MAHOGANY

IN THE

UK.

A STUDY FOR

FUNATURA.

P.W.BISHOP, 1993.

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INTERNATIONAL TROPICAL TIMBER ORGANIZATION
ITTO

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Este trabalho foi encomendado ao autor pela FUNATURA, como parte do estudo "DEVELOPMENT WORK TO PHASE OUT TRADE ON UNSUSTAINABLY PRODUCED TIMBER: I - ASSESSMENT OF FUTURE MAHOGANY SUPPLY AND ALTERNATIVE INDUSTRIAL OPERATIONS FOR SUSTAINABLE PRODUCTION", pré-projeto financiado pela ITTO.

O técnico P.W.Bishop encarregou-se da elaboração do presente documento. As opiniões expressas, erros e omissões são, evidentemente, da responsabilidade exclusiva do autor.

PREFACE.

This report has been carried out on the instructions of Fundacao pro Natureza, FUNATURA, as part of a pre project study for the International Tropical Timber Organization, ITTO, Ref: (PC1(V111)/5). The main study covers "Development Work to Phase out Trade of Unsustainable Produced Timber". Phase One, of which this report will form part is an "Assessment of Future Mahogany Supply & Alternative Industrial Operations for Sustainable Production".

The brief undertaken was to comment specifically on the UK market covering the following nine areas :–

1. Historical series of mahogany imports from 1980 to 1991 including volumes, values & origin for sawn wood, processed (dressed) wood, veneers (decorative & plywood sheeting), plywood &, eventually, final product.

2. List with actual main gross importers with volumes.

3. Commercialisation forms with distribution channels.

4. Price evolution increasing the added value (degree of industrialisation) for main products.

5. Price analysis in general terms (raw materials, labour, tax, profit etc.) for the final product.

6. Main end uses.

7. Main possible alternative species & sources (countries) by end use.

8. Trends in mahogany market.

9. Environmental pressure on tropical timber utilisation in general terms and especially for mahogany.

Each of the nine areas above are reported on individually in the following pages. Comment, where necessary, on the feasibility of establishing precise information against each area is made at the introduction to its own section.

P.W.Bishop, C.M.I.W.Sc.,
Associate Member of The Timber Trade Federation.

December 1992 and January 1993.

SECTION 1.

HISTORICAL SERIES OF MAHOGANY IMPORTS FROM 1980 TO 1991 INCLUDING VOLUMES,VALUES & ORIGIN FOR SAWN WOOD,PROCESSED WOOD, VENEERS, PLYWOOD &, EVENTUALLY, FINAL PRODUCT.

It has been extremely difficult to try and isolate the actual mahogany import to the UK from Latin America over the period of review. No finite information is available. We must clearly understand that the most likely souce of mahogany listed by the UK Department of Trade and Industry, the D.T.I., is Brazil. Other countries are occasionally listed but, in the opinion of all here in the UK, they bear no significance to the volumes involved. Imports from Bolivia are most likely to be mahogany but as supplies at best are erratic this has been ignored.

It must also be understood that mahogany itself is not identified on any statistical volume importation information currently available."Other" species are included in the totals. Only after lengthy discussions with the UK Timber Trade Federation, T.T.F.,the major agents and representatives involved in mahogany importation & other leading members of the trade have I been able to come to a subjective view on the split of these volume statistics.

It has also not been possible to identify any "added value products" from the import statisticts. This subject was also a topic that underwent lengthy discussion with all involved. The general conclusion arrived at was that although there were indications of some importation of veneers, mahogany faced plywood and possibly furniture components once more the volumes were insignificant and therefor did not warrant discounting any of the statistics available. At best these added value products might represent 1% – 2% of total imports annually.

Bearing the above comments in mind the following statistical lists and graphs have been broadly labeled as supplies from Latin America.

Figure 1 illustrates the total sawn lumber imports over the period of review with the corresponding mahogany volumes displayed in figure 2.

The decline in mahogany volume imports from their real peaks in 1987–1989 can be attributed to a reduction in demand due to the recesionary conditions that have prevailed right through to today. The environmental issues have had little affect to date, this subject is discussed futher in section 9.

Figures 3 to 5 break out from the total mahogany volumes the two major grades in the three popular imports, FAS grade air dried, FAS grade kiln dried and Standard grade .Part of the decline in FAS kiln dried volumes recently can be attributed to one major end user who has switched to Tornillo, Cedrelingu cataeneformis, a Brazilian species, for his main line use. This change over has been affected purley for commercial reasons, tornillo is cheaper.

Figure 1. Total Latin American sawn lumber imports 1980 – 1991, m3.

	m3
1980	64300
1981	92500
1982	73300
1983	102600
1984	94000
1985	91000
1986	91800
1987	112000
1988	101500
1989	100000
1990	75400
1991	60000

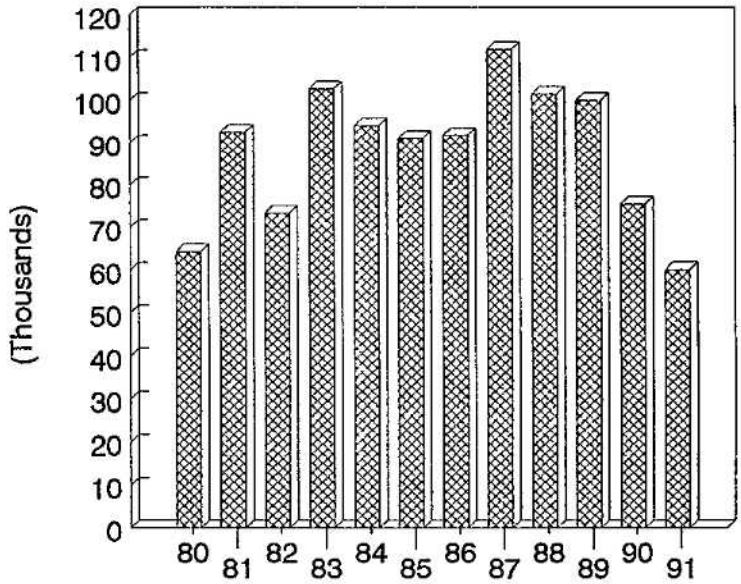


Figure 2. Total L.A. Mahogany lumber imports 1980 – 1991, m3.

	m3
1980	64000
1981	92000
1982	72500
1983	101700
1984	93100
1985	90100
1986	90800
1987	107500
1988	96500
1989	94000
1990	70000
1991	55000

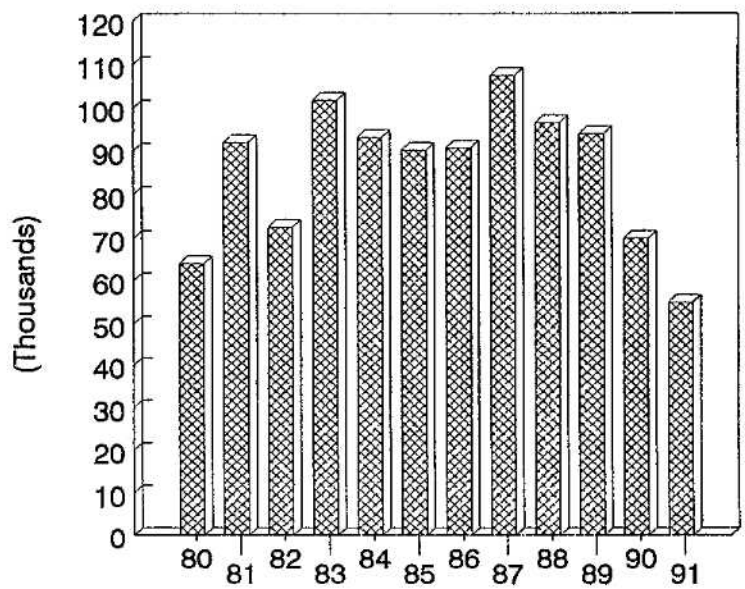


Figure 3. Total FAS air dried grade mahogany imports 1980 – 1991, m3

	m3
1980	51900
1981	70700
1982	41000
1983	45850
1984	27350
1985	18200
1986	22050
1987	29050
1988	19900
1989	21850
1990	18100
1991	13450

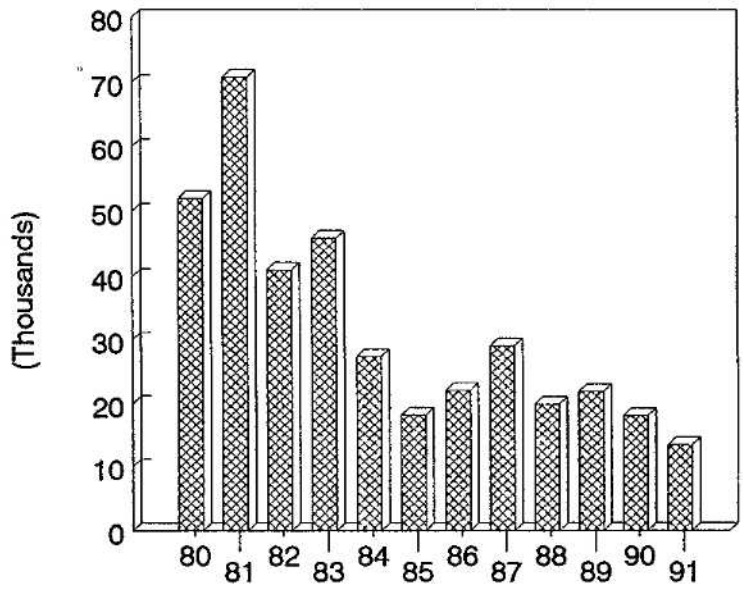


Figure 4. Total FAS kiln dried mahogany imports 1980 – 1991, m3.

	m3
1980	6000
1981	12500
1982	25000
1983	43750
1984	54550
1985	61100
1986	56950
1987	66050
1988	67000
1989	60850
1990	42800
1991	33850

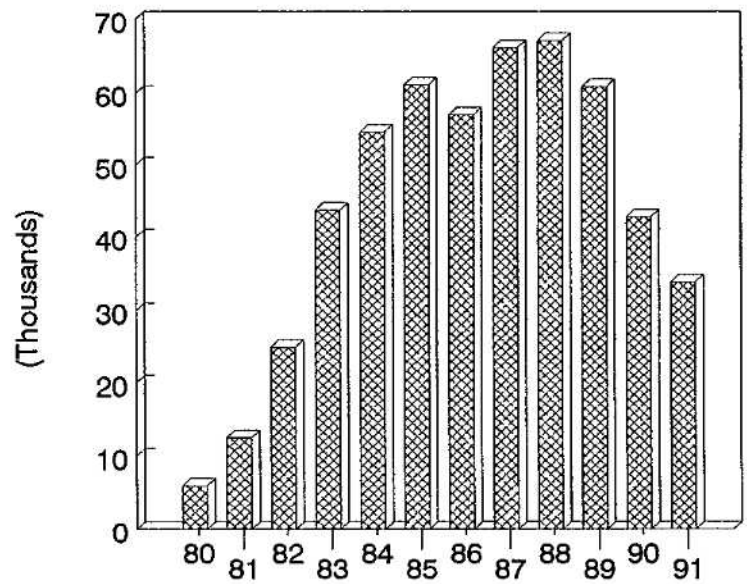
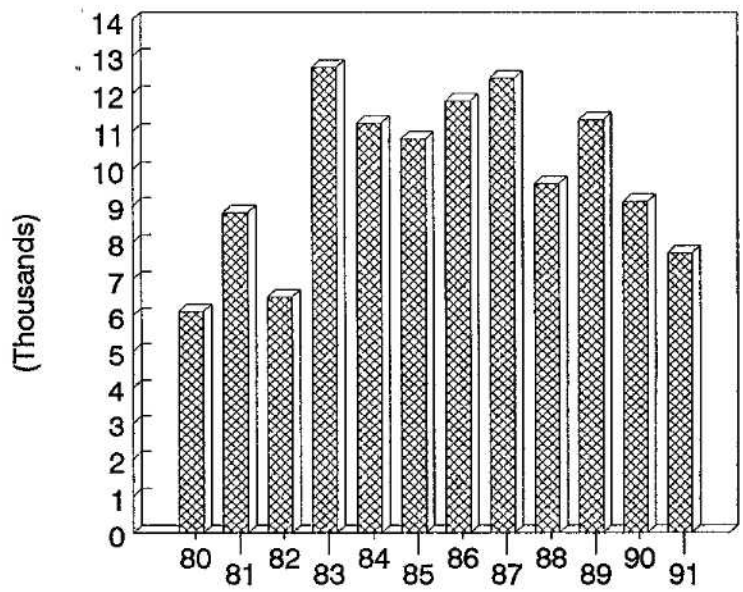


Figure 5. Total Other grades mahogany imports 1980 – 1991, m3.

	m3
1980	6100
1981	8800
1982	6500
1983	12700
1984	11200
1985	10800
1986	11800
1987	12400
1988	9600
1989	11300
1990	9100
1991	7700



Trying to establish the value of mahogany imports over the period has also been extremely difficult. Variation in US $ to the £ Sterling exchange rates tend to distort the Cost, Insurance and Freight, C.I.F., statistics and therefore render them useless. I have tried to focus more on the Free on Board, F.O.B., initial cost rates as a more stable indicator of price variation over the study period. This again, at best, is only a subjective opinion and for simplicity I have taken a mid–year guide FOB value and then applied that to the total volume import for the coresponding year.

The highest cost values were achieved in 1990 even though the volumes in that year did not exceed their peak of 107,500 m3 in 1987. Resistance to this level of cost and the subsequent decline in the UK economy,and thus demand, have ment FOB prices have now fallen away.

Figures 6, 7 and 8 show, respectively, FAS grade air dried, FAS grade kiln dried and Standard grade FOB mid–term values converted to total values for each item for the review years. Figure 9 displays a total picture for all mahogany grades and types.

Appendix 1a hold an example of the main statistical information available. It has been prepared by Charles K. Norman, TTF Statistician, from details of UK volume and value imports provided by Her Majestys Customs and Excise data. The same data is used by the DTI to produce its monthly trade balance ratios.

Figure 6. FAS air dried mahogany annual value imports based on a mid–term FOB US $ m3.

	$ m3	total value $000
1980	470	24393
1981	485	34290
1982	480	19680
1983	470	21550
1984	450	12308
1985	350	6370
1986	450	9923
1987	570	16559
1988	590	11741
1989	630	13766
1990	885	16019
1991	760	10222

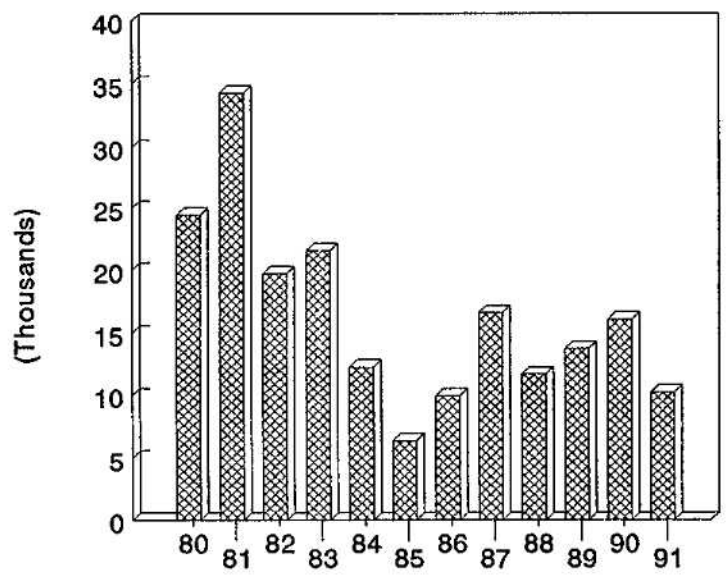


Figure 7. FAS kiln dried mahogany annual value imports based on a mid–term FOB US $ m3.

	$ m3	total value $000
1980	505	3030
1981	515	6438
1982	510	12750
1983	510	22313
1984	500	27275
1985	400	24440
1986	525	29899
1987	630	41612
1988	650	43550
1989	725	44116
1990	950	40660
1991	865	29280

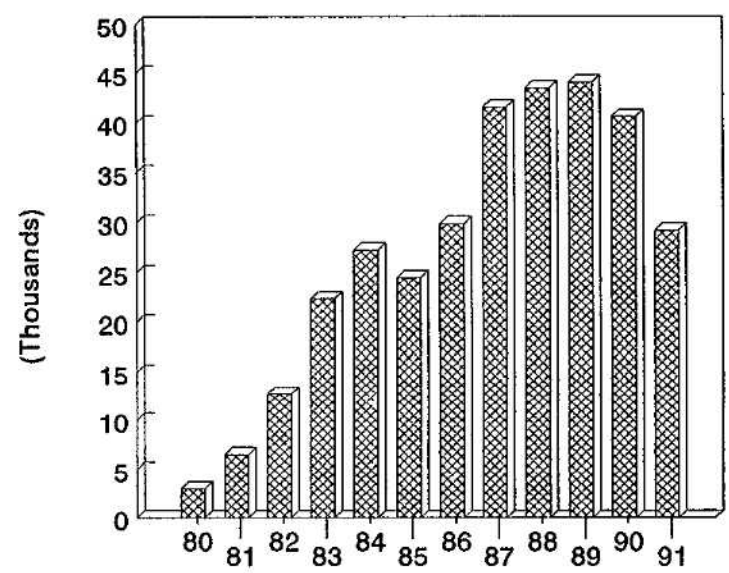


Figure 8. Other grades mahogany annual value imports based on a mid–term FOB US $ m3

	$ m3	total value $000
1980	320	1952
1981	325	2860
1982	320	2080
1983	340	4318
1984	350	3920
1985	360	3888
1986	380	4484
1987	430	5332
1988	450	4320
1989	525	5933
1990	650	5915
1991	630	4851

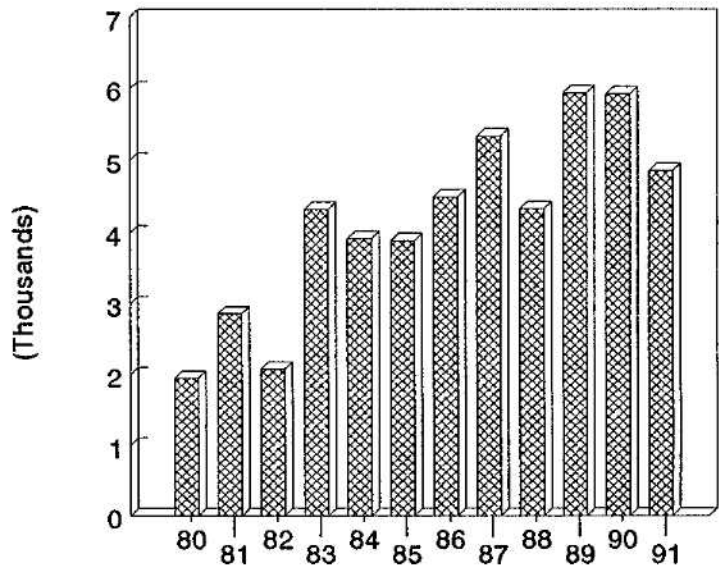
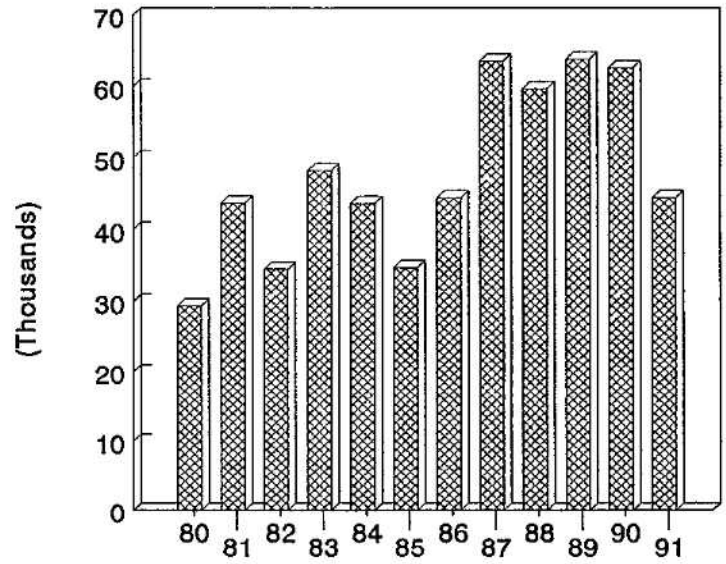


Figure 9. All mahogany annual value imports compiled from figures 6, 7 & 8.

	total value $000
1980	29375
1981	43588
1982	34510
1983	48181
1984	43503
1985	34698
1986	44306
1987	63503
1988	59611
1989	63815
1990	62594
1991	44353



SECTION 2.

LIST WITH ACTUAL MAIN GROSS IMPORTERS WITH VOLUMES.

Following the difficulties in establishing the total volume imports to the UK it has been impossible to establish the volumes held by Importers.

Most, if not all, UK hardwood importers hold stocks of tropical redwoods. Generally they will carry more than one species. The numbers listed below are rounded off and reflect surveys carried out by the UK Timber Trade Federation, TTF, indicating the number of stockist holding a particular redwood. The numbers can not be added together nor do they reflect actual volumes where the bulk of the trade is found in the Far Eastern shorea range. The popularity of these redwoods reflects a combination of uniqueness in grain and colour compared with temperate hardwoods and softwoods as well as a range of other cherished physical properties.

Estimated Numbers of UK Stockists Holding a Particular Tropical Redwood Species During 1991 and its Source :–

Africa		Far East.		Latin America.	
Sapele.	35	Meranti, dark red.	55	Andiroba.	5
Utile.	35	Meranti, light red.	20	Mahogany, (2).	60
Mahogany.	35	Seraya, red.	35	Cedar.	20
Edinam.	10	Lauan, dark red (1).	35		
Guarea.	10	Nemesu.	25		
Kosipo.	10	Bintangor.	10		
Danta.	10	Gerongang	10		
Makore.	10	Nyatoh.	10		
Niangon.	5	Merbau.	5		
		Taun.	5		

Note 1 : Lauan from the Philippines will be residual stocks as exports of Philippine grown sawn wood are prohibited.

Note 2 : Probably includes the small amount of Bolivian imports as well.

Following the impossibility of establishing volumes held I have tried to arrive at an informed conclusion.

My old company,the Parker Kislingbury Group, were generally considered one of the trade leaders, from the information that was available to me I know that in 1991 we had, at best, only 5% of the total UK mahogany market. There is, I consider, only one other group with a significantly larger share of the market, probably 10% – 15%.

I would estimate that the top FIVE importers in the UK only hold about 30% – 35% of the total market. If one were to add the other five or six groups to this the market share might move up to 50% – 55%.

Consider now that the TTF has established that about 60 of its members are holding stock of mahogany.In addition to this thereare other timber companies in the UK who are not member of the TTF, therefore the remaining market share of about 45%–50% must be spread through at least 50 companies with, possibly, only a 1% share each !

If my scenario above is correct this is how the imported volume distribution would have looked in 1991 :–

Importer rateing.	Imported volume, m3.	% of the market.
No. 1	8250	15%
No.'s 2 – 5.	11000	20%
No.'s 6 – 60	27500	65%
	55000 total volume.	

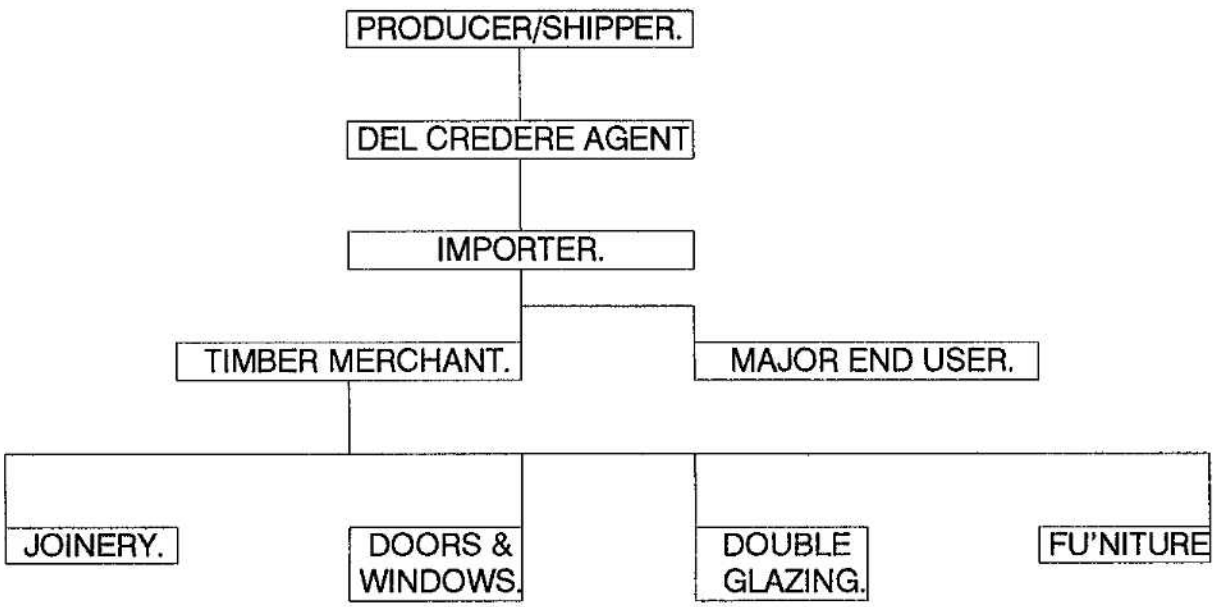
The implications of this fragmented market supply chain on the environmental issues is discussed futher in section 9.

SECTION 3.

COMMERCIALISATION FORMS WITH DISTRIBUTION CHANNELS.

There have been significant changes over the period of review to the methods of purchase and distribution.

In the early eighties a traditional chain of distributon was in place where each party clearly had a role to play, exceptions to this were rare.This cosy relationship whereby the UK based Del credere Agent, acting on behalf of a limited number of shippers, sold only to an Importer who subsequently sold on to the Timber Merchants and major end users, see framework below, changed in about the mid eighties.



From the original grouping of Agents during this period, about 8 in all, few remain. It is now estimated that about 80% of the mahogany supply is controlled by four major players and with the addition of a fifth this moves up to about 90%. The rest is taken up by three or four Del credere Agents from the early days.

The Agents independent role has also changed to a large degree. Within the main players there is some direct or indirect link with the exporting country. This leads to the control of the initial importation moving from the UK back to the source country.

Within in this sector of the supply chain it has become a practice to now deal direct with the major end users thereby circumventing the role of the traditional Importer. Effectively these larger users have become direct Importers themselves.

Another activity that had increased, up until the recent economic downturn, has been the development of the Trader Agent who would buy stock on his own behalf, or jointly financed by shipper, and ship this stock to the UK on "consignment". The effect of this has been again to circumvent the Importer with the Trader Agent acting as principal and selling direct to major users himself as well as to the Importer.

This practise involving consignment stock has some benefits to Importers in helping to controll their stock levels. It also has advantages and disadvantages in purchase price when related to the exchange rates, sometimes positive or negative when compared to stock held on the ground in the Importers yard. The practice of "dumping", selling cheaply Bills of Lading if not sold as shipments arrive, may help cash flow demands of the Agents but can cause havock with the local market price.

Another interesting aspect has been the establishment of mainland Europe as a major stock holding facility for importation to the UK indirectly by some of the larger Agents. This is restricted to one or two major players. Advantages are gained by the Importer from reduced stocking levels but there are extra handling costs for the freight across to the UK.

The Importing companies have seen much change also. With rationalisation, merger, takeover and failure of businesses along with the changed role of the Trader Agent and Representatives the numbers involved in this function have declined.

When once the Importer would only consider dealing in bulk he has had to become more flexible and will currently select from stock purchase orders that may only consist of one or two pieces. To counteract the encroachment on his traditional territory the majority have been able for some time to offer futher re–manufacturing facilities. This has enabled him to supply directly some of the smaller users who previously sourced their materials from the Timber Merchant.

Unlike the North American supply chain there have been few moves to forge closer links between Shipper and Importer excluding the Agent.

The grouping and merging of many Timber Merchants into large chains has given them additional purchasing power which has enabled them to, in many cases, avoid the need to buy from an Importer. In these instances they can compete more easily with the Importer.

The emergence of the large Do it Yourself, DIY, or home improvement stores, known as "sheds", has taken a certain amount of the traditional Timber Merchants trade away from him. Mainly to the small builder, home improver or occasional user they tend not to stock a very broad range of items and focus more on the lower quality materials such as Meranti. The small amounts of mahogany sold are generally in stair components sourced within the UK.

Major end users who now buy direct from the Agent or Representative would mainly operate in the Stair, Door, Window, Double Glazing and Furniture markets. The smaller volume user in Boat Building, Bar & Shop Fitting along with the smaller users from the above markets would still buy from the Importer or Timber Merchant.

The framework that exists currently for supply and distribution is demonstrated in Figure 1 on the following page.

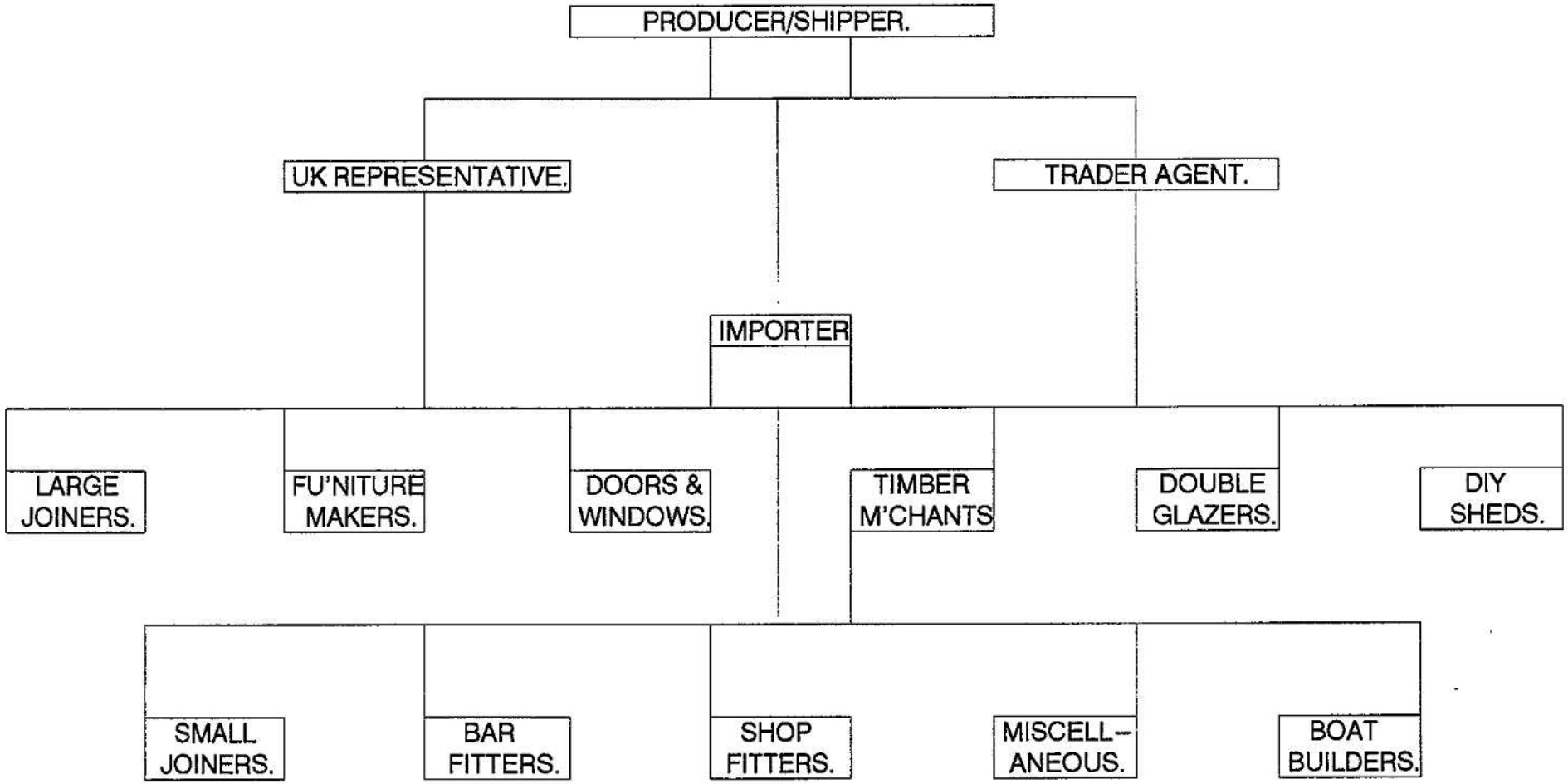

PRODUCER/SHIPPER.
UK REPRESENTATIVE.
TRADER AGENT.
IMPORTER
LARGE JOINERS.
FU'NITURE MAKERS.
DOORS & WINDOWS.
TIMBER M'CHANTS
DOUBLE GLAZERS.
DIY SHEDS.
SMALL JOINERS.
BAR FITTERS.
SHOP FITTERS.
MISCELL-ANEOUS.
BOAT BUILDERS.

FIGURE 1

SECTION 4.

PRICE EVOLUTION INCREASING THE ADDED VALUE FOR MAIN PRODUCT

There has been little attempt over the period under review to add value at source with the exception of the increased availability of kiln dried material.

After discussion with the principal Agents and Importers in the UK little evidence can be found of consistent supply in any significant volume of mahogany faced plywood, furniture parts or components and veneers. The best examples of specific export against final product demand is the remanufacture at source of stair spindle blanks. As these are produced generally from waste and recovered stock the added value has little impact on the importation costs.

The opinion held largely in the UK is that although there may be variations year on year the sum total of futher processed added value, apart from kiln dried, probably only amounts to as little as 1% – 2% of the total imported volume annually.

The one area that has had a great deal of success in adding value has been through the increasing availibility of kiln dried material. Only a very small capacity of kilning plant was at the disposal of the exporters in the early eighties and reflected the small volumes shipped. In the early days of kiln dried supply a premium was sought but hardly achieved for those volumes available. This practice gave way as supply matured to a differential selling price structure based more on the actual drying costs

Appendix 4a demonstrates the best volume estimates of FAS grade material, this grade is where the drying is focused primarily, imported by the UK over the review period. A surge in the kiln dried volumes is apparent in 1982 and continues to rise through to its peak in 1988. The down–turn in actual volume imports from 1987/88 can mainly be attributed to the general recessionary conditions that started in 1989.

In fiscal terms appendix 4b displays the FOB import values over the period, once more for FAS grade, air dry versus kiln dried. Apart from mild variations in the early days and in 1990 the differential has remained fairly constant at between 10%–15%. The base cost of both air and kiln dried material has generally continued to rise through to a peak in 1990 where a lack of demand and competitition has forced down prices.

With the wide variety of uses for mahogany in the UK it has probably been difficult to encourage the adding of value at source especially as the raw material has been in such high demand. Oportunities may have been missed and it would seem sensible to generally review export policy in this area.

The volumes and values used in this section have been formed subjectively by the writer after discussions with leading members of the UK trade. They are not difinitive and should therfore be used for demonstration purposes only.

SECTION 5.

PRICE ANALYSIS IN GENERAL TERMS FOR THE FINAL PRODUCT.

The example displayed takes the equivalent cost from source of one cubic foot of 2.5 inch thick FAS grade kiln dried mahogany & shows the progressive addition of costs and value through to a finished window frame. The finished window frame has then been sold to its final user, in this case a local housing authority. If it had passed futher down the retail chain to a builder or window fitter the final consumer is likely to be paying between 50% – 70% more on top of stage 3 to cover any ensuing costs.

A base cost of US $750 per cubic metre, m3,has been taken. As the values would be difficult to demonstrate on this volume it has been converted to cubic feet and an exchange rate of US $1.60 to the £ sterling used.

For simplicity the calculations are made through three stages, Source to Importers yard, Importer through to Window Manufacturer and, finally, Window Manufacturer to Customer. All values have been rounded to the nearest five pence.

Value Added Tax, VAT, is paid at each transaction stage in the UK, this is subsequently recovered from the Inland Revenue until eventually the consumer pays tax on the final invoice value. The current VAT rate in the UK is 17.5%. For this example VAT has been excluded.

Initial calculation : US $ 750 per m3 divided by an exchange rate of US $ 1.60 to the £. = £ 468.75 per m3, divided by 35.3147 to convert to cubic feet, f3 = £ 13.27 per f3, free on board, FOB.

This initial base cost rounded to £ 13.25 per f3 will include the "commision" paid between shipper and his agent or representative. This will vary from 2% –5% dependant upon individual arrangements and competitive pressures. From this "commision" the Agent has to cover all his local and UK administration costs and overheads.

Stage one.
Agent/Representative to Importer.

		£ f3.
	FOB	13.25
*	Insurance & Freight	1.35
	Cost, Insurance & Freight, CIF, total	14.60
	Inland haulage, quayside to Importer.	.40
	Total cost on arrival at Importers yard.	£ 15.00 f3

* Insurance varries between 0.05% – 0.08% of cost, Freight currently falls between US $ 65 – $ 80 per m3.

Stage two.
Importer through profile manufacture to Window maker.

	£ f3
Cost to Importer	15.00
Yard labour costs	1.25
Sawing & moulding costs	2.00
Rejection & wastage costs	2.50
Overheads & administration costs	2.00
Haulage costs	.75
Profit	1.00
Total cost to Window Manufacturer	£ 24.50 f3

Stage three.
Window manufacture through to customer.

	£ f3
Cost to Window maker	24.50
Labour handling costs	1.50
Manufacture & assembly costs	1.50
Rejection & wastage costs	1.25
Overheads & administration costs	1.75
Haulage costs	.50
Profit	1.25
Total cost to customer	£ 32.25 f3

No consideration has been made in the above example for the costs of financing the stock purchases at any stage. The traditional payment terms from Importer to Agent have been 21 days from Bill of Lading date, with a voyage time of about six weeks this means that the goods are paid for before arrival in the UK. These terms have been altered somewhat in recent years with a few of the major importers negotiating extended payment periods of 45 to 60 days, naturally this erodes the slim margins between Agent and Shipper. It is also true to say that the relationship between Importer & Window Manufacturer have changed. Once more historically an average of 45 days has been taken for payment, following negotiation it is more likely to find 60 or 90 day terms being employed. Following the economic decline over the early nineties it is more typical to find these extended terms in place.

From this example it can be seen that from a quay–side cost at, say, Belem, of £13.25 f3 the final cost has moved up by nearly 150%. Little of this is profit, only about 7% in total excluding finance costs.

The above indicative cost structure was arrived at following discussions with Agents, Importers and a major manufacturer of mahogany windows.

SECTION 6.

MAIN END USES.

Whilst Latin American Mahogany has been available for some considerable length of time probably its real development of commercial importance in the UK started about 15 years ago.

In appendix 6a, an extract from a publication "Wood Specimens" circa 1957/8, it can be seen that at that time mahogany was generally used for furniture making, yacht & boat planking, shells of speed boats and aircraft propellars. Reference is also made to the then major source, British Honduras, having areas that had been "cut out" and neighbouring countries starting to be worked for mahogany. A useful reference work which covers this subject in depth can be found in " Mahogany of Tropical America", who's author is one F.Bruce Lamb, published in 1966. Both these publications are currently out of print.

With the exploitation of mahogany over the following years, and the development of Brazil as the main source, this species started to overtake others in popularity in the early to mid seventies. The species that it replaced at that time, ether through lack of availability or failing quality, were mainly African, Mahogany (Khaya spp.), Utile and Sapele (Entandrophragma utile & cylindricum repectively).These species had formed the backbone of the better quality "red" mahogany type timbers available for a wide variety of uses.Although Shorea species from the Far East were also becoming more widely available they were not perceived as having the same qualities, strength, colour, durability, character and good working qualities for shaping and finishing.

Mahogany is available today through Agents and Importers to the major users. Its distribution to most other users is mainly through the Timber Merchant and, to a lesser degree, DIY sheds. Its end use application has also broadened over the years and it is now perceived as the major superior quality material available for the more demanding project.

In apendix 6b an extract from Her Majesty's Staitionery Office publication, Handbook of Hardwoods, dated 1972 gives an indication of the uses mahogany was put to at that time. Note in this publication reference is made to its " relatively high cost and limited availability". Availability we know has improved since then but cost has had a great deal of effect on use in recent years. Some of the applications that mahogany is used for, eg windows, are very cost sensitive. When the manufacturer reaches a point at which the gains made from lower wastage and rejection are outweighed by increasing cost alternative materials are sought. These materials are generally of an inferior quality but continue to be used until the mahogany cost criteria are reached.

Mahogany remains the most popular of the "red" timbers available for use in the UK for any application that requires a perception of a superior quality core material.

Primary uses today for Latin American Mahogany are listed in appendix 6c.

SECTION 7.

MAIN POSSIBLE ALTERNATIVE SPECIES AND SOURCES BY END USE.

Following the general adoption of mahogany for a wide variety of end uses, because of its superior qualities, it would be difficult to try and identify one alternative species that would encompass all the attributes required.

The only other redish coloured volume material available to compete with mahogany in recent years has been the Far Eastern "Shorea" species such as Meranti, Lauan and Seraya. Although these timbers are generally supplied in longer lengths and set widths, which is advantageous, their rather bland appearance, poorer surface quality finish, questionable durability and cheaper cost has, in the main, seen them used as the utility timber in the same end use markets as mahogany with a few exceptions.

The African species that were chiefly replaced by mahogany, Utile, Sapele and African mahogany, declined in popularity through a reduction in availability and largely a degradtion in the quality of lumber produced. The inclusion of what appeared to be too high a percentage of reactionwood and interlocked grain material in the shipments of these African timbers coincided with the emergance of mahogany from Latin America in bulk. All these timbers are still available on the open market, albeit in smaller quantities and with a somewhat erratic supply. They could still be considered as alternatives to mahogany but, although cheaper, it would be difficult to now get the manufacturers to switch back to them as the same quality problems prevail.

One or two manufacturers within the UK have taken steps to use some of the lesser known secondary species from Latin America, more may follow. But a concern to all will be the constant and consistent supply of these alternatives in the volumes and qualities required by the individual end user.

Unless, in the unlikely event, Swietenia macrophylla suddenly disappears as an available raw material the UK trade will not willingly seek to switch back to those other timbers that, in comparison, underperform.

The list in Figure 1 attempts broadly to place alternative species against specific end uses. Idealy a limited choice would be best as the trade in the UK today would find it difficult to finance a larger and more varied stockholding. Please note that many of the timbers offered as alternatives are not all "red" in colour, they have been chosen for their particular use because they have properties that are suitable for the application indicated. Shorea species could be utilised throughout the whole listing as a general all purpose alternative.

Appendix 7a holds a range of technical details for the alternative timbers identified. Extracted from H.M.S.O. publications : Handbook of Softwoods & Handbook of Hardwoods. In 7b some of the lesser known Latin American timbers are offered.

FIGURE 1

	END USES.	COMMON NAME ALTERNATIVE.	SOURCE COUNTRY.
1	Furniture and cabinet making.	Utile, Sapele, Af. Mahogany, Idigbo/Emeri.	Africa. " " "
2	Bar, shop, bank and public building fitting and pannelling.	As 1 plus :– Iroko, Red and White Oak, Ash, Tulipwood, Teak.	 Africa. North America and Europe. North America. Mainly Far Eastern.
3	Boats and Yachts, decking: fittings:	Teak, Iroko. Utile, Sapele, Af. Mahogany.	" Africa. " " "
4	Joinery, stairs, doors and windows.	As 3 plus :– Red and White Oak, Ash, Idigbo/Emeri.	 North America And Europe. Africa.
5	Double glazing and conservatories.	All African alternatives.	
6	Pattern making.	Jelutong, Southern Yellow Pine.	Far East. North America.
7	Patio door surrounds.	All African alternatives.	
8	Skirtings, architraves and other interior fittings.	Utile, Sapele, Af. Mahogany, Idigbo/Emeri, Red Oak, Ash, Tulipwood.	Africa. " " " North America and Europe. "

SECTION 8.

TRENDS IN MAHOGANY MARKET.

VOLUME.

The overall trend in UK tropical and temperate imports peaked in 1987 and has since declined from this high by arround 50% through to 1991. In 1992 imports are unlikely to have improved. Mahogany has faired marginally better from a best estimate of volume imports in 1987 of 107500 m3 versus about 55000 m3 in 1991. One would have thought from its wide and varied use that mahogany might have been protected more from the economic condition that have prevailed. The graph in Figure 1 shows the best estimates of mahogany volume imports, 1980 – 1991.

VALUE.

The general trend for all mahogany lumber exports has been a continuing rise in cost price. Dips have been apparent in the early eighties and nineties but are mainly attributable to the poor economic conditions rather than demand.There does appear to be a threshold at arround US $900 – $950 FOB for kiln dried 2"/"2.5" thick material when resistance is felt from the local UK markets to the increasing cost. At this point some customers fall back to the African replacements. The graph in Figure 2 tracks the variation in middle range kiln dried mahogany imports, 1980 – 1991, US $ m3.

QUALITY.

Over the period of reveiw there have been several variations to the type and quality of grades imported into the UK. As the demand has been predominantly for a superior grade FAS have consistently dominated the supply. With the "other" grades the trends have moved through No1 Common & Better, "Padrao", Selects & Better and finally settling on Standard grade. Standard probably takes up the bulk of the import after Fas grade which varies between 80% – 95% of the whole.

USES.

These have remained fairly constant and are covered fully under section 6. The only factors that may in the future affect use will be a lessening of quality, a hike in price and availability.

Figure 1. Total L.A. Mahogany lumber imports 1980 – 1991, m3.

	m3
1980	64000
1981	92000
1982	72500
1983	101700
1984	93100
1985	90100
1986	90800
1987	107500
1988	96500
1989	94000
1990	70000
1991	55000

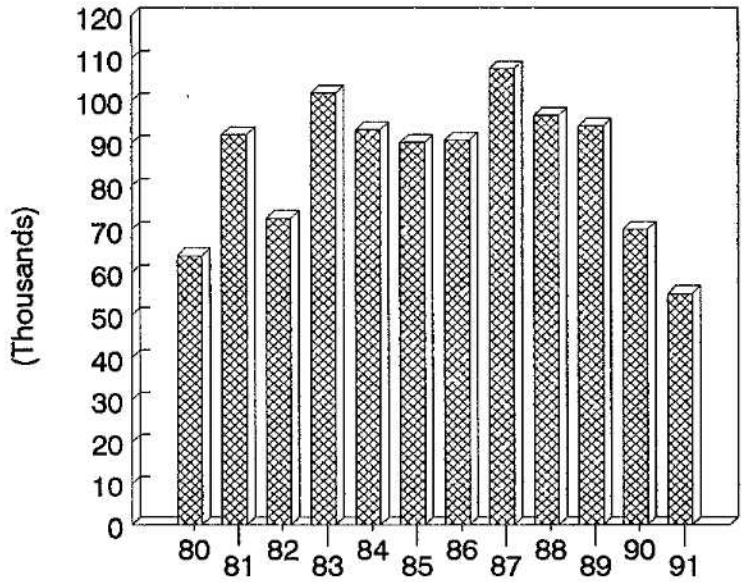
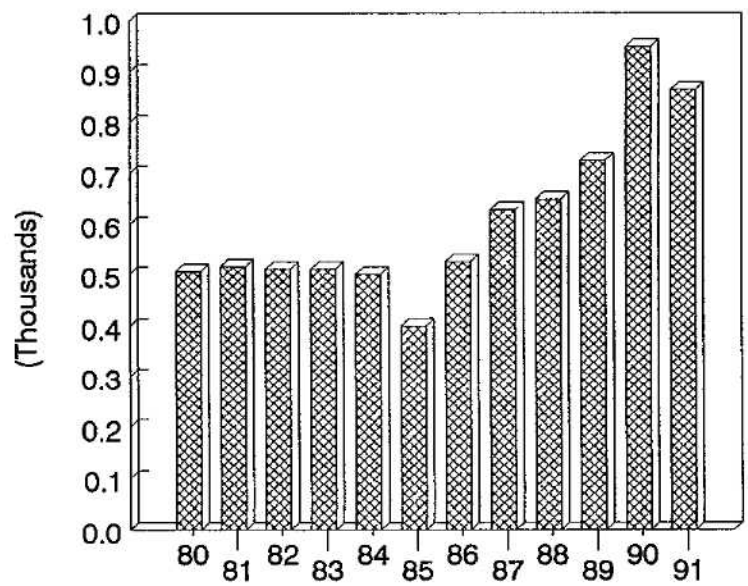


Figure 2. Variation in middle range FAS KD Imports 1980 – 1991, US$ m3

	$ m3
1980	505
1981	515
1982	510
1983	510
1984	500
1985	400
1986	525
1987	630
1988	650
1989	725
1990	950
1991	865



SECTION 9.

ENVIRONMENTAL PRESSURE ON TROPICAL TIMBER UTILISATION IN GENERAL TERMS AND ESPECIALLY FOR MAHOGANY.

The environmental issues facing the UK trade, and other European countries, along with their suppliers is far too complex a subject for the writer to try and explain in this report. However, I will try to demonstrate the attitudes and influences that have been employed by the main players in these matters here in the UK over recent years.

Environmental awareness is not a recent phenomena. Members of the UK's trade, industry and forestry sectors have been involved for many years working with the supplying countries to establish good working practices and forest policies. The old colonial forest practices set many in good stead to reap the benefits, Malaysia and Indonesia to name two. In particular the Teak plantations on Java demonstrate how easy it is for timber to become sustainable. Ghana also, with help from the UK's Overseas Development Administration, ODA, and the International Tropical Timber Organisation, ITTO, projects has adopted policies similar to previous practices and is now begining to show how sustainability for export can be maintained. South Africa, with no indigenous forests, is now a nett exporter of pine based products, all grown on plantations. It also has vast mature resources of Eucalyptus which have yet to be marketed on a global basis. Therefore, in time, clearly sustainability is possible.

More recently it was recognised that some accord was necessary between supplier and consumer countries therefore, initiated by UNCTAD member countries, the UK and other European countries helped to finalise the International Tropical Timber Agreement in the mid eighties out of which was founded the ITTO. ITTO having become established embarked on various research projects funded by members contributions. The member countries also agreed at this stage on what has now become known as "Target 2000".This is the date by which all supplies in international timber trade will be sourced from sustainable resources. Recently, in conection with the renegotiation of the ITTA, steps have been taken to establish an annual standard reporting system to show how "Target 2000" will be achieved.This will be compiled in a report format to demonstrate to the final user that supplies are genuinely from sustainable resources and areas.

At about the time ITTO set its "Target 2000" the environmentalist organisations in the UK, particularly Friends of the Earth, started to exploit the media with a high profile on most "green" issues. Their initial attack on the timber industry was focused on the greenhouse effect and the destruction of the "Lungs of the Earth", i.e. tropical forests, the damage that was caused by loggers and its side effects, colonisation following extraction of logs, and the loss of species. The responsibility for this distruction and dramatic changes in weather patterns in the southern hemisphere were laid squarely at the door of the international timber trade.

A publication by the Friends of the Earth, FoE, towards the end of the eighties, entitled "The Good Wood Guide" sought to highlight UK companies who were, in the opinion of FoE, using or trading in unsustainably supplied timbers. The guide was broken down into the following three colour coded areas quoted directly from the publication :–

" The GREEN pages list the retailers, manufacturers, importers, shippers, architects, local authorities and other institutional users of tropical woods who are actively helping to save rainforests by obtaining timber from an ecologically benign source.

The YELLOW pages list companies or institutions who are helping the campaign to save rainforests but may still be using some non–sustainably produced tropical timber.

The PINK pages name retailers and suppliers who are selling tropical hardwood products that are contributing to the destruction of rainforests. This section also lists, wherever possible, suitable alternatives to these products."

At the time of listing and publication there were few green and yellow pages.

Readily available to the public the guide was designed to bring consumer pressure to bear on the supply chain from source to finished product. It is difficult to access how much influence it may have had but at the time appeared to have little impact.

The medias of television and radio began to play a major role at this time, the global warming issue aided by filmed clips of burning forests were, and still are, very newsworthy. A well known "pop" group wrote and produced a song complimented with a video based on the destruction of the rainforest in the Amazon. Daily the subject was aired with the emphasis on the "logger" as the destructive force.

The general effectiveness of these campaigns against tropical timbers at this time is questionable. The importation of hardwood lumber, temperate and tropical, did not abate with any significance until 1990 when the recession really began to bite.

Appendix 9a, an article written in the Timber Trades Journal by Charles K. Norman of the UK Timber Trade Federation, entitled "Demand slumps all round", gives a clear picture of the reasons for the recent reduction in consumption.

Responding to criticism the TTF sponsored "Forests Forever, a campaign for wood". the campaign set about rectifying, as best it could,the misconceptions that had been generated by the emotive media and environmentalists cover of the destruction of the tropical rainforests.A "Real Wood Guide" was produced which was targeted at the final user indirectly through the suppliers by providing as much factual information as possible on all sources of tropical and temperate timbers. Leaflets were produced for distribution through retail outlets and discussion groups set up to meet head–on the many environmentalists who were trying to exploit the media to its full extent.

Examples of brochures produced by the TTF and FF at this time are displayed in appendix 9b.

Faced with facts and figures the environmentalists switched emphasis away from the loggers to the "slash and burn" techniques used by, in their view, the ranchers in the Amazonian areas. The media continued to be used extensively. Films of forests fired for clearance and ranchers willing to use force to remove obstacles were screened.

An important publication at about this time was a study that had been produced for ITTO, "NO TIMBER WITHOUT TREES, Sustainability in the Tropical Forest", written by Duncan Poore. Quotations from this book are often used selectively by the environmentalist groups, generally as destructive criticism of the trade. Whilst the book is essential reading for anyone involved within the tropical timber forestry sector, or industry, it should be read as a whole in a balanced fashion.

The trade, through its suppliers, was at this time trying to introduce "Certificates of Sustainability" to help dispel the fears of its customers. In theory these certificates would be provided by the appropriate governing body in the country of origin and would generally declare that supplies from a named source were sustainable. As the system was openly abused by some parties eventually the certificates became worthless even if genuine. (The certificates mentioned here should not be confused with the latest initiative from the TTF "statements of intent" on which I comment later).

Meanwhile the TTF through Forests Forever, FF, were building closer relationships with one of the key environmental bodies, The World Wide Fund for Nature, WWF. In 1991 a joint statement was issued by the three organisations, TTF, FF and WWF. In the joint statement it was declared that agreement had been reached on various principles, appendix 9c holds a copy. With this accord it was hoped that those who had appeared to work on opposite sides would now recognise all had a vested interest in sustainable and well managed resources. There was one area of contention that was set aside at this point, the TTF and FF were supporting ITTO's "Target 2000" whilst the WWF had already set 1995 as its objective for sustainable supplies.

The TTF had also been active within the industry. Through the FF campaign they established "A Company Environmental Policy and Purchasing Policy" for members. This was based on the general agreement reached with the TTF, FF and WWF. This was fairly successful with a number of members signing up. Draft copies of the policies and an introductory letter from the chairman are displayed in appendix 9d. These policies are still maintained today by those member companies of the TTF who adopted them.

A most interesting publication of this time was produced by the Institute for European Defence & Strategic Studies by Andrew McHallam. This occasional paper is entitled "THE NEW AUTHORITARIANS. Reflections on the Greens". The paper explored the roots and growth of "Greens" and their importance in todays political arena and their eventual development as their original objectives are achieved or discarded.

During the latter part of 1991 and early 1992 the environmentalists became more publicly active. Demonstrations took place at various venues nationwide. A new dimension was also added to their repertoire at this stage, they started to single out individual companies for attack.In particular focusing on the larger tropical importers. In more than one case demonstrations took place within the boundaries of importers yards. Local newspaper cuttings in appendix 9e give examples of this action when, probably, the largest importer's yard was invaded in May 1992. His response shortly afterwards, in the same paper, is also shown.

Before moving on to discuss the latest direction of focus from the environmentalists, the human rights and mahogany issuses, it would be well to conclude the general background.

In late 1991 the WWF held a major conference "Forests are your Business". At this they focused on their declared aim that ALL timbers imported into the UK should be from well managed sustainable sources by 1995. The emphasis in general was on tropical timbers but temperate sources did not escape unscathed. The conference had been billed as an important venue for all involved in timber activities. Few timber traders or manufacturers attended although some Do it Yourself, DIY, retail companies selling direct to the end user, and their suppliers took part. The view of the UK TTF's National Hardwood Association, NHA, was that at the time of the conference they were well aware of the policies that would be put forward and had confidence that they would be adequately represented by their own officials and honorary officers who attended.

Trade and press cuttings from 1992, in appendix 9f, outline gaps between the two opposing policies, 1995 or 2000 as the target for well managed and sustainable supplies held by the WWF and TTF/ITTO respectively. It should be noted that whilst the "accord" is still in operation between the TTF, FF and WWF the WWF has now withdrawn its support of the purchasing policies as the trade will not agree to their target of 1995 as opposed to ITTO's "Target 2000". The purchasing policies of TTF and FF members are still in place fully supporting ITTO's objectives.

The UK timber trade is fragmented. As can be seen from the information in section 2 of this report at least 60 members of the TTF claim to hold stock of mahogany and many more hold stock of tropical timbers. Not all those actively involved in the trade are members of the TTF, this appart most efforts to counter negative press are focused through the federation and its sub committees.

Through the TTF's National Hardwood Association, NHA, work has been progressing towards acquiring "Statements of Intent" from each soverign countries Government involved in supplying tropical timbers to the UK. These statements of intent are intended to demonstrate each countries support of ITTO's "Target 2000" and other environmentally sound policies. Participating Governments have now been asked for a certificate to be issued with each individual shipment or Bill of Lading.

Ideally this certification process will eventually allow the UK importer to build up a "stock profile" for all his stock that will demonstrate his commitment to ensuring all his supplies come from sustainable and well managed resources. Blanket certification is not sought as this, as had already become evident, is open to abuse.

The TTF/NHA has now been pressing Governments for this certification for several months with some success. It has to be said that at the point of writing Brazil has yet to respond at all to this initiative.

Appendix 9g holds copies of two possible options/outlines for certificates favoured by the TTF/NHA.

Opportunities are seldom missed in the commercial world. The worldwide attack on tropical timbers has opened the door for exploitation by some other materials and resources. One trade advertisment for medium density fibreboard, MDF, a number of years ago, extolled the virtues of its product over those supplied from the rapidly diminishing rainforest resources. Another, much closer to home, in brochure form states "Save the Tropical Forest, USE PARANA PINE !" Copies of this are held in appendix 9h. Although there has been a general decline in all imports of hardwood lumber to the UK due to the recessionary conditions that have prevailed over the last 2 – 3 years it is interesting to note that temperate imports were not affected quite as soon as tropical, refer to appendix 9a. This could be for a variety of reasons appart from environmental issues such as fashion etc. It is likely that the middle and lower grade tropical timbers would have been hit first as they are utilised much more in the construction volume markets where the affects of downturn are felt quicker.

Moving on now specifically to mahogany and the affects of environmental activity on the use of this species in the UK it is logical to comment at this point on the main reasons for a drop in consumption over recent years. The actual volumes consumed have been discussed in section 1. This has covered the period from 1980 to 1991. It is likely that the imported volumes of mahogany in 1992 will only represent, at best, about 50% of those imported in the peak years, 1987 – 89. The opinion of the trade and industry is, simply, that the downturn in demand can be attributed solely to the poor economic and recessionary conditions that have prevailed and has not been influenced by environmental activity to any great extent. That may now change with recent developments !

In the final months of 1992 a fresh onslaught by some of the UK environmentalist groups, aided by a visit to the UK by the president of FUNAI, Dr Sydney Possuelo, focused on two areas of attack on the trade. The first claimed a massive increase in consumption of mahogany since 1981 and particularly in recent years, this was susequently dropped as the information used as a basis was unsound. Appendix 9i gives examples of trade press coverage.

The second area of contention and concern involved FUNAI deeply. They claimed, with the environmentalists, that there was extensive evidence of illegal logging of mahogany over Indian lands. Willing to stop at nothing for commercial gain murder had also been used by the loggers to gain access to the mahogany trees !

Supplying companies from Brazil held in high regard in the UK were now standing accussed alongside those who had been unable to meet the criteria set for trading, i.e. the UK trade only wished to deal with companies which worked within the laws of their own Country and which are making positive steps towards management to ITTO and UNCED standards.

Examples of national press advertising by the environmentalists are displayed in appendix 9j. The reaction of one prominent retail outlet is in appendix 9k, an extract from "Tropical Timbers" debating the issues is in appendix 9l.

The UK trade is confused now with these statements of truths and half truths that have been combined with the obvious lack of co-ordinated Government policy in Brazil. This is easily demonstrated by the apparent rift between FUNAI and IBAMA whose objectives seem to be partially opposed.

Following these recent developments it is understood that the NHA's officers and officials have been in constant discussion with the Brazilian Embassy in the UK, and through the UK's Government ODA officers in Brasilia, to set up round table meetings with Brazilian Government departments and exporter associations in order to arrive at a solution to this problem to the satisfaction of all concerned.

It is generally agreed in the UK that until FUNAI, IBAMA and the other main body concerned, AIMEX, reach an accord and are able to decide on a creditable way forward irreparable damage may well be done to the trade in mahogany.

One of the major problems within the UK is that appart from a few well informed members of the trade little is known or understood about the size of the challenge facing the Brazilian timber industry. It is difficult to comprehend the land masses involved, numbers of population and differences in fundamental values when cushioned within a first world society. This not only applies to the trade but also to the general public, education is needed. It is unlikely that the findings of the recent Brazilian Government report"Natural and Artificial Reserves of Swietenia macrophylla, King in the Brazilian Amazon – a Perspective for conservation" will have any bearing on the attitudes of the UK supplier or consumer. Although it probably should have as it proves mahogany is not an endangered species and is available in large quantities without encrouching upon Indian reservations.

Tremendous influence has already been brought to bear on the next generation of consumers in the UK via the environmentalists ability to maintain a high profile, justly or unjustly, concerning rainforest issues. Help is needed to argue the case for continued use of this natural resource and especially mahogany as that is the species under most criticism. Determination by the Brazilian Government, its Agencies and Industry as a whole to demonstrate environmental sympathy,awarness and policy would go a long way to ensuring a continued contribution to its GNP from timber exports in the future.

Appendix 9m holds a copy of the latest trade press coverage of the current debate about mahogany and the Indian issue in 1993.