



ASIA PRO ECO PROGRAM

Feeding China's Expanding Demand for Wood Pulp:

A Diagnostic Assessment of Plantation Development, Fiber Supply, and Impacts on Natural Forests in China and in the South East Asia Region

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Jean-Marc Roda &
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(CIRAD)

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Context

Malaysia has a total capacity pulp and paper production at over 1 million T/year. The country is a net importer of pulp, paper, and paper board, and progressively tends to decrease its dependency. However, the self-sufficiency is growing at a slow rate. All the paper mills of the country are small by the world industry standards, none producing more than 300 000 T/Year.

The Malaysian government has identified this particular industry sector as one of the priority areas for investment in the second industrial master plan (IMP2). The strategy is to achieve a state of self sufficiency, to reduce import, and to encourage foreign capital inflow. The industry was one of the industries to survive the economic downturn resulting from the “Asian crisis” in 1997, as much as the softening of the economy following the September 11th, 2001 event. No paper mill was closed down or taken over by larger companies at these occasions. The paper mills survived by remaining small but efficient, while cutting the cost of production at the same time. The industry also managed to remain buoyant by focusing on niche markets at the national scale.

The Malaysian pulp and paper industry is heavily dependant on imported fibre, particularly virgin pulp, and is also facing the need to find a new source of fibre to strengthen and retain the quality of secondary fibres as the use of recycled paper is growing in Malaysia. As for the other wood-based Malaysian industries, further development of integration of downstream activities is highly promoted. The utilisation of wood waste is promoted through the emphasis on R&D and technology improvements. Meanwhile, more forest plantation projects are planned to ensure a sufficient and steady source of fibre supply in the long run. Other sources of supply are non-wood materials, such as oil palm residues; Kenaf (*Hibiscus cannabinus*) are also presented as alternatives to wood fibre.

Wood pulp and paper industry

Malaysia has a rather weak pulp and paper industry, which production does not fulfil the domestic consumption (Figure 1, Figure 2, Figure 3). Half of the country requirements are imported. According to the Malaysian Pulp and Paper Association, the industry strategy is to remain domestic-market oriented.

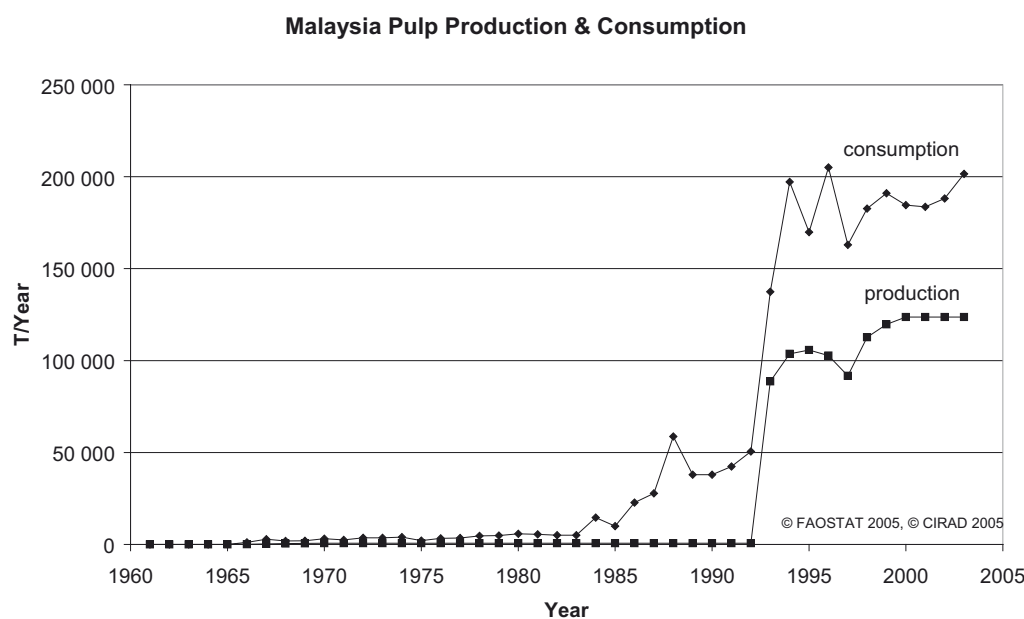


Figure 1: Malaysia pulp production and consumption

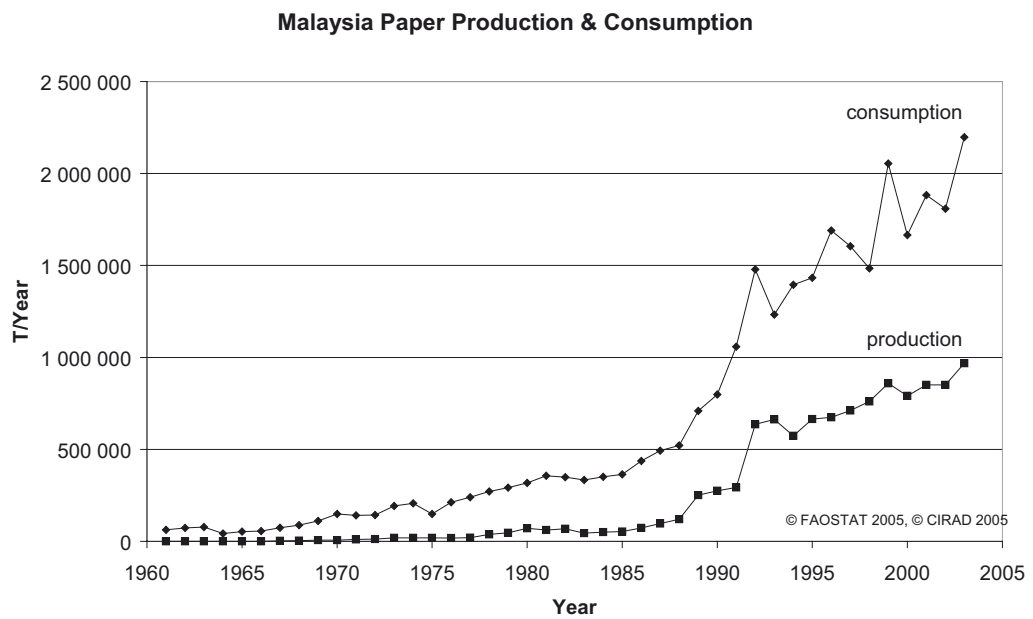


Figure 2: Malaysia paper production and consumption

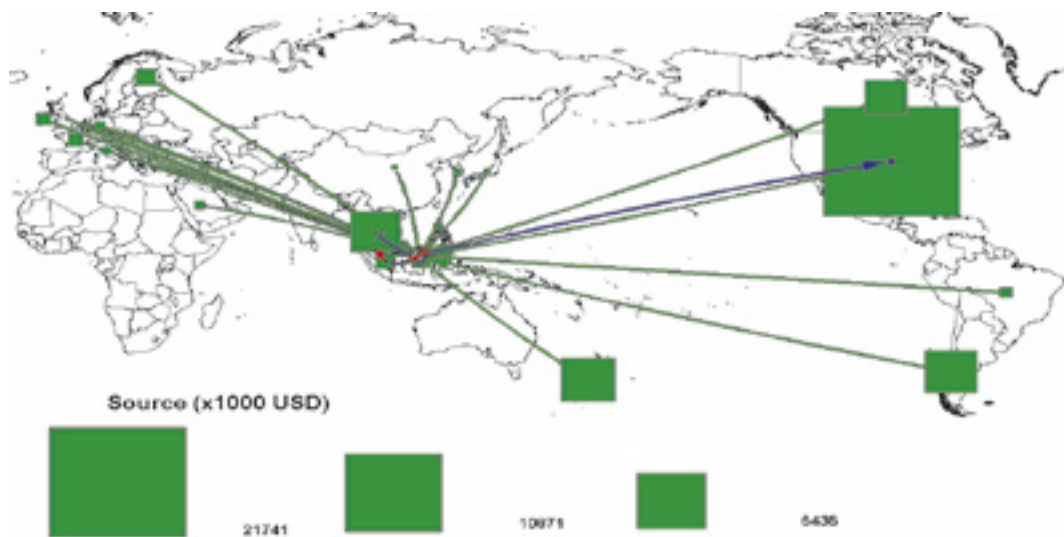


Figure 3: Values and provenances of wood pulp imports in Malaysia in 2001 (© FAO, © CIRAD)

There are 67 paper mills producing more than 50 T/day (any kind of traditional, recycled, and special papers), out of which 19 small paper manufacturing companies using wood fiber (Figure 4), which includes one integrated pulp and paper mill located in Sipitang, Sabah (Sabah Forest Industries). Among these mills, six are regularly producing less than 10 000 T/year, nine are producing between 11 000 and 80 000 T/year, and only six mills can produce from 100 000 up to 300 000 T/year. 90% of the supply is made of recycled fibre. The total capacity of all the Malaysian paper mills reaches 1 300 000 T/year (Table 1).

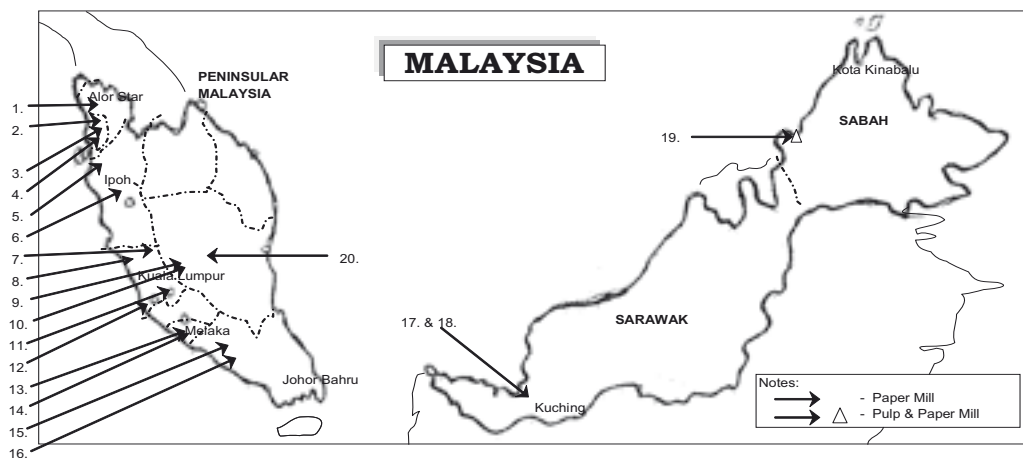


Figure 4: Location of paper mills in Malaysia (© MPPMA)

- | | |
|---|---|
| 1. Cita Peuchoon Paper Mills Sdn. Bhd. | 11. Muda Paper Sdn. Bhd. (Kajang) |
| 2. Muda Paper Mills Sdn. Bhd. (Seberang Prai) | 12. Genting Sanyen Industrial Paper Sdn. Bhd. |
| 3. Trio Paper Mills Sdn. Bhd. | 13. Yeong Chaur Shing Industry Sdn. Bhd. |
| 4. Nibong Tebal Paper Mill Bhd. | 14. Le Kok Paper Sdn. Bhd. |
| 5. Taiping Paper Mills Sdn. Bhd. | 15. Johmewah Maju Sdn. Bhd. |
| 6. Pembuatan Kertas (Perak) Sdn. Bhd. | 16. Kimberly Clark Products (M) Sdn. Bhd. |
| 7. Theen Seng Paper Manufacturing Sdn. Bhd. | 17. Hai Ming Paper Mills Sdn. Bhd. |
| 8. United Paper Board Sdn. Bhd. | 18. See Hua Paper Mill Sdn. Bhd. |
| 9. Pascorp Paper Industries Berhad | 19. Sabah Forest Industries Sdn. Bhd. |
| 10. Union Paper Industries Sdn. Bhd. | 20. Malaysian Newsprint Industries Sdn. Bhd. |

Table 1: Production of Malaysian paper mills (© MPPMA)

No.	Company	Total Capacity Per Annum (mt)	Paper Types: Annual Production 2003					Total Production Per Annum
			News Print	Writing / Printing, etc.	Toilet / Facial Tissues	Kraft / Corr. Medium C/Board	Cigarette	
1.	Cita Peuchoon	30 000				15 000	9 000	24 000
2.	Johmewah	35 000				8 000		8 000
3.	Genting Sanyen	300 000				250 000		250 000
4.	Muda Paper (Kajang)	170 000				140 000		140 000
5.	Muda Paper (S. Prai)	130 000				140 000		140 000
6.	Malaysia Newsprint	250 000	250 000					250 000
7.	Nibong Tebal	60 000			60 000			60 000
8.	Pascorp Paper	140 000				135 000		135 000
9.	Pembuatan Kertas (Perak)	3 000			2 000		1 000	3 000
10.	Sabah Forest	165 000		165 000				165 000
11.	Kimberly-Clark	45 000			35 000			35 000
12.	See Hua Paper	12 000	3 000		1 800	6 000		10 800
13.	Taiping Paper	2 400			2 400			2 400
14.	Theen Seng Paper	15 000			4 500	7 000		11 500
15.	Trio Paper	30 000			8 000	12 000	3 000	23 000
16.	Union Paper	12 400			6 000			6 000
17.	United Paper Board	80 000				60 000		60 000
18.	Yeong Chaur S	3 600			3 600			3 600
		1 483 400	253 000	165 000	123 300	773 000	- 13 000	1 327 300

None of these companies reach the critical level of 500 000 T/year which is often seen as the standard for a minimum competitive level, in terms of world competition. In other words, because of the scale economies, it is often more profitable to import the paper than to locally produce it when the capacity of the mill is too small.

Among many paper mill projects planned to increase the domestic production, only one was completed by 1999: Malaysian Newsprint Industries (MNI). Located in Mintakan, in the center of Peninsular Malaysia, MNI has one paper machine with a capacity of 250 000 T/year of newsprint. It is the only newsprint mill in Malaysia and it does not meet the entire country demand.

The only integrated pulp mill of Malaysia, "Sabah Forest Industries SDN. SBH." (belonging to the "Lion Group - Steel, Motors, Tyres, Computers & NTIC, Retail and trading, services, agro industries, sawmill and plywood), continues to produce pulp only for its own consumption. It uses mixed tropical hardwoods and plantation woods to produce printing and writing paper. Sabah Forest industries SDN SBH holds a 289 000 ha forest concession, where 130 000 ha are devoted to replantation. The company also operates in Indonesia. The pulp and paper production is fully integrated, all the produced pulp being used for the paper production. 60% of the paper is sold on the Malaysian market, the remaining being sold on spot markets in Asia, but not specially to China. The Sabah forest Industries mills have the following capacity :

- Pulp 125 000 T/year (around 700 000 m³/year of log input, 90% of hardwoods, and 10% of acacia)
- Paper 165 000 T/year
- Veneer & Plywood 100 000 m³/year
- Sawn timber 100 000 m³/year

The company also commercialises 500 000 m³/year of logs.

A large project, called “Tatau pulp” was to build a Pulp mill in central Sarawak, on the Tatau River. This project has been discussed since a long time ago, and has been influenced by the conflicts and competitions existing between its two main expected investors, the Indonesians groups APP and April. Because the dispute between APP and April, this project has never really got a chance, and has finally be abandoned. Another large project, Borneo Pulp and Paper, has been postponed from 1998, up to now. This project, with the mill also situated on the Tatau River, is discussed below.

The case of “Planted Forest Pulp and Paper” project, ex “Borneo Pulp and Paper” project

“Borneo Pulp and Paper Sdn Bhd” is a project of pulp and paper mill that is indefinitely delayed since 1998. It was a joint venture between “Asia Pulp and Paper Co Ltd” (APP, Indonesian company) and Malaysian State (represented by Sarawak Timber Industry Development Corporation - PUSAKA). The original project planned a mill of 865 000 T/year capacity, using hardwoods, to be completed by 2000. For a number of reasons, including inadequate forestry concessions and unattractive financing means, and disagreements between APP and the Malaysian government¹, the project, as originally defined, was stopped. Ultimately, the joint-venture contract has been quashed by the Malaysian government, and the project has been converted into a 100% Malaysian one.

After the eviction of APP as partner of the joint venture, the Borneo Pulp and Paper project has been redefined as a completely new project. The new partnership is now established between the Malaysian state (Forest Department of Sarawak) and “Grand Perfect Sdn Bhd” (GP), a private alliance. The pulp mill will be completely established by the State Government, while the plantations devoted to supply the mill are subject to the joint venture between the Forest Department of Sarawak and the GP alliance. This private alliance is itself established between KTS group, Samling Group, and Ta Ann group. The name of the new project is “Planted Forest Pulp and Paper Project” (PFPP project) (Figure 5).

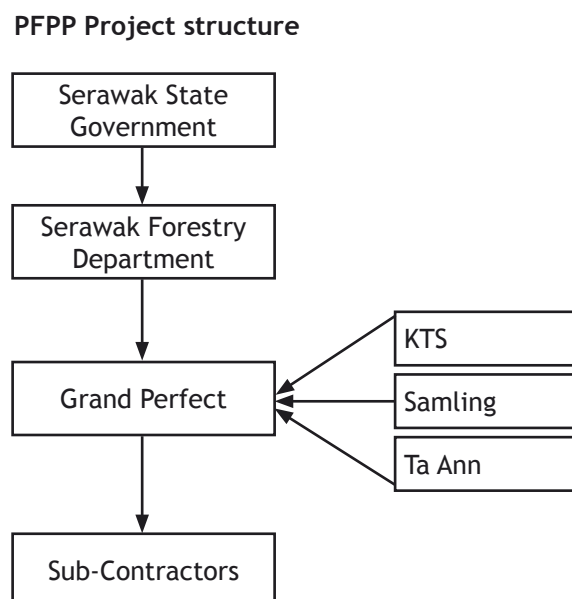


Figure 5: Structure of the Plantation Forest Pulp and Paper Project

The PFPP project and the future pulp mill are located in central Sarawak (Figure 6), near Bintulu. A tree nursery (Samarakan nursery, also known as Grand Perfect nursery) is located in the same area. In the first phase of the project, the future mill is planned to have a capacity of 500 000 T/year of pulp. 50% of this capacity would be used for the supply of the national paper production and consumption. The idea is to supply the huge domestic market and to tend towards the self sufficiency. In this regard, the 500 000 T/year capacity consist only in a first experimental step, before to decide to implement a second phase investment to double the capacity, or so. For the current project, the remaining 50% of the pulp production would be sold on the world pulp spot markets. That is to say, the different temporary special markets that exist time to time, every where in the world, according to the supply shortages here or there. In these conditions, China is explicitly not targeted, or no more than the pulp spot markets in India, Taiwan, Philippines, etc.

For the first phase of the project (pulp mill of 500 000 T/year capacity), the supply will consist in planted Acacia, and the plantations will be limited to a precise perimeter (Figure 6). According to the local conditions and experiences gained with some previous plantations, it is assumed that the needs for raw material will be fulfilled with a 100 to 150 000 ha plantation. As a first step, the Forestry Department of Sarawak takes in charge the first 54 000 ha of plantation. Details are discussed in the chapter “plantation development”.

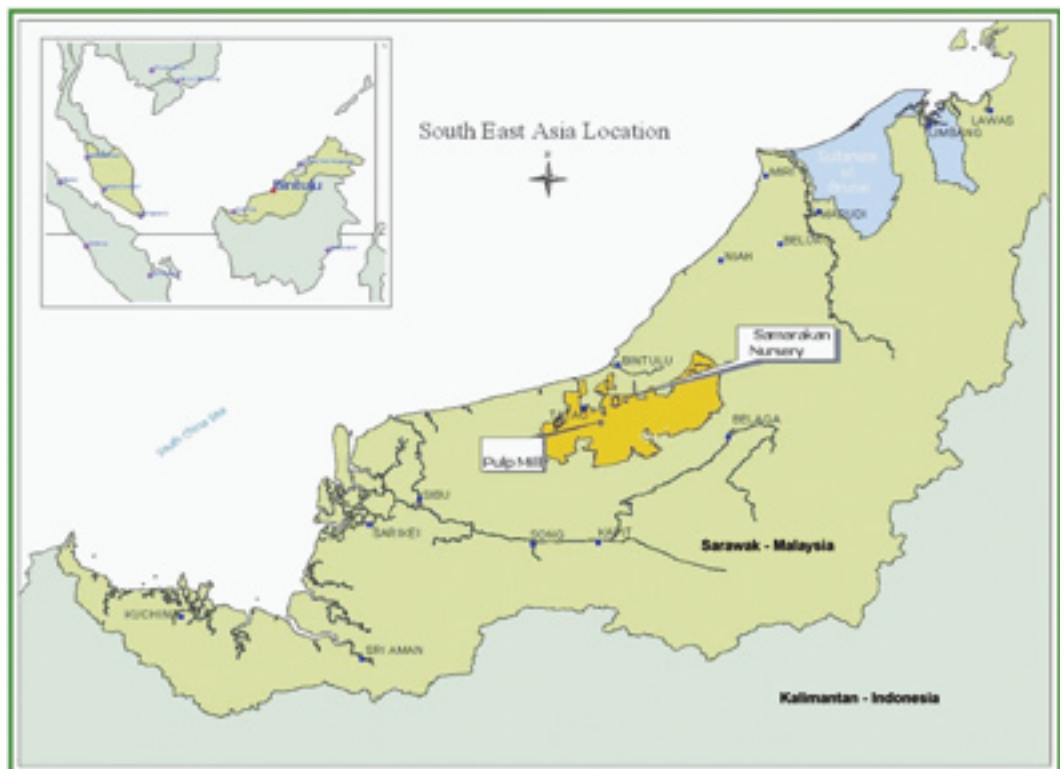


Figure 6: Location of the PFPP project, of the future pulp mill, and of the tree nursery (© PFPP)

Wood chipping industry

The Malaysian wood chipping industry is essentially devoted to the panel sector. Altogether, there are 10 small chipping mills in Malaysia, most of them being integrated with MDF mills, and being located in Peninsular Malaysia. Three chip mills are located in Sarawak, plus one integrated chipping - particle board industry in this state. In this state, there are also two integrated chipping - fibre board mills.

Type of Mills	Peninsular Malaysia	Sabah	Sarawak
Wood chip mill (non active)	-	4	1
Wood chip mill (active)	1	1	3
Integrated chip - panel mill	-	1	-
MDF mill	8	1	2

With such a structure, the Malaysian wood chipping industry is definitely not able to provide a strong export market. The displayed strategy is rather to directly supply higher value-added industries within the country, than to export raw or semi-raw material.

Wood supply sources

Most of Malaysia's forest resources are used for products other than paper. The wood-based sector is dominated by primary processing activities of sawmilling, veneer and plywood production. Malaysia is among the world largest exporters of tropical logs, sawn timber, and plywood. The country has developed large manufacturing and furniture industries, particularly using rubber-wood and lesser known species. Around 20% of Malaysia's wood production is used as fuel wood.

In order to feed its wood industry oriented towards timber valorisation, Malaysia has designated more than 75% of its natural forests as "Permanent Forest Estates" (PFE), to be managed and sustainably developed. The national parks and reserves are managed outside the PFE. Small areas of representative forest types are managed within the PFE as "Virgin Jungle Reserves" (VJR). More than 3 million hectares of forest are designated as conversion forest. These are forest that will ultimately be cleared, with the land put into alternative uses (these areas mainly consist into degraded areas, Figure 7). The country's supply of logs was theoretically expected to stabilise at 18 million cubic metres per year, with the government's implementation of the International Tropical Timber Organisation's (ITTO) objective of sustainable forest management.

In fact, the Malaysian operators have a different feeling and according to them, since the last 4 to 5 years there is a decline of log supplies from natural forests (in terms of both quality and volume). They expect a further decline in the coming years, and the future of their long term supply is not bright.

A part of the explanation of this decline lies in the fact that the extraction of wood became more and more expensive in the past years, for a number of economic reasons. Among them, the main is perhaps the fact that most of the high value timbers from natural forest have been already harvested within reasonable transportation distances, and within reasonably low slopes. Now, the remaining high value timbers are located at greater distances, and on steeper slopes; which increases the extraction cost.

One of the potential pulp wood supply sources are the residues of natural forest harvesting, after valorisation of high value timbers. The fibres are not homogeneous, because coming from different species. They can anyway be used for pulp production, but in a limited extent. The only known case is the supply of Sabah Forest Industries pulp mill, where natural hardwood fibre provide 90% of the supply. In Sarawak the natural hardwood residues are rather used for the supply of Medium Density Fibre (MDF) panel mills. MDF process is a clear competitor of pulp and paper process, because it uses similar

fibres, but with different scales and profits. In Malaysia, which is oriented towards the production of furniture and high added value products, the extent of the MDF industry is probably too large to allow a real development of the pulp and paper industry with respect to the scarcity of this source of fibre.

The other potential pulp wood supply sources are the three million hectares designated as conversion forests. They can perfectly be converted into pulp wood plantations, but this use is competing with other uses of quicker or of better incomes, such as palm oil and rubber wood plantations. Globally, the development of wood supply sources is quite limited in Malaysia.



Figure 7 : Degraded forest in Sarawak, designated to be planted (© JM Roda)

Wood plantation development

At the national scale, in order to encourage private sector involvement in forest plantations and to ensure sufficient log supply for the country's expanding wood-based sector, the government has introduced pre-packaged incentives, called "Pre-Packaged Incentive for Forest Plantation (Including rubber)". This is implemented under the purview of the Ministry of Plantation Industries and Commodities (KPPK), for the establishment of forest plantations. Under this scheme, there are 2 available options:

- Option 1 : Full tax exemption for up to 15 years for the company undertaking forest plantation project; and tax deduction for the investing company equivalent to the amount of investment made in the subsidiary company engaged in forest plantation.
- Option 2 : Full tax exemption for up to 15 years for the company undertaking forest plantation project; and group relief, which allows a company undertaking plantation activity to offset the losses incurred, from profits of another company within the same group.

Despite these incentives, the private operators still hesitate to finance forest plantations, since the financial return may not exist before 7 to 8 years in the best cases. Meanwhile, a competing land use such as oil palm plantations may create a quicker and higher financial return, this being supported by actual good prices in Malaysia for palm oil.

At the Peninsular Malaysia there is low potential for the development of pulp wood plantations. At the Sarawak and Sabah scales, the potential exists, even if it is not huge.

Wood plantation development in Sarawak

In Sarawak, there are theoretically 2.2 million ha allocated for plantation. Taking out swamps, slopes, and other unsuitable areas, only 1.5 million ha are actually the real potential.

The only prospect for plantation development for pulp supply is the PFPP project. The PFPP project covers a total area of 508 000 ha (Figure 6), composed of native customary lands (110 000 ha) and state lands (less than 400 000 ha). The state lands themselves are composed of conservation areas and steep lands (154 000 ha), of coastal and inland swamps (38 000 ha), all unsuitable for plantations, and of 205 000 ha of dry and flat or undulating lands, potentially suitable for the plantations.

The remaining of the 1.5 million ha is divided into 30 licences belonging to the members of the Sarawak Timber Association. The members of the association prefer to develop their plantations toward the production of saw logs and especially peeling logs. This is because these activities may create a better margin than pulp and paper industry, and also because the existing plywood mills of the country dramatically lack of raw materials.

Within the perimeter of PFPP, a few hectares have already been planted since 1997, when the plantation perimeter was managed under the Borneo Pulp and Paper project (see “planted since 1997” in Figure 8). The initial plantations area covered 24 600 ha up to 2003. For the new PFPP project, a new set of plantation areas has been assigned, and is currently under the plantation process (see “planting areas” in Figure 8). For only 2003 and the beginning of 2004, these new plantations totaled 8 500 ha, with as much as 2 000 ha per month in this last year. This was made possible by the reorganisation of the Samarakan nursery (or Grand Perfect nursery, Figure 9), which currently is able to produce up to 2 000 000 seedlings per month. Two other nurseries are planned to be established, and their combined production capacity could reach 1 000 000 seedlings per month.

The addition of the former “planted areas” and the new “planting areas” form the current “development areas”. These development areas are assigned to three private groups that form the Grand Perfect alliance (Figure 10). As indicated in Figure 10, the limits of the development areas are gross and indicative and should not be used in order to preconceive the details of the real land use nor the details of the effective management, especially when there are conservation areas in the same perimeter.

With the direction by the Malaysian government, the PFPP project also associates to the wood plantation development a number of economic and social programs in order to bring local development in Sarawak by the mean of the industrial investments. These side programs are a “community development” program (development of job opportunities for local and “ethnic” communities, infrastructure improvements for their benefit), a “skill development” program (basic workers training, training of plantation supervisors), an “environmental management” program (water quality monitoring, training to environmental awareness), and a “research and development” program (silviculture trials, breeding, etc). These side programs seem to be directly influenced by the Malaysian government political priorities at the national level (i.e. emphasis on training, water quality, infrastructures etc.).

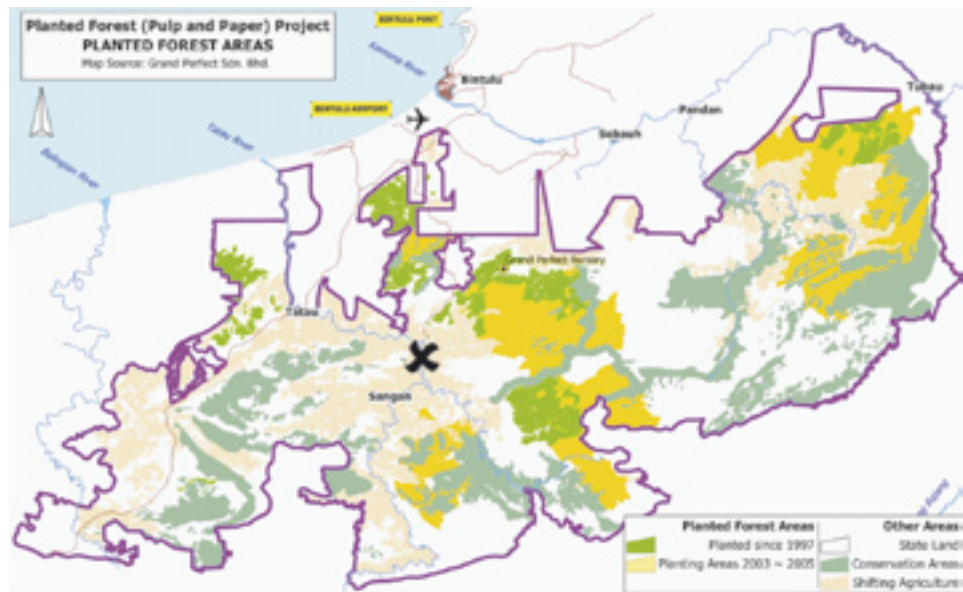


Figure 8: Land use within the PFPP project perimeter (© PFPP)



Figure 9: Samarakan nursery, also known as Grand Perfect nursery (© PFPP)



Figure 10: Development areas assigned to KTS, Samling, and Ta Ann groups (© PFPP)

Wood plantation development in Sabah

In Sabah, the context of plantation for the pulp and paper sector is quite different than in Sarawak. As seen above, a part of the Malaysian forests areas are designated as conversion forests, and this is also the case of Sabah (Figure 11). After being cleared; these areas can be used for any alternative land uses, and plantation forestry is a choice among others, according to the context and the profitability of the land use in question.

Unlike in Sarawak, there is no specific State project that would specifically plan a supply of a mill. In this context, there is no direct interest, for the private operators, to develop forest plantations for pulp and paper, since this land use accounts among the least profitable, unless the area is located in the immediate vicinity of a large pulp mill.

Of the 289 000 ha of forest concessions attributed to Sabah Forest Industries, only 118 000 ha are classified as conversion forest. Already 36 000 ha have been planted for the supply of pulp logs, and a further set of 50 000 ha of plantation is now launched. The plan is to ultimately reach 180 000 ha of forest being devoted to the supply of the pulp mill, a part consisting of the 118 000 ha of conversion forest, and a part coming from the by products of the natural forest timber harvesting. Although the financial logics would recommend the expansion of the pulp mill up to around a 500 000 T/year capacity, in order to preserve the mill competitiveness at a global scale, there are two factors that limit such an expansion. First, such an expansion would need forest areas that represent five times the actual size of the Sabah Forest Industries concessions, and this is impossible to obtain. Second, there is clearly a competition in the land use between the supply of raw material for the pup mill and for the plywood mills. But the plywood mills generate more profit, and have already a problem of shortage of raw material supply. In these conditions, a further increase of the pulp mill capacity is not a priority.

There was a discussion to establish a pulp mill of 750 000 T/year of capacity in Kalabakan area. This project was planned to be supported by a joint venture between the Lions group (holder of Sabah Forest Industries), China Fuxing, and Innoprise corporation (ICSB). Among the 300 000 ha available for forest conversion, a set of 100 000 ha was the

initial development set. In this set, 10 000 ha of acacia have been already planted. But in fact, it seems that this Kalabakan project was essentially a pretext for China in order to access the Malaysian timber. Thus the project has been cancelled.

Currently a new project has been set up, developing oil palm plantations instead of pulp wood. Among the 100 000 ha of the initial set, 66 000 ha consist in slopes below 12%, and this is theoretically suitable for oil palm plantations. Anyway, 36 000 ha could also be used for the development of rubber wood plantations (rubber wood has actually a high value in Malaysia). There is today a discussion in order to increase the authorized 12% slopes up to 20%. This would increase the suitable area of the first set from 66 000 ha to 80 000 ha.

Another noticeable project was the chips mill project planned by Sabah Softwoods. This project was to develop 30 to 40 000 ha of acacia plantation within the 60 000 ha of conversion forest allocated to the company. These plantations were due to support the supply of a chip mill to be constructed. Although a chip mill demand a low investment compared to a pulp mill, and thus may support a better margin at small scales; the project has been finally abandoned in favour of an oil palm plantation, far more profitable. The new oil palm project now regards 20 to 30 000 ha of the area, but this could be increased up to 60 000 ha.

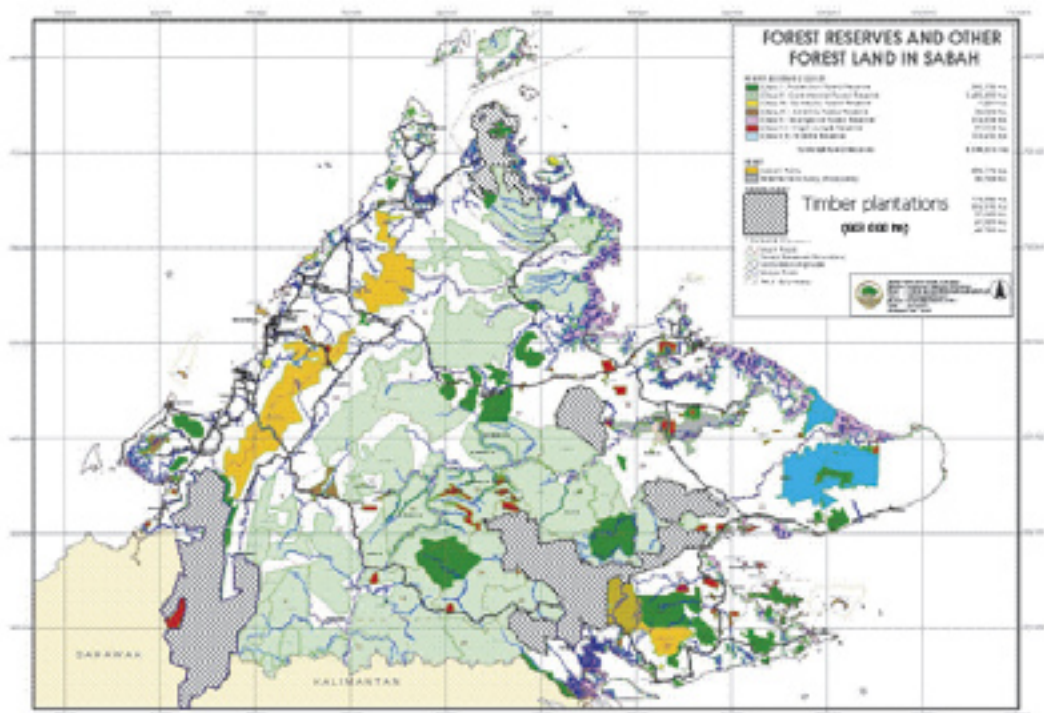


Figure 11: Conversion areas in Sabah, theoretically convertible into pulp wood or timber plantations (© Sabah Forest Department, with a generic timber plantation figure added by Cirad)

Prospective analysis: the pulp and plantation sector

Malaysian stakeholders see their pulp and paper sector as squeezed between two giant factors: the huge Chinese market, and the dominant European pulp and paper technology. The stakeholders don't see their country as a major player in the world pulp trade nor the world pulp industry. Since the country heavily relies on pulp and paper imports to feed its own demand, up to now, the idea of the government is to promote the increase of the self sufficiency, in order to feed the domestic consumption.

Why not to really develop the pulp wood plantation forestry?

The country has developed a buoyant timber and furniture industry since a long time, and is among the most competitive world producers of finished or semi finished forest products made of tropical hardwoods. The natural forests of Malaysia allied to the good economic condition of the country provide a natural comparative advantage, when considering the high added value industry mainly based on hardwoods and furniture. In this regard, and also the land uses needed to sustain the industries, the pulp and paper industry is an evident competitor against the previously developed timber industry. Furthermore, the pulp and paper industry has not yet proved its benefits in term of employments and of financial contribution to the country. Except in the areas already designated for forest conversion (mainly already degraded areas), any replacement of the natural forest by pulp wood plantations would be the last thing to do. Both public and private stakeholders, interests meet in controlling any excessive development of pulp wood plantations.

The future of Malaysia's pulp and paper sector

The development of the pulp and paper industry does not seem possible in Peninsular Malaysia because of the lack of potential land for plantation. In Sabah, there are some potential areas, but other land uses such as palm oil or rubber plantations seem to be more attractive for the private owners. Even in the case of the potential areas surrounding the only integrated pulp and paper mill of the country, the prospects for a further extension of the capacity of the mill are low, because of the lack of sufficiently large areas for pulp wood plantation.

In Sarawak, most of the potential areas are assigned to private operators who have other interests than pulp and paper industry. They have first to secure the supply of their MDF and plywood mills. Thus the development of pulp wood plantations would be contradictory with their existing industries.

Finally, The PFPP project is the only one with clear prospects, since already a sufficient area is secured to plant the material necessary to supply its 500 000 T/year capacity of future mill. The corresponding area is low. The further increase of capacity of the mill is not sure, and anyway subordinated to the success of the present mill. This possible increase, still engaging relatively limited areas of pulp wood plantations, would take place in a long term future.

Corporate actors and strategies

Malaysian corporate actors benefit from an exceptional political and economic context. The political stability of Malaysia and the economic wealth of the country make it a remarkable tropical country, with a relatively good extent of forest resources. In other words, it is almost an ideal place for the development of any kind of forest industries with high added values.

The major forest industries are located in Sarawak and Sabah, and they consist in a fistful of diversified groups. Among them, one can cite KTS, WTK, Rimbunan Hijau, Samling, Ta Ann, and Lions group. All corporate actors have a much diversified portfolio of activities, and even when forest industry is the historic core of activity of most of them, they all have spread their activities into agriculture, agro-industries, trading, services, printing and medias, logistics, construction, trading, computers, etc. Unlike in other tropical forest countries, these local corporate actors do not concentrate into a core sector, but they tend to invest in every profitable activity, in order to extend the range, the quantity of assets, and the stability of the group. All of these groups are typically organised in a great number of subsidiaries and joint ventures, with usually a relatively complex shareholding structure that allow to limit or to share the risks. Thus, even if the more prominent groups are fiercely competing, they are also engaged in some joint ventures and cooperation. With the Alliance of KTS, Samling, and Ta Ann into the "Grand perfect" company, the case of the PFPP project perfectly illustrates this concept of competition - cooperation, that some economists have named "coopetition".

Despite the investment of some of them into the pulp and paper sector, the interest of the Malaysian corporate actors remains in the preservation of the potentials for their added value timber and furniture industries, for which the country has a clear competitive advantage, while it is not the case for the pulp and paper sector. The diversification of the Malaysian corporate actors into this late sector could be seen as resulting of their typical diversification tendency, but it may rather be a resisting action against the attempts other foreign corporate actors to import their practices and different strategies into Malaysia. The main threat came from the Indonesian giant corporates actors April and APP, which are the giants of the pulp and paper sector in Asia. Being engaged in a fierce competition between themselves, finally targeting the Chinese market, these actors may have included the Malaysian forest resources into their geostrategic plans in order to insure the supply of the growing capacity of their assets in Asia.

In this regard, their possible settlement in Sarawak through the Tatau or the Borneo Pulp and Paper projects was potentially dangerous for the evolution of the supplies of the existing Malaysian forest industries. As seen above, the common interest of the Malaysian Government and of the Malaysian corporate actors made possible both the eviction of APP from the Borneo Pulp and Paper project, and a strong engagement² within the replacement project by some of the Malaysian corporate actors (preventing the eventual come back of APP).

China's demand footprint

The footprint of China's pulp and paper demand on Malaysian forests is remarkably low. The Indonesian groups APP and April, which especially target the huge Chinese demand for wood pulp and paper have tried to settle in Malaysia, but they failed because of the strong difference in interests with regard to industrial path that are already in place. Despite some other failed attempts of some corporate actors to control a part of the resource in Sabah, the forest resources of Malaysia seem definitely out of range of the influence of the Chinese demand for wood fibre. This may be not because of a specific virtuous behaviour of Malaysian stakeholders, but rather because of the economic realities that make too expensive the comparative cost of shifting a part of the resource from an industrial path already engaged towards high added value timber products, to an alternative path oriented towards lower value pulp and paper products.

Ultimately, China may represent a threat on the Malaysian timber and furniture industries, directly through the growth of the Chinese timber and furniture industries, which low costs increase the competition in this sector at a global scale, and which dangerously challenge all the industries of Malaysia as much as of other Asian producers.

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Endnotes

- ¹ According to Malaysian stakeholders, the Borneo Pulp and Paper project has benefited of a first loan of 400 millions Ringgits, by 7 bank. This loan was equivalent to 10% of the project total investment and was theoretically desiganted to launch the operations, clearing the potential plantation fields, preparing the plantation, organize the thinnings, etc. It seems that the loan has been differently used by APP than expected by the Malaysian Government and by the original plan, and this may be one of the causes of the disagreement. But the real release mechanism of the eviction of APP was the 1997 Asian crisis and the fact that APP had 60% of the shareholding of Borneo Pulp and Paper. With this majority, APP had the control of the management of the operations. And when the Asian crisis severely hit APP, the Malaysian government later on feared that APP may sell the land in order to reimburse its own creditors. To avoid such an eventuality, the Malaysian government seized back the land, and took it back under the management of Sarawak Forest Department. APP brought the case before the courts, but it hasn't been fruitful up to now.
- ² The fact that Mr Lau; the CEO of KTS, the very powerful group of Kuching, is also the CEO of the alliance (Grand Perfect) of KTS, Samling, and Ta Ann, is not a coincidence.

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