RECOVERED PAPER MARKET IN 2011

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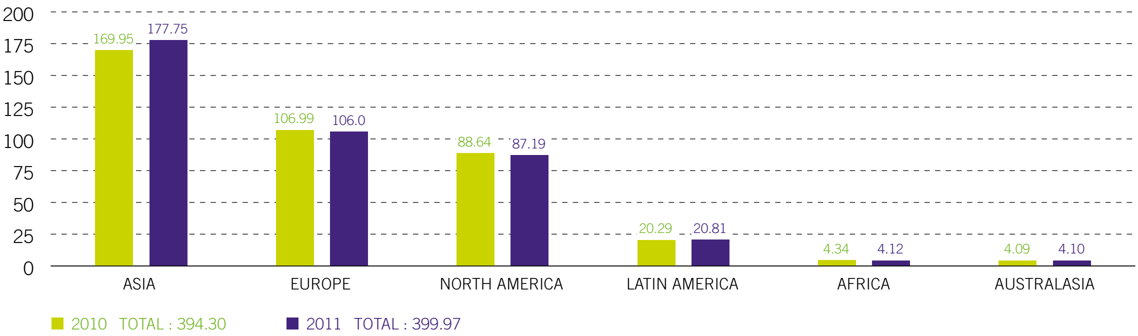
Bureau of International Recycling
Paper Division

CONTENTS

Readers will see that the information and tables have been laid out in the same order as in previous reports for ease of understanding the developments within our branch. Official sources have modified some of the data for 2010.

As always, we begin with paper and board production - the first link in the chain from where comes the material we produce and which also provides our end consumers.

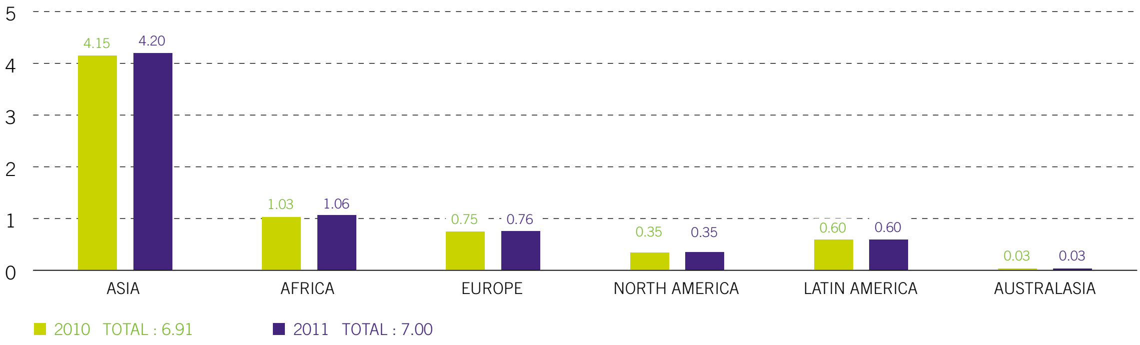
WORLD PRODUCTION OF PAPER AND BOARD (MILLION TONNES)



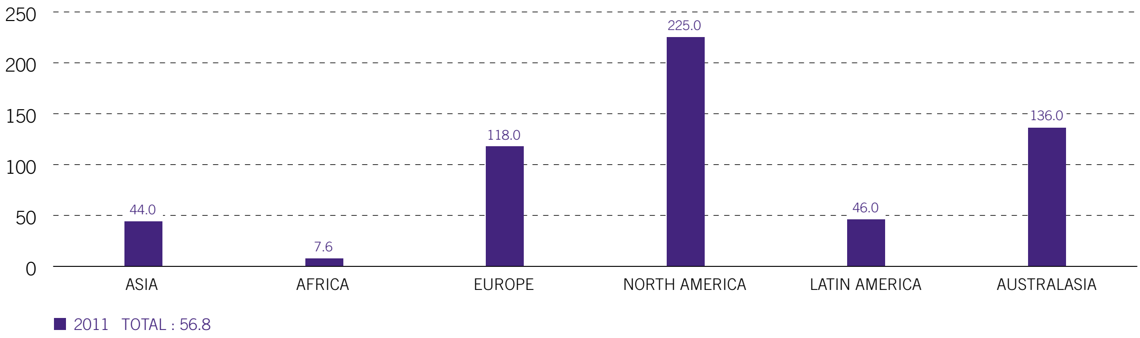
The 1.3% increase in global production represents modest progress compared to previous years, resulting from a contraction among Western countries owing to the economic troubles triggered by a stormy financial situation. The same cannot be said for Asia where outputs generally increased, most notably in China.

STATUS OF CONSUMPTION

POPULATION (BILLION)*



APPARENT PER-CAPITA CONSUMPTION (KG)*

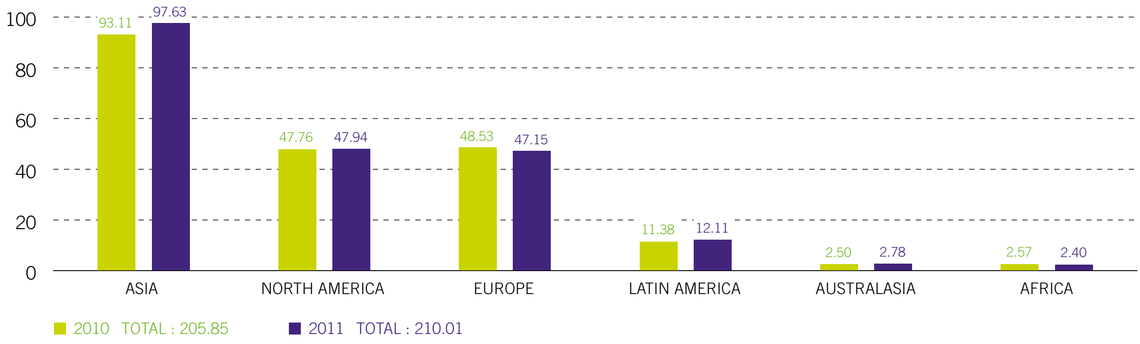


In 2011, average per-capita consumption of paper and board around the world was still lower than the 59.2kg recorded in 2007 - again as a result of the decline in the Western World. As in previous reports, the figures refer to resident citizens; in Europe, the number of people of foreign origin is calculated at around 30m. And as previously, data for Europe include not only the traditional Western countries but also the Eastern ones that once formed part of the Soviet Union.

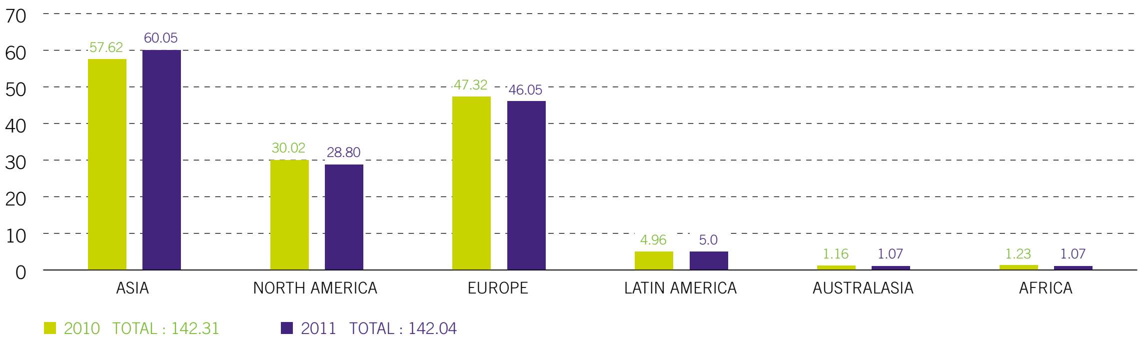
Data for Turkey and the Middle East are incorporated into the figures for Asia.

* Figures are expressed to two decimal places.

WORLD PRODUCTION OF PACKAGING AND BOARD (MILLION TONNES)*

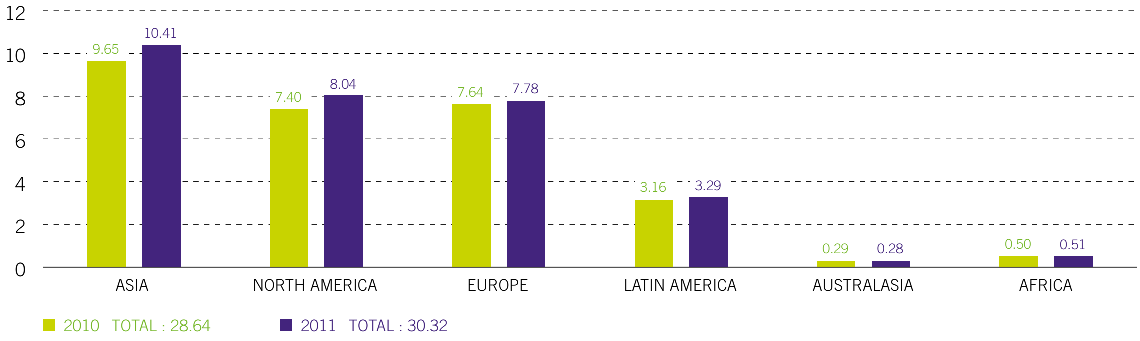


WORLD PRODUCTION OF GRAPHIC AND PRINTING (MILLION TONNES)*

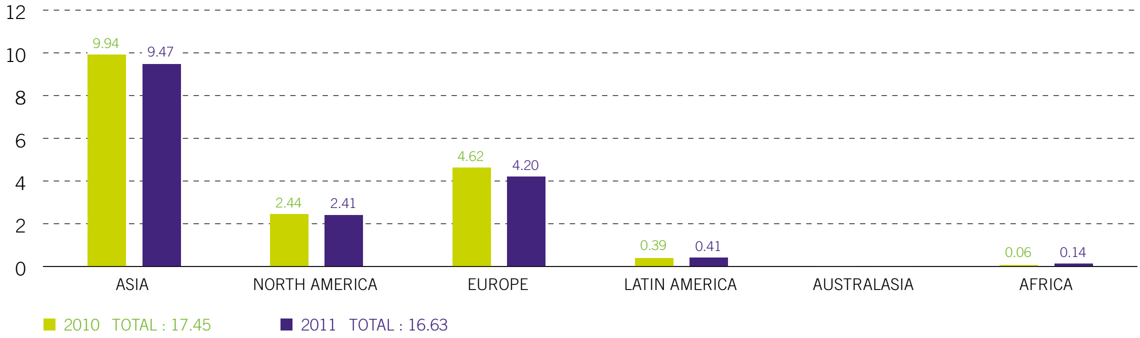


* Figures are expressed to two decimal places.

WORLD PRODUCTION OF TISSUE (MILLION TONNES)*



WORLD PRODUCTION OF OTHER AND SPECIAL PAPERS (MILLION TONNES)*



* Figures are expressed to two decimal places.

MAIN PRODUCERS AND CONSUMERS OF PAPER AND BOARD

	Production 2011	% change 2010/11	Apparent consumption 2011*	% change 2010/11
China	99 300 000	7.1	97 301 000	7.3
USA	75 082 000	-1	72 370 000	-2.7
Japan	26 630 000	-2.7	28 038 000	0.5
Germany	22 698 000	-1.6	19 770 000	-0.1
Canada	12 110 000	-5.3	6 144 000	-2.6
South Korea	11 490 000	3.5	9 550 000	1.6
Finland	11 330 000	-3.7	1 030 000	-17
Sweden	11 298 000	-0.9	1 940 000	-4.8
Brazil	10 160 000	1.8	9 822 000	1.4
Indonesia	10 033 000	1.2	6 600 000	5.5
India	9 656 000	4.7	11 480 000	5.9
Italy	9 130 000	-0.1	10 600 000	-2.1
France	8 527 000	-3.4	9 658 000	1.4
Russia	7 600 000	0.3	6 860 000	2.9
Spain	6 203 000	0.2	6 430 000	-0.9
Austria	4 900 000	-2.2	2 142 000	-2.4
Mexico	4 701 000	0.2	7 080 000	-1.7
Thailand	4 525 000	-1.2	4 356 000	0.5
UK	4 341 000	1	10 274 000	1.4
Taiwan	4 026 000	1.8	4 105 000	1.4

**Apparent consumption = production + imports – exports.*

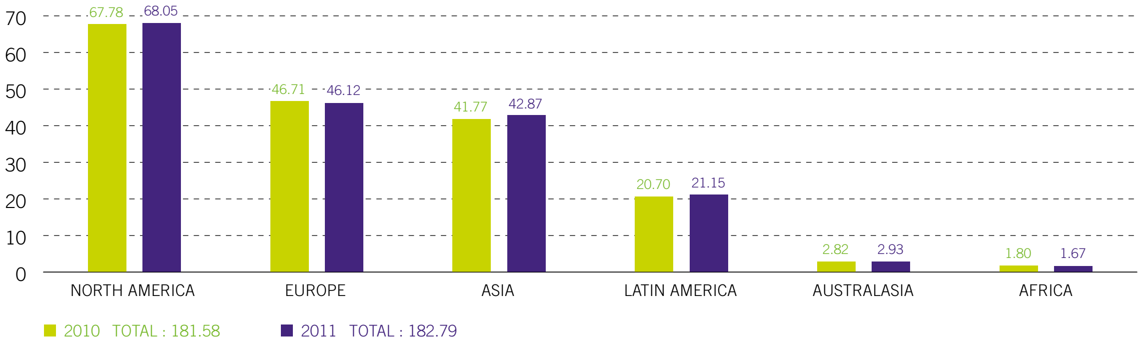
The production increases recorded by some other countries merit emphasis: Turkey +12%; Vietnam +18%; Hungary +19%; and Israel +21%. Notable net declines were reported by South Africa (-10.5%), Switzerland (-15%) and Norway (-12%).

VIRGIN FIBRE

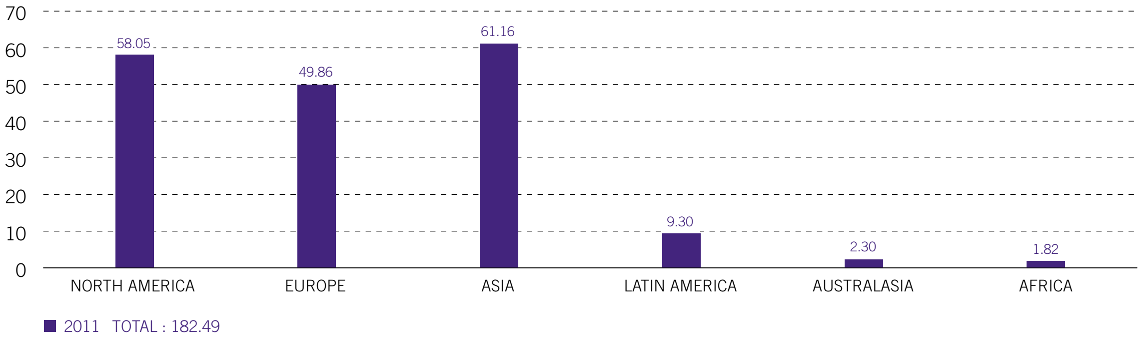
In the following tables relating to virgin fibre production and consumption, the figures include all grades, ie chemical, semi-chemical, mechanical and also non-conventional. Due to the consistency of non-conventional grades in some areas, figures are expressed separately to give a more complete picture.

GLOBAL VIRGIN FIBRE PRODUCTION AND CONSUMPTION

PRODUCTION (MILLION TONNES)*



APPARENT CONSUMPTION (MILLION TONNES)*

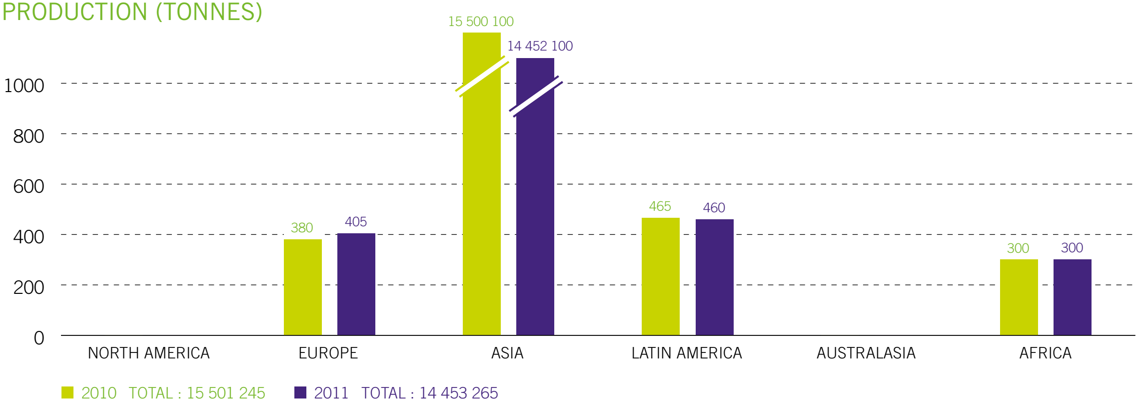


* Figures are expressed to two decimal places.

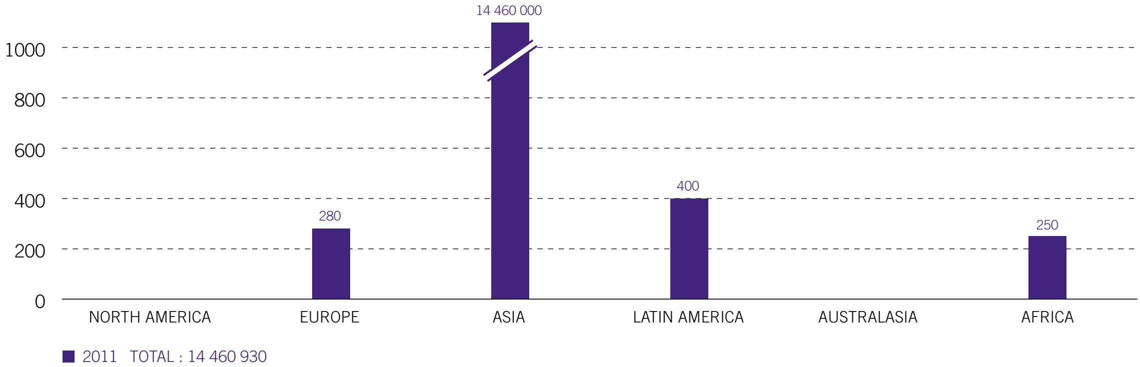
These figures reveal a year-on-year production increase of 0.6%. Please note that the global totals include the non-wood pulps so typical of Asia, hereby specifically expressed.

NON-WOOD PULP PRODUCTION AND CONSUMPTION

PRODUCTION (TONNES)



APPARENT CONSUMPTION (MILLION TONNES)



In 2011, the major producer was China on 11.3m tons - all of which was consumed domestically.

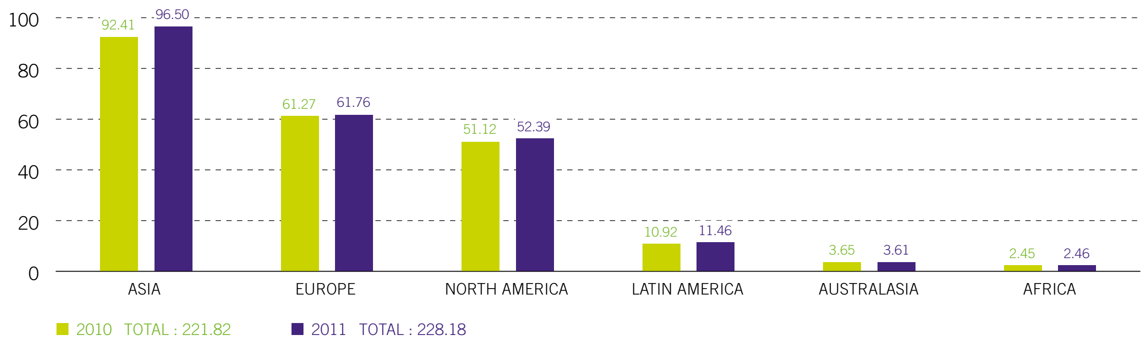
WORLD'S LEADING PRODUCERS OF WOOD FIBRE (TONNES)

	Production 2011	% change 2010/11	Apparent consumption 2011
USA	49 750 000	0 9	49 065 000
China	19 542 000	2.6	32 735 000
Canada	18 310 000	-1.2	8 950 000
Brazil	13 886 000	-2.2	6 100 000
Sweden	11 860 000	-0.2	9 250 000
Finland	10 360 000	-1.4	8 350 000
Japan	9 010 000	-4.2	10 350 000
Russia	7 453 000	0.5	5 555 000
Indonesia	6 550 000	4.3	4 440 000
Chile	4 880 000	18.5	734 000
India	1 635 000	0.5	2 395 000
Germany	2 725 000	-1.3	6 425 000
Portugal	2 454 000	9	1 642 000
Spain	1 987 000	4.5	1 830 000
France	1 875 000	-2.4	3 400 000
Austria	1 715 000	0.8	1 860 000
Norway	1 620 000	-7	1 180 000
South Africa	1 500 000	-6.1	1 400 000

In effect, the virgin fibre total remained constant in 2011 even though some variations occurred among individual grades. Also, global merchant pulp volumes remained at the previous level of between 35m and 40m tonnes.

RECOVERED PAPER

RECOVERED PAPER COLLECTIONS (MILLION TONNES)



The increase in collection volumes was around 2.8% last year, notwithstanding the small decline in Western production of paper and board which was widely compensated by developments in Asia and a modest increase in Latin America.

The following table expresses apparent recovered paper consumption (collection + imports – exports) in the main regions of the world. A proportion of the shipments take place within the same region, while consistent volumes are exchanged between different areas. Evidence suggests that the financial crisis affecting a large part of the Western economies was responsible for lower production in other areas of the world. Recovered paper suffered from the same contagion - albeit with some delay owing to its position as the second link in the chain.

RECOVERED PAPER CONSUMPTION IN 2011 (TONNES)

	Collection	Imports	Exports	Apparent consumption
Asia	96 505 000	39 802 000	8 090 000	125 430 000
Europe	61 760 000	15 800 000	24 800 000	52 750 000
North America	52 390 000	1 740 000	23 000 000	30 380 000
Latin America	11 465 000	2 130 000	920 000	12 670 000
Australasia	3 610 000	3 000	1 580 000	3 033 000
Africa	2 450 000	30 000	140 000	2 338 000
Total	**228 180 000**	**59 505 000**	**58 530 000**	**226 601 000**

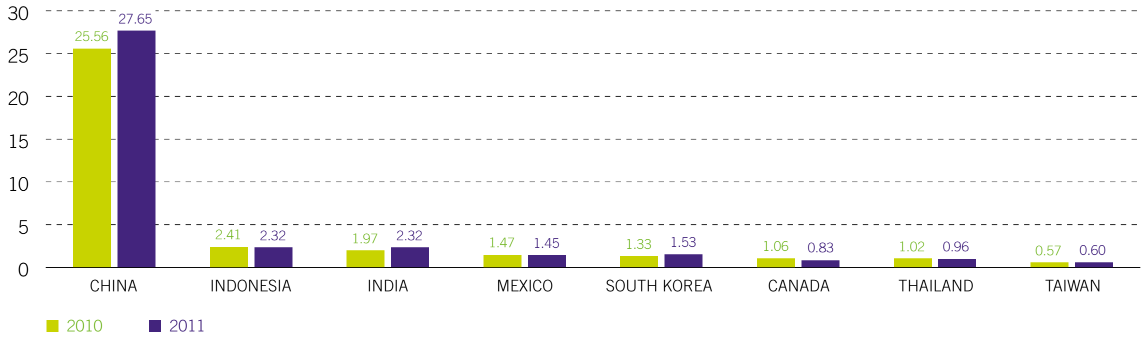
Apparent recovered paper consumption increased 2.5% last year when compared to 2010.

LEADING COLLECTORS AND CONSUMERS OF RECOVERED PAPER (TONNES)

	Collections 2010	Collections 2011	% change	Consumption	% change
USA	46 760 000	47 800 000	2.4	27 100 000	-3
China	41 300 000	43 300 000	5.8	71 000 000	7
Japan	21 620 000	21 370 000	-1.1	17 000 000	-1.6
Germany	15 400 000	15 270 000	-0.8	16 075 000	-1.2
UK	8 035 000	8 035 000	-	3 760 000	-
South Korea	8 780 000	9 450 000	10.3	10 090 000	13
France	7 020 000	7 150 000	1	5 100 000	-3.3
Italy	6 235 000	6 300 000	0.6	5 040 000	-3
Spain	4 600 000	4 715 000	1.9	5 095 000	-0.2
Canada	4 290 000	4 580 000	7.5	3 280 000	-5
Brazil	4 120 000	4 150 000	3.2	4 130 000	-
Mexico	3 554 000	3 740 000	4.8	4 750 000	0.8
Indonesia	3 250 000	3 490 000	7.4	5 790 000	-
Taiwan	3 060 000	3 125 000	2	3 650 000	2.3
India	3 150 000	3 495 000	6.4	5 790 000	2.6
Netherlands	2 600 000	2 480 000	-4.5	2 158 000	-2.1
Russia	2 282 000	2 433 000	7.5	2 130 000	3.3
Belgium	1 880 000	2 125 000	13	1 280 000	2.1
Thailand	2 600 000	2 700 000	3.8	3 630 000	1
Austria	1 490 000	1 415 000	-5	2 435 000	-1.9
Switzerland	1 300 000	1 255 000	-3	940 000	11

It is also worth noting the increase in collections of recovered paper in Vietnam (+15%), Poland (+9.2%) and Turkey (+9%), while South Africa and Australia suffered declines of, respectively, 7.7% and 1.2%.

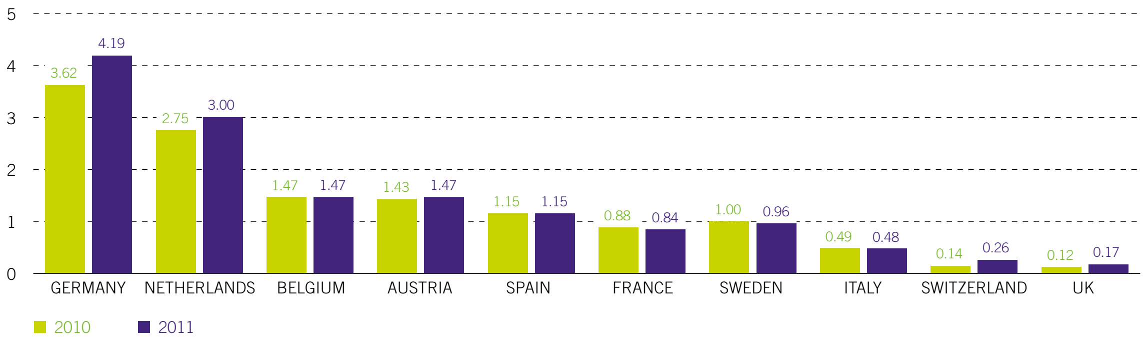
MAJOR IMPORTERS OF RECOVERED PAPER (MILLION TONNES)



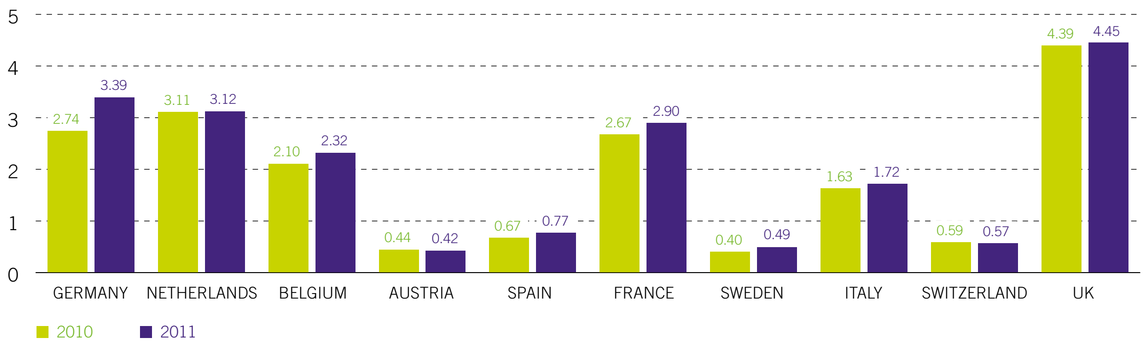
The above-mentioned countries are, in practice, only importers. Imports by Mexico and Canada reflected what was happening to neighbouring USA. In the East, meanwhile, further progress in the use of recovered paper was evident among some of the established consumers.

MAIN RECOVERED PAPER MOVEMENTS INVOLVING WESTERN EUROPE (TONNES)

GLOBAL IMPORTS (MILLION TONNES)

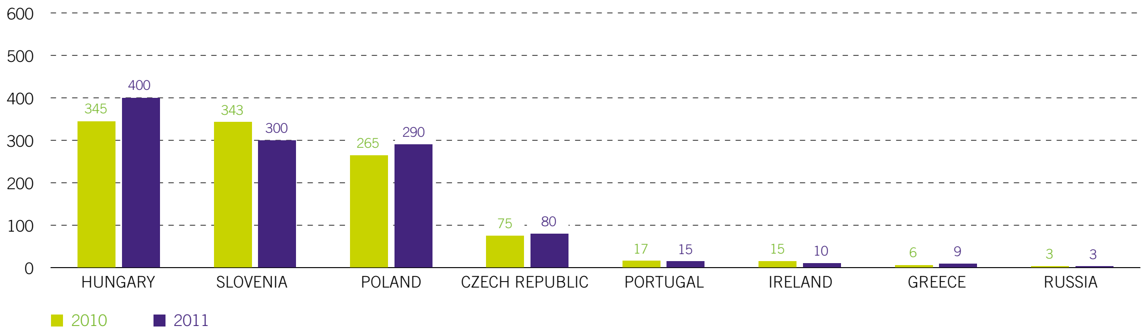


GLOBAL EXPORTS (MILLION TONNES)

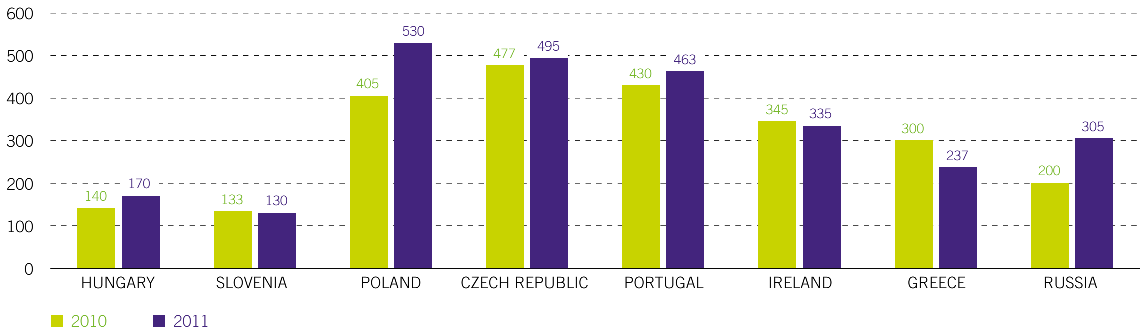


Some of Europe's smaller countries should be mentioned for consistent movements of material in the same area, as shown in the table below.

GLOBAL IMPORTS (THOUSAND TONNES)

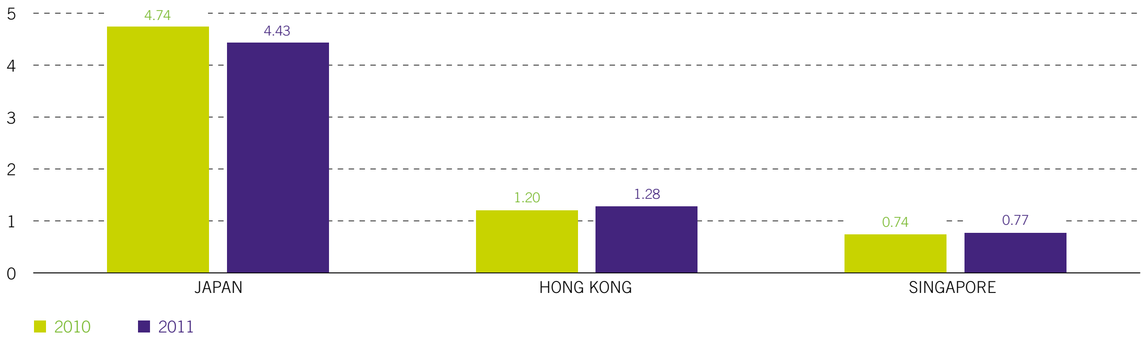


GLOBAL EXPORTS (THOUSAND TONNES)



In Asia, the varying level of collections as a function of local systems results in quantities exceeding local consumption in some countries.

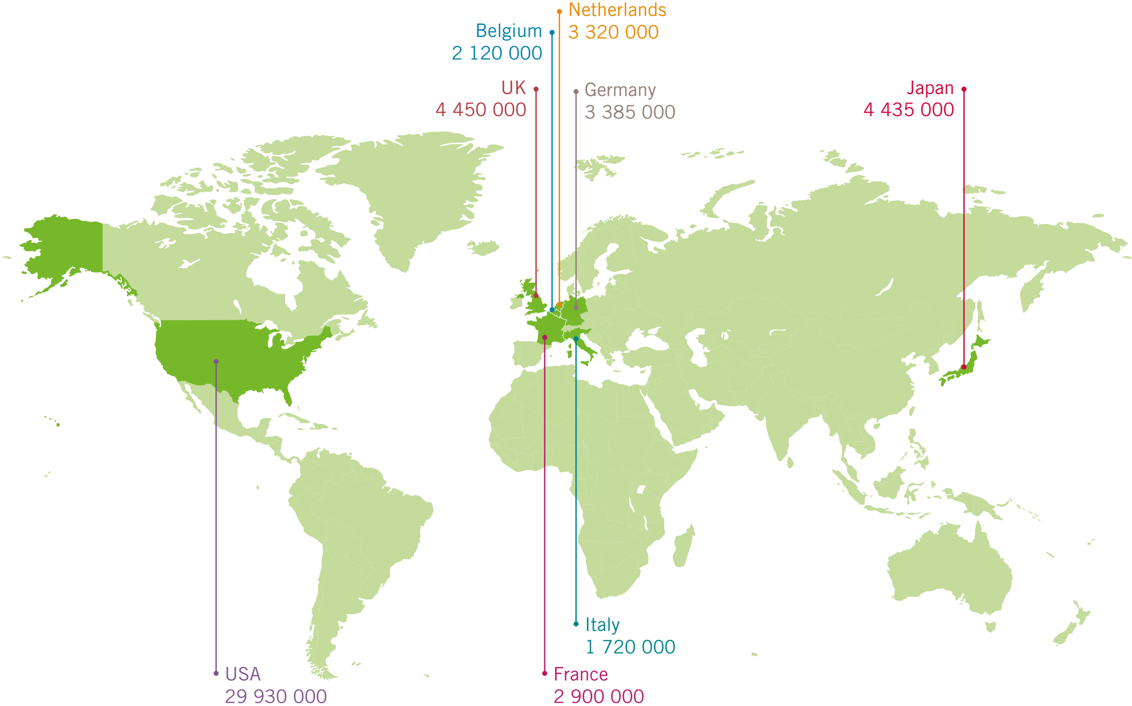
MAJOR ASIAN EXPORTERS OF RECOVERED FIBRE (MILLION TONNES)



Japan's geographical location and the good quality of its products mean that a large proportion of the country's exported material finds its way easily into China.

Applying a simple calculation to data from previous tables highlights the major exporters of recovered paper.

WORLD'S MAJOR EXPORTERS OF RECOVERED FIBRE (TONNES)



In 2011, the increase in collection volumes was around 2.8%. And although consumption of recovered paper suffered some local reductions, these were compensated by increases elsewhere; consequently, movements of material enjoyed a parallel increase and a reasonable estimate of merchant recovered paper would be between 48m and 56m tonnes worldwide.

The small increase of 0.6% for virgin fibre and the modest increase of 1.3% in paper production underline once again the role of recovered paper as the sector's more important raw material. As always, there is a complementary and constant need to introduce fresh virgin fibres, which are indispensable in certain kinds of production. In 2011, this trend was confirmed for the sixth consecutive year.

The above-mentioned differential between the collection and consumption of recovered paper reflects shipments of material via the merchant trade - including long distances by sea - which partly escape capture in the data. For several months, shipping companies have been reducing the speed of their vessels to achieve fuel savings and to cut carbon dioxide emissions. Another element to be considered is the trend among many mills to keep low stocks at certain times of the year for book-keeping purposes.

Concerning collections, another factor is the volumes not belonging to the normal paper chain, ie the proportion used in some countries as a component of thermal insulation panels. In the USA, for example, this industry has a constant presence but the decline in building activity owing to the economic downturn has reduced consumption to an estimated level of 750,000 tonnes globally.

As always, it is important to pay attention to the realities of what it is possible to recover, keeping in mind that a consistent proportion of finished paper and board will be excluded from recycling flows such as: hygiene and toilet products; wallpaper and other products destined for the building industries; the great majority of papers used in food and liquid packaging; and special papers.

Globally speaking, these products normally account for at least 20% of paper and board production. Another fraction that escapes recycling is comprised of products such as boxes and newspapers which are used for domestic purposes or to package vegetables and other foodstuffs sold in markets in emerging countries.

Owing to all these factors, it appears evident that some countries or areas are now nearing the limits of what can reasonably be recovered. In Europe, the accumulation of volumes that exceed local consumption has led in recent years to ever more consistent export flows to regions where the paper and board industry is in full expansion mode, thus helping at the same time to alleviate environmental problems in the exporting region. It should be stressed that, ever since the emergence of this trend, Asian consumers of recovered paper have always required a high level of quality and have been disappointed at times by some of the material supplied by insufficiently experienced operators and brokers.

This confirms the need to formulate clear rules for all links in the chain. Separation of non-recyclable components (considered impurities) from the stream of collected material is evidently necessary but **not free.** In circumstances where contamination levels are too high, thermal recovery would be a more justifiable and convenient route. Of course, the degree of contamination depends on the specific collection system, but it is known from experience that excessive pre-sorting requirements are not welcomed by all citizens and could lead to a self-defeating reaction.

Consuming mills have put in place various technologies for the elimination of impurities but nonetheless require materials that are ever more **clean;** that means the use of increasingly advanced sorting systems by recovered paper processors and therefore corresponding investments by them.
The majority of these processors have already installed modern (and costly) capacity that impacts the price of their final products, which should then be considered effectively as **raw material.** All too often, unfortunately, the status of the material is still subject to confusion and is regarded erroneously as **waste.**

At the same time, it is appropriate to avoid the introduction of problem substances such as, for instance, inks that mill technology finds difficult to eliminate. Certainly, recovered paper processors cannot be expected to have the technical capacity to overcome such problems.

The volume of recovered paper and board heading to various destinations in Asia has led to parallel developments among the shipping lines which have been generally able to cover the sector’s needs. The cost of freight is clearly an important element given the scale of this traffic. China is the destination for most of this material, importing around 27m tons per annum; however, this flow needs to be balanced by exports of goods from that same country. When this balance is disturbed, freight rates can be subject to ups and downs that influence the prices paid by final consumers for recovered paper.

Owing to the current economic uncertainty, imports of Chinese goods by Western countries have suffered a decline, resulting in delays to the construction of super-carrier capacities. As mentioned above, reducing the speed of vessels is one of the measures to have been taken to trim the cost of transportation by sea. Shipping companies complain that their profits are insufficient, notwithstanding the fact that recovered paper is one of the main commodities to be transported by ship, thus helping to provide the shipping lines with their livelihood.

This multitude of factors that apply globally requires consideration in order to understand the complexity of recovery work and to arrive at a well-balanced assessment of all the links in the recycling chain.

FAR EAST

China

In 2011, China's production of paper and board continued to be absorbed by the domestic market and per-capita consumption improved to 72.5kg. Collections of recovered paper increased 5.8% and imports reached 27.65m tonnes (see pages 11 and 12) after setting a reasonably steady monthly pace. Bulk grades accounted for the majority of these volumes, with OCC at around 60%, news at some 25% and mixed on 18%; the estimate for higher grades, meanwhile, was between 1 and 2%. China's leading supplier continued to be the USA with 13m tonnes provided in 2011, followed in second place by Europe on 8m tonnes and by Japan in third position on 3.4m tonnes. The controls at Chinese ports remained severe and led to a better overall quality of material, creating a general benefit for our profession.

India

India is progressing at a different speed owing to its specific administrative and governmental structures. Mills remain rather small and production of paper and board suffered a minor reduction, which impacted on the entire chain. Nevertheless, per-capita consumption achieved a modest increase to 9.5kg (see details on pages 6, 9, 11, 12).

Indonesia

The country remained the world's second largest importer of recovered paper in 2011 with a total of 2.3m tons, helped by a freight advantage and regular, limited purchases. The country increased its pulp production and also its recovered paper collection volumes, the latter by 7.4% (see data on pages 6, 9, 11, 12).

Japan

As the Western economies suffered some declines in the production of paper and board as well as of pulp, with a consequent impact on paper recovery, Japan's efficient system of collection and management helped it to remain the third largest supplier of recovered paper to China.

It is worth noting the per-capita yearly consumption of paper and board for some Asian countries, including: Japan 220kg; South Korea 195kg; Taiwan 176kg; Hong Kong 145kg; and Singapore 144kg.

PRICE PATTERNS

Once again and perhaps to an even larger extent, the economic uncertainties surrounding a number of countries has impacted recovered paper - not only within some leading nations but also in export movements at certain times. At the same time, both the USA and Europe are continuously under pressure from environmental demands. Materials of a good, clean quality always attract reasonable domestic and overseas demand. Sales prices of finished paper and board products often contribute to variations in the market, as do the level of profits for paper-makers.

A QUICK GLANCE AT 2012

Even though a large proportion of the data is not yet available, a summary of trends is possible.

Evidently, the weakness already emerging in 2011 tightened its grip on Western economies in the ensuing year. The debt crisis intensified in Europe and problems in the USA have yet to be resolved, spreading the effects to other areas. Banking problems and uncertainties over the stability of the Euro have been a source of concern to all EU member states, albeit in different measure. Suspicions surrounding bank speculation and political instability created by this situation have hardly helped the important industrial sectors, which have suffered severe workforce cuts.

Political changes in the Middle East and North Africa have added a further element of uncertainty, not to speak of oil prices. Recent elections in the USA and some important political changes in China will probably have an effect, even if stability is everyone’s declared goal. Such developments clamour for our attention on a daily basis.

Despite the generally cloudy horizon, the importance of recovered paper as a key component for a major industry has been further underlined. Demand is expected to remain steady as capacity in the Far East continued to grow in 2012 and will remain an attractive source of investment over the coming period, in line with the plans announced by China and also by some of her neighbours.

As always, I offer my greetings to all operators and colleagues in the recovered paper industry, and also my thanks to the trade magazines active in our sector which provide constant and welcome support through their information.

Design by karakas

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Paper Division

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