

PROCEEDINGS

FAO Advisory Committee on Paper and Wood Products

Forty-seventh session

Rome, Italy, 6 June 2006

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Foreword

The Advisory Committee on Paper and Wood Products (ACPWP) is a technical statutory body of the Food and Agriculture Organization of the United Nations (FAO). It was originally established in 1959 as the Committee on Pulp and Paper, and later on, in 1996, merged with the FAO Advisory Committee on Wood-based Panels.

The Committee is FAO's main contact with the private forest industry. Its mandate is to advise the FAO Director-General on activities which industries consider could usefully be undertaken by the Organization in the forestry sector. Furthermore, the Committee provides a privileged avenue of communication between FAO and the private sector, ensuring both that activities undertaken are relevant to the current issues faced by industry and that the information presented is accurate and useful.

The Committee is composed of a maximum of twenty-five members, appointed by the FAO Director-General based on their experience and knowledge of the industry. Typically senior executives of companies or associations, the members come from all regions of the world and currently represent over ninety percent of global pulp and paper industries sector. FAO gratefully acknowledges the contribution made by Committee members who so generously donate their time and their organizations' resources in support of FAO's work.

This year's Session took place in Rome, Italy, on 6 June 2006. We would like to express our gratitude to all participants for their contribution to the success of this meeting.



Wulf Killmann
Director

Forest Products and Economics Division

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Acronyms and Abbreviations

%	Percent
AF&PA	American Forests and Paper Association
BRACELPA	Brazilian Association for Pulp and Paper
BREFs	Are designed to demonstrate best available techniques: BAT Best Available technologies to achieve a high level of protection of the environment as a whole
CO ₂	Carbon dioxide
CDM	Clean Development Mechanism
CEPI	Confederation of European Paper Industries
CIFOR	Center for International Forestry Research
COFO	Committee on Forestry
COPACEL	Confederation of the French Pulp, Paper and Board and Industry
CSR	Corporate Social Responsibilities
ENGO	Environmental non-governmental organization
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
FLEGT	Forest Law Enforcement, Governance and Trade
FPAC	Forest Products Association of Canada
FSC	Forest Stewardship Council
GAT	General Agreement on trade services
ha	Hectare
ICFPA	International Council of Forest and Paper Associations
IPPC	European Commission Integrated Pollution Prevention and Control Bureau
ITTO	International Tropical Timber Organization
IUCN	World Conservation Union
IUFRO	International Union of Forest Research Organizations
m	metre
MT	Metric ton
NGO	Non-governmental organization
PEFC	Pan European Forest Certification
SFM	Sustainable forest management
TWGs	Technical Working Groups
UNEP	United Nations Environment Programme
UNFF	United Nations Forum on Forests
WBCSD	World Business Council on Sustainable Development

Report

The FAO Advisory Committee on Paper and Wood Products held its Forty-seventh Session in Rome, Italy on 6 June 2006. The meeting was attended by 38 participants from 25 countries, including 14 members (see Annex 1) and it was chaired by Mr Boris Tabacof, President of the Board of the Brazilian Association for Pulp and Paper (Bracelpa). This report presents the presentations, background papers and the main results of the discussions and recommendations.

Item 1. Opening of the session and welcome address by FAO

Mr Boris Tabacof, Chairman of the ACPWP, opened the 47th Session of the Advisory Committee and welcomed the participants. Mr Wulf Killmann, Director of the Forest Products and Economics Division of FAO, also welcomed the participants and expressed his appreciation for their valuable advice to the work programme of the FAO Forestry Department. He recalled the important role of the paper and wood products industry in contributing to FAO's main objective to reduce hunger in the world and thereby make progress towards achieving the Millennium Development Goals.

The increased participation of the private forestry sector in the international dialogue is a demonstration of the industry's commitment towards sustainable use of forest resources and to strengthening their socio-economic contribution to countries' development. This is very much in accordance with the targets set by the members of the Collaborative Partnership on Forests (CPF) - an interagency coordination mechanism, chaired by FAO, composed of 14 international organizations - which aims, *inter alia*, to strengthen the dialogue on forestry issues among international agencies, civil society and the private sector.

Mr Killmann reminded participants that, during 2006, six FAO Regional Forestry Commissions are meeting to discuss ways of boosting regional cooperation and action towards implementation of sustainable forest management practices. The private industry sector participation in the Africa, Asia-Pacific and European Forestry Commission sessions, had been highly appreciated. Indeed, the Asia-Pacific meeting, in its conclusions, recognized the critical importance of private sector investment in forestry, for developing and management of forest resources, as well as for processing and marketing of forest products. In view of this, the Commission urged member countries to review policies and regulations, with the aim of removing unnecessary constraints to private sector investment.

This and other issues, such as forest certification, illegal logging and the Planted Forests Code, were discussed at the Commission meetings. Similarly, the next three Commission sessions (Near East, Latin America and North America Commissions), would also deal with topics related to forest development, which are of interest to member countries and to the private forest sector. The outcomes of the Forestry Commissions will be presented at the next session of the Committee on Forestry, to be held in Rome in March 2007, just after the Fourth Ministerial Meeting on Forests.

Since the Forty-sixth session of this committee last year in Vancouver, other events have continued to shape the forestry agenda. In particular, the United Nations Forum on Forests (UNFF) in February 2006 agreed on steps to strengthen the international arrangements on forests, including four global objectives for forests and a commitment to develop a global, non-legally binding instrument on forests.

This year has also heralded the adoption of the new International Tropical Timber Agreement, which aims to leverage better market acceptance of tropical timber by promoting sustainable forest management.

Furthermore, the 2010 target of the Convention on Biological Diversity calls for significant reduction of the rate of biodiversity loss. The sustainable forest management concept is finally being integrated into the CBD's work on forest biodiversity, as a way to implement the ecosystem approach in forests. The currently negotiated international regime on access to genetic resources and benefit sharing arising from their utilization may have a significant impact on the forest utilization in the future. The outcomes of these and other international discussions will undoubtedly affect the way forestry resources are managed for the multiple products and services they provide.

It is generally agreed that other recent developments – not necessarily coming from the forestry sector but affecting forests and the paper and wood products industry, require more attention and should be included in FAO's work. Reference was made in this connection to the trends in energy prices and the consequent effects on energy policies. This and other issues, such as the role of emerging countries' economies and the socio-economic contribution of the paper and forest products industry, will be part of our common agenda today.

Finally, Mr Killmann emphasised that the ACPWP session is a tool to guide the work of FAO, through dialogue, linked with the other activities organized by ICFPA jointly with CEPI and FPAC.

Item 2. Adoption of the provisional agenda

It was proposed to change Item 4 to 4a, and add a new item, 4b, on country reports, with a presentation followed by discussions of a summary of the country reports submitted to the Secretariat. With these amendments, the provisional agenda was adopted.

Item 3. Review of actions taken by FAO on the recommendations made at the 46th Session of the Committee

It was stressed that the main role of this Committee is to provide guidance to FAO's work in the field of forestry and particularly on issues relevant to the paper and wood products industry. At the last Session of this Committee, held in Canada, a number of recommendations to FAO were elaborated. The actions taken by FAO can be summarized as follows:

Forest Certification

The first recommendation was to assist developing countries in implementing forest certification. FAO has not been directly involved in forest certification but has directed its attention to the role of the governments regarding forest certification. Forest certification is a civil society tool in which governments are increasing their involvement. Last year, FAO and UNECE jointly organised a policy forum in Geneva to discuss the issue of the role of governments in forest certification..

An issue that is probably more relevant to the ACPWP is public procurement forest policies and trade. Some countries, not only in Europe, but also in North America and Japan, are developing public procurement policies. UNECE and FAO are planning a policy forum on "Public procurement policies for wood and paper products and their impacts on sustainable

forest management and timber markets.” The expert presentations and discussions will take place on 5 October 2006 as a one-day, in-session policy forum during the 64th Timber Committee session. Key questions on which the workshop will focus include:

- a) Are public procurement policies effective in achieving their goals?
- b) What are the impacts of public procurement, including their implications for markets for wood and paper products?
- c) How can public procurement policies avoid creating market barriers?
- d) How can implementation procedures be improved (including instruments for verification of legality and sustainability as well as alternative options for evidence)?
- e) Are harmonized approaches in public procurement policies necessary and possible? (See Annex 4)

Inclusion of ICFPA in International Processes

FAO continues to involve the private sector in major events, such as the above mentioned Forum and the six Regional Forestry Commissions.

Illegal Logging

FAO and ITTO developed the “Guidelines on best practices for forest law compliance”. FAO continue to help clarify the role that the private sector can play in combating illegal logging and to assist in finding an appropriate definition for it. At the 21st session of the Asia Pacific Forestry Commission, held from 17-24 April 2006 in Dehradun, India, FAO invited a private sector representative from Malaysia to introduce the item on illegal logging and particularly to highlight the roles of governments and private sector in combating it.

Code for Planted Forests

At the 45th Session of the Advisory Committee, held in Australia, it was recommended to develop a code for planted forests. An intensive process was initiated in early 2005 to implement this recommendation. Three meetings were held and a draft code was developed, with strong inputs from the private industry sector (CELPA, FNPA, BRACELPA, CEPI, JPA, and others). The second draft is available on the web and has been presented at different events for discussion and comments. Responses will be sought until 30 September 2006 and a final draft will be released by 31 December 2006 to be presented to the March 2007 session of the Committee on Forests (COFO).

Energy

ACPW recommended FAO to co-host with ICFPA a global meeting on energy dynamics and their impact on forest industries. The draft concept note and the agenda have been prepared and circulated for comments. The meeting has been scheduled for 30 and 31 October 2006 and will be held in Rome.

Social and Economic Contributions by Industry

It was also recommended that FAO, jointly with ICFPA, seek opportunities to document the social and economic contributions made by forest industry. FAO is presently updating a study from the year 2000 as a global study.

Other Relevant Forestry Work of FAO

The FAO Forestry Department has also been active in the following areas:

- Forest Resources Assessment 2005;
- Forest Products Yearbook & Trends, including graphs;
- Non-Wood Forest Products as source of food has started a process in Congo region (in Sub-Saharan Africa, 80 percent of the protein that people use comes from forest);
- Clean Development Mechanism in forestry particularly in Latin-American and Africa;
- Development of a Fire Management Code;
- Forest Sector Outlook studies for Latin America and West and Central Asia;
- Country information on the web;
- Guidelines on illegal logging (together with ITTO);
- Training on climate change related to forestry;
- Support to IPCC and UNFCCC.

FAO also continued to host the following secretariats:

- Collaborative Partnership on Forests;
- National Forest Programme Facility;
- Mountain Secretariat;
- International Poplar Commission.

The Committee commended the progress made by FAO in the different areas. It also mentioned the importance of improved dissemination of the proceedings of the various Regional Forestry Commissions, considering that governments rarely inform industry representatives about the outcomes of the Commissions.

The Committee noted that FAO advises developing countries on climate change issues, assisting national negotiators in the development of common positions on current issues for negotiation at regional and international levels. FAO, ITTO and some other partners are planning a meeting in Accra for the end of October 2006. The objective of the meeting is to help get the forestry CDM off the ground in Africa. This will involve preparation of one or several methodologies and pilot projects that can be easily implemented nationally or regionally. To achieve this, current bottlenecks for implementation should be removed.

The Committee stressed the importance of the work carried out on planted forests. It recognized that there will be more and more wood supplied from these sources, providing rural employment and the increasing the supply of other products, such as non wood forest products. If properly managed, environmental services such as soil and water protection, rehabilitation of degraded land, restoration of landscapes and carbon sequestration can also be provided. Planted forests can also be a source of renewable energy and other environmentally-friendly activities.

Item 4. The role of emerging countries in the paper and forest products world markets: China, Russia and India

Emerging countries with strong economic growth, such as China, India and Russia, are influencing availability and prices of natural resources as well as global products trade.

The traditional paper and wood products industry is facing challenges and opportunities resulting from driving forces coming from these emerging economies. Fibre supply availability and trade flows – be they wood or recovered fibre –are experiencing new trends, often triggering concern on the part of the international forestry community and civil society.

The Role of China, by Dr Gary Bull¹

Dr Gary Bull, Professor at the University of British Columbia in Vancouver, Canada, presented the latest findings in the case of China and some major issues and trends of wood supply for the paper and wood products industry.

This study was carried out in collaboration with the International Institute for Applied Systems Analysis (IIASA), Forest Trends, CIFOR and other partners. The main points of the analysis are:

- China's share of the global forest sector;
- What are China's forest sector trends?;
- Review of key demand and supply issues in China.

Introduction

China is playing an increasingly important role in forest products trade and in the wood supply chain. The purpose of this report is to: 1) review China's share of the global forest sector; 2) evaluate China's forest sector trends, and; 3) review fibre supply issues in China.

Much of this analysis relies on the author's own assessment on China, in collaboration with other international institutions that have taken an interest in China, including some domestic institutions. The selected reading list provides a summary of some of the background material summarized in this paper.

China's spectacular economic growth over the last decade is having a dramatic impact throughout the world. It has become a leading nation in terms of its demand for forest products. Its influence is being felt as far a field as Cameroon and Cambodia, Indonesia and the United States. Burgeoning domestic consumption, in a nation with very limited per capita forest resources, has fuelled the rapid rise in China's imports of forest products. Growing demand in the USA, Europe and elsewhere for low-cost wood products manufactured in China has also contributed to the country's ever-increasing demand for foreign timber. China has rapidly become the wood workshop of the world, capturing almost a third of the global trade in furniture over the last eight years.

China's share of global wood products

As illustrated in Figure 1, the current industrial roundwood production is nearly 2 billion m³ and this is expected to continue to increase (Northway and Bull 2006).

¹ Bull G.Q. and S. Nilsson. 2004. An assessment of China's forest resources. *International Forestry Review*. 6(3-4): 210-220.
Katsigris E., G.Q. Bull, A. White, C. Barr, K. Barney, Y. Bun, S.Y. Chrystanto, F. Kahrl, T. King, A. Lankin, A. Lebedev, P. Shearman, A. Sheingauz, Y. Su, and H. Weyerhauser. 2004. The Chinese forest products trade: Overview of Asia Pacific supplying countries, impacts and implications. *International Forestry Review*. 6(3-4): 237-253.
Nilsson S., G.Q. Bull, A. White and J. Xu. 2004. Chinese forest policy: policy issues and recommendations. *International Forestry Review*. 6(3-4): 299-305.
Northway S. and G.Q. Bull. (forthcoming). An assessment of China-Indonesian trade in forest products.
White A., X. Sun, K. Canby, Xu J., C. Barr., E. Katsigris, G. Q. Bull, C. Cossalter and S. Nilsson. 2006. China and the global market for forest products: transforming trade to benefit forests and livelihoods. *Forest Trends*. Washington, D.C. Report available at: www.forest-trends.org/documents/publications/China%20and%20the%20Global%20Forest%20Market-Forest%20Trends.pdf

Figure 1. Global Industrial Round Production

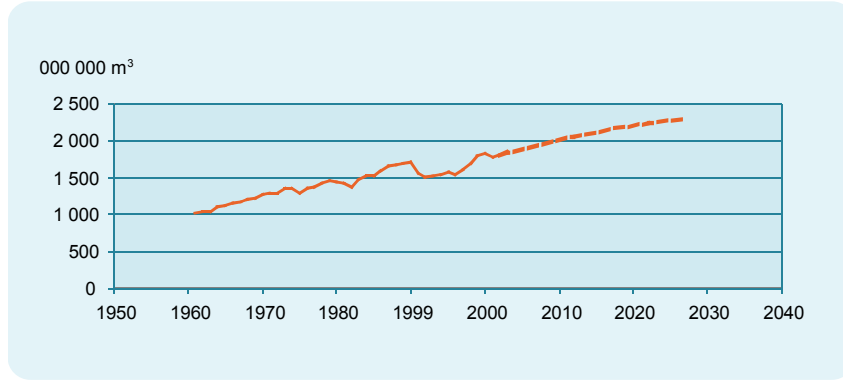


Figure 2 indicates that China’s share of this world production differs, depending on the product categories of panels, plywood, sawnwood, newsprint, paper and pulp. For example, China’s share of plywood production is over 20 percent of the world production and if historic trends hold true, this will increase to 40 percent by the year 2020. The other important thing to note is that the trends in all major product categories is upward and, if taken together, China’s share of global industrial product is increasing.

Figure 2. China as a percentage of World Production

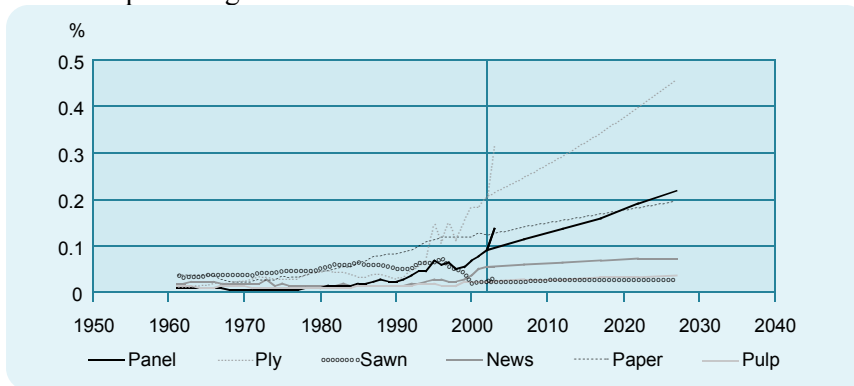


Figure 3 shows that, if we consider the global picture of industrial roundwood consumption, in the major products categories of panels, plywood, sawnwood and pulp, the trends are less clear except that sawnwood consumption is expected to decline. However, sawnwood is now below 40 percent share of global markets, whereas panels are expect to increase to over 20 percent of global market consumption.

Figure 3. Global Industrial Roundwood Consumption

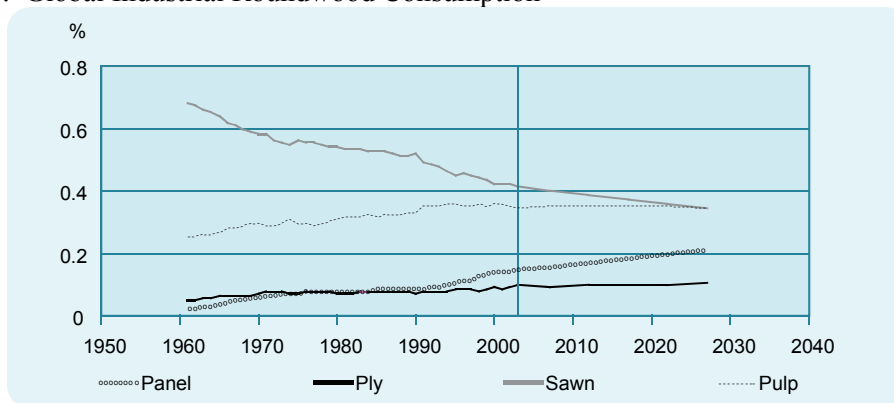
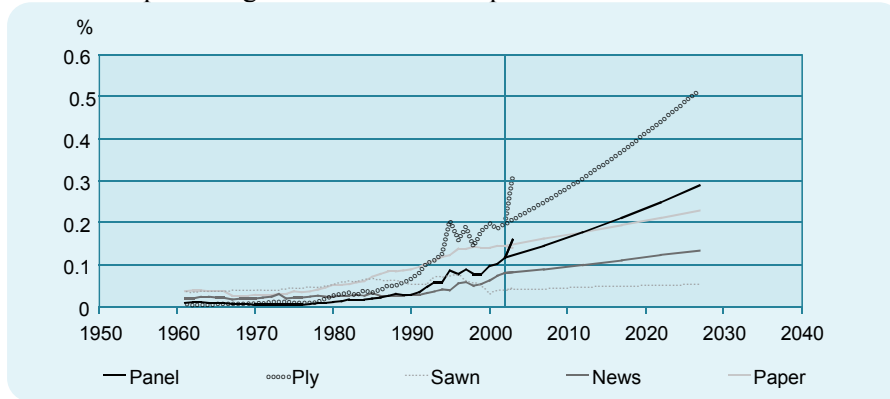


Figure 4 shows that China’s share of the world consumption is increasing in all wood product categories: panels, plywood, sawnwood, newsprint and paper. This means that China’s overall share will continue to increase.

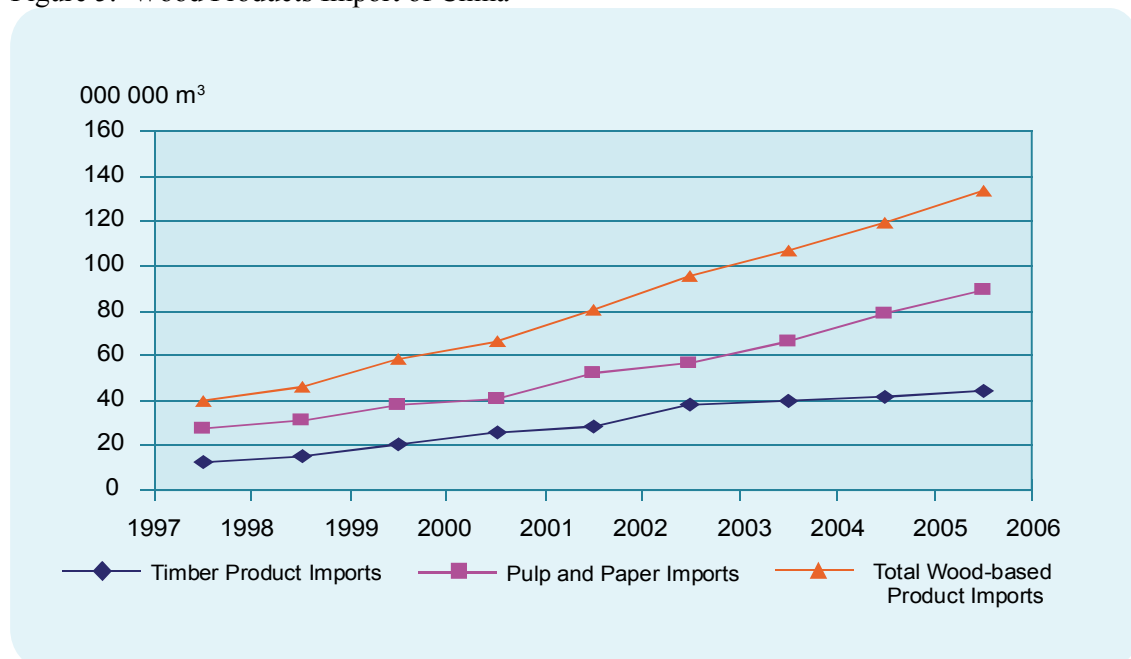
Figure 4. China as a percentage of World Consumption



China’s forest sector trends

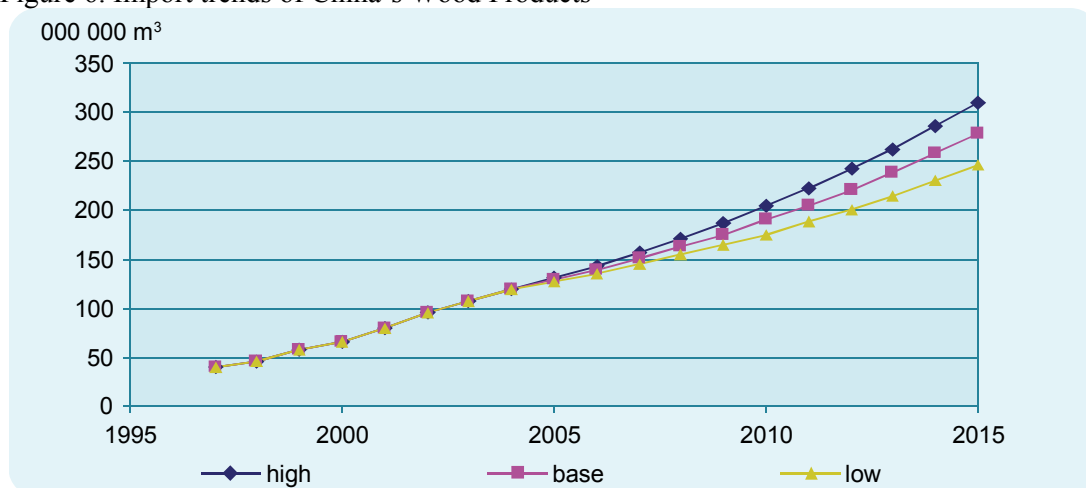
The import statistics in Figure 5 support the notion that China’s share of production and consumption is increasing. By 2005 the total wood product imports in RWE’s (roundwood equivalence) is nearly 140 million m³ from a mere 40 million in 1997.

Figure 5. Wood Products Import of China



Further, if we create a trend line (see Figure 6) we can see that China’s imports are forecasted to increase to somewhere between 250 and 300 million m³ by the year 2015. This is a significant development at the global scale.

Figure 6. Import trends of China’s Wood Products



Fibre supply issues in China

Looking within China, we can see that in the preceding Figures (1-6) there are other factors at play within China that are influencing domestic consumption and production.

On the supply side, it is clear that domestic roundwood removals are at least 350 million m³ and that the fuelwood portion could be anywhere from a low of 97 million m³ and a high of 191 million m³. Table 1 also summarizes the industrial fibre supply from non-industrial roundwood and the extend of legality in the wood used. It is very difficult to obtain a consistent picture of roundwood removal and to make sense of it, in light of the fact that the stated AAC (annual allowable cut) policy is for 223 million m³.

Table 1. Fibre supply [million m³]

Year	Total	Industrial	Non - industrial	Misc.	Fuelwood
1988	327				
1990-94	c.298	116-132	64-62	20-18	97-86
1995		105			
2001		81			
2002	330				
2003	320	~116 (illegal + 12(legal)	~75	~20	~97*
2004	345				

Sources: Xu et al 2003; JP 2001; FAOSTAT 2004; Kunshan et al 1997;Zhu and Taylor 2003 as quoted in Bull and Nilsson 2004

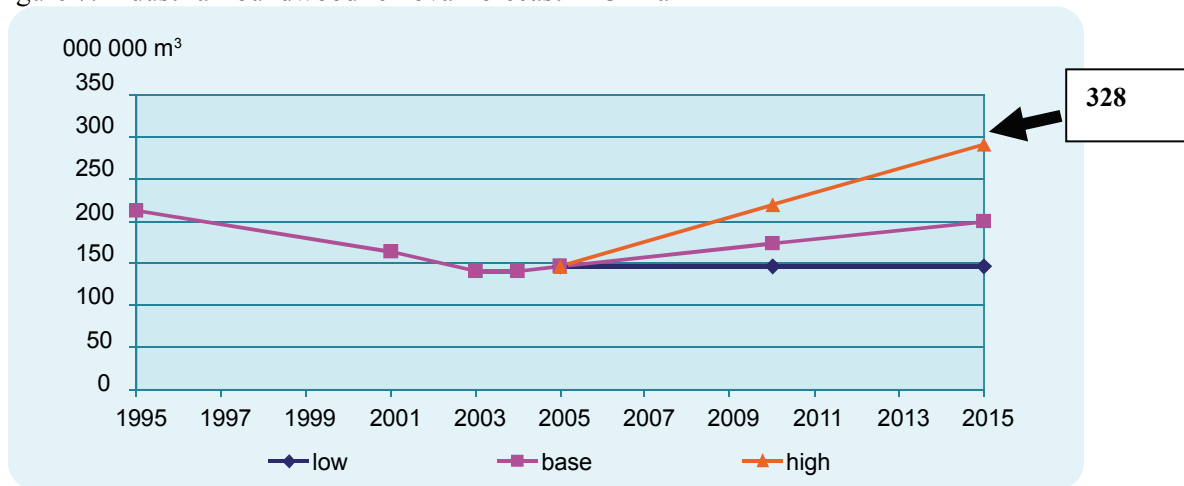
To forecast the future domestic fibre supply is equally challenging. Bull and Nilsson (2004) stated that various sources report a total forest volume in the range of 10.2 to 13.0 billion m³ in all forest, whilst the figure for the timber forest (productive forest lands) is only 6.6 billion m³. Different assessments now suggest that the economic wood supply volume is at a maximum 2.2 billion m³, which at current harvest rates is likely difficult to maintain in a productive condition.

The challenge facing Chinese forestry is further supported by other assessments on the age of the forest where nearly 74% of the forest is classified as young to middle aged and only 16% is classified as mature or over-mature forest. This old forest is deemed unavailable for wood supply. The remaining 10% of the forest is classified as mature forest.

If plantations are the answer to the supply challenges there are further confounding statistics. While it is reported that plantation area is over 45 million ha in some studies, one authoritative source suggest only 5 million ha is currently fast growing and high yielding. With the growth rates given, these can only provide about 40 million m³/year in the fast growing areas and about 20 to 51 million m³ in the slower growing plantation areas.

Figure 7 indicates both the official targets and some preliminary forecasts on industrial roundwood removal in China. The official forecasts for China indicate a target of 328 million m³ of wood to be removed by 2015 but none of our forecasts were able to meet that target. The official forecast indicates that the natural forest would provide 195 million m³ and the plantations 133 million m³.

Figure 7. Industrial roundwood removal forecast in China



Concluding remarks

In summary, there are several key factors to consider in relation to China's domestic supply situation. These are: the high levels of immature forests; the extent of illegal logging (which is probably not incorporated into the official statistics); the extreme variability in the fuelwood consumption statistics; the low reported economic wood volumes; and the challenges facing the plantation areas to meet the volume targets sets. These supply factors, along with the clear evidence of growing consumption, explain why imports are rising and are likely to continue to rise in the future, especially in some product categories.

Although not covered in this paper, there are other factors at play in assessing the future demand and supply situation for China. There are real pressures for competing land uses, the energy costs are high, water is not always available to industry and the transportation infrastructure is still variable.

To overcome these challenges, China continues to import more wood and wood products. It also continues to export more wood products. Finally, given the information available, it is also reasonable to postulate that China will need to import more logs in the near future.

The Role of Russia, by Dr Sten Nilsson

Dr Sten Nilsson, Deputy Director and Forestry Program Leader of the International Institute for Applied Systems Analysis (IIASA), spoke about the current situation and trends relating to forests and the paper and wood industry in Russia, as well as links with other economies, in particular China.

The objective of the presentation was to give an overview of the development trends of the Russian forest sector and of the Chinese forest industry. At the end of the presentation statements were made regarding the global wood supply situation.

Russia

The overall Russian economy has stabilized with a GDP growth of around 6 percent per year on average during the last five years. The Russian economy is the fifteenth largest economy in the world. Its GDP per capita is growing substantially. But the country is still plagued by an inflation level of some 12 percent per year which, together with a strengthening of the rouble, has caused rouble-based costs to increase by 55 percent over the last four years. This is a very common situation in economies in transition or emerging economies, where the currency is undervalued. Based on the Purchasing Power Parity concept, it can be concluded that the rouble is substantially undervalued and upward pressure can be expected in the future. The real cost will go up; currently there will probably be more cash available in Russia, mainly due to oil income. Inflation is causing high interest rates and the high interest rates are pushing down investments. In the worst case, if this development continues, it could even result in bank crashes. There is a monitoring policy in Russia which aims at decreasing inflation but it is important to remember that Russia will not long remain a cheap output country.

Russia is also affected by decreasing population, which will have serious economic consequences if the trend is not reversed, particularly as regards work force and economic supply.

Production in forest industry has not been able to catch up with the 1990 production level and is still only about 40 percent of this level in some products. Forestry sector contribution to GDP is around 2.5 percent - far below that of 1997. Industrial forest production levels have increased substantially during the last seven years, except for lumber, as is shown in the following table.

Table 2. Production

	1990	1998	2000	2002	2003	2004	2005	Difference 1998/2005
Lumber (million m ³)	75	16	18	17	18	19	21	0
Plywood (1000 m ³)	1 597	1 102	1 484	1 808	1 978	2 233	2 550	2
Particleboard (1000 m ³)	5 568	1 568	2 335	2 732	3 198	3 603	3 930	3
Fiberboard (1000 m ³)	1 546	623	912	1 031	1 088	1 158	1 260	2
Paper/Board (1000 MT)	8 325	3 595	5 312	5 921	6 377	6 789	7 020	2
Hardwood (million m ³)					2.4	2.6	3	

There is a strong increase in the domestic demand for all products except lumber. There is a lack of information regarding saw logs. Lumber has decreased by 50%.

Table 3. Domestic Demand

	1990	1998	2000	2002	2003	2004	Difference 1998/2004
Lumber (million m ³)	59.3	13.9	12.3	13.1	7.6	6.7	-52%
Plywood (1000 m ³)	1 092	394	548	667	818	838	213%
Particleboard (1000 m ³)	4 825	1 616	2 200	2 574	3 618	3 936	244%
Fiberboard (1000 m ³)	1 020	451	694	795	1 156	1 210	268%
Paper/Board (1000 MT)	6 381	2 165	3 490	3 421	4 694	4 965	229%

Exports have increased during this period but are dominated by low value added products, such as logs, lumber and particleboard. In 2005, 47 million m³ of logs were exported. At the same time, Russia has become a major importer of paper and paperboard.

The pulp and paper industry is very consolidated, with the top five companies producing over 40 percent of all pulp and paper products. The five largest paper producers account for 67 percent of production, the five largest pulp producers for 78 percent. Since 1990, there have not been many greenfield investments (only one paper machine and one pulp mill scheduled to go into operation in 2006). The future of the pulp and paper industry will be driven by the demand growth for printing and writing papers and paperboard. Western companies have a Latin American/Chinese focus at the expense of Russian investments. No greenfield investments are foreseen in paper making. Russia has become a substantial net importer of pulp and paper. The fibre cost is an important issue affecting competitiveness.

Table 4. Export

	1990	1998	2000	2002	2003	2004	2005	Difference 1998/2005
Lumber (million m ³)	15.7	4.6	7.8	8.9	10.2	12.2	14	+304%
Plywood (1000 m ³)	527	737	973	1 140	1 201	1 438	1 530	+208%
Particleboard (1000 m ³)	743	100	135	158	185	219	252	+252%
Fiberboard (1000 m ³)	365	173	278	236	264	331	381	+22%
Pulp (1000 MT)	993	1 056	1 660	1 885	1 916	1 866	1 900	+18%
Paper/Board (1000 MT)	2 761	1 767	2 298	2 500	2 459	2 707	2 950	+167%
Logs (million m ³)	31.4	20.0	30.8	36.5	37.5	40.9	47.3	+237%

Table 5. Cost Breakdown (%)

	Newsprint	SC	LWC	UWF	CWF
Variable Costs	63	62	61	59	63
Fiber	34	23	17	29	24
Minerals and Chemicals	0	13	18	12	18
Energy	15	12	13	6	10
Other Variable Costs	14	14	13	12	12
Fixed Costs	37	38	39	41	37
Personnel	12	14	15	15	10
Other Fixed Costs	26	24	24	27	26
Total Costs	100	100	100	100	100

The forested area in Russia is some 776 million ha in total, most of this being in Asian Russia (about 605 million ha). There is a total growing stock of 82 billion m³. The annual increment is 1 billion m³ of which 7 hundred million are coniferous and 3 hundred million deciduous. As can be seen below, the increment in deciduous hardwood is substantially lower than for coniferous forest.

Table 6. Russia - all forest

	Europe	Asia	Total
Forested Areas (million ha)	170.3	605.8	776.1
Coniferous (million ha)	106.5	438.4	544.9
Deciduous (million ha)	63.8	167.4	231.2
Growing Stock (billion m ³)	22.9	59.2	82.1
Coniferous (billion m ³)	14	49.1	63.1
Deciduous (billion m ³)	8.9	10.1	19
Yearly Increment (million m ³)	426.2	567.9	994.1
Coniferous (million m ³)	274.9	421.1	696
Deciduous (million m ³)	151.3	146.8	298.1

The annual increment is around 1 billion m³, but the AAC (Annual Allowable Cut) is only about half of this (520 million m³) and the economically-accessible (long distance transportation cost), wood is assessed to be half of this (some 250 million m³). The current official harvest is about 180 million m³; the accessibility is substantially less.

Roundwood Export Taxes

The Russian government made a decision (number 158) on 24 March 2006 on new export taxes. The decision was published in the government's newspaper "Russkaja gaseta" on 31 March. The new export taxes entered into force on 31 May 2006.

Figure 8. Russia remains low cost region

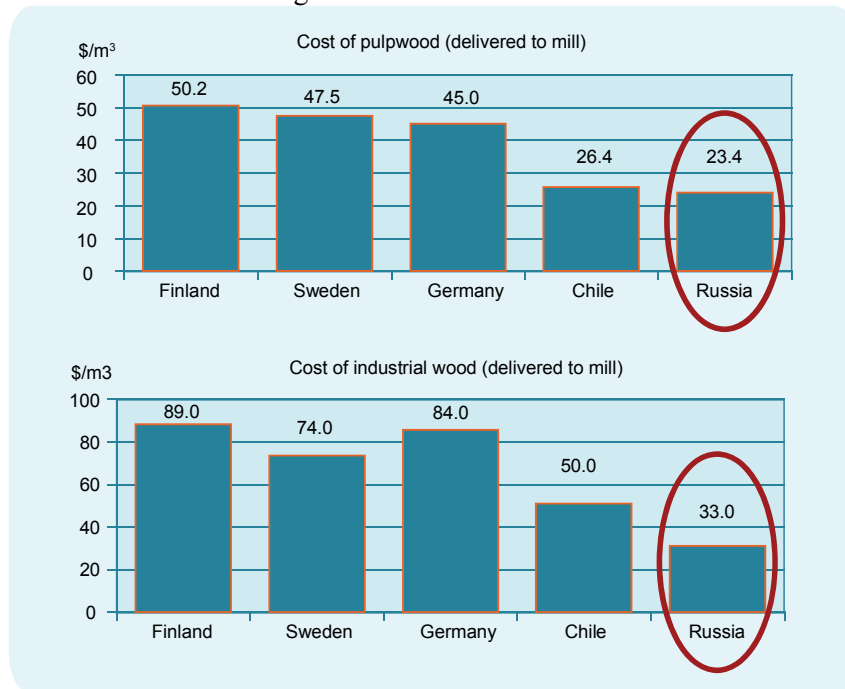
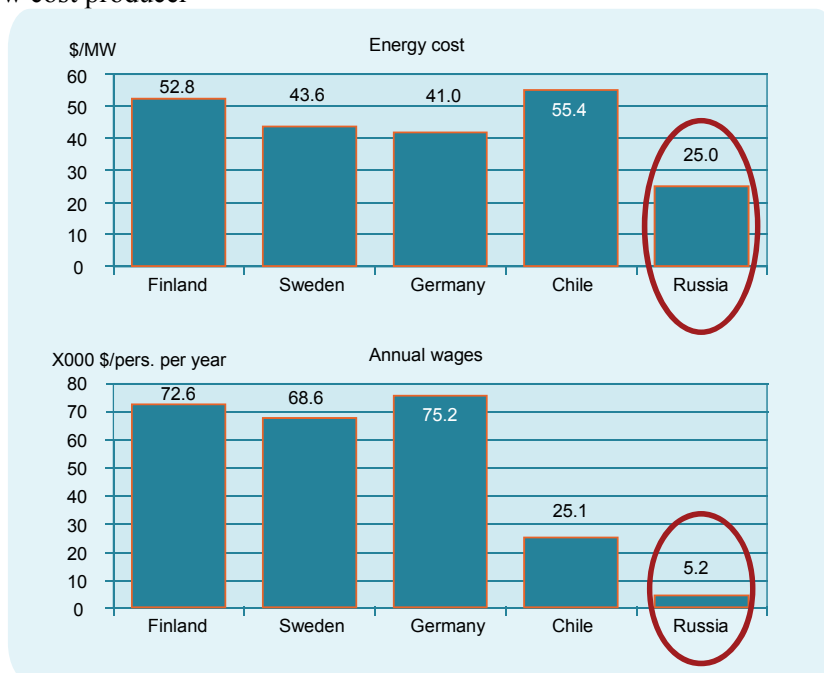


Figure 9. Low cost producer



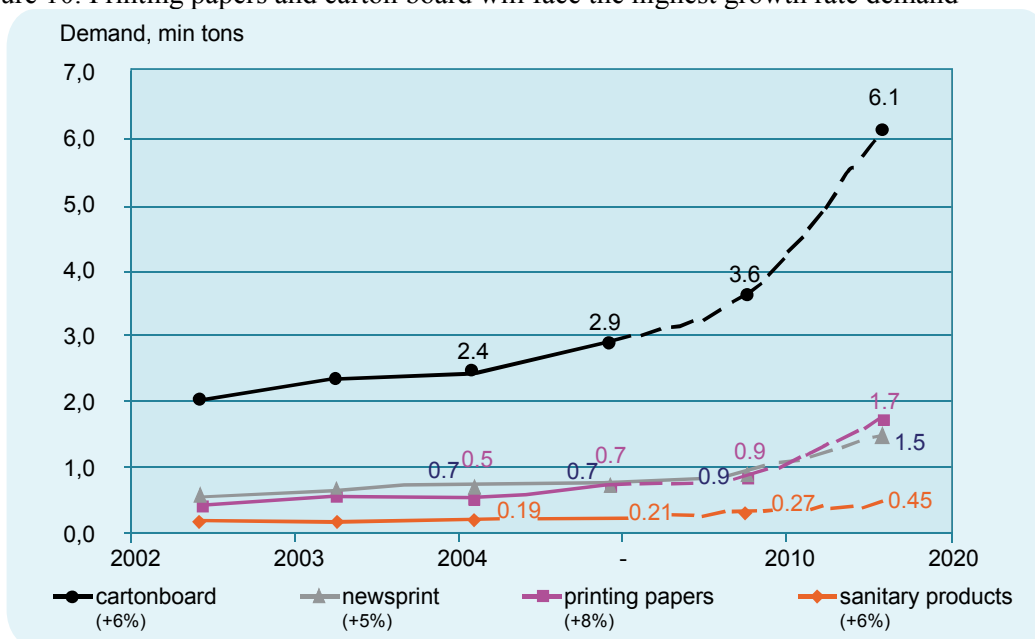
For logs with a top diameter >15 cm and length of >1 m: The minimum tax is 4 €/m³ or 6.5 percent of the sales value. For logs with a top diameter <15 cm and length of >1 m there is no tax. The possibility of increasing the above tax in 2007 to 6 €/m³ respectively 10 percent is under discussion. The focus is on incrementing value added wood products instead of exporting high quality wood. Still, this country is a low cost producer.

There are a number of positive aspects with respect to future development of the Russian forest sector. Russia is currently a low cost producer with low costs for wood, energy and wages but the costs are expected to increase in the future. Russia has a lot of unutilized forests and has proximity to important markets like China, Japan and Western Europe. There is potential for substantial reductions in production costs.

There are also many challenges facing the future development of the Russian forest sector. The forest sector is not particularly significant in the Russian economy and there is no overall strategy for the development of the sector. The existing Forest Code is a long-standing problem with unclear stakeholder responsibilities; a “forest war” is going on between the major pulp and paper companies; illegal logging is substantial; infrastructure deterioration is ongoing due to lack of investment in the sector, etc. But perhaps the most serious problems are those relating to governance of the sector. There is no transparency in the real ownership of the forest industry and there is a lack of institutions (in a broad sense) for a sustainable development of the sector. There are also concerns about the overall direction of Russia, with more and more centrally controlled planning.

There are lots of opportunities for the sawmilling industry. Russia has a major low cost competitive advantage in solid wood products, though sometimes there are logistical problems. Strategic investors are wary due to the uncertainties illustrated above. In the long term, there will be substantial (foreign) investments for the development of the forest sector in Russia but when this will happen will depend on the governance/political/institutional conditions.

Figure 10. Printing papers and carton board will face the highest growth rate demand



Examples for recent investments:

- Amazur Pulp Mill, Chita Region - 400 000 MT
Chinese capital — starting operation summer 2006
- Fevralsk Pulp Mill, Amur region — 300 000 MT
Chinese capital

- Amursk Pulp Mill, Khabarovsk region — 700 000 MT Shopping Around in European Russia
- Mondi, StoraEnso, Metsä-Botnia

Some of the proposed incentives for investment are:

- Special Economic Zones (currently 20 proposals)
- Social tax 26 → 14 percent
- No wealth tax
- No property tax
- During 5 years no customs and taxes on imported goods
- Federal money for infrastructure

Mondi and International Paper have been successful in the pulp and paper sector, StoraEnso in wellpapp, SCA and P&G in tissue paper, and several other firms are making progress in the sawmilling industry (UPM, Swede Wood, StoraEnso, M-real).

Regarding future wood supply, hardly any substantial increased harvest is expected in the mid-term. Our most optimistic assessment is a maximum future harvest level of about 250 million m³. Taking into account the illegal logging already happening, an increased potential of 45–50 million m³ could be forecast, compared to the conventional wisdom figure of 500 million m³.

China

Under this agenda item, Mr Bull already discussed the forest resources and possible Chinese supply of industrial wood. The purpose of this presentation is to discuss the possible development of consumption and industrial production of forest products in China.

There is not one China, but many Chinas, with huge variations in education and disposable income. The rural population numbers some 800 million, out of a total population of 1 300 million. China's population is ageing rapidly, which will cause problems for China in the near future. There has been remarkable economic growth and an increase in consumption in China, mainly due to increased globalization. But this remarkable growth is a product of only a handful of propulsive regions. There is no single national market because consumers are too dispersed, too inaccessible and too different. In addition, the economic statistics in China are weak. Therefore, average per capita measures of income and demand are quite meaningless as a forecasting tool for demand.

The Chinese pulp and paper industry can be divided into “new industry” - mills built after 1996 - mainly using wood fibres and imported fibre (wood pulp and recovered paper) and “old industry”. The latter refers to infrastructure built before 1996 and involves mainly non-wood fibres and domestic recovered paper. The production of paper and paperboard is of the same magnitude in both categories (nearly 20 million tons each). Only about 25 percent of the total fibre used is in the form of wood pulp, nearly the same amount is in the form of non-wood pulp, more than 20 percent is domestic recovered paper and some 33 percent is imported recovered paper.

The demand for paper and paperboard is expected to increase from 54.7 million tons in 2004 to 68.6 million tons by 2010. But imports are only expected to increase by about 1 million tons during the same period. This means that the rapidly growing demand will be taken care of by an increase in domestic production of nearly 15 million tons during this time period.

The demand for wood pulp is expected to increase by 5 million tons to 15 million tons in 2010. Over 50 percent of this demand will have to be imported. It is foreseen that the domestic production of wood pulp will increase substantially during this time frame and will reach nearly 7 million tons in 2010. There will be a rapid growth in the demand of recovered paper, which will reach about 35 million tons in 2010, of which half is expected to be imported.

There is considerable uncertainty about consumption and production of lumber in China. The demand estimates currently vary from 16–58 million m³ of lumber. The production numbers are similarly uncertain. RISI (2006) estimates the current demand for lumber to be about 20 million m³ and forecasts that demand will be over 40 million m³ in 2020. Thus, a steady growth in lumber consumption is foreseen. RISI (2006) assesses current production to be 15 million m³.

There is a fast growing increase in the demand for wood-based panels in China as well as a growth in production. The export of plywood is also growing fast and the export of furniture is currently in the magnitude of 10 million m³ RWE. The current import of forest products, expressed in RWE, is about 140 million m³. Forest Trends (2006) have assessed that imports of forest products to China by 2015 will be in the range of 200–600 million m³. The wide range is due to the uncertainties existing about future consumption and production in China, as discussed above. A substantial part of this will be in the form of roundwood. The challenging question is where the supply for these products will come from in 2015.

Recent fibre supply developments:

- ITTO (2006) assess that only 4.5 percent of permanent forest estates of the tropical forests are managed in a sustainable manner;
- CIFOR (2006) investigated pulp capacity investments since 1990 and found that limited attention was paid to the issue of sustainable supply. The due diligence documents did not discuss fibre supply. Of a sample of 1585 securities, research reports only 7 paid attention to wood supply. Many mills were established without any secure fibre supply;
- EU Energy Strategy (2006) makes reference to an additional contribution of bioenergy of 80 million ToE.

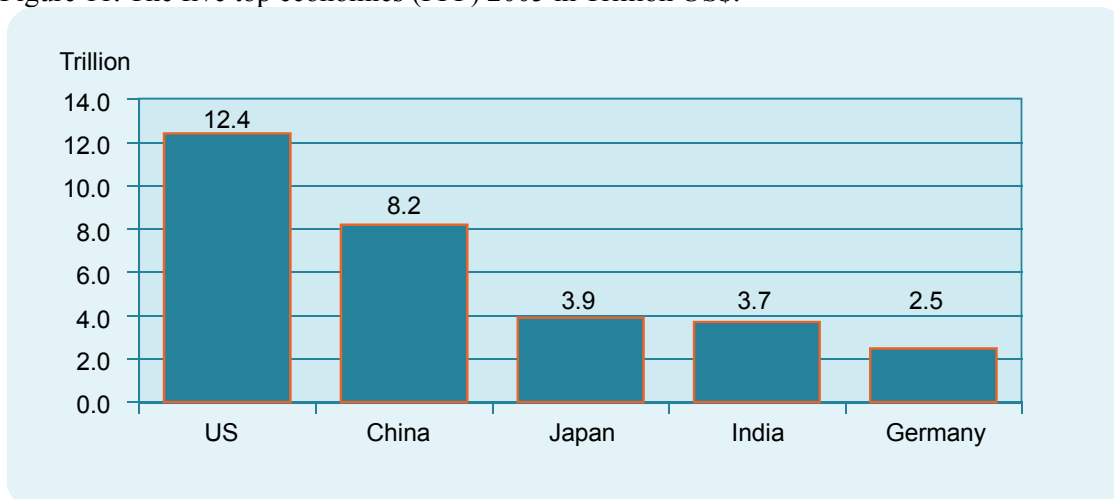
The Role of India, by Mr Rajiv R. Vederah

Mr Rajiv R. Vederah, Joint Managing Director of Ballarpur Industries Ltd. in India and President of the Indian Paper Manufacturers' Association presented an analysis of the resurgent Indian economy and the trends of the paper industry, strengths and perspectives in the global context. He also presented a fibre demand scenario and analysis of the social-economic aspects.

It was mentioned that this country is the second fastest growing economy, it has moderate inflation, there is easy credit availability and it has the sixth highest foreign exchange reserves. In addition, India is rapidly moving towards a free market economy and is well-integrated with the global economy. It shows promising consumer markets, an attractive level of foreign investment, as well as significant quantities of investment in industry's infrastructure. Technology and knowledge is growing rapidly in the country. It presents a growing market for IT & ITES (Information Technology and IT Enabled Services), as well as growing self-belief and national pride.

India is expected to have the world's third largest GDP by 2020, and is already fourth largest contributor towards incremental global GDP Growth (3.2%), after USA (21.6%), China (9.4%) & Japan (6.4%) in 2005 in terms of purchasing power parity.

Figure 11. The five top economies (PPP) 2005 in Trillion US\$.



India's economic growth is sustained by its economic performance: an average of around 6.2 percent between 1991 and 2003; 6 percent from 2004-05; and nearly 8 percent in 2005-06, with a forecast of sustained growth of over 8 percent p.a. thereafter - very close to China's value.

Services account for over 50 percent of GDP. Manufacturing sector grew 10 percent in 2005-06 and this country is the third most attractive destination for manufacturing, because policies are oriented to the manufacturing sector, in support, among others, of job creation.

Exports account for US\$100 billion. The foreign exchange reserves amount to US\$162 billion (incl. Gold & SDR).

A number of fiscal reforms have been put into place, as a response to globalization. For example, there has been rationalisation of the tax structure, both in direct and indirect ways, and a progressive reduction in peak rates of duties:

- Peak custom duty reduced to 12.5 percent;
- Corporate tax at 30 percent;
- Tariff to be aligned with ASEAN levels.

A value added tax was introduced on 1st April 2005 and the Rupee was made fully convertible on trade accounts.

Mature capital markets

NSE third largest, BSE fifth largest in terms of number of trades - by 2050 it is expected that India will become the 3rd growth economy. India has a well organized infrastructure, despite having a population of over a billion people.

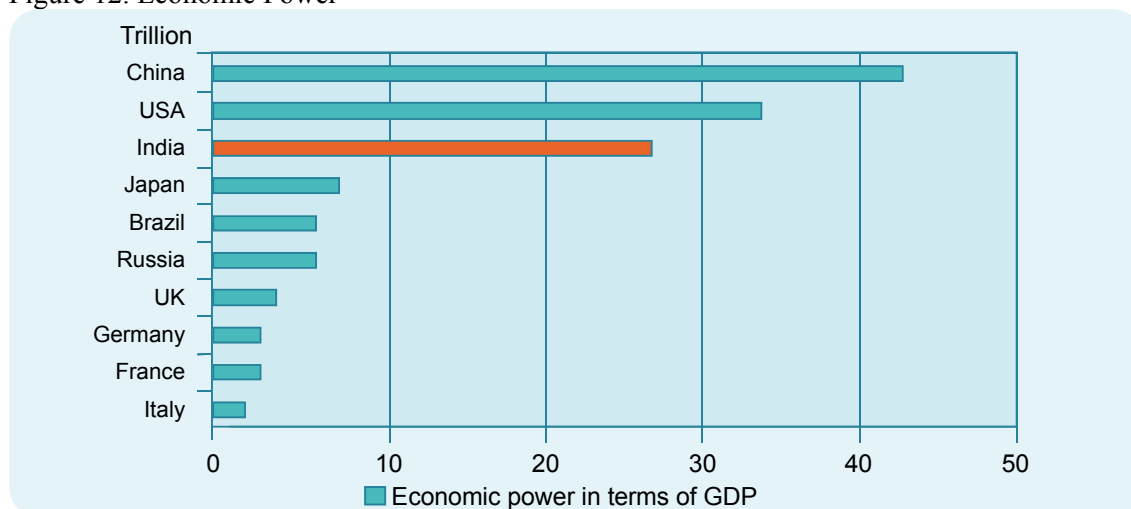
At human resources level, it has a large education and knowledge sector:

- India's competitive edge is its highly-skilled manpower;
- Over 380 universities (11 200 colleges);
- 1 500 research institutions;
- Over 200 000 engineering graduates;
- Over 300 000 post graduates from non-engineering colleges;

- 2 100 000 other graduates;
- Around 9 000 PhDs.

Knowledge workers in software industry increased from 56 000 in 1990-91 to 650 000 in 2003, and is forecast to reach 2 million by 2008. Due to its young demographic profile, India will continue to be surplus in working population for a long-time.

Figure 12. Economic Power



Source: Goldman Sachs

Overview of Indian paper industry

The paper industry has a long history in India. The first paper mill was established in 1832. It is a rural based industry with linkages to the agriculture/agro-forestry sectors. Latest developments include foreign participation in investments. Generally, the major challenge to government is the creation of new infrastructure for the entire sector.

Some of the key data is:

Industry turnover - US\$3 725 Million;

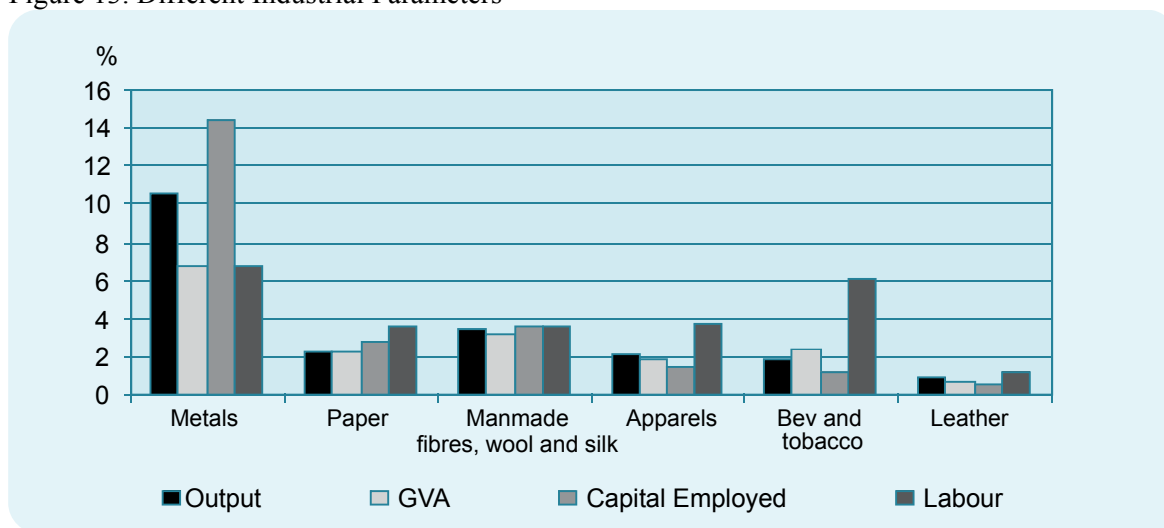
Contributes over US\$447 Million annually to exchequer;

The pulp and paper industry provides employment:

- to more than 0.3 million people directly;
- to 1 million people indirectly (engagement with agriculture activities).

The paper industry has been improving its export performance continuously. New business models are being established due to penetration of technology and communications – IT, ITeS. The literacy rate in India is about 63 percent, and there is potential for paper consumption to increase since paper is the most important medium of education/communication. The country's economic growth is expected to continue to increase and paper plays an important role. The education sector is forecast to grow exponentially and paper is an important vehicle to drive the national literacy mission in the country. This sector is also a great contributor to greening India, through its social farm forestry programme. It is progressively increasing the use of industrial paper for packaging, and encouraging many backward and forward linkages of ancillary industries. As can be seen in the following figure, the paper sector generates an important percentage of employment and labour, after the metal industry, generating economic wealth in the hands of the rural population.

Figure 13. Different Industrial Parameters



The following table shows the changing paradigms between the industry structure and the market place for the paper sector:

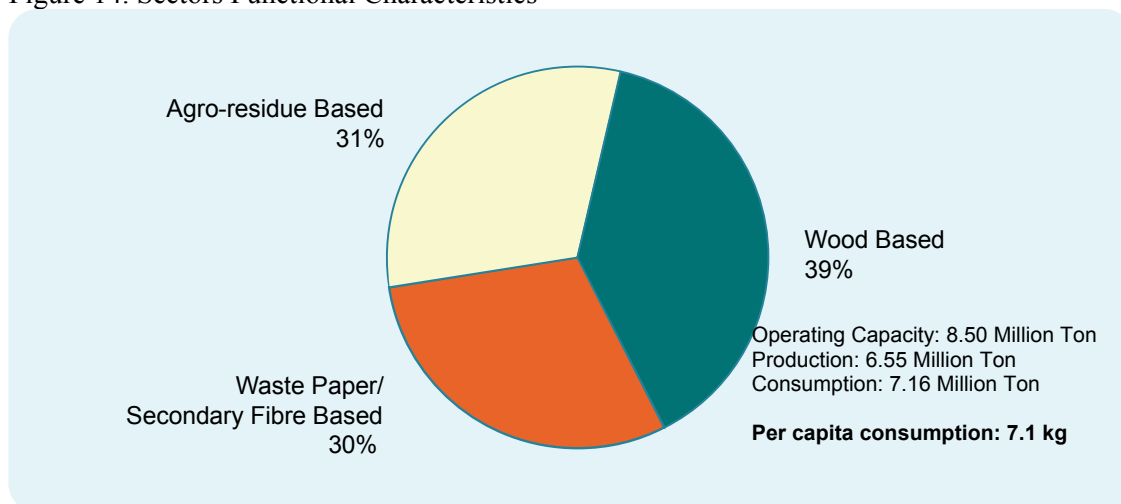
Table 7. Indian Paper Industry - Global Standing

Change in Industry Structure	Change in Market Place
Industry size, consolidation	Rising customer expectation
Standardization of Industry	Imports to set the quality benchmarks
Availability of raw material	Players to offer a wide range of products
Minimum efficient scale of production	Product differentiation through Functional Brand Building
Asset Quality	Service Differentiation through wider reach and Just in Time delivery
Quality Benchmarking	Response time to crash
Environmental considerations and standards	Modernization of existing assets and capital needs
Shut down of smaller, inefficient producers	

Expansion towards the Global Scale

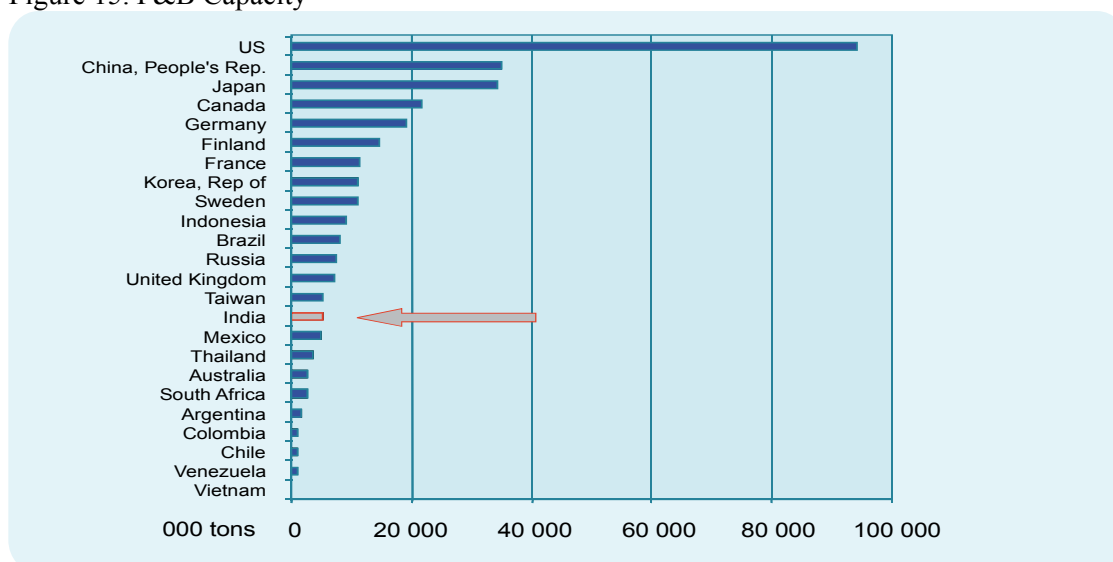
There is an aggressive portfolio addition comprising value-added variants, as well as the improvement of the quality of paper in terms of visual appeal and functional characteristics. Capacity expansion ranging between 15 000- 25 000 tons per annum is taking place in numerous medium scale paper mills, as is quality benchmarking with international standards. These industries are improving their technology to produce cleaner and brighter paper.

Figure 14. Sectors Functional Characteristics



India ranks fifteenth among global paper producers and is nudging forward

Figure 15. P&B Capacity

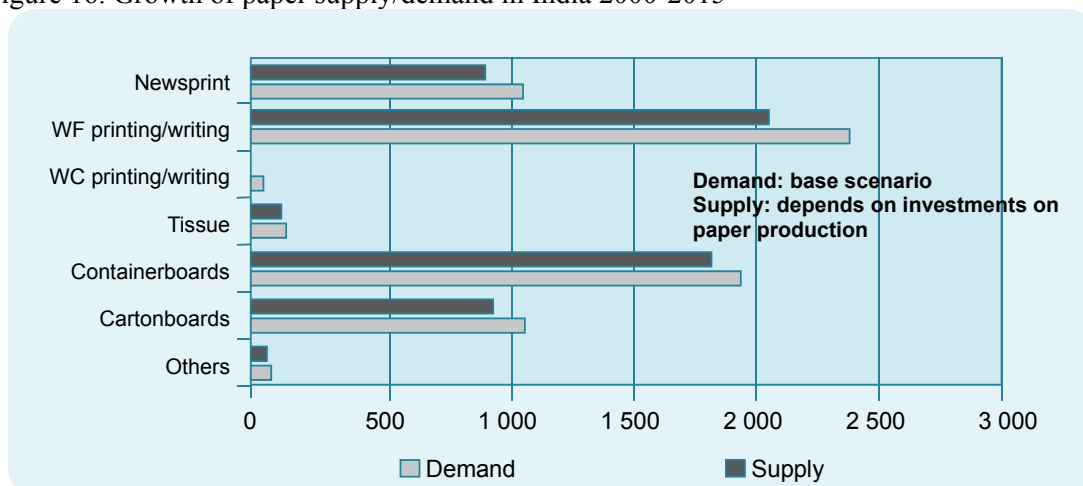


There is a market segmentation: the demand growth for paper is among the fastest in the world. The share of coated wood free paper in printing/writing is increasing rapidly; the packaging board demand growth is led by high-end bleached boards.

Growth of paper supply/demand in India

The total demand growth in 2000-2015 is expected to be 6.8 million tons. The supply is estimated to increase by about 6 million tons during the same period, depending on investments. Printing and writing paper and containerboard are expected to grow most. There are less than 0.2 million tons of decided projects and about 0.4 million tons of planned projects, i.e. the planning gap during the next 15 years would be well over 5 million tons.

Figure 16. Growth of paper supply/demand in India 2000-2015



Source: JC Consulting

The main growth drivers are economic growth reflected in the GDP. A rise in domestic demand is expected – a CAGR of 6.1 percent up to 2008-09; capacity expansion is estimated at only 3.1 percent over the same period. An education sector growth of 4% is expected: a budgetary provision for F.Y. 2006-07 by GoI: \$5 481 million (increase of 31.5 percent). The writing and printing sector growth is forecast at 5.5% compounded up to 2008-09, and India has become a hub for high quality printing at competitive cost. There will be a progressive increase in the use of industrial paper for packaging of consumer goods and FMCG (Duplex 7.2 percent and Kraft 8.0 percent CAGR up to 2008-09).

Major deterrent to competitiveness and growth: raw materials

The Indian paper industry uses a variety of raw material: wood/bamboo, recovered paper, bagasse, wheat straw, rice husk and others. A major deterrent to competitiveness and growth is the lack of raw material in the form of wood fibre. The annual availability of agro-residues is large.

Figure 17. Consumption pattern – past, present and future

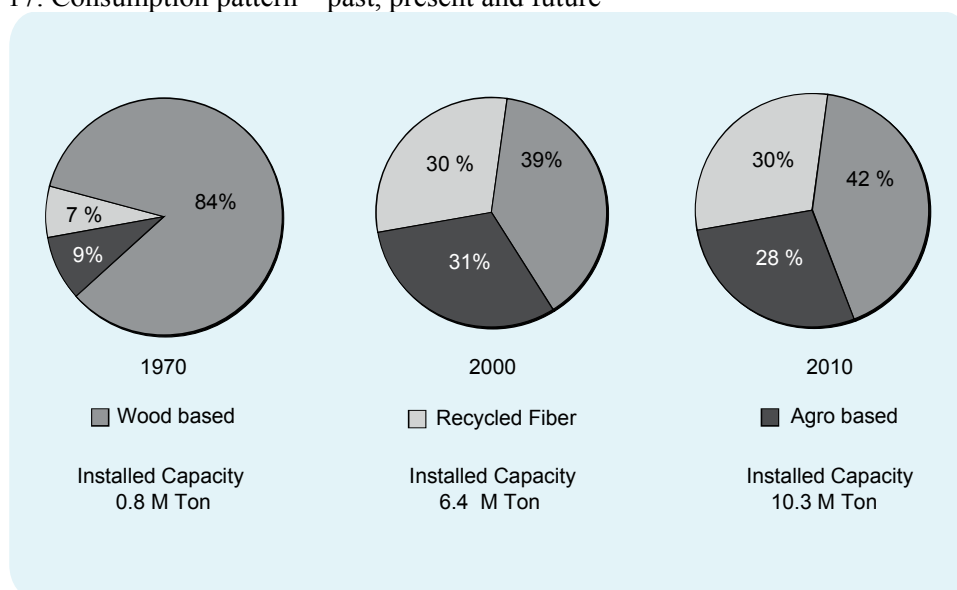


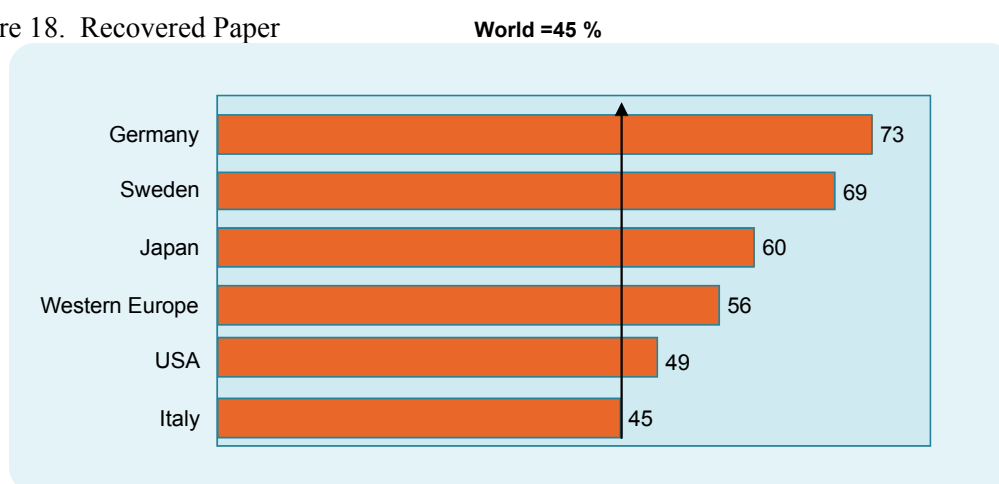
Table 8. Agro-residues

Agro Residue	Million MT	MT needed per MT of Pulp	Pulp Potential (Million MT)
Wheat Straw	22	2.5-3.5	7.0
Rice Straw	15	2.5-3.5	5.0
Bagasse	10	5.0-6.0	2.0
Jute/Mesta/Kenaf	2	-	-
Total	49		14.0

Even though agro-residues as raw material have been a major source of fibre through which industry has grown in the past, this source may not be able to sustain the future growth of the industry, taking into account the quality of paper required, environmental issues involved, logistics, etc. Bagasse is increasingly used by sugar mills for co-generation of power and existing mills depending on agro residues are under threat of closure.

Waste and recovered paper: 50 percent of the industry’s requirements are met through imports, which are increasing. Current imports amount to 2 million tons, worth US\$500 million. India lacks systems for collection, sorting and grading of waste paper for proper utilization. In India only about 20 percent of waste paper is currently being recovered.

Figure 18. Recovered Paper



Source: PPI, CEPI, Swedish Forest Industries Federation. Figures refer to 2002

Wood: The final paper quality determines the raw material choice. Absence of sound raw material base prevents mills from growing in size to achieve economies of scale and attain global benchmarks. India’s current forest policy does not allow industrial plantation development by private sector on degraded forestland. Industry uses various species of hardwoods as raw material, due to the limited availability. Raw material constitutes 40 to 50 percent variable cost and it is one of the highest percent of variable cost in the world. India needs to resolve this issue effectively through industrial plantation policies so as to become a major global player.

Wood demand scenario for industry and community

Fuelwood: Demand: 280 Million MT Cumulative
Shortfall: 80 Million MT & growing

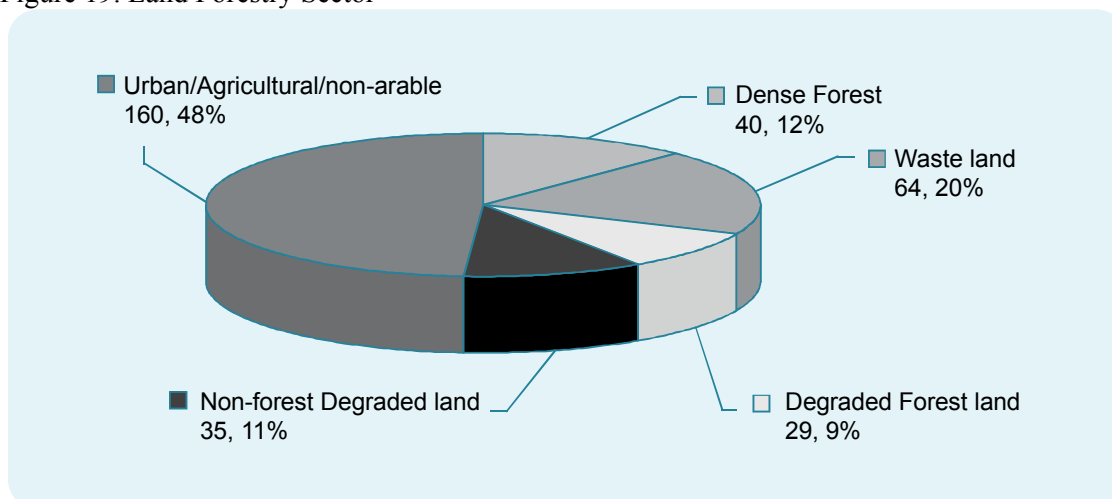
Pulpable wood: The paper industry’s demand for wood is expected to grow from 5.2 million tons in 2000 to 13.2 million tons by 2020/annum. Apprehended shortfall for the paper industry: 93 Million MT cumulative by 2020 (assuming that part of fibre needs will be covered by increasing use of recovered paper & agro residues).

Wood sourcing: The current requirement of virgin wood fibre as raw material is met from two main sources. The government source accounts for 20 percent (mostly bamboo) and non-government source covers 80 percent. The industry’s main development constraint relates to the sustainability and competitiveness of raw material sources, in the absence of proactive industrial plantation policies. As an alternative, many major mills have begun sourcing their raw material from agro-forestry sources.

Imports of Wood and Wood Products: 2004-05 - US\$666.32 million
2005-06 - US\$708.73 million => Growth 6.37%

Land Status: Total geographical area: 328 million hectares.
40 million hectares dense forest (>40% crown density)
64 million hectares wasteland (Min. of Rural Development)
29 million hectares degraded forest land
35 million hectares non-forest degraded land (fragmented)
160 million hectares urban/agriculture/non-arable to feed people

Figure 19. Land Forestry Sector



India has a reserve of bamboo forest; it represents around 20 percent of the raw material used in the pulp and paper industries. Eighty percent is a mix of tropical wood, grown in marginal lands. The average land holding is only 1 ha per farmer. Farmers consume 20 million tons of firewood.

The national forest policies of 1894 and 1952 emphasised increase in forest cover, sustained yield management, meeting the needs of domestic and industrial forest raw material and earning revenue. The national Commission on Agriculture promoted tree cultivation outside forest to bridge the gap between supply-demand.

The forest conservation Act, 1980, curtailed powers of the State to de-reserve forestlands or assign them for non-forest purposes.

The national forest policy of 1988 was focused on conservation of biodiversity, liberalised wood import, and encouragement to social/farm forestry for industrial needs.

To meet the national target of 4 million ha until 2012, a significant annual increment is needed in forest and tree cover. The current status: 23 percent of forests cover (as quoted officially). The total investment required to meet the target is in the range of US\$11 045 million

A multi-stakeholder partnership (MSP) is evolving with the objective of increasing existing resources. A legally enforceable Memorandum of Understanding partnership has been developed between company/user groups, public or private local community, forest department/land owning agencies and it is at an advanced stage for government’s consideration and approval.

The pulp and paper industry’s demand for raw material cannot rely on social/farm forestry alone. The industry needs 1.2 – 1.5 million ha of land suitable for forest plantations i.e. 4 - 5 percent of the total degraded forestland.

A clear industrial plantation policy will attract private sector investment in development of high-yielding sustainable plantations. The development of approx. 1.2 million ha will bridge the shortfall of raw material for the immediate future.

Employment generation

Agro-forestry promoted by the industry generates rural employment through nursery operations for plant production and distribution to farmers. The table below shows the total employment in the development of 1.2 million ha.

Table 9. Rural employment

Area of Plantation	1.2 million ha
Area of plantation in one year (12/7)	0.172 million ha
Average man/days over one rotation	450 man/days
Therefore, annual man/days required (450x0.172)	77.4 million man/days
Annual man/days required for harvesting 250x0.172	43 million man/days
Total employment potential per annum	120.4 million man/days

Carbon Sequestration

The paper industry is the only large scale industrial sector capable of realising a low carbon energy balance, avoiding major changes to its primary production process. The adoption of more effective organisation of its existing bio-mass supply, improved energy efficiency and more sustainable waste management practices could yield hundreds of millions of carbon credits through CDM. On an average, production of 1 ADT of paper results in 0.67 ton CO₂.²

CDM Projects

There are two significant projects submitted by IPMA members. ITC Ltd. – 42 000 ha of plantation with a potential to sequester 10.7 million tons of carbon, reducing 39.3 million tons of CO₂ having a carbon credit value of US\$106 million in the first commitment period. TNPL – its bio-methanation project is the first CDM project implemented in the paper industry to generate 37 000 CERs a year. TNPL has about 82 955 CERs to its credit.

² CEPI

Forest Governance – Latest Study Reports

There is a cost benefit analysis study by CII on “Public private partnership in greening of degraded revenue/private/forest land”; Forest Survey of India’s “State of Forests Report, 2003”; the World Bank’s Report “Unlocking Opportunities for Forest-dependent People in India”.

Options Available to Industry

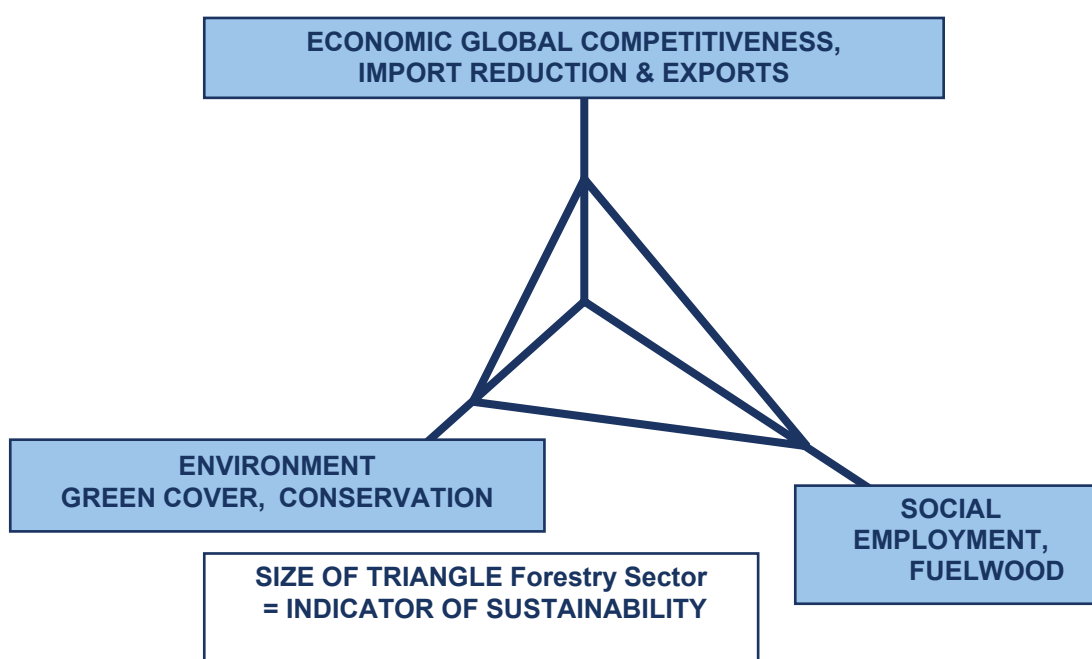
Option 1: Indian Industry imports pulp to manufacture paper

Option 2: Indian paper industry shuts down and India becomes a net importer of finished paper products

Option 3: The government provides enabling policy amendments for employment generation and sustainable supply of raw material for highly educated population through industrial plantations.

The paper industry needs to grow, needs to preserve the environment, make a better society.

The Triple Bottom Line



Item 5. Country reports

The country briefs prepared by ACPWP members present an excellent compilation of information describing the trends and major business developments of our industry. Based on these reports, Olman Serrano, Secretary of the Advisory Committee, presented a summary of the main emerging issues and business developments that the wood and paper industry is facing around the world.

While the world economy experienced a dynamic growth between 2000 and 2005, some regions experienced a relatively sluggish economy, as in the case of the Euro zone, handicapped by the poor growth of their internal demand. In the United States, paper and paperboard capacity

slightly declined, while the wood sector enjoyed strong market conditions as new home construction reached the highest level in decades.

The effects of people reading newspapers on-line were felt in industrialized countries, causing newsprint consumption to drop.

Russia remains primarily a raw material export country, with difficulties in consolidating industry restructuring and attracting new investments. China continues its high average annual growth in GDP of greater than 9 percent. Its share in raw material and fuel imports as well as exports of value added wood products continue to increase dramatically.

The following driving forces affecting industry were highlighted:

Energy

Electricity, oil and gas prices increases are hampering overall economic development in most countries, having a significant adverse impact on the wood products and paper industry, particularly those countries with large areas and long transport distances between the resources, the mills and the market place, such as Australia and Canada.

The high energy costs were illustrated by the experiences of Mexico and Italy. Mexico enjoys a fuel supply from a state monopoly, a far cry from international parameters of competitiveness in terms of price and quality. In this country, natural gas is marketed at a price which is around three times above its cost, and fuel oil for exports is sold 30 percent cheaper than that delivered to the domestic industry. Electricity also has a high cost in Mexico and this, coupled with the fact that it has a large variation in terms of quality (i.e. voltage), results in another important source of low competitiveness. In Italy, natural gas costs is one of the main items of the energy bill for the paper industry. This cost increased by 25 percent in 2005 and a further escalation of 40 percent is taking place in 2006, for an average paper mill, due to the indexation with oil prices. The increasing energy costs combines with a structural competitive penalisation for Italian companies, which are paying on average prices 30 percent higher for electricity and 20 percent for natural gas than in other EU Countries.

The focus on renewable energy is increasing, with more incentives being put in place in European countries to develop further the production of “green energy”. Biomass-based energy is considered a promising option that has not yet been fully exploited.

Competitiveness

The fall in paper prices slowed down, but difficult competition and increased raw material prices, energy and transport and sometimes illegal or unfair trade, are affecting the competitiveness of the paper and wood products industry. There is a general increase in operational costs, in particular labour and raw material, exacerbated in the case of European countries by the EU Emission Trading System. It was felt that there is an overall reported profit margin deterioration.

New investments in the industry are directed to increasing competitiveness, in particular efficiency and cross-cutting programmes, including cuts in personnel.

Industry restructuring, reflected in mergers and acquisitions, continues with the aim of increasing competitiveness, particularly in Canada, U.S.A., Sweden, Russia, South Africa and India.

Raw material

Wood supply, recovered paper and fresh fibre flows have become issues of concern in many countries. In Europe, for example, policies supporting the use of biomass for energy generation are perceived as causing market distortions and increasing wood prices. In India, national legislation does not permit private sector participation in industrial forest plantations.

The recently published Biomass Action Plan and the European Union Strategy for bio fuels have been adopted to give a further push to biomass-based energy. The side-effect of such policy developments and national support policies is that the price of wood – and more specifically of some assortments – is increasing and challenges industry's wood procurement. The issue of wood availability is increasingly sensitive in several countries.

The governments of the U.S.A. and Canada reached a tentative agreement to settle a long-standing dispute on softwood lumber trade.

Policy and regulations

A few national and regional policies, programmes and regulations have been identified as hampering the paper and wood products development. They vary from environmental regulations – such as the Emission Trading System – to monetary and interest rates policies, increasing the capital costs. Regarding the capital cost, in many cases such as Chile, South Africa, the currency is under-valued against the US\$ dollar and this makes investments less secure. It also includes taxation, procurement policies, land use, land use change and water. Water in particular is becoming a critical issue in many countries, with increasingly complex regulations and additional costs. Restrictions are foreseen, including more difficulties in getting licences for the use and the disposal of water, as reported by Portugal and South Africa.

Public procurement policies have been identified as tools to improve environmental performance in the EU, as well as a response to Forest Law Enforcement, Governance and Trade (FLEGT). An increasing number of governments have developed a procurement policy for wood and paper products. These policies rely very much on forest certification and might lead to discrimination vis-à-vis wood compared to other materials.

Further costs derive from the implementation of the EU Emission Trading directive, which is perceived as causing distortions in the markets. These new units may create important distortions on raw material availability for the forest based industries, due to green energy prices, impact of CO2 emission trading schemes on alternative energy sources and local market conditions.

The meeting also stressed the need to continue raising awareness amongst the public sector and civil society about the acceptability of the paper and wood industry based on planted forests and its contribution to sustainable development.

Trade Agreements are coming up, particularly in countries like Chile, Colombia. There is widespread misunderstanding about the acceptability of the profile of the plantations industries.

Item 6. Contribution of the paper and forest products industry to employment and income generation

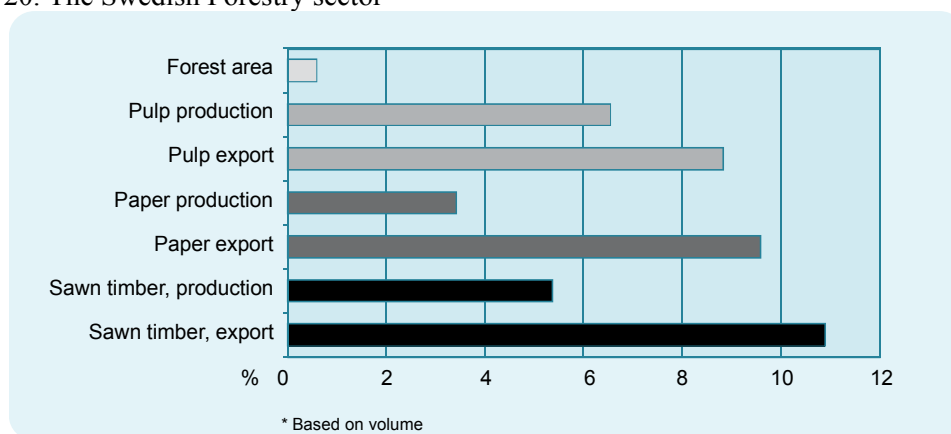
Reliable information on the contribution of our industry to employment and income generation is one of the key instruments required to place the sector in the national and global policy dialogue.

Forest and paper industry sector and its contribution to national development

Marie Arwidson, President & CEO of the Swedish Forest Industries Federation, shared the perspectives of a very successful forest and paper industry sector and its contribution to national development, taking into consideration of the social and the environmental dimensions.

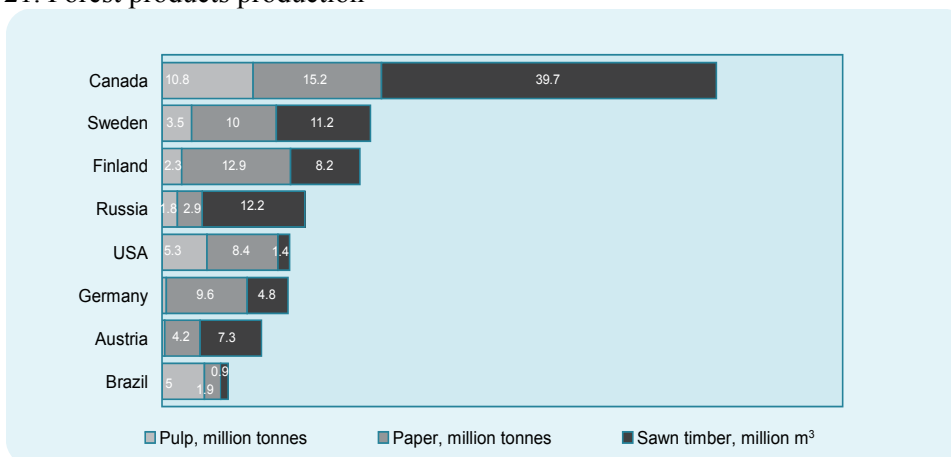
Forest industry has a long history in Sweden’s knowledge base; it has high-level and new technology, which contributes to meeting client’s demands. A balance is struck between human, materials and capital in the operations. This is a small country, with less than one percent of the world’s forest area. It has one of the largest forest product industries in the world, highly export oriented, accounting for 9 percent and 11 percent of the total global exports of pulp, paper and sawn timber respectively.

Figure 20. The Swedish Forestry sector



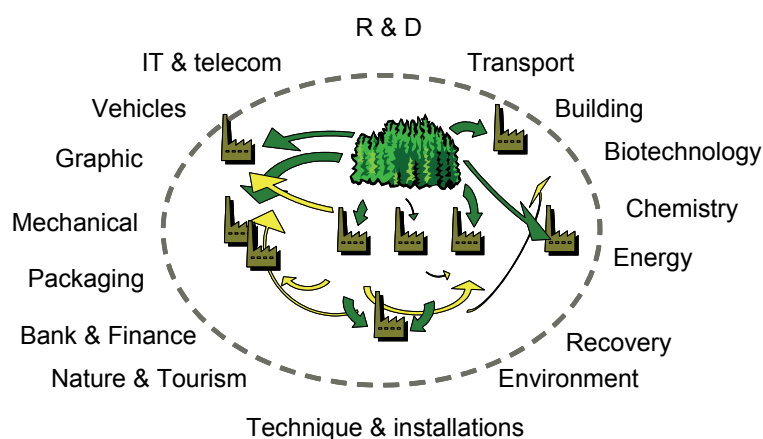
As shown in the following figure, Sweden occupied second place, when pulp, paper and sawn wood production are totalled, and third place for sawn timber.

Figure 21. Forest products production



This kind of industry provides indirect employment, such as local services, schools and other activities related with this sector. It is necessary to call for a political message regarding capital investments. Sustainability is one of the most important issues in the agenda of the forest industry, both at company and association level. It is therefore very important to consider the forest products industry as a driving partner in a large cluster

The chart below shows not only the many different aspects and the interrelationships in the forest industry, but also gives an overview of all different sectors that are engaged by the forest industry as suppliers and as clients. There are some calculations of the affect on employment at the supplier's level.



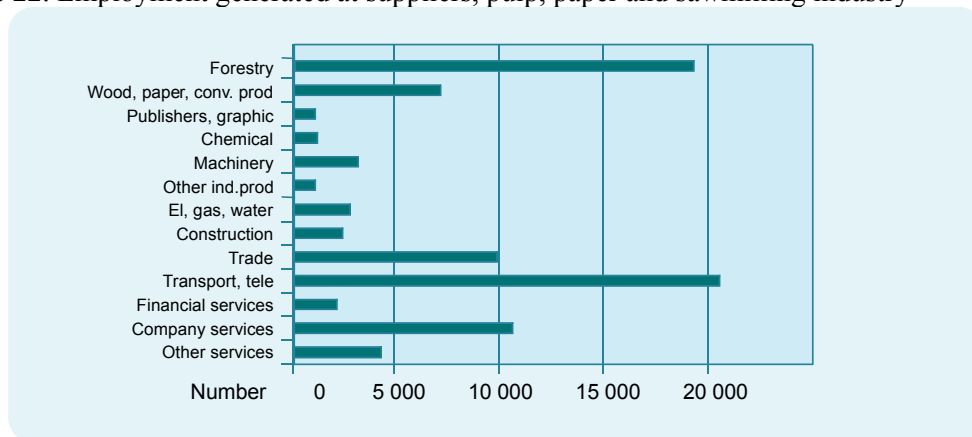
The work and achievements are documented in companys' reports. Many Swedish companies are world leaders in sustainable development measures. In 2003, CEPI was the first European industry sector entity to launch a report called "The European paper industry on the road to sustainable development", which has been updated in "CEPI sustainability report 2005". CEI-Bois, the European woodworking organisation, launched fact sheets and a book called "Tackle climate change: use wood", which has attracted a lot of attention. Last year, the Swedish Forest Industry Federation issued "The role of the Swedish forest industry in sustainable development".

It is important to give policy makers and other stakeholders an overview of the sustainable work that is continuously on-going in the industry. The interpretation of sustainability should be understood in three dimensions: Environmental, Economic and Social level.

The amount of employment generated by the forest products industry shows a downward trend in Sweden, as in all so-called industrialised countries. Employment in service sectors is linked to the forest industry, which balances the reduction in the direct industry employment. It shows the industry's "outsourcing" trend and concentration of core activities.

The chart shows how the 45 000 people directly employed in the pulp, paper and sawmilling industry generate employment for a total of 85 000 in those sectors that deliver goods and services to the industry. This gives a total of 130 000. It is interesting to note that a large part of the indirectly employed belong to different service sectors.

Figure 22. Employment generated at suppliers, pulp, paper and sawmilling industry



The forest industry and sustainability

Sustainability is the way forward for the forest industry and its products, and constitutes the foundation for its operations. The products are made of renewable raw material, in environmentally adapted processes and are also recoverable. Forest, processes and products are part of a sustainable cycle; wood raw material from sustainably managed forests, preserving biodiversity of the forest landscape.

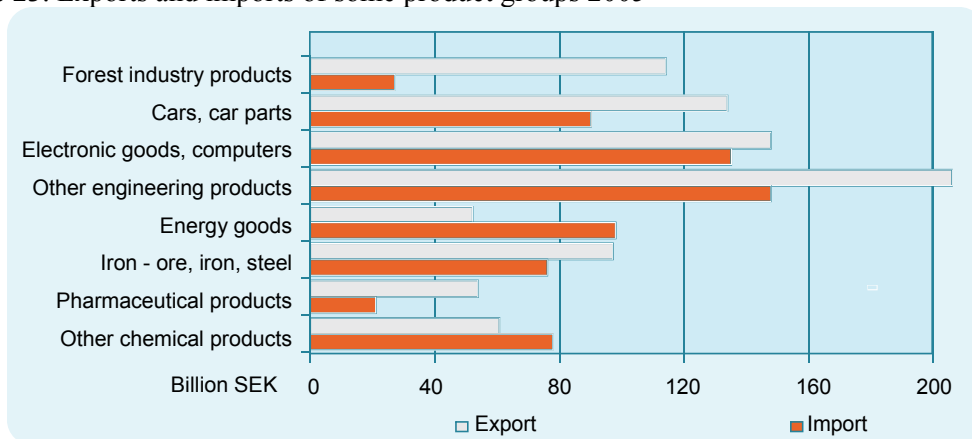
Pulp and paper industry



Saw milling industry



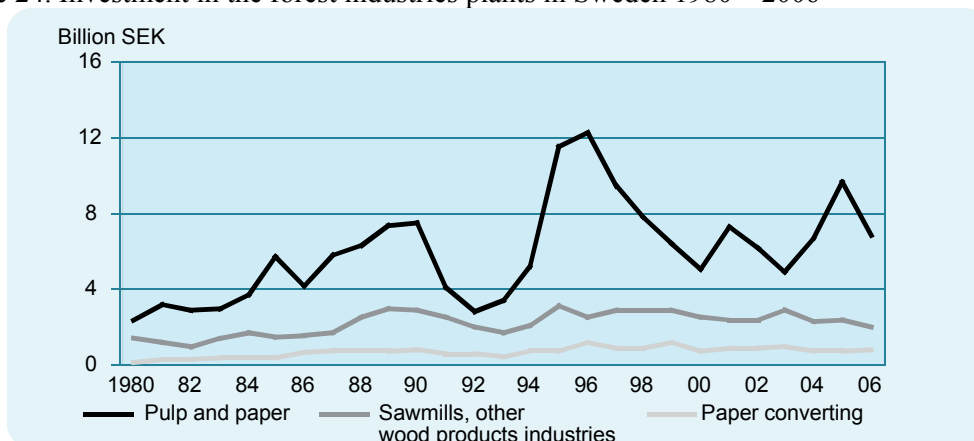
Figure 23. Exports and imports of some product groups 2005



International trade in forest products generates a large export surplus for Sweden. In 2005, forest products worth 12,3 billion euro were exported, while imports of forestry products amounted to 2,7 billion euro. This gives a surplus on the trade in forest products of 9,6 billion euro.

To be able to export forest products to the value of 12,3 billion euro, the forest industry must import input materials – wood, chemicals, oil etc – worth about 2,8 billion euro. Net exports, defined as exports of forestry products less imported input materials, thus amounted to some 9,5 billion euro.

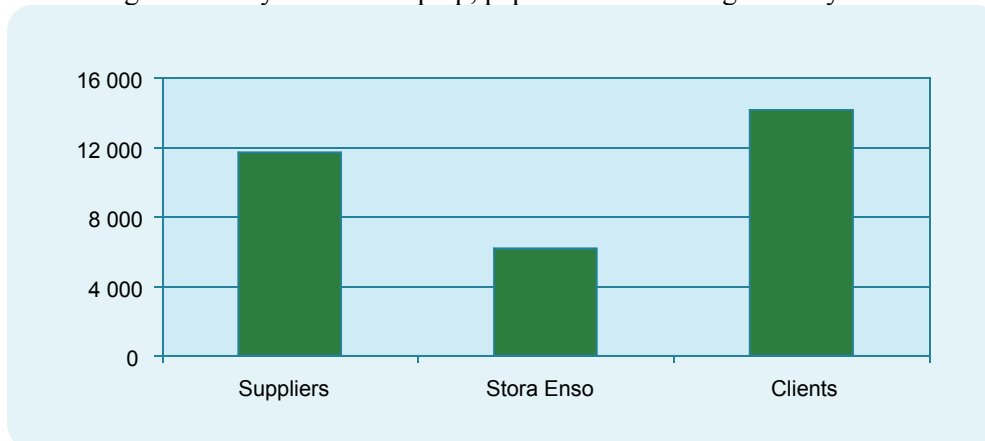
Figure 24. Investment in the forest industries plants in Sweden 1980 – 2006



The investments amounted to an annual average of 1 billion euro in the forest industry during the last ten years. Investments in their turn create a large number of jobs in the supplier chain and further down to their suppliers. The large investments in 2005 in the pulp and paper industry are estimated to have generated more than 7 000 jobs with suppliers and their suppliers in turn. Some key figures are:

- Significant for regional development and employment
- In countries facing depopulation and unemployment the forest industry is a leading sector
- 20-35% of directly employed in the country's total industry
- 20-50% of the production value in the country's total industry
- 20-50% of the value added in the county's total industry

Figure 25. Jobs generated by Stora Enso pulp, paper and sawmilling industry in Sweden



As an example, Stora Enso has over 6 000 people employed in their pulp, paper and sawn timber mills in Sweden. They generate some 12 000 jobs with suppliers, and some 14 000 jobs with clients in the packaging, printing and wood mechanical industries and other converters.

Note: the methodology is not the same for the calculations of Holmen and Stora Enso.

Some sawmills are carrying out important restructuring phases to secure necessary investments, demanding more competence development, and running joint projects to reduce accidents as well as develop new statistical systems and industry agreements.

In 1995 an “industry agreement” was set up to secure dialogue on competitiveness, both during and between labour negotiations. This involves representation of chairmen of employers’ federation and unions as well as working groups on working conditions, energy, research and development and competitiveness.

Below are some examples of companys’ enrolment in the local and county community activities:

- Shareholders and Board members in local development companies, ports, research councils at universities and research institutes
- Seats at local and regional Chambers of Commerce
- Property owners and landlords
- Humane sponsoring: SOS Children’s Villages, Médecins Sans Frontières, Swedish Brain Foundation
- Cultural sponsoring: Symphony orchestras, theatres
- Sport sponsoring: football and hockey clubs, individual athletes.

Sweden grows with its forests.

The forest sector in South Africa: “its contribution to employment income generation and livelihoods”

Mike Edwards, Director of Forestry South Africa, presented the case of his country.

The forestry sector plays an important role in the formal and informal economy. While maintaining a relatively high economic growth, the country is facing a number of challenges, including its high unemployment rate.

South Africa is a developing status country. Due to previous governments, in its policies there are serious disparities between the “haves” and the “have nots” (i.e. 1st and 2nd or formal and informal economies). This country has a worrying unemployment situation. To address the economic disparities and unemployment, sustained accelerated GDP. growth is imperative.

Table 10. South Africa Socio-economics Situation

Current Population	46,9 million
Population Growth 1985 to 2005	1,7% p.a.
Population Growth (to 2020)	1,0% p.a.
Population under age of 14 years	35,0% of total
90.7% ex previously disadvantaged Group	42,5 million
Population infected with HIV/AIDS	5 million
% of population between ages of 15 &49 who are HIV/AIDS infected	20,0%
Increasing population drift from rural to urban environment	1% p.a

South Africa’s macro unemployment situation

On an expanded basis, the current unemployment rate is 41 percent of the economically active population (20 million) or 8.2 million. Between 1996 and 2005 the EAP. grew by 41 percent, but the number of people employed only rose by 28 percent, so unemployment increased by 31 percent. Growth in “discouraged” workseekers increased by 127 percent between 1995 and 2005. Growth in number of people living on less than US\$1.00/day between 1995 and 2005 was also 127 percent.

National priorities

- Maintain a consistently high economic growth rate (current rate \pm 4 percent p.a.: need minimum 6 percent);
- Transform Economy to integrate and absorb people from previously disadvantaged sectors;
- Huge push to develop skills levels;
- Need to address HIV/AIDS pandemic;
- Need to boost rural economic development to discourage urban migration/rural depopulation;
- Poverty alleviation crucial.

Table 11. Forest Sector Unemployed

Sub-sector	No. of employees		Total Employment
	Direct	Indirect	
Forestry	76 844	30 000	106 844
Pulp and Paper	13 200	10 781	23 981
Sawmilling	20 000	n/a	20 000
Timber Board	6 000	n/a	6 000
Mining Timber	2 200	n/a	2 200
Other	11 000	n/a	11 000
TOTAL	129 244	40 781	170 025

Employment remuneration

Table 12. Income Generation in Sector

Sub-Sector	Rem/Employee p.a.	No. Employed	Annual Income
Forestry	R13 600	106 844	R1,4 billion
Forest Products	R50 648	63 181	R3,2 billion
Av. Remuneration in Agric Sector		R10 910/p.a.	
Av. Remuneration in Manuf. Sector		R48 669/p.a.	

Both forestry and forest products have higher values than sector average.

Employment and livelihood support:

- Both forestry and forest products activity is rurally based;
- Average size of rural household is 6 people.

Every person with a job supports 5 people

Forest sector provides livelihood support to 850 000 people or a means of survival to almost five percent of South Africa rural population.

Table 13. Non-cash benefits of forestry employment

Benefits	Current Status	Cost p.a. to employer
Housing	65 percent of all employees (direct) provided with housing at no cost water & Electrical reticulation included.	± R50 mill.
Health Care	- 90 percent of Forestry Co's maintain clinics with Qualified staff, open to employees, dependents and communities. Courses in HIV/AIDS prevention & care, family planning, primary health care and first aid provided	± R10 mill.
Retirement funding	- All employees covered (i.e. Pension/Provident Schemes). All employees covered by unemployment insurance.	± R60 mill.
Education	± 15 000 children go to company run primary schools. Schools open to communities. Where no schools transport provided	± R10 mill.
Food/Rations	- Provided where applicable	± R20 mill.
Other	Protective clothing Recreational facilities Subsistence Farming Land	± R10 mill.
TOTAL		± R160 mill.

(N.B. Industry investment in abovementioned ± r 700 million)

Industry sponsored emerging growers

Grower initiative

- Currently industry supports and promotes over 20 000 emerging timber growers;
- Support given relates to interest free establishment and maintenance loans, provision of improved seedlings, transfer of technical skills, extension and guaranteed markets;
- Industry investment in the schemes amounts to over R200 million;
- Annual revenues generated currently ± R180 million;
- The existing 40 000 ha's planted on these schemes is likely to increase by 100 000 ha's over the next 25 yrs;
- Approximately 20 000 people are employed (excl. owners).

Outsourcing of forestry

Operations

- Over the last 20 years there has been a major shift toward outsourcing of forestry operations;
- Currently 60 – 70 percent of all production is done by contractors;
- Many S.M.M.E. opportunities have been created through outsourcing with over 200 contracting firms employing 30 000 + people now in operation;
- Many problems exist however. Those amongst the more important being:

- Lack of business skills.
- Lack of professionalism
- Lack of capital resources.
- Short duration of contracts.
- Non-compliance with legislation.
- Poor relationships with forestry companies.

Future employment opportunities

- Assuming new afforestation rate of 100 000 ha's:

Table 14. Employment

Additional Employment	
Forestry Sector	Products sector
41 250	1 900
VALUE ADDITION	
Forestry Sector	Products sector
R500 million	R630 million

Conclusions

- The forest sector creates huge employment opportunities in rural areas.
- It has a major role to play in alleviating poverty in rural areas
- Income generated significantly boosts local economic development, leading to further employment creation.
- The industry alleviates government responsibility in providing social infrastructure and generates an increased tax base.
- Emerging grower development initiatives and outsourcing create important opportunities for entrepreneurial advancement and will help to break cycle of social dependency.
- Growth and sustainability of industry will assist in stemming urban migration and will assist integration of 1st and 2nd economies.
- Industry based HIV/AIDS interventions will assist government. in addressing pandemic.

Brief update on Malaysian timber industry

Ms Sheam Satkuru-Granzella, senior executive of the Malaysian timber Council, London, presented a brief update on the Malaysian timber industry.

Facts & figures

Malaysia has a population of 25 million people with the total population having almost doubled in the last 20 years. The country therefore enjoys a young population and is not faced with ageism, a phenomenon facing several developed economies around the world.

Economic growth for the country is expected to remain stable averaging 6 – 7% per year for the next two years.

Malaysia further enjoys a sound and established judiciary and financial structures supported by political stability. Malaysia is currently moving towards an Industrialised Nation status, to be achieved by 2020. Nevertheless, the Malaysian government is committed to maintaining at least 50 percent of its forest areas in perpetuity.

Table 15. Forest land use Malaysia

Forest Land Use Malaysia 2004	Million ha
Permanent Reserved Forest 73.7%	14.39
Production (SFM)	(11.18)
Totally Protected	(3.21)
State Land/Alienated Land 15.3%	2.98
National Parks/Wildlife & Bird Sanctuaries 11% (TOTALLY PROTECTED)	2.15
TOTAL FOREST AREA 100%	19.52

Malaysian forest & timber industry

- Exports earning: RM 21.45 billion (2005) equivalent US\$6 billion, the main contributors for this are logs and sawn timber, plywood, veneer and furniture.
- In 2004, the forestry sector, together with the fishing, and livestock sectors contributed about 8.3 percent to the GDP and provided employment to about 300 000 people
- Growth focused on downstream value-added sector

Table 16. Total Forest & Tree Cover

Total Forest & Tree Cover In Malaysia 2004 (Million ha)		
Types	Million Ha	% Malaysia
Forest	19.52	59.5
Oil Palm	3.37	10.3
Rubber	1.43	4.3
Cocoa & Coconut	0.72	2.2
TOTAL FOREST & TREE COVER	25.04	76.3
Other Land Use (housing, infrastructure, agricultural, etc)	7.79	23.7
TOTAL LAND AREA	32.83	100

IMF is helping through financial assistance; that is, the Malaysia National Economic Plan.

Profile of the timber industry in Malaysia

Malaysia's Timber Production in 2004

- Logs: 20.4 million m³
- Sawn timber: 5.0 million m³
- Plywood: 4.7 million m³
- Veneer: 0.6 million m³
- Moulding: 0.4 million m³

Malaysia is the largest supplier of tropical timber and wood products to the EU markets (Germany, Netherlands, the U.K., and to a lesser extent France, Italy, Belgium). Probably in the future, the products will go to Poland, Rumanian, Ukrainian and Russia markets.

Main challenges

Allegations of Illegal Logging & Associated Trade.

Illegal logging is not a problem in Malaysia. A study funded by the American Forest and Paper Association in November 2004 stated that NGO allegations of illegal domestic forest activity in Malaysia are likely overstated since regulations for timber operators and companies appear to be well-enforced.

According to a report prepared and published by the World Bank and WWF Malaysia in 2001, illegal felling amounts to less than one percent of the timber harvested in Malaysia, both in Peninsular Malaysia and in the two states on the island of Borneo, Sabah and Sarawak. For about a decade, Malaysia has been working hard to put an end to illegal felling and to a very large extent this work has been successful.

Allegations of Associated Trade in Illegally Sourced Timber

Measures taken include:

- The imposition of reciprocal import bans by the Malaysian government for round logs and square logs from Indonesia in 2002 & 2003;
- The involvement of the Malaysian government and related authorities in ongoing efforts with the Indonesian government to address problems of cross-border smuggling from Indonesia into Malaysia;
- The strengthened enforcement by Malaysian agencies and port authorities in attempts to reduce and overcome smuggling of Indonesian timber into Malaysia;
- The involvement of Malaysian agencies in regional and international efforts to address issues related to document falsification/transshipment in international waters by non-Malaysian organizations in attempts to pass-off Indonesian timber as Malaysian timber in order to avoid scrutiny from international ENGOs and responsible traders.

Forest & Timber Certification

Malaysian Timber Certification Council (established 1999, operational 2000) - www.mtcc.com.my

The latest Malaysian Criteria & Indicators (2002) are being implemented as of 1st January 2006, incorporating elements of:

- Resource security
- Sustainable harvest
- Implementation of reduced / low impact logging
- Protection of endangered, rare & threatened species
- Recognition of tenure and user rights over the forest
- Aspects covering economic, social and cultural requirements for good forest management.

Recognition of MTCC certification

Government of Denmark has included the MTCC scheme as one of the accepted schemes in its document entitled 'Purchasing Tropical Timber - Environmental Guidelines' (October 2003).

UK's Government's Central Point of Expertise on Timber (CPET) has also concluded that MTCC scheme provides assurance of legally harvested timber (November 2004).

Government of France has included the MTCC scheme as one of schemes acceptable under its public procurement policy.

Seven certified FMUs and 26 holders of MTCC Certificate for Chain-of-Custody (CoC) accepted under Keurhout Protocol for legal origin (in The Netherlands) (September 2005). By March 2006, 24 holders of CoC accepted, likely to increase in the near future.

On going efforts with the Government of Belgium on the future recognition of the MTCC scheme.

Progress very often hampered by ENGO campaigns incorporating unsubstantiated allegations against the operations of the scheme. Counter-measure: Active communications efforts by both MTC & MTCC in asserting and highlighting MTCC's progress and achievements, engaging in dialogue with all stakeholders in attempts to address concerns.

Industry Challenges

- Ensuring availability of sufficient raw materials to meet industry needs by sourcing timber from external legal sources, developing tree plantations and promoting more efficient use of existing resources;
- Actively promoting the use of lesser-known species as alternatives to several applications and reduce pressure on traditional species;
- The establishment of fast-growing plantation timber species to meet the needs of select industry sectors in order to reduce pressure on natural forests. BUT this is NOT done at the expense of natural forests. All plantation establishments are planned in line with the country's national economic and development plans;
- Meeting the demands of growing overseas markets which remain strong, resulting in increasing demand for Malaysian timber products and firming of prices. However, the Malaysian timber industry is fully aware of the need to remain competitive in the international market owing to cheaper production by other producing countries.

Policy Challenges

- The establishment of green procurement policies by international timber industries and government bodies focusing on legality and sustainability;
- Continuing focus on forest and timber certification, with special emphasis on indigenous peoples;
- The active involvement of Malaysia in the EU FLEGT Action Plan and Associated Voluntary Partnership Agreements/EU Timber Trade Action Plan Project. EU wants to formalize the policies in September. Active involved, illegal logging is lesser than 1%, estimated of lesser than 10 percent, black market, Indonesian government;
- Measures to balance the ongoing anti-tropical timber perception within certain sectors.

Ways Forward

- To rigorously promote further recognition and acceptance of the MTCC certification scheme in Europe;

- To continue focusing on value-adding in order to further develop the Malaysian timber industry, to better utilise raw materials and consolidate energy consumption;
- To continue to encourage integrated production chains in Malaysia where feasible;
- To focus on niche markets for better quality product sectors.

Socio-economic importance of the tropical industry

Mr Hervé Bourguignon, Secretary-General of the Inter-African Forest Industries Association (IFIA) gave a brief description of the socio-economic importance of the African tropical industry.

IFIA brings together different timber and forest industry associations of the Congo Basin and West African regions. There is a very diverse situation in the different African countries. In West Africa more degraded forest can be found than in the other African regions, very often penetrated by villagers' agricultural activities. In the Congo Basin Region there is mainly dense tropical forest. For example, Gabon with about 1.5 million inhabitants has an extension of 250 000 km², 90% covered with forest; DRC, has 55 million inhabitants and a vast part of the territory is covered by forest.

The economic and social contribution of the forestry sector in this region plays an important role. In some countries it accounts for between 7 and 12 percent of the total GNP. In Gabon, mining and petrol cover 60 percent of the GNP. In the Central African Republic, half the exports are wood. In terms of employment, there are about 1 000 companies in the forestry sector in the Congo Basin region. About 300 have a formal structure; no more than 50 have mid- to long- term vision of how to work towards sustainable development. This industry represents roughly 30 000 persons directly employed. If subcontractors are considered, this number could be as much as one million employees and, including their family members, could account for 10 million people in the Congo Basin Region. Many forestry activities are carried out in line with sustainable development, but illegal logging and illegal trade constitute serious threats to the forest, to responsible industry and to society in general. In the Congo Basin Region there are 53 million ha of forest allocated as concessions, 20 million ha of this area is managed according to forest management plans and 10 million ha are today validated through local administrations.

Some small companies have reached a certain level in managing their forest concessions sustainably, but due to lack of resources there are difficulties in further improving their operations.

A major obstacle for development in Africa remains the low level of investment. Less than one percent of global investment comes to Africa, taking into account Nigeria and South Africa. There are many reasons for not encouraging investments in the forestry sector. Some of these are related to political instability, poor governance and illegal forestry activities. IFIA supports efforts to combat illegal logging and illegal trade of forest products.

Another reason for low investment relates to the taxation systems for forest concessions. It should be recognized that forest concessions are often a source for development in rural areas. Concessionaires often take care of their workers, provide education and health care. Tax systems should take into account this additional cost on infrastructure, which should be normally provided by local governments. The main challenge in Africa is to create a business friendly environment in order to promote investor confidence.

Challenges in the collection of reliable data on this topic

Mr Adrian Whitemann, FAO Senior Forestry Officer presented some of the challenges faced in the collection of reliable data on the socio-economic contribution of forestry. He explained what FAO is doing about income and employment generated by the forestry sector and why the perceived importance of the sector is under-valued.

At various FAO forestry meetings in recent years, many countries have commented that policy makers do not recognise or understand the important contributions that the forestry sector makes to income, employment and economic development. In response to these concerns, FAO has started to collect information about the contribution of the sector to national income (value-added), employment and trade. The most recent output of this effort is the publication: Trends and current status of the contribution of the forestry sector to national economies (Lebedys, 2004). In addition to this study, FAO has also been working on small-scale case-studies about the contribution of the sector to economic development. These studies have mostly examined developments at the local level and with respect to informal activities, such as the collection of woodfuel and non-wood forest products.

This work has revealed a number of problems and challenges in the following areas:

- unclear definitions and methodologies (e.g. what should be included in the "forestry sector");
- discrepancies in national statistics on employment and value-added (e.g. Canada: 4 different estimates of employment; UK: 2 different estimates of value-added in forestry, etc.);
- the question of "are national statistics useful?" (e.g. at the national level, the contribution of the sector is generally small in almost all countries, but it can be very important in specific regions or localities); and
- the question of "what is the measure of success?" (e.g. falling employment numbers may suggest that the sector is making less of a contribution, but this may be a result of increasing labour productivity, which is a good thing and can be associated with higher wage rates, higher skill levels in the sector and fewer industrial accidents and injuries).

Considering the above, FAO seeks guidance from members of the ACPWP on the following questions:

How can we make this work more useful and relevant?

- more work on methodologies and basic data collection;
- more work on policy appraisal and analysis;
- more focus on specific sectors or regions;
- studies of other variables showing the contribution of the sector;
- more case studies (e.g. examples of success in specific industries and/or locations); or
- no change to the current approach?

How can we improve the way we implement this work (modalities)?

- who is the audience for these studies?;
- is there any potential for support and collaboration?; and
- what can be done to improve dissemination and result in a bigger impact?

FAO invites participants of the ACPWP to provide comments and guidance in response to these questions.

Item 7. Main findings of FRA 2005

FAO collects and analyses information on national and global forest resources and related parameters. This is a huge task which is presently carried out every five years. The latest report was recently launched. Ms Mette Loyche Wilkie presented the main findings of the Global Forest Resources Assessment 2005.

The Global Forest Resources Assessment 2005 covers more than 229 countries and territories. Around 800 specialists were involved worldwide. More than 40 variables were considered on forest extent, condition, uses and values, at three points in time: 1990, 2000 and 2005. 229 detailed reports were produced and 10 regional review workshops were carried out.

Forests are increasingly being conserved and managed for multiple uses and values. New comprehensive, unbiased information for policy makers is produced. Forests are facing threats ranging from forest fires, pests, invasive species and storms to degradation due to over-exploitation of forest resources and deforestation caused by agricultural and urban expansion.

With these threats and with competing interests for forest resources and forest land throughout the world, the need for a sound basis for decisions related to forests has never been greater.

Monitoring and assessment

This requires ongoing monitoring and assessment of trends that can measure progress in protecting, conserving and using forest resources in a wise and sustainable manner.

Global forest resources assessments

FAO has taken the lead role in coordinating such monitoring and assessment at the global level at 5 to 10 year intervals since 1946. Each assessment has had a slightly different focus reflecting the concerns of its time –FRA’s evolving focus:

- 1946 – timber
- 1980 – deforestation
- 2000 – conservation

The Global Forest Resources Assessment 2005 – or FRA 2005 as we call it - is the most comprehensive global assessment of forest resources to date. FRA 2005 covers six main themes and aims at assessing progress towards sustainable forest management

Cover with names of themes

FRA 2005 has been a major undertaking. It started three and a half years ago with an expert consultation in Kotka, Finland, where the experts made two important recommendations for FRA 2005: First, to use the elements of sustainable forest management as the reporting framework and second, to increase the involvement of countries in the FRA process.

Expert consultation

As part of our efforts to follow this advice, we held a global meeting for national correspondents to FRA in November 2003.

Global meeting

More than 100 countries were represented. Working together at this meeting, a set of tables, variables and definitions were developed and agreed and established a truly global network of national correspondents and partner organisations to implement FRA 2005.

Then, in 2004, ten regional and sub-regional workshops were facilitated to review country reports and discuss technical issues with national correspondents.

Within FAO, a dedicated team worked throughout the process to review country data with the national correspondents and to analyse the results. In November 2005, the key findings together with the national reports and the global statistics were released.

Two of the most critical factors behind the FRA 2005 process are:

First, country involvement: this is clearly the most significant success factor for FRA 2005.

- Country involvement does not happen by itself. It takes considerable effort to mobilise and coordinate the inputs from so many people – and
- Because of this direct involvement of the forest ministries and agencies, it has had a built-in feedback mechanism to the national policy level – critical for policy reform and evolution in response to the changing situation on the ground.

Second, FRA experts worked with a set of agreed terms and definitions which ensured comparable information between countries and over time – enabling trend analysis at various levels of aggregation.

FRA 2005: key findings

What does FRA 2005 tell us about the world's forests?

It tells us that forests cover 30 percent of the land area of the planet Earth – or just under 4 billion hectares.

But, as can be seen, the forests are unevenly distributed. Half of the world's forests are found in just five countries: Brazil, Russia, Canada, USA and China.

Map 2 with top five countries highlighted



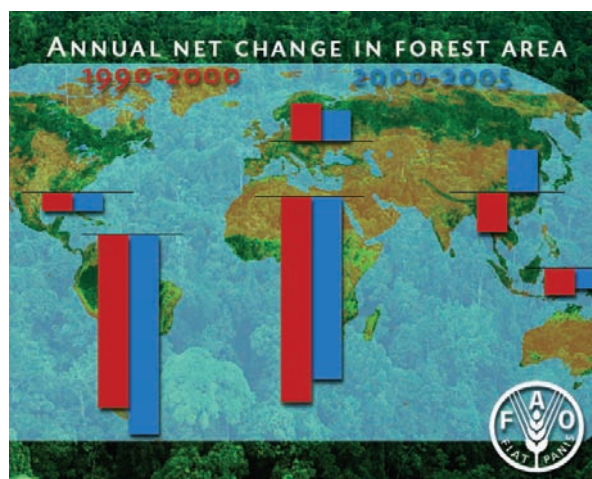
These forests range from undisturbed primary forests to forests managed and used for a variety of purposes. Some of these are:

- Primary forests
- Modified natural forests
- Semi-natural forests
- Forest plantations

FRA 2005 also tells us that deforestation continues at an alarmingly high rate –around 13 million hectares per year. At the same time, the establishment of new forests and the natural expansion of forests on abandoned agricultural land have significantly reduced the net loss of forest area – especially within the last five years.

But still, the net annual loss of forest area is 7.3 million hectares, which, although 18 percent lower than in the 1990s, still amounts to 200 square kilometres of forest every day.

This map gives a quick overview of where the changes are happening, with the highest annual losses in South America and Africa. However, while the rate of loss appears to be increasing in South America, it is decreasing in Africa. Asia has gone from net loss in the 1990s to a net gain in the last five years. Europe's forests continue to expand, while the North and Central America region and Oceania continue to register net losses.

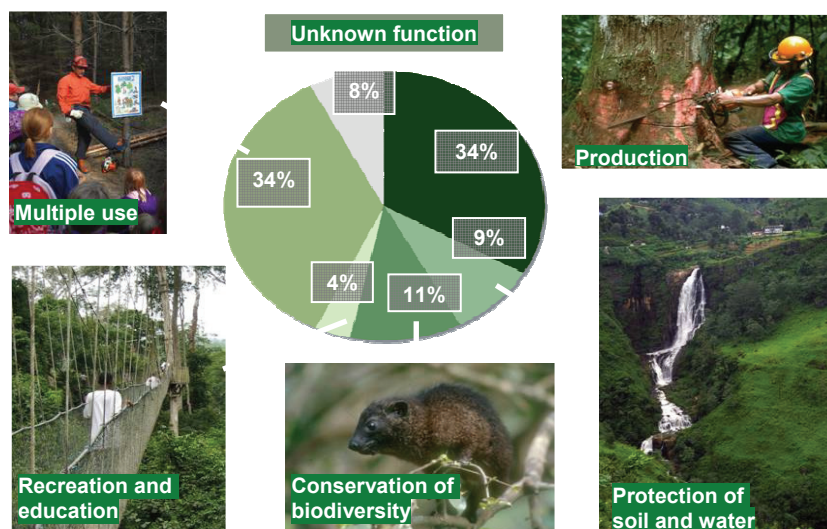


But FRA 2005 also contains some good news. More forests are being conserved and managed for multiple uses; they are playing crucial roles in mitigating climate change and in conserving biodiversity and soil and water resources.

Progress towards sustainable forest management. What does FRA 2005 tell us about progress towards sustainable forest management?

Before answering to that question, it was stressed that FRA 2005 focuses on what happens in the forest. It does not cover the processing and marketing of forest products, nor does it address the legal and policy aspects of sustainable forest management. But it does provide information on a large number of variables related to the first six elements of sustainable forest management.

A closer look was taken at 21 variables covering these six themes and changes since 1990 for 12 sub-regions were analysed. Major changes were highlighted in red (negative) and green (positive).



The result is a very detailed picture of what is happening where. The following remarks were made:

- Firstly, the scale *matters*. The scale at which interpretations are made is crucial. At the global level, most trends seem largely stable or positive.

Globe with global results

However, this picture changes dramatically when the information is broken down by region and sub-region. There we see considerable differences and alarming trends in several tropical sub-regions. (Example: Central and South America, South and South East Asia, several sub-regions in Africa.)



- Secondly, FRA 2005 shows that progress towards sustainable forest management is mixed. As can be seen, there are positive and negative trends in all sub-regions and regions – except for Oceania where trend data were missing for a number of variables.

Wood removals:

3 billion m³/yr;

US\$64 billion;

NWFPs: Important, but difficult to quantify.

So the answer to the question: “What progress have we made towards sustainable forest management?” is: “It depends”.

While good progress is being made in many places and for many variables, forest resources are still being lost or degraded at an alarmingly high rate in some places. Overall, progress towards sustainable forest management is mixed in all regions and sub-regions.

What next?

Firstly, the results of FRA 2005 should be disseminated and discussed in the meetings of the Regional Forestry Commissions and other fora and the process and the outcomes should be evaluated.

Secondly, the FRA team will continue to work with countries to help improve information availability and quality and to further strengthen the sharing of experiences and networking among countries.

Thirdly, the next global assessment is scheduled for 2010. Plans are already underway to design the next assessment – including an Expert Meeting to be held in June 2006.

The Convention on Biological Diversity and the Framework Convention on Climate Change both have a number of information requirements related to forests. It is expected that FRA 2010 will take some of these on board and help streamline reporting on forests by working in partnership with the secretariats of these conventions, other members of the Collaborative Partnership on Forests and regional, forest-related processes.

The three key messages were summarized as follows:

1. Countries and FAO have collaborated in a global partnership to deliver FRA 2005.
2. FRA 2005 provides new knowledge on the situation and trends of the world’s forests, their management and uses. It shows that there is a very mixed progress towards sustainable forest management.
3. FRA and FAO work closely with countries, other partner organizations – including the Regional Forestry Commissions - to help implement sustainable forest management.

This was a short presentation of some of the key outcomes of FRA 2005. More information is available in the FAO website under: www.fao.org/forestry/site/24690/en

Item 8. Recommendations of the Committee to FAO for 2006-2007

Based on the presentations and discussions, the Committee presented the following recommendations to FAO:

- Assess the forest resources available for fibre supply of the wood and paper industry, with particular emphasis on raw material flows;
- Contribute to the enhancement of the dialogue between private sector and civil society on the contribution of the paper and forest industry to social development and poverty alleviation;
- Analyse the bottlenecks in the acceptance and implementation of forestry projects under the Clean Development Mechanism, and propose solutions.

- Contribute to the dialogue on the public perception of the role of the paper and forest products industry for sustainable development, building on the UNECE report and advice on how to take it forward.
- Continue to collect country information as inputs to annual ACPWP meetings.
- The Committee also commended FAO on the process and the production of the Planted Forests Code and requested FAO to present it to COFO for consideration and further action.

Item 9. Nomination of the Chairperson and Vice-Chairperson for the period 2006 - 2008

The Committee nominated Mr Avrim Lazar as Chairperson and Mr Michael Edwards as Vice-Chairperson of the ACPWP for the period 2006 to 2008.

Item 10. Date and place of next session

The proposed date for the 48th Advisory Committee meeting is 6 and 7 June 2007 in Japan³.

Mr Tabacof closed the meeting by thanking all participants for their contributions and active participation. Mr. Killmann thanked the outgoing chairperson, Mr Tabacof, for his dedicated work in support of FAO's work and guidance to the ACPWP during the past two years. The meeting closed at 17:00h.

³ On 7th June, during the ICFPA meeting held in Rome, ACPWP members agreed to change the venue from Japan to China.

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Annex 2 – Country Reports

AUSTRALIA⁴

National political situation

The Liberal/National Coalition (conservative) Australian Government has now been in office for more than 10 years. The next election is due before October 2007 and the timing of the retirement of the Prime Minister (The Hon John Howard MP) is a major issue of speculation and could have significant implications for the direction on a number of policy issues of relevance to the plantation products and paper industry including carbon trading and taxation.

The Government is generally seen as good for business with a strong emphasis on low interest rates, low inflation and tax reform. Significant tax cuts were made in the 2006 Budget. The need for investment in infrastructure (particularly roads, railways and ports) and education and training is becoming of increasing importance as these two factors are perceived as acting as major constraints on the expansion of the Australian economy. The Government has also focused attention on reducing the regulatory burden on business.

Contrary to the situation at the national level, the Australian Labor Party continues to hold power in all the States and Territories. The States and Territories have primary responsibility for land management issues through regulation of private land uses and management of large areas of public forest (including plantation in most states). All States have implemented policies further restricting the harvesting of timber in public natural forests.

Economic situation

The Australian economy has remained relatively strong with low inflation, low interest rates and low unemployment. Interest rates have increased slightly recently as the Reserve Bank responds to the spending pressure of a strong economy. The relatively high level of the Australian dollar, particularly against the US\$ dollar, has presented significant challenges for exporters and those products with import competition including paper, woodpanels and sawntimber.

The new housing construction market, the primary driver for the sawntimber industry, which had been strong for an unusually long period finally began to soften in late 2004 and has been flat throughout 2005 and 2006 with significant implications for sawntimber demand.

The past 5-10 years has seen continued investment in new processing capacity in the wood products (sawn timber and panels) and paper industry in Australia. Much of this expansion has been driven by the increased wood availability resulting from the maturing of the softwood plantation resources established in the 1960s and 70s. As a result of this expansion there is now relatively little uncommitted wood available in Australia unless new areas of plantation are established. The major exception is the large area of short rotation eucalypt plantations in SW Western Australia, Western Victoria and Tasmania which will be coming on-stream in the near future and are currently destined for export in chip form.

⁴ Australian Plantation Products and Paper Industry Council (A3P)

There are numerous proposals under consideration for the establishment of new pulp mills in Australia. Probably the most advanced of these is the Gunns Ltd proposal to build a A\$1 billion bleached eucalypt kraft mill in Tasmania. Gunns is currently the world's largest exporter of hardwood woodchips and the proposed mill would consume a significant proportion, but not all, of Gunns' current export volume.

Review of the taxation of plantation forestry

In May 2005 the Government announced a Review of the Taxation of Plantation Forestry. The current taxation arrangements have been a fundamental factor in the significant plantation expansion that has occurred over the last ten years or so. New plantation establishment has averaged around 80 000 ha per annum over that period. The majority of these plantations are short rotation hardwoods (*Eucalyptus globulus*) intended for the export pulpwood market.

The Review of taxation arrangements is at least partly in response to various objections to plantation expansion. These objections include economic arguments ("plantations should not be treated favourably", "plantations are not a good investment") and land use change arguments ("plantations are not a good use of productive land"; "plantations are not good neighbours").

The plantation industry has been arguing strongly for the retention of the current arrangements beyond the current sunset in June 2008. However, the industry also supports modification of the system to encourage greater investment in longer rotation (solid wood) plantations. The short time horizon of the majority of investors and the lack of a secondary market for immature plantations has resulted in the current emphasis on short (10 year) rather than longer rotation plantations.

The review has still not reached a conclusion.

Fuel prices

The current very high world oil prices and resultant high transport fuel prices in Australia are having a significant adverse impact on the wood products and paper industry in Australia. Transport, and therefore fuel, is a major component of the cost of logs delivered to mills and finished products delivered to markets. This is particularly the case in Australia where there are large distances between some plantation regions and the major city based markets and export ports.

SFM certification

The past 12 months has seen continued activity in relation to Sustainable Forest Management (SFM) certification in Australia although there have been relatively few additional certifications following the major increase in the previous year. Some ten major Australian forest owners are certified to either the Forest Stewardship Council (FSC) or Australian Forestry Standards (AFS). The FSC certified forests are virtually all privately owned plantations while the AFS certified areas include both public and private plantations and public native forest. More than one third of the Australian plantation resource now has SFM certification.

Moves are afoot to create FSC Australia and develop an FSC National Initiative. However, this exercise is likely to encounter significant difficulties, as has been the case previously, because some Australian ENGO's refuse to accept FSC certification of native (natural) forest harvesting

operations in Australia. In a perverse reversal of the situation in many other parts of the World, these ENGOs will only support timber production in plantations.

The Australian Forestry Certification System (AFCS) is accredited under the Programme for the Endorsement of Forest Certification (PEFC) scheme. The changes made to the PEFC scheme have raised some challenges for the AFCS as making changes to the AFCS is not a simple process because of the consultation and approval processes required. The potential for the UK CPET process and other European Governments' purchasing policies discriminating adversely against the AFCS and has required significant effort from Australian industry and government and even delegations from Australia to Europe.

Despite the progress outlined above there has been little change in market demand for certified wood products with virtually no labeled product to be found in the marketplace.

Sustainability action plan

On behalf of the plantation products and paper industry, A3P has developed and launched a Sustainability Action Plan. The Plan was developed following extensive consultation with A3P members and stakeholders, including the major environmental NGOs.

The Plan covers 21 major issues including greenhouse emissions, certification, chemical use, water use, investment, safety and sustainability reporting. Key features of the Plan include quantified, measurable targets and a commitment to regularly reporting progress.

The development of the Plan has enabled more constructive engagement with the environmental movement and will help the industry demonstrate that it is competently managing important issues.

Illegal logging

As part of its 2004 election policy the Australian Government made a commitment to investigate ways of preventing the importation of illegally harvested timber into Australia. Not surprisingly this is proving more difficult than the Government expected because of definitional, administrative and trade implications.

WWF is promoting a statement on the importation of illegally logged timber into Australia and A3P has been endeavoring to work constructively with them on this initiative. There appears to be much less focus on dogmatic promotion of FSC certification as the only mechanism for preventing illegal logging

Water

Much of Australia continues to be gripped by the worst drought on record which has provided increased impetus to moves to reform the system of water management and allocation in Australia. In June 2004 the Australian Government and the Governments of South Australia, Victoria, New South Wales and Queensland signed the National Water Initiative (NWI). The NWI outlines a range of commitments to reform (reduce) water allocation for agriculture and return water for environmental flows. Most of the changes will be introduced via a regionally based planning and management approach.

Unfortunately, despite our best efforts, the NWI identifies change of land use to industrial scale plantations as an example of a potential 'significant water interception' activity which may be subject

to regulation depending on further consideration of significance and the level of commitment of water in the catchment concerned.

The State governments are now grappling with the implementation of the many complex aspects of the NWI and the technical complications associated with quantifying plantation water interception appear to have delayed any precipitate action to regulate plantation expansion in most areas.

Climate change

The Australian Governments' position of non-ratification of the Kyoto Protocol has not changed and seems unlikely to do so. This has led the State Governments to continue to talk-up the possibility of a State-based emissions trading system. To date only the New South Wales government has made any substantial move in this direction with its electricity benchmarks scheme which requires generators to improve their efficiency from the greenhouse perspective and permits trading of credits (including forestry sequestration credits) to achieve this.

Australia is part of the Asia-Pacific Partnership on Clean Development and Climate (AP6). This initiative will focus on industry government partnerships that expand investment and trade in cleaner energy technologies. The eight work programs include cleaner use of fossil fuels, renewable energy and distributed generation, power generation and transmission. Some energy intensive sectors are covered such as steel and aluminum, though not pulp and paper.

The Australian Government is investing significant funds through industry partnerships in low emissions technology, particularly carbon geo-sequestration. Recent political debate has also turned to the potential of nuclear energy including Australia's current role as a supplier of unprocessed uranium and possible expansion into enrichment, power generation and waste disposal/storage.

Energy market reform

The process of reforming the Australian energy market from a publicly owned system with limited interconnection between State based systems into a fully integrated and market based system is continuing slowly. There are major concerns for energy users that the failure to invest in new infrastructure and undue influence exerted by the large electricity generators may result in significant cost increases and/or a deterioration in the reliability of supply in the future.

BRAZIL⁵

Who we are?

The Brazilian pulp and paper industry, represented by Bracelpa, comprises 220 companies, 35 of which are frequent exporters – located in 450 municipalities, in 16 states. Its pulp production reached, in 2005, 10.1 million tons ranked as the 7th biggest pulp producer, and the paper production 8.6 million tons, 11th producer. Brazil is the n° 1 producer and exporter of bleached hardwood market pulp.

Emerging issues

Brazil is one of the poles of the growing pulp industry, thanks to the high productivity of its planted forests.

Its growth has nevertheless to overcome several obstacles:

Capital Costs: The interest rates in Brazil are stratospheric, when compared to the rate applied in the world market, even when obtained through the development bank.

Infrastructure: As the mills are mostly located in the countryside far away from industrial and urban areas with regular infrastructure, they have often to compensate this structural deficit in social terms, providing support in healthcare, even building local medical centers, in education, with classes for all levels, in sanitation, with drinking water and sewer treatment, and communication, logistics structure as ports, road pavement, and other items of high costs.

Taxes: Brazil is probably the only country where industrial investment is taxed. Its level is quite high and is therefore considered a high obstacle, affecting mostly the capital-intensive industry, including the paper industry, which has not installed new machines for years.

Low per capita consumption: The paper per capita consumption in Brazil of 40 kg/inhabitant per year is too small to justify the investment in the pulp and paper industry just for the domestic market.

High monetary valuation: The continuous valuation of our currency, the Real (local currency), against other hard currencies, is impairing considerably the company's results, since these companies are obliged to export, as the domestic demand is too small.

The domestic investment portion, when shown in dollars, for instance, is not competitive, due to the heavy currency valuation rate, which reached 30 percent in the last 2 years.

Business developments

In spite of the previously mentioned disadvantages, during the last years, the sector has heavily invested, in the technological development of processes and added value products, as well as in environmental improvements and streamline business procedures.

As a consequence, the companies reached a higher international quality standard in productivity and environmental protection both in industrial and forest activities demanding engagement for developing and absorbing new technologies and thus producing differentiated products.

⁵ Brazilian Pulp and Paper Association (BRACELPA)

In the last 10 years, our industry invested US\$12 billion to enlarge its industrial and forestry activities, emphasizing the pulp production, whose production capacity increased from 6.2 million tons/year to 10.1 million tons in 2005 and the paper capacity which increased from 6.2 million tons, reaching 8.6 million tons in 2005.

Forest Certifications: Basically all pulp and paper exporting mills have certified forests through FSC and CERFLOR (Brazilian Forest Certification Scheme), recognized by PEFC (Program for the Endorsement of Forest Certification Schemes), guaranteeing the origin and quality standards of our products.

Recycling: The consumption of recycled papers reached 3.4 million tons in 2005, with a recovery rate of 46% of the apparent consume.

Recycling in Brazil, besides the environmental benefit, assumes a relevant social role by offering an income option for millions of unskilled workers.

Increasing Forest Fostering: The expansion of our industry has demanded an increase in the planted forest area.

Besides the forests planted by the industry itself, forest fostering has been an attractive alternative for the small family forest farmers by offering the opportunity to participate in the expansion of the forested area, with an excellent income option.

Social Balance: The pulp and paper sector, with a relevant share in the country development, considers social responsibility as one of the aspects of corporate governance concepts adopted by its industry. Bearing this in mind, our companies do not think and manage their activities according only to the focus on financial and productivity results but take upon account the contribution their actions may bring to society. By incorporating a socially responsible attitude in its actions, the sector is an example for other productive segments.

CANADA⁶

What are the emerging issues facing the industry in your country?

Industry restructuring

- Emerging consensus of secular decline in demand for paper in North America, beginning with newsprint
- Rationalization and consolidation will continue as companies adapt to market challenges
- Market Acceptance
- Working to promote the industry's environmental and corporate responsibility
- Boreal Campaign
- Environmental campaigns are targeting Canadian industry customers

What are the most important business developments within your industry over the last year?

- Canada-U.S. Softwood Lumber Dispute
- Continued Appreciation of the Canadian Dollar
- High wood fibre prices and availability constraints in eastern Canada
- Rising energy prices, particularly in central Canada (Ontario)
- Challenging markets for pulp and newsprint

2005 Results overall

No matter how a Canadian forest company began 2005—profitable or unprofitable—it did less well as the year went along, especially after energy prices began to soar heading into the summer. Higher energy prices pushed up manufacturing costs, made it more expensive to haul logs to the mill and to deliver finished products, and drove the Canadian dollar to its highest level in 14 years. In June, the dollar sat at the 80-cent U.S. level, and over the next eight months added almost 6 cents. The impact of higher energy and fibre prices, continuing softwood duties, structural demand changes for pulp and many paper grades, a home construction market coming back down to earth, and the strong dollar is forcing many Canadian companies to review the viability of their domestic manufacturing assets. While Canadian lumber and OSB shipments to the United States set records yet again (mainly because the residential construction market was still growing early on), pulp and paper shipments declined 3.5 percent. That decline is likely to continue as the full effect of capacity reductions announced last year is felt. Over 2.7 million tons of paper-making capacity are being removed, the largest drawdown since the 1990–92 recession. Several sawmills also face closure. The expectation is that 2006 will be difficult for most of the same reasons that 2005 was, which will keep the spotlight on the need for transformative change to improve the industry's underlying fundamentals.

Lumber and panels

It looked for a time as if nothing could stop the long-running North American housing boom, but each rate hike by the U.S. Federal Reserve slowed the housing market. Lumber, plywood, and OSB prices came off their peaks of 2003 and 2004. Nevertheless, the strong start to 2005 helped produce robust

⁶ Forest Products Association of Canada (FPAC)

shipments of Canadian lumber—just over 35 billion board feet—and OSB. Shipments to the United States exceeded 21 billion board feet and 9.7 billion square feet, both records.

With most forecasters expecting a weaker North American housing market and expanding capacity for lumber and OSB, 2006 is expected to be a more difficult year for both dimension lumber and panels. Large amounts of OSB capacity are being inaugurated or planned, although manufacturers aren't likely to see a return for some time to the extraordinary margins they enjoyed during the boom. One important offset to all of the difficulties facing lumber producers is the virtual halving of softwood duties for 2006.

Pulp

Canada's long-fibre softwood pulp is a premium product that makes a strong lightweight paper; however, the high Canadian dollar and rising fibre and energy costs make Canadian firms high-cost producers. In addition, global market pulp prices have been suppressed by a rapid expansion of supply from several lower cost sources: notably, big Latin American hardwood mills flooding markets with eucalyptus pulp. Additional eucalyptus-based capacity will come on stream in 2007. Technological advances have made hardwood pulp almost as good as softwood pulp and certainly sufficient for some uses. As a result, our pulp doesn't command a large price premium, which is a hardship for producers with high costs, especially with such a strong dollar. Fortunately, global markets are growing, and Canada's pulp shipments rose by over 3 percent last year. Our exports to China—our principal overseas customer—rose a further 20 percent, to almost 1.65 million tons.

Paper and paperboard

With more people getting their news online and less white paper and fewer forms being used in the business environment, core areas of Canada's paper industry face difficult adjustments. Newsprint consumption has fallen by 20 percent since 2000 because of circulation declines and publishers' attempts to economize by cutting page sizes and switching to lower basis weight paper. Canadian newsprint exports to the United States declined by more than 6 percent last year. By idling operations or converting them to make value-added mechanical papers, newsprint producers have been able to keep remaining operations going nearly flat out. A growing number of these value-added mechanical papers are aimed at the catalogue/direct mail market, with improved characteristics that make them a new competitive threat even to some fine paper grades. Shipments of uncoated mechanical paper grew by almost 4 percent, to over 4.1 million tons, while shipments of uncoated fine grades fell 5 percent. Packaging declined a further 4 percent, reflecting capacity drawdowns amid the ongoing shrinkage of the North American manufacturing sector as more consumer goods are imported already boxed from overseas.

2005 Key statistics

Total Revenue	\$84 billion
Forestry and Logging	\$9 billion
Wood manufacturing	\$41 billion
Paper manufacturing	\$33 billion
Operating profit	\$4.5 billion
Share of Canada's GDP	3%
ROCE 1999-2004 Average	7.9%

Employment

Direct and indirect jobs provided	863 900 (339 900 direct)	
Forestry dependent communities (2001)	324	
Forest Industry average wage per employee		\$46 300
National average wage per employee		\$37 900
R&D spending		\$506 million

Exports

Export sales		
Net contribution to Canada's trade balance (Over 60% of Canada's Trade surplus, 2 nd largest contributor to Canada's trade balance)		\$32 billion

Environmental

1990 to 2004 reduction in greenhouse gas emissions	30%
Energy derived from non-fossil fuel – hydro and biomass	59%
Protected forest	40million hectares
Certified forest	119million hectares

CHILE⁷

What are emerging issues facing the industry in your country?

While taking office last March, the new government has posed new issues. The first one is their interest to create a Ministry of Environment which will require a project to be submitted to the parliament and which will take at least one year to be approved. Meanwhile, another project has been proposed to provide ministerial rank to the present Executive Directorship of the Environment National Commission, in charge of coordinating the government's environmental policies and strategies. Also, the government is seeking to modify the Environment Framework Law passed in 2004. This is a reflection of the relevance that the new authorities are providing the environment issue with. For the private sector, these announcements are considered as an opportunity for institutional improvement, but also a threat, as new actors and proposals might bring about uncertainty.

In addition, the new government has activated the Native Forest Law Project, whereby incentives for promoting its sustainable management are being sought. The project has been under discussion in the parliament for 14 years, and despite multiple modifications, it has not been approved yet, even, after a broad agreement reached two years ago through a joint effort made by the public and private sectors as well as environmental groups.

A harder pressure is being observed on the environmental groups' side, using the new on stream local industrial pulp projects as a drive. Pressures are basically questioning developments in press articles, which are tied to new investment being made in the same sector in Uruguay.

What are important industry business developments?

New investment: As Pine and Eucalyptus plantations approach their harvest age, the forest industrial sector is now coming into a new industrialization stage, characterized by capacity expansions in pulp, wood based panels, lumber and remanufactures. In the 2006 second semester, two new pulp projects will enter operations. One is a new mill with 700 thousand MT capacity which will produce bleached Radiata pine and Eucalyptus pulp; the other one is an expansion with an added capacity of 780 thousand MT of Eucalyptus bleached pulp.

Although exports topped in 2005 with a new US\$3.5 billion record, and are expected to further expand by 6 percent during 2006, forest products companies, as well as other export oriented companies, have lost competitiveness by the strong Peso appreciation v/s the US\$ Dollar.

Over these last years an expansion of small owners' plantations has been observed, which has meant that the afforestation rate between 2002 and 2004 has expanded from 46 200 to 68 200 hectares. If reforestation is included, annual plantation rate has grown from 88 thousand to almost 131 thousand hectares in the period.

At the end of 2005 the country reached two new trade agreements. One Free Trade Agreement with China and a Partial Reach Agreement with India. Presently both proposals are in the stage of ratification in the parliament and are expected to enforce during this year's second semester. On the other hand, at the beginning of the year, the final negotiations to reach a Free Trade Agreement with Japan were initiated; they are expected to come to an end next September.

⁷ Corporación Chilena de la Madera (CORMA)

COLOMBIA⁸

Emerging issues facing the industry in the country

Trade

Colombia is finishing negotiations of a Free Trade Agreement with USA. The agreement must be approved by Congress in both countries. The paper industry must be prepared for that strong competition in the near future.

Venezuela, one of the main markets of Colombia's paper industry announced that they will leave the Andean Community. This decision may affect the exports to this country since once more bilateral trade will be subject to tariffs.

Energy

In the middle 1990's Colombia changed from a state owned system to a mixed one where both private and public sectors compete in the provision of electricity. The national regulation commission is studying a charging system known as "charge for capacity" which will result in higher prices. The necessity of such system derives from the low investment in infrastructure expansion.

Colombian Economy

Today, the Colombian economy is expanding in all sectors, driven mainly by construction and industry. The country is showing improvement in competitiveness and has achieved important progresses in R&D and in opening new markets. The rise of investment rates in recent years support a bigger growth scenario in the future.

The positive economic environment can be summoned with the following numbers:

- GDP grew 5 percent,
- Industry rose in 7 percent,
- Investment increased more than 20 percent
- Foreign trade according to economic performance: exports growing rate is near 30 percent meaning US\$20 000 million per year; imports are rising fast, mainly capital goods whose yearly growing rate is over 48 percent.
- Inflation is stable at 5 percent

Pulp and paper Industry in 2005

Paper production grew 3.7 percent, a rate that is less than the whole industry's, and reached 919 thousand tons. Imports rose 5 percent and exports 6.4 percent. Within imports, several cases have been detected where prices are lower than those of the regular marker price.

The apparent consumption increased 3.8 percent.

Pulp production reached 385 thousand tons which is 1 percent higher than in 2004. Waste paper recovery for recycling increased 16 percent reaching 562 thousand tons.

⁸ Smurfit Cartón de Colombia S.A.

FINLAND⁹

The most important forest industry business developments in 2005

On a global level, the profitability of forest industry companies is low compared with many other sectors. A sharp drop in product prices over recent years has been the major cause of the strain on profitability.

Prices of forest industry end products such as paper have been declining for years. At the same time, the industry's domestic raw material is the most expensive in Europe and the costs of other raw materials and labour have increased. The price competitiveness has been further weakened by rising energy prices and additional transport costs to the principal market areas of the Finnish forest industry in Europe.

Forest industry operates in a global market, where products are priced according to demand; the higher cost levels of the domestic market cannot be transferred to prices. Because of this, in 2005 many Finnish forest industry companies continued to undertake measures aimed at enhancing the efficiency of their business operations and at improving their cost competitiveness.

The forest industry is a significant contributor to welfare in Finnish and European society. The forest sector provides jobs that would in many places be difficult to replace with other industries or services. Jobs in the forest industry enable many rural and sparsely populated areas to remain viable.

Our main objective during Finland's coming EU Presidency will be to highlight the use of renewable natural resources. The decrease in the environmental impacts of the forest industry is also an indication of sustainable development. The output of Finland's forest industry has increased significantly in the past decades, while emissions into the air and discharges into water have fallen to a fraction of what they used to be. Although many important targets have already been attained, our aim is to improve our operations continuously in cooperation with our interest groups.

Emerging issues facing the industry in Finland

Rising energy prices

Emissions trading launched in European Union has significantly increased the energy costs of process industries in Europe. At the same time it has weakened their competitiveness compared with industries in countries not participating in emissions trading.

Instead of quotas and restrictions, it would be more productive to promote efficient and low-emission operations. The EU should also not unilaterally commit itself to further reductions in emissions trading, unless the system can be extended to those countries that generate the most emissions. European quotas and restrictions harm the competitiveness of the European market and accelerate the "carbon drain", i.e. the relocation of production to regions where these restrictions do not exist.

The Finnish forest industry uses low-emission energy on the whole. The principal energy sources are wood, hydro power, nuclear power, natural gas and peat. About 75 percent of the fuel used at the mills themselves is wood-based. Although the forest industry combined uses about one third of all electricity consumed in Finland, forest industry mills account for less than 10 percent of Finland's

⁹ Finish Forest Industries Federation

carbon dioxide emissions, and less than 15% even if the emissions caused in the generation of purchased electricity are taken into account.

Continued availability of raw material should be addressed in the future

Finland is one of the world's leading forest industry countries. Although we account for only a small percentage of the world's forest resources and wood harvesting, we produce a significant proportion of the world's forest industry output and particularly the world trade in the sector. Finland is the sixth largest producer of paper and paperboard in the world, and the second largest in Europe, second only to Germany. We produce about 15 percent of paper and sawn timber in Europe and have 12 percent share of global trade of paper and paperboard.

In spite of the large forest industry, Finland has a proportionally larger area of protected forests than any other country in Europe: 7.2 percent of all forested land. There are 1.76 million hectares of protected forests in Finland, an area over half the size of Belgium.

Biodiversity Programme for Southern Finland and Ostrobothnia (METSU) was developed to provide forest owners with a range of ways in which to place forest land voluntarily under protection in return for compensation. Voluntary protection measures have been favorably received by forest owners and the industry sees that this is the right path to continue on. During the pilot stage of the biodiversity programme, which runs until the end of 2007, experiences from voluntary protection will be collected and the effectiveness of protection measures based on voluntary measures taken by forest owners will be evaluated.

Towards improved productivity and more flexible labour market practices

In 2005, the Finnish paper industry raised public debate on production cost factors, since only companies that manage to cut production costs and increase productivity can prosper in the global competition. Consequently, the main issues were the increase in labour costs in Finland at a rate greater than in our competing countries, the slowing down of our productivity growth compared with our competitors, and the weakening of our competitiveness.

The paper industry employers in Finland want to launch more flexible ways to operate at the pulp and paper mills and have started to introduce the same operating principles which are already in use in Europe. For instance, the employers want to remove restrictions on subcontracting in the collective labour market agreement regulating the operations at the Finnish mills.

Finnish Forest Industries Federation and the Finnish Paperworkers' Union agreed to enter into dialogue in a working group concerning the challenges posed by future competitiveness. The purpose of the working group is to generate information that enables the detection of changes caused by globalization. The parties will also investigate the potential for promoting employment, productivity and effective good practices at every mill.

GERMANY¹⁰

General economic situation in Germany in 2005

The German economy was in a process of gradual recovery in 2005, although with occasional setbacks at first. It was not until the second half of the year that a slight acceleration was noted. Self-supporting and wide-ranging economic recovery has still not been achieved. The gross domestic product (GDP) improved by just 0.9 percent compared with the 1.6 percent growth of the previous year. Overall economic development was particularly hampered by the massive increase in oil prices, not least as there was no increase in the euro exchange rate in 2005 to attenuate the situation.

The rise in the GDP was attributable in particular to a powerful growth in exports, while domestic demand remained weak. In view of the continuing fragility of the employment market, consumer expenditure declined, nor was there any appreciable dynamism in equipment investment, although initial signs of a turnaround in this respect were perceived at the end of the year. The revival of investment activity was not, however, sufficient to bring about a tangible improvement in the employment situation in Germany.

Performance of the pulp and paper industries in 2005

In 2003, the five pulp factories in Germany produced 850 000 tons of pulp. The start-up of a new pulp factory increased pulp production in 2005 to 1.4 million tons. Germany is a major pulp producer, the sixth largest in Europe. Exports from Germany amounted to 790 000 tons, while 4.1 million tons were imported.

As in the two previous years, the German paper industry in 2005 fared better than the economy as a whole. In terms of volume it was a successful year and German pulp and paper manufacturers saw a manifest increase in production of over 6 percent compared with the previous year to a total of 21.7 million tons, following a 6 percent increase from 2003 to 2004. This development was partly accounted for by the new capacities, which were used above all for export markets.

The new production volumes were absorbed to a large extent by the market. One indication of this is the fact that machine utilization rose on average from 93 to 94 percent. The 5 percent increase in production capacities was slightly behind the growth in production.

In a long-term perspective, the paper industry remains a growth sector. The increase in production in Germany over the last five years has averaged at 3.6 percent annually – even more than was forecast in the late 1990s.

The record results in 2005 made Germany by far the largest producer country in Europe, rising to fourth place worldwide after the USA, China and Japan and ahead of Canada. The driving force behind this positive development was once again export business where the impressive 9 percent growth to 12.6 million tons being mainly attributable to the high growth rates in Eastern Europe.

The vital domestic market improved by just fewer than 2 percent, slightly more than the previous year. Apparent consumption declined by 1 percent to 19.2 million tons, well below the GDP. The drop in imports of 3 percent to 10.1 million tons was even more pronounced than the decrease in consumption in Germany.

¹⁰ German Pulp and Paper Association

In spite of good sales development, the revenue situation in the paper industry remains unsatisfactory. Although the drop in paper prices slowed down markedly in 2005, the difficult competition and the considerable rises in some raw material prices, transport and, above all, energy, once again meant that cash flow was just 9 percent and pre-tax profits a mere 3 percent, compared with 18 percent and 11 percent respectively in 2001. For a capital-intensive sector like the paper industry, revenue in 2005 was by no means sufficient.

Paper and board (1 000 MT)	2005 e	2004	2005 : 2004 in %
Production	21 679	20 391	6,3
Exports	12 634	11 541	9,5
Imports	10 131	10 498	-3,5
App. Consumption	19 176	19 348	-0,9
Export Quota	58,3	56,6	
Import Quota	52,8	54,3	

FIBRES FOR THE PRODUCTION OF PAPER AND BOARD (1 000 MT)	2005 e	2004	2005 : 2004 in %
CHEMICAL Pulp for Paper	1 411	1 106	27,6
Production - Exports + Imports =	793	501	58,3
App. Consumption	4 381	4 321	1,4
	4 999	4 926	1,5
MECHANICAL Pulp for Paper	1 468.36	1 396.25	5,2
Production - Exports + Imports =	196	127	54,3
App. Consumption	1 628	1 498	8,7
Recovered Paper Collection -	15 122	14 311	5,7
Exports + Imports = App.	3 525	3 585	-1,7
Consumption	2 816	2 493	13,0
	14 413	13 219	9,0
FIBRES in total App. Consumption	21 040	19 643	7,1

e=estimated

HUNGARY¹¹

In 2005 the Hungarian economy can be characterized by a slightly slackening but still growing performance. The Gross Domestic Product increased by 4.1 percent but the growth was mainly fueled by an overspending of government and accompanied by increasing unemployment. The unemployment rate has reached 7.2 percent. Last year the inflation decreased to a joyful bottom of the decade, amounting to 3.6 percent. The indebtedness level of the country gives cause for alarm. The deficit of the current account amounted to 7.3 percent of the GDP.

Pulp

In Hungary there is only one small straw pulp mill with a capacity of approx. 30 000 tons. This mill was essentially rebuilt in the last two years and it was made suitable for the production of flax pulp. Bleaching was changed into elementary chlorine free (ECF) treatment. The Hungarian pulp production and consumption in 2005 are shown below.

Thousand metric tons [MT]

	Production	Export	Import	Consumption
Chemical pulp	-	-	292	292
Other pulp (straw)	17	-	-	17
Total pulp	17	0	292	309

Paper

The statistics show a decrease in the paper consumption in 2005. However, this figure has to be considered doubtingly. In 2004 the country switched over to the European statistics, so we think that only the production and export data of the following table are today reliable and comparable to the previous years. We will do our utmost to get acceptable figures also on import in the next years. Here is the development of paper consumption and production of the last years, according to the statistical office:

Thousand metric tons [MT]

	2001	2002	2003	2004	2005
Production	495	517	546	579	571
Export	310	330	296	307	389
Import	543	586	634	659	697
Consumption	728	774	884	931	879

¹¹ Dunapack Ltd.

The breakdown of the paper production by main grades is shown as follows:

	2004	2005	2005/2004
	1 000 MT	1 000 MT	%
Total paper and board	579	571	99
Newsprint	0	0	-
Printing-writing paper	248	242	98
Uncoated p-w paper	248	242	98
Coated paper	0	0	-
Sanitary and household paper	34	34	-
Linerboard	76	73	96
Fluting medium	187	192	103
Kraft wrapping and packaging	18	18	-
Other paper and board	16	12	75

Reason for this decline was that the old paper mills of small capacity could not reach the production level of previous years and the output of the bigger mills has not counterbalanced their decrease.

For paper production the industry used 370 thousand tons of recovered paper reaching an utilisation rate of 65 percent.

Main characteristics of the Hungarian paper industry:

- Small size industry
- Small capacity, locally focused production units
- Concentrated, 2 companies represent 90 percent of the production
- Energy prices are high
- Prices are pressed, profit is low

ITALY¹²

Paper and board production in Italy reached 10 million tons during 2005 with an increase of 3.4 percent compared to previous year. Turnover was also up but at a lower rate of 2.2 percent to 7.4 billion Euro.

The different trend of production and turnover can be better perceived with reference to the 5 year period 2001-2005, when production was up 12 percent while turnover down by 2.5 percent. This of course affects profitability which also heavily resents of increasing operational costs, particularly energy.

Natural gas costs, which are the main item of the energy bill for the Italian paper industry, increased by 25 percent in 2005 and a further escalation of 40 percent is taking place in 2006 for an average paper mill due to the indexation with oil prices. The increasing energy costs is coupling with a structural competitive penalisation for Italian companies which are paying on average prices 30 percent higher for electricity and 20 percent for natural gas than in other EU Countries.

Further costs are deriving from the implementation of the EU Emission Trading directive which is causing heavy distortions on the markets and, in our opinion, needs to be revised and corrected.

Another major issue for Italian paper companies in the last year has been the increasing cost of management of waste particularly from the recycling process. Utilisation of recovered paper has reached last year 5.5 Mt with a consequent increase of waste. Unfortunately, at present this waste can be recovered for the production of energy only for 11.5 percent of the total because of strong oppositions at local level to the installation of incineration plants.

Together with recovered paper utilisation also internal collection has notably increased in 2005 to a new record of 5.8 Mt with a collection rate over 50 percent. It has to be noted that the remarkable increases which took place in internal collection transformed Italy from a net importer to a net exporter of recovered paper.

Also pulp imports went up in 2005 to 3.5 Mt (+6.8 percent). Demand for certified products has increased both in tissue and graphic sectors. So far at national level a relatively good coexistence has been possible between the two major systems of forest certification.

¹² ASSOCARTA (Trade Association for the paper industry representing pulp, paper and board manufacturing companies in Italy).

JAPAN¹³

What are the emerging issues facing the industry in your country?

- Increase in raw materials, energy, and other production costs, is significantly affecting companies' profits.
- Merger and Acquisitions including distribution will most likely continue in the industry.
- Global Warming is still one of the most important issues for the industry in Japan.
- Efforts to combat illegal logging have been made by the Japan Paper Association (JPA): developed action guidelines at our March 20, 2006 Board Meeting.
- Increasingly intensified market competition are forcing to companies to make critical efforts to strengthen their management through further integrating production, improving productivity, reducing distribution costs, and developing high value-added products, etc.
- JPA set new target for utilization rate for recovered paper:
 - By FY2010, achieve utilization rate of 62 percent.

What are the most important business developments within your industry's economic/business performance for the past year?

- Japanese economy in 2005
 - Real GDP increased by 2.7 percent from the previous year.
 - Positive real GDP growth rate of 1.9 percent in 2006 is anticipated by Japanese government.
- Performance of the Japanese pulp and paper industry in 2005 over the previous year.
 - Paper and paperboard production inched up by 0.2 percent to 30 951 thousand tons.
 - Domestic shipments of paper and paperboard remained flat at 30 867 thousand tons.
 - Imports of paper and paperboard fell by 10.6 percent to 1 754 thousand tons.
 - Exports of paper and paperboard dropped by 13.8 percent to 1 240 thousand tons.
 - Recovered paper consumption inched up by 0.3 percent with a utilization rate of 60.3 percent.
 - Recovered paper exports increased by 30.9 percent to 3 710 thousand tons, 3 108 thousand tons of which were shipped to China accounting for 83.8 percent.
 - 12 listed paper and paperboard companies' sales for fiscal 2005 inched up by 0.5 percent, while recurring profits dropped by 14.7 percent.

Major topics in the industry

- Some companies announced capacity expansion or scrap-and-build to strengthen their competitiveness;
 1. Daio Paper Corporation announced in June 2005 to invest 45 billion yen (US\$409 million) to install a new machine at its Mishima mill, which produces coated paper with capacity of 288 thousand tons per year. New machine will start operation in fiscal 2007.
 2. Nippon Paper Industries Co., Ltd. announced in May 2006 to invest 63 billion yen (US\$573 million) to install a LWC machine at its Ishinomaki mill with a capacity of 350 thousand tons per year. The new machine is scheduled to start operation in November 2007. At the same time, Nippon Paper will shut down 6 coated paper machines. The total capacity of the 6 machines is 340 thousand tons per year.

¹³ Japan Paper Association

3. Hokuetsu Paper Mills Ltd. announced in May 2006 to invest 55 billion yen (US\$500 million) to install a new machine at its Niigata mill. The machine has the capacity of 350 thousand tons per year and produces LWC. Start-up is due at the end of 2008.
 - In Japan, the forest certification system named “Sustainable Green Ecosystem Council (SGEC)” was established by private forestry sectors such as the Japan Forestry Association and launched in June 2003. The system has been developed in consideration of the nature of Japanese forests. More information can be obtained by accessing their website, www.sgec-eco.org

MALAYSIA¹⁴

The paper and packaging industry in Malaysia has since 2003/4 been facing stiff competition mainly due to over capacity of corrugators and converters as a result of several relocation of multi-nationals to new markets, mainly to the People's Republic of China, Republic of Vietnam and such other countries of Asia. Although the situation has stabilized and the paper industry is picking up again, the environmental regulatory enforcement has come to a stage that new laws are at the draft stage for a more rigid control for the quality of environment with the Clean Air 1978 Act being amended to be in line with the world (Advance Nations) Standard.

The search for alternative fibre is still in progress apart from those already on pioneer production status, utilizing the fibre of the Empty Fruit Bunches (EFB) of the palm oil trees and the kenaf plants. Both sources of raw materials have proved to be costly and further the fibres produced thereby could readily be utilized for other more lucrative products. The alternative to date appears to be to fall back on the new species of the acacia family plants.

There has recently been a marked change in the climate, especially the last few months of the year 2006, when the dry season which should have been from middle of February has instead become a rainy season with heavy tropical downpours and thunderstorms and an increase in lightning and thunder occurrences. One of the consequences of these was the series of serious flash flooding to affect the towns and villages occurrences unheard of before. In one instance in the suburb of Kuala Lumpur (Damansara Damai near Sungai Buloh Forest Research Institute of Malaysia (FRIM)), it was reported that about 30 motorcars were swept by the fierce flood water and at the 9th milestone Kuala Langat area, water level on the road was about 5 feet. The explanation for all these was that the weather has become warmer by a few degrees and that there is definitely something serious occurring, closely following the tragedy of the tsunami of 2004/5 and the Gunung Merapi Jawa (volcano) becoming suddenly active again.

One of the most important economic planning for the country was the launching of the 9th Malaysia Development Plan, a 5 yearly development plan for the nation to forecast an average of approximately 6 percent GDP growth (2006 - 2010) with effect from 1 April 2006. Malaysia has targeted the year 2020 to reach the status of a developed nation and the end of this 5-year development plan would mark the halfway stage towards that objective.

¹⁴ Malaysia Pulp and Paper Manufacturers Association

MEXICO¹⁵

Emerging issues facing the industry

Imports

A number of paper imports have been detected during 2005 which competes against various products that are manufactured in Mexico. These imports have damaged several segments of the paper industry because they have been introduced into the country at prices (and sometimes qualities) far below those of their own domestic markets (dumping). Furthermore, some cases of illegal introduction into Mexico have been found.

These events have resulted in paper machine shutdowns, and in certain cases, closure of complete plants. Additionally, these imports have resulted in a lower level of fiscal revenues for the government.

Energy

The supply of fuel from Pemex – state monopoly – is far away from international parameters of competitiveness in terms of price and quality. For instance, natural gas is marketed at a price which is around three times above its cost, and fuel oil for exports is sold 30 percent cheaper than the one which is delivered to the domestic industry.

Electricity also has a high cost in Mexico coupled with the fact that it has a large variation in terms of quality (i.e. voltage), which results in another important source of low competitiveness.

Water

The high cost of extraction permits and licenses is a constant issue for the paper industry since it is a cost element that places this industry in a situation of low competitiveness against other countries, where this cost is minimal or does not exist at all.

Margin erosion

As a result of high costs of inputs (electricity, gas, fuel and water) and the lack of demand due to the low growth of the Mexican economy, margin deterioration has occurred during the past three years in our industry. This has resulted in investment decisions being delayed or cancelled and a loss of share in both domestic and international markets.

Business developments

Forestry

A pre-feasibility study of the possibilities of the forest industry in the Gulf of Mexico has been developed by the Foreign Affairs Ministry as part of the Plan Puebla – Panama. The objective of this study is to determine the technical, economical and social feasibility of an integral project for the development of forestry regions in Mexico for the production of chips and several types

¹⁵ Smurfit Cartón y Papel de México S.A.

of wood products, in addition to the determination of the feasibility of pulp production from commercial forestry plantations.

A second phase of this study will include a series of alternative scenarios to define the potential for development of the forest industry and the production of raw materials. Under this analysis, three scenarios will be developed: (I) optimization of the current situation, (II) with investment in basic products partially integrated, and (III) investment based on the maximization of the value added due to a high integration.

Environmental

In September 2000 the Paper Industry Chamber and the ecological authorities from the government (SEMARNAP) signed an agreement aimed to reduce the pollution levels of the Paper Industry in the Metropolitan area of Mexico City. As part of this agreement, additional investments for US\$60 million have been committed by several paper companies in Mexico during the last year. This amount is 46 percent higher than the original investment committed at the time of the agreement.

After three years of stagnation, the Mexican economy began to grow in 2004 and 2005, albeit at comparatively low rates. The improvement in the United States' industrial output boosted exports and gave a fresh impetus to private investment. Price stability helped to maintain purchasing power and retail sales rose. Yet growth failed to rise above or even equal the 4.2 percent growth rate of 2004, but fell back to 3.0 percent in 2005.

Mexico's proximity to the United States, however, and the implementation of prudent economic policies designed to ensure the stability and solidity of the banking sector (three important pillars of the Mexican economy) enabled the country to achieve stability.

However, China's share of the international markets has also faced Mexico with a formidable competitor for capital flows, making it all the more necessary to carry through structural reforms to enable Mexico to exploit the opportunities offered by economic globalisation.

Forecast

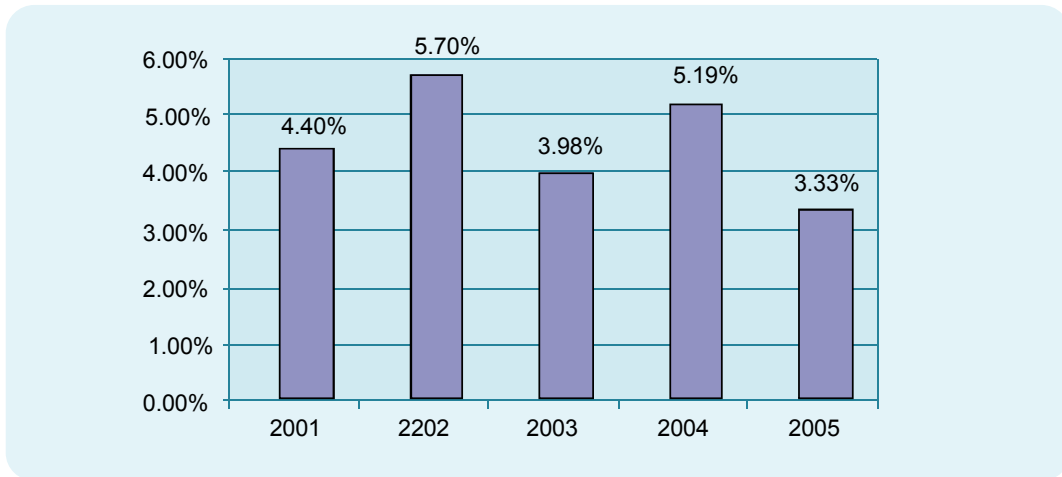
The present government will be leaving a number of major challenges at the end of 2006 that will have to be addressed in order to hasten the pace of economic growth, which is urgently necessary if the country is to generate the number of jobs required and avoid social unrest. The most important challenge is to complete the outstanding structural reforms, for which broad political agreement is needed.

The economic prospects for 2006 indicate a stronger domestic demand driven by private consumption and bank loans, and by the improved performance of the United States' economy. However, because of Mexico's presidential elections in June next year investors must be induced to adopt a wait-and-see attitude. We nevertheless believe that the economic conditions will remain solid and enable us to move towards 2007 with greater dynamism. The risks have to do with oil prices and a possible adjustment to the United States' economy.

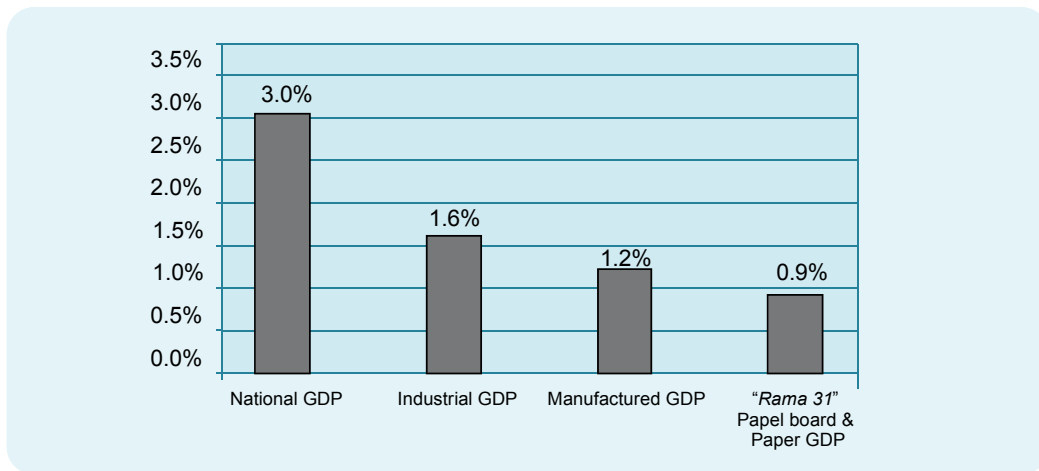
GROSS DOMESTIC PRODUCT

A cursory glance at the figures for the industrial sector shows that, in 2005, domestic industrial output as a whole rose by 1.6 percent, manufacturing by 1.2 percent, while Branch 31, Paper and Cardboard, rose only slightly by 0.9 percent. The aggregate national GDP rose by 3.0%.

Consumer National Prices Index



National GDP 2005

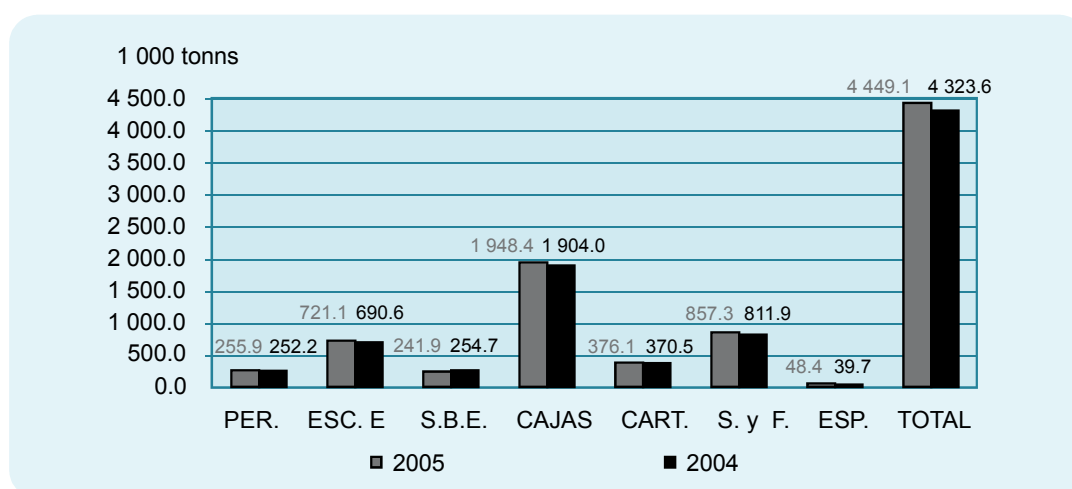


THE PULP AND PAPER INDUSTRY IN 2005

PULP

Due, unfortunately, to the age-old problem of the lack of legal certainty in the forestry field, the prospects for this industry remain gloomy, as shown by the figures for total pulp output which rose by a mere 1.4 percent in 2005 above the total output in 2004, to reach 297 000 tons. Conversely, in 2005 imported pulp consumption rose by 4.2 percent to 546 000 tons.

Over the same period, the consumption of imported secondary fibrous raw materials rose by 4.1 percent to 1 364 000 tons. Fibrous raw material imports accounted for 37.8 percent of the total fibre consumption for paper production.



PAPER

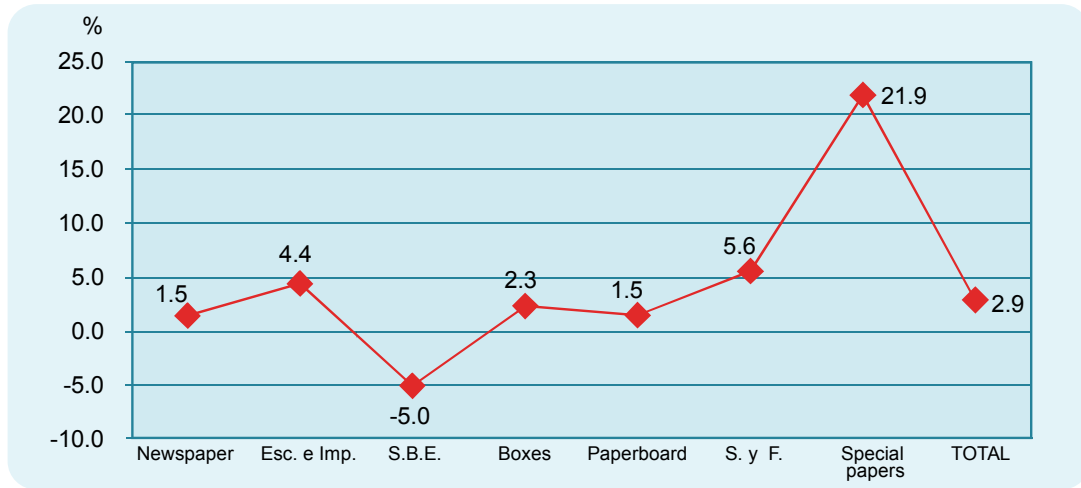
In 2005 total paper production in Mexico rose by 2.9 percent, to reach 4 449 000 tons in terms of volume, from 4 324 000 tons in 2004.

An analysis of the different types of paper manufactured by Mexican industry shows the following increases in output: newsprint 1.5 percent, printing and writing paper 4.4 percent, cardboard for boxes 2.3 percent, paperboard 1.5 percent, paper for medical use and facial tissues 5.6 percent, and specialty paper 21.9 percent.

The difficult state of the international pulp and paper market is constantly driving imports to the Mexican market, sometimes unfairly, not to say illegally: for example, the items registered as other types of printing and writing paper, which rose by 14.8 percent; bags and wrapping paper by 22.9 percent, imports of cardboard for boxes rose by 6 percent and specialty paper imports by 12.1 percent.

Lastly, apparent consumption for 2005 reflected a 4.5 percent growth rate of which, as we have seen, imported paper accounted for a significant 34 percent of Mexico's apparent consumption.

The efforts being made by the industry to take on international competition in a scenario, in which Mexico is totally disadvantaged, can clearly be seen from the 3.3 percent fall in exports. In 2005 the industry exported a total of 248 000 tons, compared with 256 000 tons in 2004.



PORTUGAL¹⁶

Emerging issues

Legislation

A new set of policy instruments is under preparation by Portuguese authorities, covering various areas of activity affecting the pulp and paper industry in different ways. The impact of all the various initiatives is difficult to evaluate, particularly because of conflicting interests between public agencies leading to inconsistency of general policy objectives.

Land use and forest management

A new Forest Strategy has been under public consultation. Additionally, a new proposal for a national Plan on Land Management is also under public consultation, as well as a new Strategy for Biodiversity Conservation and a Strategy for Rural Development. Regional forest land management plans have been elaborated and are now under a decentralised process of adoption. Links between all these land management instruments are not evident. Whenever they are evident, for instance between the forest strategy and the regional forest plans, the strategic orientations will not be possible to implement due to specific conflicts with the regional plans. This situation may lead to a confusing environment for private investment in forestry and conflicts within public agencies.

Water

Within the Water Framework Directive, new legislation is being prepared. Particular concern is related with water pricing mechanism. This issue is under ‘informal’ discussion. Government so far has not discussed with industry sectors (although making available a proposal to the Industry Confederation) and is prepared to charge heavily on water uptake and disposal, pollution charge, and use of public domain related with river, estuaries and sea. The impact of the new legislation is not clear due to possible misinterpretations of the current proposal. In addition to the economic consequences, links with IPPC Directive are inexistent and extra bureaucracy is highly probable.

Energy

Heavily influenced by the severe forest fires of past years the government created conditions for new investments on biomass power plants assuming that they can contribute to “clean” the forest. These new units may create important distortions on raw material availability for the forest based industries, due to green energy prices, impact of CO₂ emission trading schemes on alternative energy sources and local market conditions. Wood procurement for energy is already a developing activity in Portugal.

Forest fires

A new Plan for forest fire prevention, detection and combat has been published and is under implementation. Expectations on its efficiency are high. As paper industries owning forest resources also have private infrastructures and organization against forest fires, special care is required to provide a proper coordination between the new public organization and the industry one.

¹⁶ Portuguese Pulp and Paper Association (CELPA)

Wood availability

After the forest fires of the past three years the forest resources are under strong pressure for domestic use as well as for exports. A National Forest Inventory is under progress and results are expected until Summer. Elaboration of forecasts will be of great importance for the industry particularly due to the current development of the legal framework.

CO2 emission trading regime for 2008-2012

The setting up of the emission trading scheme for the first period of commitment, without a proper evaluation of the experimental period, is a demanding exercise for companies operating under strong competitive factors.

BREF

The BREF document on Energy efficiency is now under consultation for comments, while the BREF on Pulp and Paper is on preparation for revision. Being essential documents for the future working environment, this work demands a large effort from the industry.

Forest fires in 2005 were the second worst year ever. Wood supply to the industry may become a major issue in the years to come. Also large areas have to be reforested and that represents a challenge and an opportunity. The need to build a more resilient and more productive forest is obvious, but it requires the mobilization of thousands of small forest owners. Population in the areas affected by last years' forest fires will also be affected for a large period of time.

Business developments over last year

The SCA owned company Nisa, producing domestic and sanitary paper, announced its closure.

Stora Enso announced its decision to divest in CELBI, a Kraft eucalyptus pulp mill at Figueira da Foz. The process is expected to be finalised in June/July 2006. The announced intention to invest in a new paper machine by Portucel Soporcel Group (UWF), on the meanwhile confirmed as a decided project. Consolidation taking place through the purchase of Portucel Tejo (now called Celtejo). The new group, named Altri, also purchased 50% of Bioelectric, a biomass based energy producing company.

Performance of the paper and wood industry – 2004 / 2005

Provisional data relating to forest fires recorded in 2005 points to 35 647 occurrences, corresponding to a total burned area of 325 thousand hectares, of which 208 thousand hectares were forest stands.

This was a year with a long Summer, that followed a very dry Winter. It was, in fact, the second worst year ever, after 2003, when 426 thousand hectares were burned , of which 286 thousand were forest stands.

Production, imports and exports of the main Portuguese forest raw materials in 2004 are shown in the following table:

		PRODUCTION thousand m³	IMPORTS	EXPORTS
Coniferous logs (maritime pine)	2004	2 363	4	15
Non-coniferous logs (total)	2004	190	222 (1)	2
Eucalyptus pulpwood	2004	5 518	139	988

80%, on average, is tropical timber

The sawmill industry is substantially affected by the availability of pine logs after decades of forest fires. The installed capacity decreased 60 percent to 65 percent in the last twenty years. Exports of sawn pine wood – which have been important in the past (more than 1 million m³ in 1985) – declined to less than 300 thousand cubic metres in 2004.

Production, imports and exports of wood panels in 2004 are shown in the table below:

		PRODUCTION thousand m³	IMPORTS thousand m³	EXPORTS
Particle board	2004	742	73	538
Fiberboard	2004	420 (1)	105	383

(1) 83% is MDF

The pulp industry operated at full capacity in 2005 while the paper and board industry recorded an utilization rate of their production capacity close to 93%.

Country wise, pulp and paper production, imports and exports in the last three years was as shown in the following table (2005, estimates):

		PRODUCTION thousand MT	IMPORTS	EXPORTS
Woodpulp	2003	1 935	152	963
	2004	1 949	110	1 009
	2005	1 932	47	735
Paper and board	2003	1 530 1)	717	1 178
	2004	1 664 1)	840	1 234
	2005	1 577 1)	830	1 234

1) Over 60% are for graphical uses (uncoated)

The recovery rate for recycled paper was circa 38 percent in 2005, i.e., slightly lower than those recorded in the two previous years. Recovered paper consumption is stable at around 300 thousand tons, corresponding to 26 percent of total fiber consumption on the domestic market.

RUSSIA¹⁷

In 2005 and the first half of 2006, Russia continued to experience robust economic growth, reflected by continued growth in Russian pulp and paper output (Tables 1, 2). The growth in Russia's paper and paperboard output were 1.7 percent in 2005, (6.8 percent in 2004).

The important forest sector policy developments of 2004-2005 in Russia were as follows:

- the Kyoto Protocol ratification by Russia (and its coming into effect in spring of 2005 with new efforts to monitor carbon emissions),
- debates about private ownership of forests in the context of a new Forest Code to be adopted,
- the use of space satellite monitoring for preventing illegal timber cuttings,
- as well as the continuing “forest wars” (legal disputes over ownership and management of certain Russian pulp mills and forest operations).

Both demand and output of pulp and paper products increased in Russia through 2005 and into the first half of 2006. Owing to relative economic and political stability established in the country since the major currency revaluation of 1998 and more expansionary macroeconomic policy under President Putin since 1999, there has been a continuous increase in output of pulp, paper and paperboard in Russia, more than doubling since 1996, although output has yet to reach previous record levels of 1988-1989 pre-transition periods (in the late Soviet era).

In 2005, the Russian pulp and paper sector continued to expand production of pulp, paper and paperboard, particularly the output of paperboard for packaging. During 2005, Russia's total output of pulp (both pulp for paper and paperboard and market pulp) increased by 0.2 percent, the output of market pulp increased by 0.4 percent, and the output of paper and paperboard increased by 2.7 percent, including a 4.2 percent increase in output of paperboard.

Exports of pulp and paper products hold a dominant position in the total Russian exports of forest-based products, and the overall structure of forest product exports still has a pronounced raw material character. In terms of roundwood equivalents, roundwood timber exports and sawn wood exports accounted for 79 percent of Russia's exports in 2003, while pulp and paper accounted for only 21 percent of exports (Table 2).

In 2005, exports of pulp and paper products continued to increase. Exports of pulp, paper and paperboard were progressively increasing since 1990 and reached a peak level in 2005. However, Russian exports as a percentage of production have remained largely unchanged since 1996, with exports comprising about 80 percent of output for market pulp, and around 40% for paper and paperboard. (Table 3). Major export destinations for these Russian products are China (market pulp, kraft linerboard), Ireland (market pulp, Kraft linerboard), India (newsprint), and Turkey (newsprint).

Although the tonnage of Russian paper and paperboard exports greatly exceeds the tonnage of imports, the trade balance in value has continued to deteriorate, as Russia has expanded imports of higher value paper products. The annual trade deficit in paper and paperboard has been negative since 2001, and in 2005 it was more than a US\$0.87 billion (Table 4). The higher value of imports of paper and paperboard as compared to their exports is mainly due to the fact that Russia is importing rather expensive products such as high quality materials for container and packaging, coated paper, and tissue, whereas less expensive commodity products such as newsprint and kraft linerboard are being exported.

¹⁷ St. Petersburg State Technological University of Plant Polymers

Reconstruction and restructuring of the Russian pulp and paper industry is continuing, with some progress being made towards higher value products with better processing of wood raw material. As an example, International Paper Company announced recently plans to speed up an uncoated free-sheet machine and add 50 000 tons per year of production capacity at the paper mill in Svetogorsk (about 140 km from St Petersburg). The mill is also reportedly installing a coater on a liquid packaging machine to add 15 000 tons/year of capacity. More than US\$200 million have been put into reconstruction of the mill in recent years. Office paper produced by the mill supplies presently more than 60 percent of the Russian market demand. In addition, a new 200 000 tons per year aspen-based BCTMP pulp line is planned next year, according to International Paper, which will supply pulp to paper mills in Europe and elsewhere.

It can be noted that future development of Russia's pulp and paper sector is linked to expanded production of more technologically advanced products (such as coated printing and writing paper rather than newsprint for example), and also more integrated utilization of forest resources.

Implementation of important environmental projects provides examples of steps being taken towards applying the new Russian environmental laws adopted in late 2002 (based on comparison of environmental indices of individual mills and those of "best available technology", or BAT). For instance, new systems of wastewater local treatment with the use of KWI floatators were constructed at the Syassky pulp and paper mill, SCA Hagen Product, etc. Furthermore, in connection with ratification of the Kyoto Protocol, a number of mills (the Arkhangelsky pulp and paper mill, for example) initiated work on inventorying of greenhouse gas emissions. Such accounting for carbon and greenhouse gas emissions is being done at the Arkhangelsky mill and elsewhere to prepare for limits on emissions and perhaps trading in carbon emissions.

So-called "forest wars" (a journalistic term for legal disputes among managers and owners of forest enterprises) went on in 2004-2005. The Kotlassky pulp and paper mill and the Bratsky pulp and paper mill were both the objects of disputes as before. However, information came to light in the fall of 2004 that the dispute over ownership of those mills was settled and the mills have become the property of the Ilim Pulp Enterprise. At the same time, the Basic Element Company was involved in a struggle for possession of two other mills, the Arkhangelsky pulp and paper mill and OAO Volga – the Balakhninsky pulp and paper mill. In past years such disputes have involved occupation of plants by armed guards (hence the term "forest wars"), but more civil and legal proceedings now characterize the settlement of such disputes.

Table 4. Russian exports and imports of paper and paperboard in 2000–2005 (US\$ million)

	Exports	Imports	Trade balance
2000	920	731	+189
2001	927	1 012	-85
2002	887	1 200	-313
2003	967	1 465	-498
2004	1 184	1 774	-590
2005	1 331	2 107	-876

Sources: State Customs Committee, Pulp. Paper. Board Magazine, PPB-express, PPB Exports, PPB Imports, author's data handling

Table 1

Output of pulp, paper and paperboard in the Russian Federation in 1995 – 2005 (thousand metric tons, [MT])

Products	1988 (89)	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2005/ 2004, %
Pulp total:	8 331	4 151	3 028	3 170	3 205	4 225	4 960	5 272	5 568	5 764	5 922	5 933	100,2
Market pulp	3 076	1 743	1 144	1 169	1 320	1 722	2 018	2 136	2 233	2 311	2 409	2 419	100,4
Paper and paperboard	8 632	3 956	3 236	3 269	3 426	4 535	5 300	5 595	5 921	6 227	6 619	6 800	102,7
Paper total including:	5 465	2 760	2 274	2 179	2 325	2 966	3 320	3 415	3 524	3 682	3 903	3 969	101,7
Newsprint	1 693	1 457	1 243	1 201	1 386	1 622	1 694	1 732	1 713	1 814	1 978	2 007	101,5
Offset paper	396	346	349	337	399	485	461	465	491	449	469	452	96,5
Paperboard total:	3 167	1 196	962	1 090	1 102	1 569	1 980	2 180	2 397	2 545	2 716	2 830	104,2
Corrugated board	1 639	814	610	775	760	1 080	1 356	1 530	1 711	1 882	2 090	2 102	100,6

Sources: Goscomstat of the Russian Federation; PPB-express, author's data handling

Table 2
Structure of Russian exports of forest-based products in 1990 - 2004

	1990	1998	1999	2000	2001	2002	2003	2004
Round wood, million m ³	31.4	200	27.6	31.3	31.7	36.5	37.6	41.5
OSawn wood, million m ³	15.7	4.6	6.4	7.9	7.7	8.9	11.0	13.1
<i>In terms of round wood¹, million m³</i>	25.1	7.36	10.2	12.6	12.3	14.2	17.6	20.96
Market pulp, million metric tons	0.993	1 056	1 373	1 600	1 758	1 885	1 905	1 866
Paper and paperboard, million metric tons	2 761	1 767	2 048	2 309	2 353	2 500	2 550	2 590
Pulp, paper and paperboard, million metric tons	3 740	2 823	3 421	3 909	4 111	4 385	4 455	4 456
<i>In terms of round wood², million m³</i>	12.7	9.57	11.6	13.3	13.94	14.87	15.10	15.11
Total exports of forest and paper products in terms of round wood, million m ³	69.2	36.9	49.4	57.2	58.0	65.6	70.30	77.57
Percentage of round wood exports	45%	54%	56%	55%	55%	56%	53%	53.5%

¹ The factor 1,6 is used - source: UN FAO

² The factor 3,39 is used - source: UN FAO

Table 3

Exports of market pulp, paper and paperboard from the USSR (1980 – 1990) and from Russia (1993 – 2004), thousand metric tons , [MT]

Year	Market pulp		Paper and paperboard			
	Output	Exports	Percentage of exports	Output	Exports	Percentage of exports
1980	2 457	821	33.5	8 688	1 018	11.7
1983	2 840	1 012	35.6	9 556	1 034	10.8
1986	3 233	1 105	34.1	10 395	1 188	11.4
1987	3 371	1 088	32.3	10 566	1 252	11.9
1990	3 255	600	18.4	8 325	900	10.8
1992	2 109	856	40.6	5 750	1 568	27.3
1993	1 682	1 077	64.0	4 462	1 418	31.8
1994	1 328	1 028	77.4	3 410	1 264	37.1
1995	1 736	1 362	78.5	4 070	1 690	41.5
1996	1 267	1 095	85.7	3 220	1 380	42.9
1997	1 193	1 008	82.8	3 331	1 507	45.2
1998	1 311	1 056	75.8	3 540	1 783	50.4
1999	1 725	1 350	78.3	4 467	2 019	45.2
2000	2 000	1 635	81.8	5 239	2 355	45.0
2001	2 136	1 753	82.1	5 595	2 350	42.0
2002	2 233	1 866	83.6	5 921	2 453	41.4
2003	2 301	1 905	82.8	6 174	2 550	41.3
2004	2 404	1 866	77.6	6 653	2 590	38.9

Sources: Goscomstat of the USSR, Goscomstat of the Russian Federation, PPB-express, Moscow, author's data handling

SOUTH AFRICA¹⁸

The South African economy - Background

As the South African Economy becomes more and more integrated into the global economy, so its performance becomes increasingly subjected to global economic movements. In this regard currency fluctuations, investment flows and trade protocols are of particular relevance.

In complete contrast to 2002 where the South African Rand depreciated by some 34 percent against the currencies of its major trading partners, more recently it has staged a dramatic and remarkable recovery to the extent that on a US\$ basis, the Rand appreciated by some 46 percent to stand currently at around R6.50 to US\$1.00 (during 2002 R12.50 to US\$1.00). To some extent this vindicated the opinion of the 'Economist' magazine in 2003 that the Rand was undervalued by a margin of 7 percent. Rather than being an expression of the confidence in the fundamental strength and health of the South African economy, this appreciation in value must be judged against the depreciation of the US\$. In other words the value shift was caused primarily by external as opposed to internal factors.

Some of the implications of this appreciation from a National perspective were the following:

The competitiveness of S.A. products on overseas markets was reduced which has led to a deterioration in the country's total trade balance which today is in the deficit.

Company profitability and margins have been squeezed, leading to cost cutting exercises and as a result increased retrenchments and unemployment.

- A reduction in investment flows into the country and in instances an increase in investment outflows.
- A squeezed tax base, leading to the maintenance of relatively high tax thresholds, both on business and individuals.
- A slowing down in G.D.P. growth to fewer than 2 percent, although in the last quarter of 2005, this had picked up to around 3.8 percent.
- An increase in the National Budget deficit, from 1.6 percent of G.D.P. to over 3.0 percent.

From the positive side, the currency appreciation has played a significant role in:

- Reducing the inflation rate from a high of 14 percent at the end of 2002 to around 7 percent at the end of 2003, and 5 percent at the end of 2005.
- Bringing down interest rates from a high of 18 percent to around 11 percent on average by the end of 2003, and 8 percent by the end of 2005.

Aside from the currency situation, declining growth in global and local economies has impacted in physical terms on the demand for locally produced products which had impacted negatively on South Africa's Manufacturing sector performance and Agri-processing businesses. There has however been some solace to the extent that prices for South Africa's precious minerals has jumped to record highs (Gold US\$700.00 plus; Platinum US\$1 200.00 plus).

From an internal perspective, most importantly, unemployment remains a huge problem (40 percent + of economically active population), and cost pressures caused through a high level of administered pricing is increasing at a rate higher than inflation. The HIV/AIDS pandemic

¹⁸ Forestry South Africa

sweeping Africa and particularly Southern Africa (S.A. infection rate 11% of total population) is also now beginning to have major economic implications.

Overall therefore economic performance has been lacklustre which is of growing concern given the inability of the economy to absorb the growing population in an economically productive manner. The continuing political upheavals in the rest of Africa (e.g. Zimbabwe, Ivory Coast, Burundi etc) are likewise not helping the situation. The South African economy has however displayed considerable resilience in the face of the problems confronting it and remains fundamentally sound, with a positive future outlook.

Performance of the forest sector

The forestry (timber growing) industry

Situation Analysis

South Africa's world-class Forestry Industry is a highly productive sector. Although South Africa is home to 1 100 indigenous tree species, it is not well endowed with indigenous forests because of its arid climate, but has a thriving commercial Forestry Industry based on plantations of exotic species. The areas, in which the South African Forestry Industry operates, along its eastern and southern seaboard, are climatically ideally suited to the growing of trees and plantations are intensively managed.

South African plantations cover 1 339 282 ha, 1.1 percent of the country's total land area. This is less than 0.1 percent of the world's afforested area, yet the plantations produce 0.5 percent of the world's roundwood production, making them five times more productive than the average forest worldwide. 82 percent of S.A's timber plantations are currently certified as being sustainably managed, primarily under the FSC banner. This represents the largest single country plantation certified area in the World.

Plantations are owned by 1 800 registered tree growers. Forestry companies owned 60.7 percent of commercial plantations, with public ownership accounting for 16.5 percent, including SAFCOL (the state owned SA Forestry Company Ltd) and private individuals 22.8 percent. These figures do not include over 18 000 small, emergent black farmers, many of whom are women, growing trees on a micro scale and covering an area of 44 000 ha. This is part of the Forestry Industry's efforts to promote rural development and economic empowerment through small-grower afforestation schemes.

The Forestry Industry is dominated by the private sector, with state interests (including SAFCOL) currently undergoing restructuring and privatisation, mostly in favour of black empowerment groups. The State forest restructuring programme is now 60 percent complete in so far as its commercial forestry holdings are concerned.

South Africa's Forestry Industry is labour intensive by international standards, employing some 107 000 people. The Industry has been an important catalyst for rural development and economic upliftment in the poorer areas of the country, owing to its geographic location. However, employment is increasingly becoming an important Industry issue, as the past ten years has seen massive reductions in direct employment by the large timber companies, as they embarked on a process of outsourcing their forestry operations (silviculture, harvesting and transport) to contractors. Although this has had some negative consequences, on the positive side, it has led to a significant increase in the number of small and medium scale entrepreneurial businesses, many of which are black owned, servicing the Industry's needs. Nearly 80 percent of all forestry production activities are now outsourced.

Afforestation

South Africa grows a variety of commercial tree species on an area of 1.37 million hectares. Pinus (softwood) species account for 51 percent of the area planted, Eucalyptus species for 40 percent, Wattle 8 percent and other hardwoods for 1 percent.

In terms of management objectives, 57 percent of the area is grown for the production of pulpwood, 36 percent for sawlogs and the balance of 7 percent for other products such as mining timber and poles.

New afforestation reached a peak of 45 000 hectares in 1991 and since then has been falling, primarily due to restrictions placed on its expansion through new licensing procedures which have been introduced, under the National Water Act. The severity of these restrictions is such that since 2000, the net addition to the plantation area has been a paltry 1 564 hectares or an average annual addition of 391 hectares. Given the constraints on afforestation the quest for yield improvement has been tantamount. Major successes have been achieved, with 40 percent yield improvements having been evidenced in Eucalyptus planted on specific sites. The Industry wide yield improvement is of the order of 15 percent to 20 percent.

On average, the Industry loses around 12 000 hectares annually to fire, and another 10 to 12 000 hectares annually due to pest and disease problems. On the current increase in planted areas, the Industry is in fact going backwards.

During 2004 and 2005 the Industry experienced its worst fires, losing 70 000 hectares, and was subjected to a major infestation of the Sirex Woodwasp and an outbreak of Fusarium (pitch canker fungus) in Pine plantations and pine nurseries.

To meet anticipated longer term timber demands it is estimated that the Industry should be adding a minimum of 25 000 hectares annually to its resource base.

Plantation output

Roundwood sales from plantations in 2004 were 20 310 000 cubic metres, up marginally from the previous year, constituting sawlogs (5 350 000 cubic metres), pulpwood (13 074 000 cubic metres), mining timber (964 000 cubic metres), poles (506 000 cubic metres) and other products (416 000 cubic metres).

Almost 98 percent of the plantation output is sold to local processing plants for beneficiation, the remaining 2 percent being export of sawlogs.

By value, the plantation output during 2004 amounted to R4,2 billion, which represents a contribution to total Agricultural G.D.P. of very close to 9.0 percent.

Sustainable Forest Management (SFM)

As mentioned above 82 percent of all commercial timber plantations in South Africa are certified under the FSC banner. Of the areas that remain uncertified most fall within the category of small to micro forestry estates, particularly those belonging to the emerging black grower constituency. The cost of certification and the rigorous standards applied in terms of the FSC, make it difficult for these areas to be certified. Given this the Industry is working closely with the FSC to develop a more appropriate mechanism for certification, through what is known as the SLIMF programme (Small and Low Impact Managed Forests), which will be undertaken on a group basis.

The Industry is also actively involved in the process of developing criteria, indicators and standards for SFM through its participation on the National Forests Advisory Council's (an advisory body to the Minister of Water Affairs and Forestry) Committee for SFM. It is the Government's intention to write the C,I&S that are developed into the National Forests Act as regulations. This will pave the way for the development of a National Standard.

The Industry also supports important environmental research and recently published the second edition of its "Environmental Guidelines". This second edition is far more comprehensive than the first and, in the current absence of a local National Standard, is being used for the physical environment component of the audits required for FSC certification. A process is currently underway to develop a S.A. National Standard for Certification.

The forest products industry

Situation analysis

The Forest Products Industry is controlled by the private sector, with only five of the 203 primary processing plants in the country being owned by the state. Pulp and paper is the largest sector and drives the entire Industry. This sector alone, accounts for 60.0 percent of Forest Products Industry sales and 73 percent of total roundwood intake into processing plants. Sappi and Mondi rank among the largest pulp and paper manufacturing companies in the southern hemisphere and are truly global companies, owning substantial assets in many parts of the world.

This is followed by sawmilling, which accounts for 21.4 percent of roundwood intake into primary processing plants. Decreases in mining activity, combined with the increased use of alternative underground support systems, have lead to lower demand for mining timber. This has, however, had a positive effect on the Woodchip Industry as more hardwood timber has been diverted to this market. There are four major chipping plants currently in operation, all located in Richard's Bay, with another plant having recently being commissioned in Durban. These plants, which process over 4 million tons of hardwood roundwood p.a., all of which is exported (mainly to Japan), generate revenues of R1.5bn (US\$232 million). Other Forest Products Industries include panel products, pole treating, matchwood and charcoal.

Intake into primary processing plants

Intakes into primary processing plants during 2004 amounted to some 22.6 million cubic metres, some 11 percent more than the intake during the previous year. The Table below shows the comparative figures for 2003 and 2004.

Table 1. Intake into Primary Processing Plants 2003 vs. 2004

Type of Plant	2003 m³	2004 m³	% change	% to total
Pulp, Paper & Board Mills	14 833 251	16 503 000	+11.3%	73%
Sawmills	4 241 945	4 740 000	+11.7%	21%
Mining Timber Mills	707 056	756 000	+6.9%	3.3%
Other Plants	652 568	614 000	-5.9%	2.7%
Total Intake	20 434 820	22 613 000	+10.7%	100.0%

Production from primary processing plants

The table below shows that between 2003 and 2004, with the exception of Panel Products, all other product category production increased, with the overall increase amounting to 13.7 percent.

Table 2. Production Volumes from Primary Processing Plants 2003 vs. 2004

Product	Unit	2003	2004	% change
Pulp (1)	Tons	1 782 000	1 876 000	+5.3%
Sawn Timber	m ³	2 006 000	2 184 000	+8.9%
Woodchips	Tons	4 296 000	5 314 000	+23.7%
Mining Timber	Tons	448 000	474 000	+5.8%
Panel Products	m ³	733 000	692 000	-5.6%
Other Products	Tons	328 639	364 000	+10.7%
Value (Rands) (2)	-	R14 591 bn	17 815bn	+1.6%

Note: (1): Excludes production of Dissolving Pulp.

(2): Excludes value of Paper Production.

Performance of pulp and paper industry

The production of pulp and paper in South Africa is given in Table 3 below and the trends shown in figures 1 and 2.

Table 3. South Africa Pulp and Paper Production

Pulp and Paper Production [thousand tons]	1999	2000	2001	2002	2003	2004	2005
PAPER & BOARD							
PRINTING AND WRITING PAPERS	834	852	863	913	920	1019	936
Uncoated paper	339	361	382	404	405	497	468
Coated paper	75	66	62	80	77	77	85
Newsprint & telephone directory paper	328	333	329	341	341	342	344
SC mech. & lightweight coated paper	92	92	91	88	98	105	39
PACKAGING PAPERS	1 062	1 138	1 245	1 265	1 265	1 306	1 362
Liner board	646	711	802	815	840	823	821
Fluting	213	216	232	229	225	286	324
Other kraft, paperboard & fibreboard	203	211	211	222	200	197	218
TISSUE PAPER	145	134	150	154	152	197	193
Tissue paper	145	134	150	154	152	197	193
TOTAL PAPER & BOARD	2 041	2 124	2 258	2 332	2 337	2 523	2 491
Pulp and Paper Production [thousand tons]							
Mechanical pulp	270	285	274	285	277	275	248
Semi-chemical pulp			171	155	155	112	143
Chemical pulp	1 372	1 419	1 296	1 323	1 350	1 151	1 354
Dissolving pulp	476	557	397	420	535	539	547
TOTAL PULP	2 118	2 261	2 138	2 183	2 317	2 077	2 292

Pulp manufacture showed an increase from 2004 to 2005 as the effect of the new digester installed at Mondi, Richards Bay mill was reflected in the production figures. Paper production declined slightly due to a shut at Mondi's Merebank mill where a machine making super calendared (SC) paper was converted to uncoated woodfree production. SC paper production has now ceased in South Africa.

Figure 1. Paper and board production trend

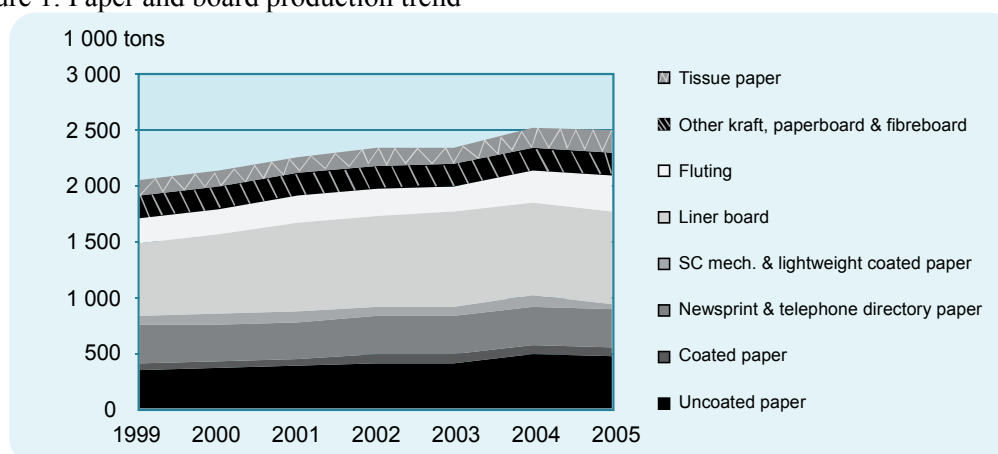
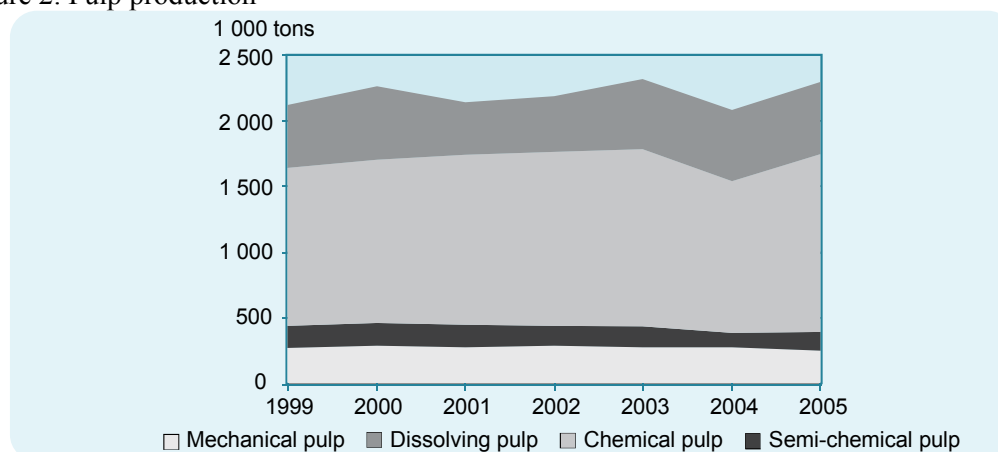


Figure 2. Pulp production



The value of paper production increased slightly in 2005 compared with 2004. This was due to an improvement in prices although the rand remained relatively strong during the year.

Table 4. Value of paper production

Value of total paper production (million Rand)	2001	2002	2003	2004	2005
PRINTING AND WRITING RADES	4 874	5 758	5 602	5 515	5 305
PACKAGING PAPERS	4 390	5 414	4 772	4 699	4 941
TISSUE PAPERS	1 164	1 186	1 286	1 488	1 646
Paper production	10 428	12 357	11 659	11 702	11 892

Contribution to G.D.P.

South Africa's economic activity base is skewed heavily in favour of the mining sector, as this traditionally has been the backbone of economic activity. Manufacturing sector activity, of which the Forest Products sector is part, is however playing an increasingly important role. Currently the Forest Products Industry contributes 7.0 percent to overall Manufacturing G.D.P. Based on total G.D.P. which includes the Mining and Agricultural sector, the equivalent

contribution is only 1.2 percent, showing the predominance of in particular the Mining component.

Foreign trade in forest products

Up until 1985, South Africa was a net importer of Forest Products. Since then due primarily to significant investment in processing capacity the tables have turned and today the Forestry Products Industry is one of the country's most dynamic and important export sectors, with exports totalling R9,0 billion/p.a., as against imports of R5,1 billion/p.a. The resulting foreign trading surplus of R3.9 billion/p.a. is equivalent to 14.6 percent of the country's entire trade surplus. The sector is therefore an incredibly important sector of economic activity, which unfortunately is not always properly appreciated. The table below provides the relevant statistics for the 2004 year.

Table 4. Value of Foreign Trade in Forest Products (Rands million)

Product Category	2004		
	Imports	Exports	Balance
Pulp	240	2 460	+2 220
Paper	3 380	3 204	-184
Solid Wood	1 474	3 032	+1 558
Other	19	326	+307
Value (R bn)	5 121	9 022	3 901

With regard to the composition of imports and exports, by value, the following Table highlights the percentage share of the four categories of forest products. As can be seen total imports of pulp are a minor share of imports whereas, at 66.0 percent, imports of paper are the greatest. These paper imports tend to be the higher calendar grades which, due to the properties of the fibre resource available in South Africa, cannot be produced from locally grown fibre.

Table 5. Percentage Share of Imports and Exports

Product Category	% Share to Total		
	Imports	Exports	Balance
Pulp	4.7%	27.3%	56.9%
Paper	66.2%	35.5%	-4.7%
Solid Wood	28.8%	33.6%	39.9%
Other	0.3%	3.6%	7.9%
Total	100.0%	100.0%	100.0%

Issues of particular interest

Industry profile

As is the case in many other countries, plantation based Forestry does not have a good profile and there is an increasing scrutiny of its activities by Government and ENGO's alike. South Africa is no exception, although it is the Government rather than the ENGO sector that is the major problem. In S.A. the Government is not favourably disposed towards the growth of the Forest Sector and much of the current legislative programme will compound this. The issue however is not one of reality but is more a perception that has been created through negative publicity and a general misunderstanding. The S.A. Industry is however trying to address this issue, and it is hoped that the work being done both by ICFPA and the FAO will assist in this regard. During 2005 an independent study on the value of the forest sector was undertaken (Genesis report) which hopefully will assist.

Broad Based Black Economic Empowerment (BBBEE)

As a result of the previous Political regime in South Africa which marginalised and excluded the majority of South African citizens from a meaningful position in the economy, steps are now being taken to rectify this situation. One of the mechanisms on the statute books to do this is the BBBEE Act, which is aimed at transforming current ownership, employment equity, enterprise development and procurement in the business sector. This is being done through the development and implementation of Industry Sectoral Transformation Charters. The Forest Sector is currently drafting its Charter. This is placing considerable strain, cost and uncertainty on the Industry, although the need to do this is supported by the Sector.

Illegal Logging

South Africa is in a fortunate position that illegal logging on a large scale is not evident. Virtually all of the wood used for industrial purposes is derived from privately or state-owned plantation forests. These are intensively managed and well controlled, with 82 percent of the forests being certified under the Forest Stewardship Council's certification system. In recent years however there has been an increasing incidence of theft from Commercial Timber Plantations.

Indigenous forests in South Africa only cover an area of 300 000 hectares and are mainly managed by the State. They are however exploited commercially to a very limited extent to supply wood for the Furniture Industry, although there is an increasing trend to exploit the indigenous timber resource for the curio and carving industry.

Environmental Aspects Such as Carbon Sequestration and Substitution (Kyoto Protocol)

South Africa signed the Kyoto Protocol in March 2002. As host of the World Summit on Sustainable Development, there was urgency for the Government to make its commitment to the protocol well before the Summit began in August. South Africa, as a developing country, is not required to make reductions in green house gas emissions and, in fact, stands to benefit from mechanisms such as the Clean Development Mechanism (CDM). The Government has produced a Draft White Paper on the Promotion of Renewable Energy and Clean Energy Development. This document underlines South Africa's commitment to making a contribution to greenhouse gas reduction by proposing a target energy generation from renewable sources of 10 000 GWh by 2012.

Outlook for the future

Forestry Industry

Due to the new water use licensing system introduced by the Department of Water Affairs and Forestry, it is unlikely that the forestry estate in South Africa will ever expand by more than 200 000 hectares. Most of this expansion will have to be through the growing of trees by small emergent black farmers in the Eastern Cape Province. Progress on developing this potential has been difficult and it is unlikely that much expansion will get underway for a number of years. Indeed, in the short-term, through the State Forest Restructuring Programme, a new Wetland and Riparian Zone Habitat Delineation Procedure developed by the Forestry Industry, and because of the dictates of the new National Water Act, it is likely that an area in excess of 100 000 hectares will be withdrawn from Commercial production in the near future, putting even more pressure on the future resource availability situation. This will be compounded by the fact that a number of expansions at existing processing plants have been announced as well as a

number of new ‘Greenfields’ projects, which collectively could increase the demand for wood fibre by 4 million tons/p.a.

Expansion in the Industry will thus have to come primarily from the existing afforested area and in this regard even more effort is likely to be put into research into tree breeding and silvicultural practices.

On the negative side, legislation has increased the “cost of doing business” over the past few years and planned legislation will continue this trend. As these costs rise, the profitability of the Industry is reduced. This is a worrying trend and it is hoped that this will not dissuade growers from continuing to grow tree crops in the longer term.

Forest Protection issues are becoming of major concern, particularly these relating to pests and diseases. At present South Africa is experiencing a major threat from the spread of the Sirex Woodwasp in Pine Plantations as well as a serious outbreak of Fusarium (pitch canker fungus) in Pine Nurseries, both of which have necessitated urgent and stringent control mechanisms being put in place. In the case of Sirex, in areas, the mortality rate in plantations is as high as 40 percent.

2004 also saw one of the worst fire seasons in history, with over 35 000 hectares of timber plantations being destroyed. A disaster that can be ill afforded from a timber resource perspective.

Forest products industry

Pulp and Paper Industry. On the assumption that economic growth in the longer term will be around the 5 percent p.a. mark, and that the Rand will settle at a rate of between R7.00 and R7.50 to the US\$ and will not remain volatile, prospects for growth in the sector are encouraging but tempered. Although raw material availability is envisaged as a problem, additional recycling opportunities and utilization of woodchip exports in local processing may help to assist in this regard. Confidence in the future of the sector has in fact already been displayed, and despite the present pressure on prices, a number of mill rebuilds have been announced. Mondi is in the process of expanding capacity at its Richards Bay mill in a R2 billion project. They have also announced the expansion of A4 copy paper production at their Merebank mill in Durban in a project valued at R1.5 billion. Sappi is currently undergoing an environmental impact assessment for a proposed R3 billion investment in their Ngodwana mill, as well as a large capacity expansion at their Saiccor dissolving pulp mill.

A significant development in the industry has been the completion of the sale of 42 percent of Mondi’s newsprint business to Shanduka Resources. This effectively introduces a major new industry player. This transaction represents the largest Black Economic Empowerment transaction in the pulp and paper industry so far. Although there are a number of Black owned paper mills in the country already the new company will be the largest by a considerable margin.

Sawmilling Industry. After years of protection, the Sawmilling Industry has had a hard lesson on globalisation and the resultant competition that this has brought, particularly from imports of lumber from Zimbabwe. Over the past few years the number of formal sawmills has declined as unprofitable mills have gone out of business. Despite the problems being experienced with the privatisation of SAFCOL, which has led to concerns about the security of future fibre supply, the sawlog resource is excellent and can be utilised profitably with the right technology. It is likely that current production volumes will be maintained as larger and more efficient mills are brought on stream. Profitability is likely to be improved still further as sawmillers move into

secondary value added operations. In terms of fibre supplies, there will be increasing pressure on suppliers to supply sawmillers with sawlogs from FSC certified forests.

Only 10 percent of total production is hardwood sawn timber. The market for this product, particularly for export, has increased dramatically in recent years and this demand is likely to continue. The problem being faced by these sawmillers however that are there is a lack of Eucalyptus Sawlogs available for processing. Although attempts have been made to convert Mining Timber stands to Sawlog stands, these efforts have not been as successful as hoped.

Woodchip Industry. This Industry has grown enormously over the past 10 years and this growth is now likely to tail off, despite a further chipping plant being built in Durban. It is also conceivable that in years to come chips supplies for export could be curtailed and redirected to additional pulping capacity in S.A. itself, which is currently under investigation.

Mining Timber Industry. This Industry has been on decline for the past 20 years, as alternative ground support technologies have been developed, and is expected to decline further in the future. As in the past, excess supply of mining timber fibre will be taken up by the Pulp and Paper Industry or the Woodchip Industry.

Other Industries. The Pole Treating Industry has been expanding over the past few years and growth is expected to continue in 2003 with an estimated 8% increase in volume produced. Although exports are expected to be hurt by the recent appreciation of the Rand, they are still expected to at least maintain their current level.

The domestic market for charcoal is relatively small and extremely competitive and thus any future growth will be in the export market. As with the Pole Treating Industry, the appreciation in the Rand will possibly hurt charcoal exports.

The Wattle Extract Industry had an excellent year in 2002 and they have made major inroads into the largest market for tanning extract, Italy, as plants in East Africa and elsewhere have or are about to close. Prices have increased and future prospects look good.

The Match Industry is a stable and mature Industry and is not expected to neither grow nor shrink in the foreseeable future. The supply of poplar fibre however is becoming an increasing problem and alternative fibre supplies will have to be looked at.

Conclusion

Despite uncertainties and problems being experienced by the Forest Industry in South Africa, there are still many opportunities that exist which will ensure that growth and development continues. The Industry is resilient and competitive and is committed to ensuring that it maintains and grows its contribution to the Economy and society.

SWEDEN¹⁹

Restructuring

Restructuring continues within the industry. Some examples: Mölndal fine paper mill within the Klippan Group has closed down, Grycksbo fine paper mill has been divested from Stora Enso to Accent Equity -- a private equity firm, Utansjö pulp mill, belonging to Rottneros, has shifted production from chemical pulp to CTMP. Rottneros has also entered a new business line when starting to produce trays for frozen food out of cellulose pulp. Korsnäs has acquired the cartonboard producer Assi Domän Frövi. Korsnäs has stopped its production on fluff pulp.

Efficiency and cost-cutting programs

Many companies have launched efficiency and cost-cutting programs which will show their full effect in the coming few years. The programs include lay-offs of personnel.

Investments

Investments in the pulp, paper, sawmilling and wood products industry amounted to 1,13 billion euro in the year 2005, and is forecast to decline to 0,8 billion in 2006. The single largest investment is the new SC-machine in Stora Enso Kvarnsveden, replacing an old newsprint machine. A new sawmilling line has been constructed. Other investment projects are energy or otherwise efficiency related.

Energy

The companies have experienced large increases in energy prices. The Government has announced plans to upscale capacity in the present energy supply system, but the industry deems this insufficient and fears capacity shortage and continued high prices, also as the result of ETS.

Nearly all the pulp and paper mills have entered an energy efficiency program, introduced in the beginning of 2005 for the electricity intensive industry. The companies introduce energy management systems and energy saving measures in exchange of elimination of energy tax.

Forest raw materials, bioenergy

The Government carries out an inquiry of the forest policy, which will be reported in September 2006. The policy equals environmental and production goals in forest management, which should also be the principle for the future. In addition, the forest industry means that production can increase without renouncing environmental goals.

There is a growing interest in using wood as biofuels, and the potential volumes are debated. There is a possible increase both from present and new types of forest fuels.

Timber construction strategy

A timber construction strategy has been adopted to foster increased use of wood in construction. A committee and an administrative office have been established to implement the strategy. Important parts of the strategy are to increase professional skills and knowledge of modern

¹⁹ Swedish Forest Industries Federation

wood construction techniques, support wood construction initiatives and communicate broadly the environmental performance and cost efficiency of using wood constructions.

UNITED STATES OF AMERICA²⁰

As is often the case, market conditions for the paper and wood segments of the U.S. forest products industry trended in different directions in 2005 and early 2006. Overall U.S. paper production declined in 2005 in part because end users were drawing down inventories and partly also because consumption patterns are changing. U.S. paper and paperboard capacity declined by 0.5 percent in 2005 and is likely to contract further. In contrast, the wood sector of the industry enjoyed strong market conditions in 2005 as new home construction reached the highest level in more than three decades. However, new housing starts have moved lower during the early part of 2006, suggesting that lumber and panel demand may soften this year.

Paper and paperboard

U.S. paper and paperboard production has been trending downwards during recent years and has declined 6.1 percent since its peak in 1999 to a 2005 level of 82.6 million metric tons. After posting a strong 4.0 percent advance in 2004, paper and paperboard production eased 0.9 percent in 2005.

U.S. apparent consumption of paper and paperboard declined 5.4 percent between 1999 and 2005 to 90.4 million metric tons. Apparent consumption contracted 2.4 percent in 2005, but some of the decline appears to have been related to inventory trimming at printers and box plants.

Apparent consumption of paper and paperboard continued to weaken during the first quarter of 2006, but domestic production firmed (+1 percent) versus year ago because net imports declined.

Trade

U.S. imports of paper, paperboard and converted products increased 1.8 million metric tons (+14.4 percent) between 1999 and 2004. However, imports subsequently eased 642 000 metric tons (-3.3 percent) in 2005, to 18.5 million metric tons. Some of last year's reduction in imports may have reflected weak U.S. markets for paper.

U.S. exports of paper and paperboard declined 2.7 percent between 1999 and 2001, but have been climbing steadily since then, rising a total of 1.8 million metric tons (+16.8 percent) between 2001 and 2005, to 12.2 million metric tons. It seems likely that some of the impetus for the increase derived from the easing of the dollar's exchange rate since early 2002.

Paper and paperboard sectors

U.S. newsprint consumption declined 5.1 percent in 2005 to 9.4 million metric tons, while domestic production of newsprint dropped 4.0 percent to 4.9 million metric tons. The slide, which has continued into early 2006, reflected the migration of classified job ads and real estate ads to the internet. It also reflected circulation declines as more people read newspapers on-line. Finally, in an attempt to curb costs, financially-strapped newspaper publishers have reduced the demand for newsprint by reducing basis weights.

As compared with 2004, U.S. demand for printing-writing papers in 2005 declined by 1.5 percent to slightly below 28 million metric tons. U.S. shipments declined by only 1.2 percent

²⁰ American Forest and Paper Association

because the U.S. net import share declined modestly last year, a response mainly to soft paper market conditions in the United States and a weaker U.S. dollar relative to earlier years. Although demand for printing-writing papers by 2005 had recovered significantly from its 2001 recession-depressed low, it was still almost 2 percent below its peak of 2000. Moreover, because U.S. imports of printing-writing papers have surged since 2000, the shipments of U.S. producers have fallen even more – by 8 percent during the same period.

Tissue paper production in the U.S. rose a strong 4.6 percent in 2005 to 6.7 million metric tons but held flat versus year ago during the first quarter of 2006.

U.S. containerboard production edged down 1 percent in 2005 to 31.6 million metric tons. The decline was due to weak box demand. Linerboard production for export rose 6.5 percent in 2005 to 2.6 million metric tons. The situation began to reverse during early 2006 as domestic demand firmed in response to strong manufacturing activity and production of linerboard for export eased.

U.S. boxboard production held nearly stable in 2005 at 13.5 million metric tons. Production of boxboard for export was also flat last year at 1.7 million metric tons but exports were off 1.1 percent in the first quarter of 2006 versus the year-ago period.

Wood

The U.S. is the world's largest producer and consumer of wood products. Some 467 million m³ of timber is harvested annually and, in 2005, 93 million m³ of softwood and hardwood lumber, and nearly 26 million m³ of structural panels were manufactured.

Housing starts in 2005 exceeded 2 million units for the first time since 1978. Residential construction is the main driver for lumber demand. Repair and remodeling markets have been similarly robust. Softwood lumber consumption in 2005 reached 122.3 million m³, a post WWII record. Demand for structural panels also set a new record at 22.6 million m³.

The Federal Reserve Board has raised interest rates by 400 basis points since June, 2003 and may still push them up a little more in response to inflationary pressures in the economy. As a result, housing starts are widely projected to slow to about 1.9 million this year and 1.8 million in 2007.

Trade

Since peaking in early 2002, the U.S. dollar has weakened considerably against other major currencies, improving the U.S. competitive position in world wood markets. In 2005, U.S. exports totaled US\$5.9 million, and increase of 3.2 percent over the previous year.

Despite a weaker dollar, and the increase in exports, U.S. producers face increasing competition domestically and globally. The U.S. imports about 39 percent of its softwood lumber consumption, mostly from Canada, but increasingly from off-shore sources. Softwood lumber imports from Europe and Latin America are gaining market share in the United States. They rose to 7.4 million m³ or 5 percent of total softwood lumber consumption in 2005. In May, 2006, the governments of the U.S. and Canada reached a tentative agreement to settle a long-standing dispute on softwood lumber trade. Under the agreement, the U.S. will eliminate countervailing and anti-dumping duties; Canada will impose export duties or quotas only if lumber prices fall below a specified threshold.

With average annual growth in GDP of greater than 9 percent, surging exports in manufactured goods and booming domestic construction, China has been dramatically increasing wood imports. The value of U.S. wood exports to China totalled US\$470 million in 2005, up 23 percent compared to 2004, and up more than five-fold when compared with 2000. Some exports are faring particularly well – such as hardwood products, even though the domestic market for hardwood has softened because of the off-shoring of the U.S. furniture industry. China has also become a major producer of plywood, joinery and many other wood products that are exported to the United States. In fact, China has become the second largest supplier of wood products to the U.S. after Canada.

Other developments

The industry has experienced significant restructuring, generally becoming more concentrated. Many of the major players have either expanded through mergers or acquisitions, or have divested to better position themselves strategically. One of the major developments related to industry restructuring has been the divestiture of millions of hectares of corporate industry forest land. The amount of U.S. forest land owned and managed by companies also engaged in the manufacture of wood and paper products has declined from 14 percent (28 million hectares) of the total in 1987 to less than 5 percent (10 million hectares) today.

Certification continues to be a major thrust of the forest products industry. The Sustainable Forestry Initiative Program (SFI)[®] has more than 60 million hectares enrolled in the U.S. and Canada, with 53 million hectares independently certified to the SFI Standard. The SFI Standard is controlled by a fully independent Sustainable Forestry Board (SFB) and all elements of the SFI Program – many of which have been part of the American Forest & Paper Association -- will be similarly independent under the SFB's auspices by the end of the year.

Summary

While the U.S. economy is expected to grow 3.5 percent in 2006, construction activity is expected to moderate due to higher interest rates. Demand for wood products will remain strong but will likely taper off from the cyclical high of the past year. Continued consolidation in the forest products industry can be expected as companies position themselves to be more competitive in a globalized marketplace. Markets are likely to drive greater participation in certification programs such as the SFI.

Paper demand has been variable, depending on grade. In general, paper demand is declining due to electronic substitution, competition from plastics, and from the exodus of the U.S. manufacturing base to low-cost nations such as China, which reduces domestic demand for packaging. In contrast to the 1980's and 1990's when paper and paperboard capacity grew at average annual rates of 2.0-2.5 percent, U.S. paper and paperboard capacity has declined each year since 2001.

In all likelihood, in 2006, the paper segment of the industry will remain flat or continue to experience slow erosion in newsprint and uncoated free sheet demand, but an increase in coated papers and tissue. The wood products segment will face reduced demand as mortgage rates increase and demand for new housing tapers off.

Annex 3 – Regional Report

Confederation of European Paper Industries (CEPI)

What are the emerging issues facing the industry in your country?

Top-1 issue is the structural (energy policies, climate change policies) and conjunctural (cold winter, fossile fuel prices (but is it only conjunctural?)) effects of energy developments in Europe that are driving prices up and impacting on the competitiveness of the sector. The slow-down of the activity last year has led industry to perform rather well in terms of emissions' reduction, in some countries well beyond the allocations granted in the framework of the Emissions Trading System. Voices are asking for more stringent allocations in the future and better monitoring and verification. The focus on renewable energy is increasing with more incentives being put in place in European countries to develop further the production of Green Energy. Biomass-based energy is considered as a promising option that has not been fully valorized yet. The recently published Biomass Action Plan and the EU Strategy for biofuels have been adopted to give a further push to biomass-based energy. The side-effect of such policy developments and national support policies is that price of wood – and more specifically of some assortments – is increasing and challenges industry's wood procurement. The issue of wood availability is increasingly sensitive in several countries.

A High-Level Group has been set up by the Commission to come out with recommendations on how to reconcile energy security of supply and market transparency with environmental sustainability and economic competitiveness. This High-level Group, where the Paper industry is represented and where CEPI actively participates is expected to come with conclusions by the end of 2007.

On the environmental side, the focus at EU level will be on climate change and biodiversity. The Commission's services have been reorganized to reflect this prioritization.

A 5 years Forest Action Plan is expected to be adopted before summer, as a follow-up to the European Forest Strategy of 1998. Because of a lack of clear mandate, it is foreseen that the Action Plan will lack of ambition and concreteness.

Public procurement has been identified as a tool to improve the environmental performance in the EU, as well as a response to FLEGT. An increasing number of governments have developed their procurement policy for wood and paper products. These policies rely very much on forest certification and might lead to discriminations vis-à-vis wood compared to other materials.

At the end of this year the political process on the so-called REACH regulation will be finalised. This regulation is a complete overhaul of all current legislation on chemicals in Europe. Because of the character of a regulation it is applicable to all member states directly, without any translation to be made in national legislation. Core of the proposal is the fact that all chemicals in Europe will be re-assessed, tested and registered. User of chemicals or products containing chemicals are now included in this information chain. The first registration of chemicals will have to be done within 1,5 years (app. 2008) after the final approval, the final testing is to be finished within three years (app. 2010). Companies, including maybe those abroad the EU, will have to register the chemicals they produce, import or supply. Downstream users will need to provide information to their suppliers and customers on use and exposure.

Pulp and paper companies will need to register their by-products (black liquor, white liquor, green liquor, cooking liquor, wood turpentine, crude tall oil, lignosulphonates) if marketed as well as their process wastes (ashes, sludges, lime mud, green liquor dregs) if marketed and not being considered as waste.

December 21, 2005, the Commission proposed a complete revision of the Waste Framework Directive. This has a major impact on paper industry as legally speaking recovered paper is “waste” with not only image related but also very strong economic implications. E.g. sometimes a waste permit is required (a case study showed a cost for that to be 12.50 euro per ton), or transportation is more expensive as the mill can only choose from a limited number of trucks holding a waste transport permit. With a view to a growing volume of recycling this has a major impact on us. It is also more difficult to promote quality management on something that is considered waste, yet, as all the good sources of recovered paper are already tapped, quality is and remains an issue.

Commission presented December 21 also a “Thematic Strategy on Waste and Recycling”, where two important ideas were adopted: Europe is to become a “Recycling Economy” and within the next decades decoupling economic growth from environmental impacts should have been achieved in Europe. Both ideas present an opportunity for CEPI to communicate on industry’s past performance and show progress already made along those lines, and aiming ever higher. For paper industry this also opens new possibilities to seek recycling for process residues within other industries, a solution that is also important with the increasing cost of disposal.

For paper it was interesting to notice that Commission thoroughly considered issuing also product and/or material specific measures and at least the idea of compulsory recycled fibre contents was once again investigated by the EU. However, the Commission announced that no new measures in the field of waste are to be expected by 2010 – there the Commission will assess the situation and if necessary propose new legislation where not sufficient progress is made.

In order to follow up the success of the first voluntary industry commitment of increasing paper recycling to 56 percent by 2005 a wide group of stakeholders along the paper chain started drafting a New European Declaration on Paper Recycling. This time also DG Environment has shown support to the work, which was not the case in 2000 when the first declaration was launched.

Annex 4 – Information Note

Joint UNECE Timber Committee and FAO European Forestry Commission Policy Forum on

“Public procurement policies for wood and paper products and their impacts on sustainable forest management and timber markets”

National and local governments are major consumers of wood and paper products. Several governments have developed, or are in the process of doing so, purchasing policies for forest products with the purpose of using market requirements as an instrument to ensure that products come from legal and sustainable managed sources. These policies are seen as complementary instruments to contribute to sustainable forest management, since they provide role models for the general public.

The UNECE and FAO are planning a policy forum on “Public procurement policies for wood and paper products and their impacts on sustainable forest management and timber markets.” The expert presentations and discussions will take place on 5 October 2006 as a one-day, in-session policy forum during the 64th Timber Committee session at the Palais des Nations in Geneva. The objective is to provide a neutral forum for all stakeholders to discuss the role that national public procurement policies can play in making progress towards sustainable forest management, and how these policies affect forest products markets and industries.

The policy forum shall provide an opportunity to exchange experiences from states having introduced procurement policies, learn about the practical problems of the suppliers that arise from the various existing national rules, and to discuss how the effectiveness of procurement policies could be improved. The forum strives to contribute to the international dialogue among all stakeholder groups, inside and outside the forest sector.

Key questions to focus the workshop include:

- Are the public procurement policies effective in achieving their goals?
- What are the impacts of public procurement, including their implications for markets for wood and paper products?
- How can public procurement policies avoid creating market barriers?
- How can implementation procedures be improved (including instruments for verification of legality and sustainability as well as alternative options for evidence)?
- Are there needs or possibilities for harmonized approaches in public procurement policies?

Participation is open to government policy makers (especially those having or considering public procurement policies), as well as experts from NGOs, scientific bodies, industry and trade organizations, national and international certification schemes, private forest owners' organizations and international organizations. Representation will be global.

For updates and further information: www.unece.org/trade/timber/docs/tc-sessions/tc-64/tc-64.htm.

Or

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