not set down specific levels for environmental practices, they just provide a framework for internal environmental policy and a company could have the framework in place without necessarily continually updating their systems. Indeed, Hop Fung incurred cost increases in 2002 relating to obtaining an ISO certificate for one factory however the “directors are of the view that it is not beneficial to the Group taking into account the costs and benefits involved in obtaining such (ISO14001) certification” (pg72 of prospectus). More information on the ISO standards can be found at the following link: [http://www.iso.org/iso/iso\\_catalogue/management\\_standards/iso\\_9000\\_iso\\_14000/iso\\_14000\\_essentials.htm](http://www.iso.org/iso/iso_catalogue/management_standards/iso_9000_iso_14000/iso_14000_essentials.htm)

### **Compliance with national and local regulations**

It would almost be a pre-requisite that all companies seeking to list on any exchange would be in compliance with whatever regulations their operations fall under. Most companies state in some form that they must undergo national and local tests and checks and that they pass these without any material breach. There is mostly little or no mention of minor breaches, if any, however. Only Chenming includes compliance with regulations as a business development strategy as it continues to “enhance (its) ability to comply with applicable environmental regulations.”

### **National standards or company initiatives?**

Some companies mentioned that they have installed environmental control equipment such as dust collectors or water treatment facilities but do not make it clear whether these are simply to meet national standards or whether the company has gone out of their way to install these for environmental purposes. Huali “installed special facilities and engaged external companies for monitoring compliance with statutory

environmental regulations” (pg68 of prospectus) is an example of merely complying with standards but then highlighting its benefits. Lee & Man had electrostatic dust collectors installed on its power generator (pg57 of prospectus), Vinda lists wastewater, exhaust, noise, and solid waste control facilities although most state that these are to ensure compliance with applicable laws and regulations.

Lee & Man, Nine Dragons and Vinda had in place processes which allowed them to use much less water per ton of product produced than the national standard. We believe that this does show initiative in making operations more efficient and conserving resources.

### **Breaches and fines**

In some cases, minor breaches are mentioned in passing such as a subsidiary of Huali Holdings being fined Rmb30K & 20K in 2000/01 for the production of excess wastewater. Also a subsidiary of Shandong Chunming (Wuhan Chenming) was ordered to cease production in June 2003 (pg2 of prospectus) because it was found in violation of relevant environmental laws. Its facility upgraded its pollution control equipment and was later allowed to operate again. We believe that investors ought to be especially careful of companies which have been reprimanded for previous breaches or fines, their operations should be scrutinised in all the more detail.

### **Use of proceeds**

Despite the statements on competitive strengths, business strategies or commitment to environmental practices, most companies did not explicitly set aside any proceeds raised to be used in the area of improvement of environmental facilities or processes. We do highlight two companies which did offer evidence of future commitment to the environment.

1. China Sunshine Paper (pg8 of prospectus) states the amount of money it plans to use in the areas of recycled water and the Group’s water recycling processes. Although the amounts are small relative to proceeds raised, we believe it does show that the company has thought through the issues a little more than perhaps other companies.
2. Shandong Chenming (pg152 of prospectus) do not list it in the use of proceeds however, in the ‘Business’ section of their prospectus, explain the group’s previous expenditures on environmental matters and what it plans to invest in monetary amounts on pollution control equipment in the future. We do concede that these expenditures might simply be a part of the plans for new buildings but consider the explicit categorisation of the numbers a good thing.

## Other issues

Some companies tried to pull out “environmental connections” in all aspects of the industry such as believing that managers are able to accurately estimate raw materials needed so as to minimise wastage; or that a growing preference for recyclable products in developed countries will help local sales; or the simple equating of ‘recyclable’ to ‘environmentally friendliness’. Still others believe that demand for certain products will be driven by Government initiatives to promote environmental protection or that certain green initiatives would benefit their particular type of paper-packaging most of all.

## What the documents don't say...

We note that what is often useful to the investor is what is not discussed in IPO documents. Companies may consider their products (recycled or otherwise) to be environmentally friendly but don't always discuss in detail the processes involved which might contribute to, for example, water pollution or the ultimate source of materials. We believe this can provide a “false sense of security”, in terms of environmental friendliness. Issues not discussed might include where the other 20% of raw materials is sourced, the use of non-certified logs, etc. We are left to speculate whether they are sourced from legal, responsible, sustainable suppliers. Also, where the company is going to source the vast amounts of raw materials for their rapid capacity and manufacturing expansions is not adequately discussed in our view.

## Some good examples

We highlight below some better examples of disclosure with regards to the environment that we did not regularly see whilst reviewing IPO documents.

- **Vinda:** claims to place strong emphasis on quality control and environmental protection and demonstrates this through its supply chain choices. The company elects to purchase pulp only from FSC or similar certified companies. It discusses (pg105 of prospectus) that it evaluates the record of suppliers with respect to price, quality, and environmental standards and compliance before choosing to purchase their goods. The company also has an internal control group that monitors all related quality control and environmental protection requirements.
- **China Sunshine Paper:** published details on COD data for the track record three years (pg114 of prospectus), the only company to provide any sort of environmental related data in its prospectus. We do not know whether it will continue to do so in future publications such as annual reports or CSR reports. It has also established an “environmental supervisory committee”

which consists of 2 directors and 2 supervisors, stating that these committee members have actual prior experience in environmental protection management and compliance (pg135 of prospectus). It then goes through certain measures it has in place to deal with waste, noise, etc. without claiming undue environmental friendliness (pg136). Finally, the company lists out (pg137) what it plans to do to enhance environmentally responsible practices.

## A review of Samling Global's IPO offering document

Samling Global is an upstream logging and downstream veneer/plywood manufacturer which listed in Hong Kong in March 2007. We review the IPO prospectus separately because its main business is distinct from the paper and pulp related listings mentioned above.

**Awareness & commitment:** A casual reading of the prospectus shows that Samling is well aware of the issues and is willing to comment on most of them in one way or another. In the very first paragraph on page 1, the company states that it is “committed to implementing sustainable forest management practices....” which is a good thing although the reader is required to dig deeper for evidence of commitment.

**Sustainable forestry:** The company believes that a competitive strength is the “large sustainable forest resource base” that it possesses although no mention is made under future plans for maintaining sustainability or gaining further certification.

There is a very detailed section entitled “Sustainable forest management and environmental protection measures” on pg151 which touches on many issues. We believe that this is a good section and responsible of Samling to write it, however, in view of business risks, we ask whether a company is realistically going to reveal where they are not following guidelines. Under this section, several key phrases indicate that the company is determined to tout its environmental record issues: preserve the natural condition of the forest, minimum damage to the surrounding area, minimising the adverse impact of our forestry management, manage potential environmental risks through compliance, etc. We do not question the rhetorical meaning of these statements, however the reader might ask how they can be reassured that the company is doing all it claims to do, and whether they trust management.

**Forestry certification:** The prospectus tells us on page 2 that 3.9% of Samling's forests in Malaysia are certified although the certifying body is not mentioned at this stage. It is only when the reader reaches page153 that we learn that the 3.9% of forests certified in Malaysia are certified by the MTCC (Malaysian Timber Certification Council) and not by the FSC, a commonly-adopted standard (refer

to Table 2 for a comparison of different certification schemes). Whilst we do not compare the certification systems of the MTCC and the FSC, we note that 35.4% of forest area in Guyana were certified by the FSC in February 2006 although this certification was suspended from January 2007, we must at least scrutinise the continued MTCC certification, if this is not a lower standard.

We note that the so called commitment “to extending our certifications in future” (pg156) are dependent “on the market demand for certified products” and not company commitment to the issue.

**Business focus of issues:** Discussion of deforestation and the impact of illegal logging under the ‘Industry Overview’ section focuses on the business implications relating to the depression of log prices and the measures in place by governments to curb the incidence of illegal logging and not to its impact on the environment. Likewise, discussion on tree plantations (pg145) is focused on fast-growing species without any mention of the suitability of species (native or otherwise) for particular areas of forest.

**Independent technical report (ITR):** Samling engaged Pöry to provide an “Independent Technical Report” (appendix VI) which we believe is good practice. Pöry discusses the general nature of the logging and wood products industry, pricing trends as well as Samling’s assets and estimations of future woodflow. In our view, it is very important to discuss future woodflow and its sustainability.

We are not informed as to how much control over the final published version of the ITR Samling was allowed. The overall ITR was positive and included points of praise towards the company. For example, Pöry “were impressed with the overall standard of the operations [in Sarawak] and, in particular, the reduced impact logging practices.” (pgVI-50). Pöry were also impressed with the operations at Barama in Guyana (pgVI-73) believing it to be “a very good example of tropical forest management.” We note that “management review” discussions were not available for all sites, and that those provided were generally positive. Notably missing “management reviews” include the plywood mills, veneer mills, and facilities in China.

**Other issues:** The prospectus discusses the usual environmental protection measures at the company’s processing facilities such as dust collection and waste water treatment (pg174) although does not go into much detail.

We did not find mention of the suitability of tree species in plantation areas. Mention of species in the prospectus, including the ITR is on account of its rapid growth and yield.

Environmental activism and claims by indigenous people are

mentioned as risks which could adversely affect the business, Samling addresses this directly (pg142) as it claims to work with indigenous people “to integrate and accommodate their community activities within our operations.” The company point out that they have established a liaison team although there are still a few instances where disputes have resulted in legal proceedings, minor details are given in the “Legal proceedings and protests” section (pg181).

## Risks for investors

Most companies highlighted that environmental liabilities were a risk to operations and profitability, usually these came under the heading of “Industry risks” or similar. Risks include the increase of fees related to the discharge waste materials, new or stricter regulations which could incur significant expenditure in order to bring facilities and processes up to new standards, the cessation of business if they are unable to meet potential new requirements, and clean-up costs relating to violations.

Whilst listing documents and meetings with management can reveal awareness of certain issues, whether environmental or not, investors must delve deep enough to decide for themselves as to whether management are trustworthy. We have seen that management are often well-versed in the issues surrounding environmental protection although external organisations continue to find areas where all may not be what it seems.

## Subsidiaries and acquisitions

There could be risks involved with subsidiaries that are not always apparent in IPO documents. Sometimes, subsidiaries do not have all the necessary approvals or permits in place, although companies appear quick to resolve the issue when it comes to light. Investors might ask why the company did not realise the situation in the first instance? Non-action by local authorities does not mean that no breach has taken place as the case by Vinda’s Guangdong base (pg111 of prospectus) illustrates, or the lack of a discharge permit at one of Chenming’s production bases (pg 46 or prospectus).

We believe that care ought to be taken when the company is raising capital in order to expand by way of acquisition, as smaller acquisition targets are possibly less aware of their environmental responsibilities than the takeover company. Similarly, due diligence should be undertaken on the subsidiaries (wholly-owned or otherwise) and related companies. Sometime, the ultimate beneficiaries or stakeholders are related to the listed entity in a complicated manner which ought to be unravelled to see if there is any potential for cross-linked effects. Rimbunan Hijau is an example of a very complicated web of companies whose businesses overlap and can damage the reputations of associated entities if cross-links are unearthed.

## Reasons for listing and background checks

There are many reasons for companies to list, we urge investors to scrutinise the real reason behind many forestry related listings in Asia. Also, investors should ask why companies are listing in certain countries and not others. Oft-cited reasons are the need to raise funds for capacity expansion, land acquisitions and new manufacturing facilities as well as raising capital to reduce debt levels. Is the purpose of the new listing on a new exchange to avoid scrutiny in other locations where negative press on prior listings might affect the ability of the company to raise funds there?

When companies increase manufacturing facilities in the paper & pulp industry, investors should look closely to see whether they have detailed plans for sourcing the increased wood pulp they will require. For some companies, this might come from increased collection of recovered paper, for others, they might have contracts with certain suppliers. Still others however, might have no concrete plans at the time of raising funds for expansion or new facilities – investors should be aware that such companies might have illegitimate plans such as illegal logs or pulp from non-sustainable sources. The potential risks for investors are significant as there could be severe fines if such practices are uncovered, or these sources of raw materials could be cut off which could adversely affect the company's ability to manufacture products, not to mention the potential brand reputation fallout.

For logging companies, sometimes the yield they claim a forest is able to sustain might not be accurate. We believe that independent technical advice should be sought so as to establish the true sustainable yield of forest concessions.

## Family ties, debt and shareholdings

Investors should inquire about the true beneficiaries of a listed entity given the often complex web of cross-shareholdings apparent in Asian companies. APP and Rimbunan Hijau may not be listed entities but

they are the parent companies of many listed subsidiaries who feature across the upstream and downstream forestry supply chain.

The Widjaja family, owners of APP, have links to many subsidiaries involved in the pulp industry. (see pg7 of *Asia Pulp & Paper Indonesia: The business rationale that led to forest degradation and financial collapse*, by CIFOR, 2006). The web of associated (ultimately controlled) companies may lead to dubious sources of logs. An *Eyes of the Forest* investigative report from 2006<sup>1</sup> found that Satria Perkasa Agung, a company controlled by the family was engaged in logging which is allegedly illegal. Its logs are sold to other companies associated with APP for processing into pulp and paper.

The shareholdings of listed entities, especially those leading back to ultimate controlling shareholders can be difficult to trace. Influence can be exerted in terms of voting rights etc. and these may not always be to the benefit of minority shareholders. Sometimes, minority shareholders may be powerless to effect any change within the company because interests between the ultimate beneficiaries and ordinary shareholders may be different.

## Companies do not always provide evidence of ongoing commitment

Throughout our review of listing documents, we found that all companies stated or at least implied that they were committed to environmental protection or sustainable practices. It is difficult to judge the ongoing commitments of these statements. We urge investors to look in subsequent annual reports or perhaps CSR reports, and to raise the issues in meetings with management to ascertain as to whether commitment to the environment has been upheld. We believe that merely citing the use of recycled products is not enough; are there any new initiatives, what monitoring procedures are in place, how is the company continually working to improve its environmental record?

## How Rimbunan Hijau hides its reputation

Rimbunan Hijau is a conglomeration of hundreds of companies spread across three continents. The companies are often owned or controlled by the Tiong family or are strongly linked to Rimbunan Hijau. In Papua New Guinea, for example, Greenpeace has identified over 60 separate companies owned or controlled by the Tiong family, including one of the two daily English newspapers, but only a small minority is officially recognised as being a part of Rimbunan Hijau. The ownership and control of the rest is obscured by undisclosed buyouts, outdated company records, foreign ownership and the widespread use of tax havens, proxy directors and shareholders.

For example – the fourth largest logging company in Papua New Guinea, – Turama Forest Industries is legally independent of any registered Rimbunan Hijau companies in Papua New Guinea. However, the main shareholder (50%) in Turama is Cheung Choi Ho, who is also a major shareholder of one of Rimbunan Hijau's largest stock listed companies Jaya Tiasa Holdings.



## How Rimbunan Hijan hides reputation

Subsidiary of RH	Location	Business Scope
Active Forest Limited	PNG	
Central Logging	PNG	
China Long Kong (PNG) Ltd	PNG	
Concord Pacific Limited	PNG	
Dynasty Estates	PNG	
Frontier Holdings Ltd	PNG	
Fonsen Timber Processing	PNG	
Gulf Ply Ltd	PNG	
Island Forest Resources Limited	PNG	
Monarch Investment Limited	PNG	
Niugini International Corp. Ltd.	PNG	
Niugini Lumber Merchants Ltd.	PNG	
Pacific Logging Ltd	PNG	
Putput Logging Ltd	PNG	
Rimbunan Hijau (PNG) Ltd.	PNG	
Rimbunan Hijau Holding Ltd	PNG	
R.H. Parts and Service	PNG	
R.H. Trading	PNG	
Rivergoi No.6	PNG	
Saban Enterprises Limited	PNG	
San Hin Development (PNG) Ltd	PNG	
Seal (Manus) Ltd.	PNG	
Sovereign Hill (PNG) Limited	PNG	
Timbers (PNG) Limited	PNG	
Turama Forest Industries	PNG	
Wawoi Guavi Timber Co. Ltd.	PNG	
Vailala Blocks	PNG	Timber
The National	PNG	Newspaper
Lianseng	PNG	
RH Hypermarket	PNG	Supermarket
Comserv PNG	PNG	
Kina Securities	PNG	stock exchange
Shimmer	Equatorial Guinea	Timber
Ernslaw One	New Zealand	Timber
Earthmovers Solomon Island Group	Solomon Island	Timber
The LumberBank (TLB)	Australia	Timber
Jaya Tiasa Holdings Bhd	Malaysia	Timber
Subur Tiasa	Sarawak, Malaysia	Timber
Subur Tiasa Holdings Berhad	Sarawak, Malaysia	Particleboard Factory
Sin Chew Media Corporation Berhad	Malaysia	Newspaper
Guang Ming newspaper, Malaysia	Malaysia	Newspaper
TTS & Sons	Malaysia	Prawn Aquaculture
Petanak Adhesives	Malaysia	Resin Manufacturing
Optical Communications Engineering	Malaysia	Fiber Optics
Nanyang Siang Pau	Malaysia	Publishing
GuangMing Daily	Malaysia	Newspaper
RH Hotel	Malaysia	Hotel
Ming Pao Group	Hong Kong	Newspaper
Yazhou Zhoukan newspaper	China	Newspaper
Ming Pao Holdings	China	Publishing
Shanghai Changmao Plywood Co. Ltd.	China	Produce Plywood
Nuijiang Hongta Changqing Co., Ltd.	China	Produce Lumber, Finger-joint Board, Wood Door, Window
Dalian Taisong Wood Co. Ltd.	China	Produce Plywood
Xiangyang Woody (Dalian) Wood Ware Co., Ltd.	China	Produce Plywood, Hipboard
Rizhao Landbridge Changqing Wood Industry Co., Ltd.	China	Produce Solid Wood Furniture
Yangzhou Changying Wood Co., Ltd.	China	Produce Lumber, Veneer, Hipboard, Plywood
Shanghai Lianhe Wood Co., Ltd.	China	Produce Lumber, Flooring, Wood Door, Furniture
RH International Group Russia Far East Co., Ltd.	China	Logging, Timber Process
Shanxi Datong Kaoline Ware Co., Ltd.	China	Produce Kaoline Ware
Heilongjiang Fuyang Real Estate Co., Ltd.	China	Real Estate
Shuaoguan Changqing Hengxing Real Estate Exploitation Co., Ltd.	China	Real Estate
Changqing Middle School	China	Education
Datong Yaerya-Xifangzi village railway	China	Traffic
The Neil Group	New Zealand	Property
New Zealand King Salmon Co Ltd	New Zealand	
Click Clack Ltd	New Zealand	Plasticware
Click Clack Ltd	Australia	Plasticware
Click Clack Europe Ltd	UK	Plasticware
CCUS Inc.	USA	Plasticware
Charming Holidays USA	USA	Travel Agency

Source: Greenpeace research

On the other hand, we also caution against fully trusting the content of CSR documents or the environmental sections of annual reports. We believe that such publications are useful in that it could help management think through issues and implement policies and processes which are beneficial to the environment, however sometimes these publications are written by low-level management who know what to write about without there being much of a connection with what is actually happening within the company.

**Table 5: Ongoing evidence of commitment to environmental issues**

Company	CSR report	Mention in latest AR	Section on website
Hop Fung Group Hdngs	None	None	"To be available soon"
Lee & Man Paper	None	None	Brief mention of ISO certificates and commitment to the environment
Huali Holdings*	None	None	None
Nine Dragons Paper	None	Mentioned in Chairman's statement, CEO's review, MD&A, and separate CSR section	CSR section discusses a number of environmental issues as well as environmental protection
Samling Global	CSR video	Brief mention in Chairman's statement, separate forest management section, separate CSR section	Comprehensive CSR section detailing various issues related to forestry
Vinda	None	None	Brief webpage on Environmental protection
China Sunshine Paper	None	None	Brief paragraph on Responsibility
Shandong Chenming	N/A	N/A	N/A

Source: Company websites and annual reports

Note: Huali is now known as Overseas Chinese Town (Asia) Holdings Ltd.

The above table shows that only Nine Dragons and Samling Global put any effort into displaying their ongoing commitment to environmental issues by either discussing it in their reports or having a detailed section on their websites. We believe that these sections are evidence that the company is at least aware of the issues, whether or not they do anything about it is a separate matter.

## Stock price performance

It is very difficult to find defined links between stock price declines and environmental problems, however we found that from our sample of companies, not a single stock managed to outperform the Hang Seng Index through to September 2008 since listing.

**Table 6: Performance of forestry companies versus the HSI since listing in HK**

Company	Performance vs HSI since listing	Listing date
Hop Fung Group Hdngs	-72.3%	September 2003
Lee & Man Paper	-32.4%	September 2003
Huali Holdings	-61.3%	November 2005
Nine Dragons Paper	-7.1%	March 2006
Samling Global	-78.9%	March 2007
Vinda	-19.9%	July 2007
China Sunshine Paper	-27.9%	December 2007
Shandong Chenming	-34.7%	June 2008

Source: Bloomberg

Note: Stock prices taken up until 12th September 2008.

Whilst profitability has not been a substantial problem for most of these companies in recent years, increased regulation and consumer awareness could affect future operations and profitability, this is a risk which we believe the investor must consider. Also, it is possible that the growing trend towards environmental awareness globally could affect long term stock prices although we are unable to provide linking evidence due to limited listing periods, insufficient correlation data between events and price changes, and the volatile nature of markets in recent times.

## Examples of lip-service and bad publicity

We highlight below a few companies who we believe are well aware of environmental issues and publicise their involvement in environmental protection whilst engaging in allegedly illegal or non-sustainable practices. There is also mention of the knock-on effects and bad publicity associated with investors or customers who had dealings with these companies.

### Asia Pulp & Paper

APP has been the subject of many negative reports regarding the industry and its possible adverse effects on the environment. Although it is not listed in Hong Kong, it provides an example of how investors should be aware of the potential negative impacts of a company's environmental record on operations, profitability and brand-name reputation.

Investors should be aware that companies with operations in the sector are often very well-versed in the language of environmentally friendliness or sustainability. They will often be the companies who have produced sustainability or CSR reports and have relevant sections on their websites for public viewing. It is not to say that these companies do nothing or are deliberately misleading the public, however the public should be aware that things are not always what they seem and indeed investors will be well-aware that corporations can "misspeak" or not reveal the entire truth. A company being aware does not equate to their taking steps to resolving the issues.

When visiting APP's website ( <http://www.asiapulppaper.com/> ), the front page states in bold "We respect nature through Reforestation and Eco-System" which the company wants to make clear to the public from the start. Focusing on one specific issue, the legality of logs, it also states that "One of APP's most important commitments is to the enforcement of a 100% legal wood supply...." and further reinforces this by saying it "ensures the legality of its wood supply through its own Chain of Custody system of checks and balances".

Indonesia's Centre for International Forestry Research questions

these statements and in the course of its research believes that APP "continue[s] to rely on the clearing of natural forests in Sumatra for 60-70% of their wood supply" (<http://news.mongabay.com/2006/0514-cifor.html> ). Indeed, WWF and Greenpeace have also issued statements to the effect of attributing some blame on APP for the loss of natural forests and illegal logging activities.

Furthermore, APP has tried in the past to justify its commitment by partnering with credible organisation such as the WWF or the FSC although these ties were severed by the counterparties. For example, APP agreed with WWF to complete a study of APP's forests concessions in 2003 although WWF pulled out of the agreement in 2004 because of its claims that the company were unable to produce valid studies. Also, the Rainforest Alliance of the USA was told by the FSC to stop working with APP and not to audit its operations after it emerged that APP planned to use the FSC logo on its products prior to any authentication whatsoever.

Other companies have found that a perceived link to APP has not been good for business. In early 2008, Staples Inc., a stationery and office supplier in the United States, announced that it was severing all contracts with APP because of concerns over environmental protection. Staples said "We haven't seen any indication that APP has been making any positive strides to protect the environment. Remaining a customer of APP was 'at great peril to our brand.'"(News article, *Green-Minded Staples Ends Ties With Asia Pulp & Paper*, by Dow Jones, 8<sup>th</sup> February 2008). Other buyers of APP paper in other parts of the world had already previously stopped sourcing from the company over environmental concerns such as illegal logging, contributing to climate change and the endangering of creatures such as the orang-utan.

Various reports can be found by different organisations about the environmental concerns of APP including:

- CIFOR - Asia Pulp & Paper Indonesia: The business rationale that led to forest degradation and financial collapse.  
<http://www.cifor.cgiar.org/Publications/Detail?pid=2033>
- CIFOR - Financing Pulp Mills: An Appraisal of Risk Assessment and Safeguard Procedures  
[http://www.cifor.cgiar.org/publications/pdf\\_files/Books/BSpek0601.pdf](http://www.cifor.cgiar.org/publications/pdf_files/Books/BSpek0601.pdf)
- Friends of the Earth, England - The responsibility of international financial institutions for Indonesian forest destruction, social conflict and the financial crisis of Asia Pulp & Paper  
[www.foe.co.uk/resource/reports/paper\\_tiger\\_hidden\\_dragons.pdf](http://www.foe.co.uk/resource/reports/paper_tiger_hidden_dragons.pdf)

## Rimbunan Hijau

Another company which often hits the headlines for the wrong reasons is Rimbunan Hijau (RH). The original company was set up in 1975 in Malaysia as a logging firm and has grown to become one of the largest conglomerates in the region with many businesses including the forestry, oil palm, media, and travel sectors. Its operations extend across many countries across the world, especially in Asia. In Papua New Guinea (PNG), RH is the largest timber operator and also runs the largest sawmill.

A number of separate organisations have questioned the legality of timber logged by RH and exported out of PNG. The Government's own study shows that although there are official channels for logging, "there are serious issues of legal non-compliance at almost every stage in the development and management of these projects." (pg2, *Forest Trends report*). One review studied the logging activities of fourteen projects in PNG in the five years to 2005 and found that none of the projects could be defined as legal. The scale of these projects represented over 65% of the log exports from PNG in 2004. RH was named in the study.

Indeed, many different studies have failed to find any guarantee of legally harvested logs from PNG such that the British Timber Trade Federation warned its members not to purchase timber from PNG (according to the *PNG Post Courier* on 30 October 2006).

Aside from logging activities, RH has been scrutinised by the World Bank, who stated that the "treatment towards citizen employees in many aspects of their employment reflects labour exploitation and slavery, and should be condemned at all levels" regarding a subsidiary of RH. (*Papua New Guinea Review Of Current Logging Projects, Carried Out Under The Auspices Of The Department Of National Planning And Monitoring, Draft Individual Project Review Report No 14, Wawoi Guavi, April 2004 – Greenpeace document.*)

Again, on RH's own PNG website (<http://www.rhpng.com.pg/community.htm>) the company states that it is in compliance with regulations and that RH believes in certain Economic, Social and Environmental aspects of forestry development (<http://www.rhpng.com.pg/aboutus.htm>). It believes that it "contribute[s] substantially to government revenues through log duties, royalties and other business tax payments" as well as "carr[y]ing out its logging operation with due consideration for the protection of the environment through the application of sustainable forest management practices."

ANZ Bank has suffered negative press for its close ties to RH. Many stakeholders and commentators have asked the bank to cut ties with the company because of its poor environmental record. (<http://www.abc.net.au/cgi-bin/common/printfriendly.pl?http://www.abc.net.au/news/newsitems/200704/s1895305.htm> and <http://www.theaustralian.news.com.au/story/0,25197,22741945-5006788,00.html>)

Various reports can be found by different organisations about the environmental concerns of Rimbunan Hijau including:

- **Forest Trends** - Logging, Legality and Livelihoods in Papua New Guinea: Synthesis of Official Assessments of the Large-Scale Logging Industry  
<http://www.forest-trends.org/resources/publications/publications.php?theme=0&datepub=2006&lang=1>
- **Greenpeace** – Rimbunan Hijau Can't Handle the Truth  
<http://www.greenpeace.org/international/press/reports/rh-fiction>

## Samling, Lee & Man, Chenming, and China

The environmental records of other companies do not appear to be as colourful as APP or RH but they are nonetheless considered unclear in certain areas. We highlight a few examples below:

**Samling:** mentioned above in the IPO documents section, has come under fire for its logging activities, as have the banks associated with its listing in March 2007. Despite having relatively good disclosure in its prospectus, the company was fined US\$500K in October 2007 for under-reporting the actual number of trees it harvested from its concessions in Guyana. The company had its FSC certification in Guyana revoked in January 2007 over concerns about the logging practices of its subsidiary in the area, although the certification was reinstated in August of that year.

The banks involved in Samling's listing, HSBC, Credit Suisse and Macquarie were heavily criticised for their involvement. HSBC in particular came under fire because of its own well-publicised green policies. Certain HSBC shareholders were threatening to sell down their entire stake in the company because of the listing.

**Lee & Man:** recently, it was reported that the company was ordered to stop production by the MEP in China because of illegal discharges into a local river. (*Conflicting Reports On Closure Of Lee & Man Paper Production, China CSR*, 16<sup>th</sup> July 2008.) The company deny this and the issue is still not clear.





The Environment Technology Centre in Vietnam was not sure whether a new paper & pulp plant by Lee & Man would be negative for the environment. (*Due Consideration Needed, Saigon Times Weekly*, 29<sup>th</sup> September 2007). There are loopholes in Vietnam's regulations such that the concentration of waste per litre is regulated but not the absolute amount, thus allowing companies to dilute their waste by adding extra water. There is no evidence of Lee & Man in particular doing such acts although it would reassure the investor public if they

were to provide evidence to the contrary and respond to such reports.

**Chenming Paper:** The Economic Information Daily claims that the company is "an unabashed environmental polluter". (*Big polluters emboldened by local governments that ignore violations, Shanghai Daily*, 18<sup>th</sup> May 2007). It goes on to claim that the company has been piping chemical wastewater into the Xiaoqing River for a decade.

## Conclusions - Issues for Regulators to Take Away

In recent years, disclosure of corporate social responsibility data has been mandated by a number of governments throughout the world including those of Sweden, France, Malaysia, the UK, and the city of Buenos Aires. France was the first country to require companies to report on non-financial information in 1977, when it mandated that companies employing more than 300 people report annually on 134 issues relating to employees and the workplace. France expanded its requirements in 2001 under Article 116 of the 'Nouvelles Regulations Economiques' which mandates that companies publicly listed on the Paris Stock Exchange's Primary Market include a report on social and environmental issues in their annual reports.

Along this vein, the government of the United Kingdom requires companies to report on their business activities in an annual Business Review. The 'British Companies Act' of 2006 mandates that companies listed on the London Stock Exchange disclose in their

annual Business Review information on environmental, workplace, social and community matters "to the extent that they are important to understanding the company's business." (Lydenberg 2008)<sup>u</sup>

There is no mandatory disclosure requirement on environmental issues for companies listed on the New York Stock Exchange. Despite this, economic incentives in the US markets are helping to drive listed companies to better environmental disclosure. Index products, such as the Dow Jones Sustainability Index or STOXX, will factor in corporate governance, environmental and social performance when the eligibility for inclusion of a corporate in their portfolios is assessed. With reference to these indices, new asset class such as socially responsible investment funds can be designed. Given this opportunity of being exposed to different types of investors, listed companies are more proactive when it comes to writing CSR reports or publishing emission data in annual reports.

## Recent development in Mainland exchanges and regulators

Although the Chinese Mainland securities market are less developed than their regional counterparts, they have introduced some innovative measures to ensure the legality and compliance of listed companies. Both the Shenzhen and Shanghai Exchanges have issued their own guidelines in recent years to encourage regular disclosure and evaluation of the environmental performance of listed companies. In a broader context, these initiatives stemmed from the emphasis of environmental performance and compliance as required by Chinese regulators – the China Securities and Regulatory Commission (CSRC) and Ministry of Environmental Protection (MEP).

Amongst the new economic leverages unleashed, the Green Securities policy targets companies which seek capital from the public markets through means such as initial public offerings (IPOs) or refinancing such as additional share issues. Under this new policy, companies from 14 sectors that fall within the "Liang Gao" (兩高) framework must undergo an environmental review conducted by the MEP when they apply for an IPO or refinancing. It was reported in Feb 2008 that 10 of the 37 IPO applications that have been reviewed since the implementation of this policy were either rejected or subjected to further reviews because of environmental concerns.

For sectors covered under the "Liang Gao" framework, please refer to MEP's circular:  
[http://www.mep.gov.cn/info/bgw/bbgth/200807/t20080707\\_125138.htm](http://www.mep.gov.cn/info/bgw/bbgth/200807/t20080707_125138.htm)



Comparatively, the Hong Kong market lacks such economic incentives and products, resulting in a low ratio of Hong Kong-listed companies that publish CSR reports or review their social and environmental performance (Oxfam Hong Kong 2008).

Whilst we would not wish for the Hong Kong Exchange to become less competitive with unsurpassable restrictions, we do believe that it could stand out from regional competitors in terms of rigorousness with respect to environmental issues.

As discussed above, forests are a vitally important part of our planet and we believe the stock exchange can do its part to help conserve them.

We believe that regulators at the stock exchange could offer a more rigorous due diligence process for listings concerning the environmental sector and in particular the forestry sector. We do not suggest that the exchange undertakes the work required, but that the rules it lays down make certain due diligence steps obligatory before any applications for listing will be considered. We feel that the listing process as it currently stands does not take enough consideration for the wide-reaching effects of allowing companies to expand by way of disrespect and neglect of the environment.

We believe that the negative publicity and withdrawing of support for certain companies mentioned within this report should provide impetus for the exchange to do more to protect the interests of investors and shareholders in companies listed on its exchange. Risk assessment for investors could be more rigorous, requiring companies seeking to list to quantify the potential costs involved in upgrading equipment or processes to meet the next level of regulation. In future, it might be possible for exchanges themselves to come under fire for allowing certain companies to raise capital to expand dubious operations under their watch.

## Suggested changes to listing requirements

Whilst we consider the exchange to provide quite rigorous requirements for listing in terms of financial requirements, operating history, and general provisions (market capitalisation, free float, etc.), we believe that the due diligence could be stricter still, and that the exchange could raise deeper concerns for environmental issues. We recommend the following changes to the listing process:

### *Recommendations for general company listing in any sector*

For general companies wishing to list:

- **Sponsor due diligence** – rules for sponsors could be further tightened up with necessary or random verification of certain aspects of due diligence (Main Board, rule 3A.11). Responsibility and subsequent sanctions for sponsors for not ensuring adequate research could be made stricter to provide accuracy incentives.
- **Listing documents** – the exchange would consider the mandatory inclusion of an environmental section within the listing documents, similar to the current guidelines on corporate governance.
- **Publication requirements** – companies could be required to include a section in annual reports detailing environmental issues and ongoing commitment; the publication of a CSR report on a regular basis e.g. every two years.

### *Recommendations specifically for companies operating in the forestry sector*

To issue special requirements for companies whose activities include or are related to the harvesting of trees, wood products, or paper and pulp.

- **Additional requirements** – similar to those for mineral companies as listed in Chapter 18 of the rules governing the listing of securities on the stock exchange.
- **Raw material sources** – requirement that timber or pulp obtained and used by the company are derived from certified sustainable sources, or an independent third party to audit the company's sources to ensure compliance with legal requirements.
- **Future raw materials** – provide evidence of the sustainability of future pulp or timber sources such as contracts with suppliers or concession yields.

- **Independent verification** – provide verification of wood yields, future sources as well as other aspects from external technical advisors or consultants.
- **Government letter** – provide a written statement from local governments proving that the company is in possession of all the relevant licences and also on the natural replenishability of forests.
- **Infrastructure commitments** – a detailed list provided in the listing documents of infrastructure commitments related to concessions and continual evidence that they are being met afterwards.
- **Pollution levels** – guidelines for pollution discharge levels of water, air, etc. in line with internationally recognised (e.g. WHO) standards for the industry.
- **Use of proceeds** – a certain amount or portion of use of proceeds returned to environmental causes either through facilities, processes or other initiatives.
- **Continuing obligations** – increase these for forestry companies in terms of ongoing verified evidence of future pulp or timber supplies and disclosure of certain environmental metrics on an annual basis (COD, air pollutants, etc.).
- **Liabilities account** – require the maintenance of a reserve account for environmental liabilities to be used in cleaning up, fines, obligatory capital expenditures, etc.

## Possible regulatory developments beyond the financial crisis

Although the depth and duration of the current global financial crisis are unknown, it has already created a global slowdown and recessions with deep job cuts and huge profit losses, which Greenpeace believes offers 2 lessons that could hint changes in regulatory trends.

**“Don’t put your money in asset class you do not understand”:** The default of Lehman Brother’s Mini-bonds in Hong Kong and our analysis of Samling Global (see pg 30) have shown that risks disclosed are only superficially understood by many retail and institutional investors which could have disastrous consequences. Such investment decisions – characterized by investors’ tolerance for excessive risk in the pursuit of short-term profit – in Greenpeace’s view, is hardly the outcome of an informed investment decision making process. We believe that regulatory enforcement of appropriate risk disclosure is crucial to addressing the gaps revealed in the current crisis.

For example, CERES, a leading coalition of investors, environmental groups and other public interest organizations in the US, has recently started a campaign to press the SEC to galvanize the regulatory framework into requiring mandatory and full disclosure of climate-related risks and opportunities in the filings of the listed companies. (<http://www.ceres.org/Page.aspx?pid=951>)

Likewise, Domini Social Investments, an investment adviser known for its indices tracking environmental, social and governance (ESG) issues, has those demands to the SEC. Greenpeace believes that systematic disclosure on ESG issues could offer useful insight into a company’s long term performance and thus be beneficial to investors.

**Higher standards in due diligence:** Greenpeace believes that the financial crisis has shaken the trust of financial institutions, leading to the end of abundant credit. The era of de-regulation is coming to an end. With the collapse of internal-ratings based as well as the standardized approach towards risk assessment, an overhaul of the present approaches of risk assessment as well as the process of risk-taking will play a big role in the re-regulation era. For example, Banktrack, an international network of non-governmental organizations advocating sustainable and accountable banking practices, urged for regulatory reform that heightens ESG perspectives in future risk assessment – as well as reinforcing financial risk assessment. Arguably, sector-specific issues will form part of the due diligence process in the future, such as the introduction of the anti-money laundering mechanism and the Know-Your-Customer guidelines in forestry sector.



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<http://www.unep.org/geo/geo4/media/>

<sup>c</sup> *Global Forest Watch* (Point # 2, “Cultural values”)

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<sup>d</sup> *Global Environment Outlook 4 by UNEP* (Chapter 1, p. 17)

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<sup>e</sup> *Counting on the environment: forest incomes and the rural poor, World Bank* (Chapter 1, p. 1)

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<sup>h</sup> *Greenpeace International. 2008. The Climate Bomb is Ticking -- Call for Zero Deforestation to Protect the Climate.*

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<sup>i</sup> *The Oil for Ape Scandal, Friends of the Earth*, (p. 13)

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<sup>j</sup> *Greenpeace International. 2008. Hidden Carbon Liability of Palm Oil.*

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<sup>k</sup> *Global Forest Resources Assessment 2005 (GFRA)* (p. 41)

<http://www.fao.org/forestry/fra2005/en/>

<sup>l</sup> *Global Forest Resources Assessment 2005 (GFRA)* (p. xix)

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<sup>n</sup> *The Last Stand of the Orangutan, UNEP, 2007* (p. 37)

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*Greenpeace is committed to  
protecting the world's remaining  
ancient forests and the plants,  
animals and peoples  
that depend on them.*

Greenpeace stands for positive change through action to defend the natural world and promote peace.

Greenpeace is a non-profit organization with a presence in 40 countries across Europe, the Americas, Asia and the Pacific. To maintain its independence, Greenpeace does not accept donations from governments or corporations but relies on contributions from individual supporters and foundation grants.

As a global organization, Greenpeace focuses on the most crucial worldwide threats to our planet's biodiversity and environment. We believe that the struggle to preserve the future of our planet is not about us. It's about you. Greenpeace speaks for 2.8 million supporters worldwide, and encourages many millions more to take action every day.

#### Greenpeace in China

Greenpeace China was established in Hong Kong in 1997 and has since set up offices in Beijing and Guangzhou.

China's phenomenal economic growth in the last two decades has brought unprecedented environmental threats to the country and the world. Greenpeace believes that development should not come at the expense of the environment. We are committed to seeking and building a green growth pattern, together with the people of China.

#### Greenpeace China

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