RECOVERED PAPER MARKET IN 2013

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Bureau of International Recycling
Paper Division

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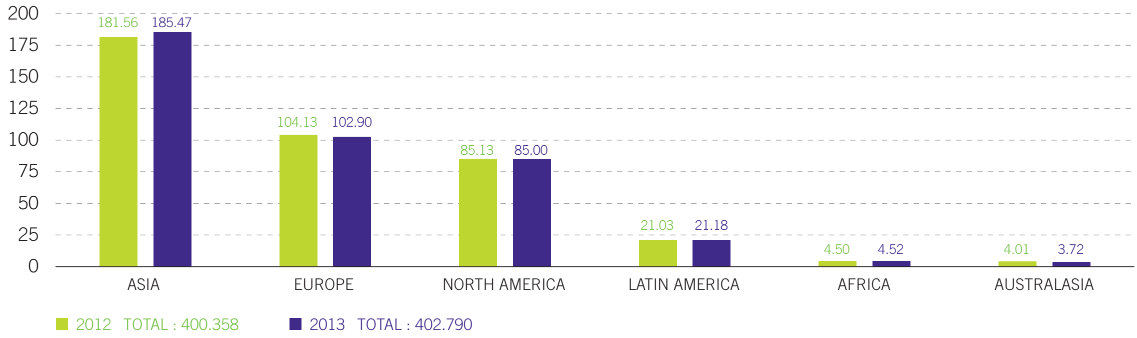
In line with previous editions, information and tables have been kept in the same order for ease of reading and of interpretation of developments within the sector. As is often the case, some of the sources have modified data expressed in the 2012 report.

We begin, as always, with paper and board production which, by definition, is the first link in the chain for our materials which will ultimately be returned to producers.

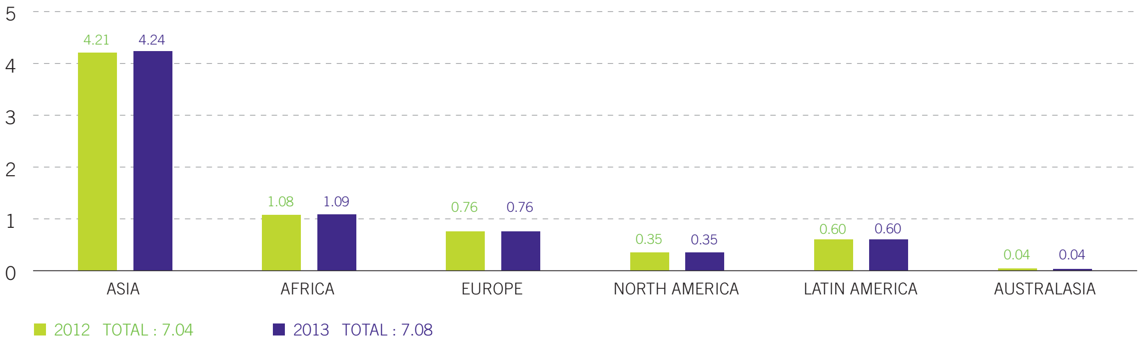
WORLD PRODUCTION OF PAPER AND BOARD (MILLION TONNES)



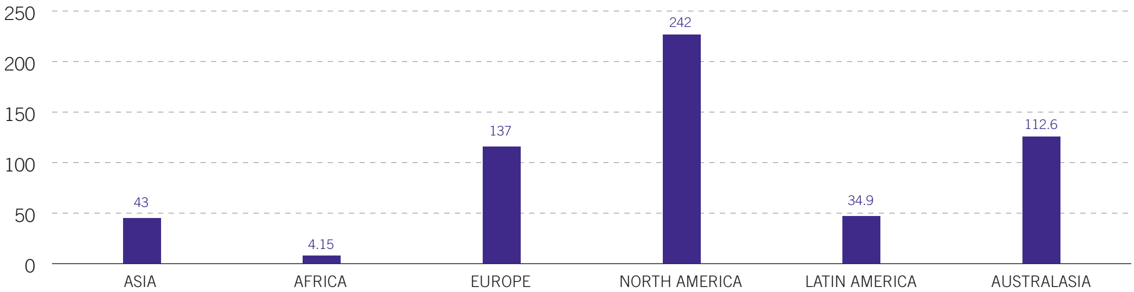
The data reveal a landscape not so dissimilar from the previous year given a global production increase of just 0.6%. However, there was evident growth in Asian output and a continuation of the contraction in Western production. As in previous years, the figures for Asia include Turkey and the Middle East, with the increase for this region essentially dependent on China.

WORLD PAPER AND BOARD CONSUMPTION BY REGION

POPULATION (BILLION)*



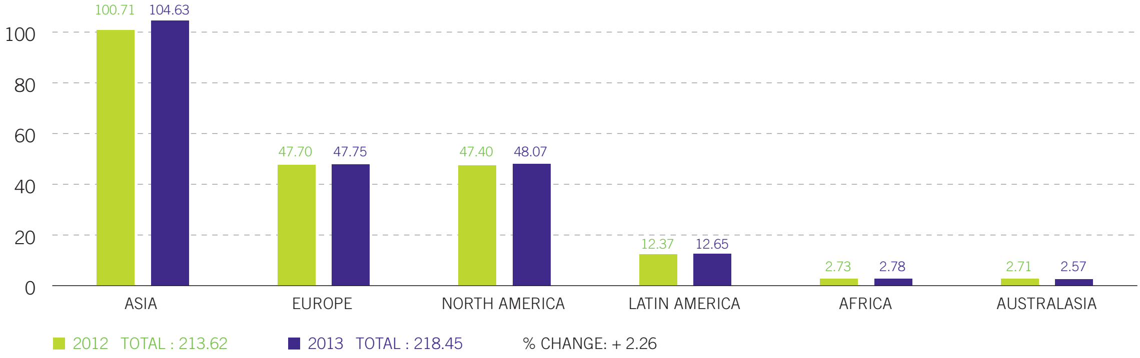
APPARENT PER-CAPITA CONSUMPTION (KG)*



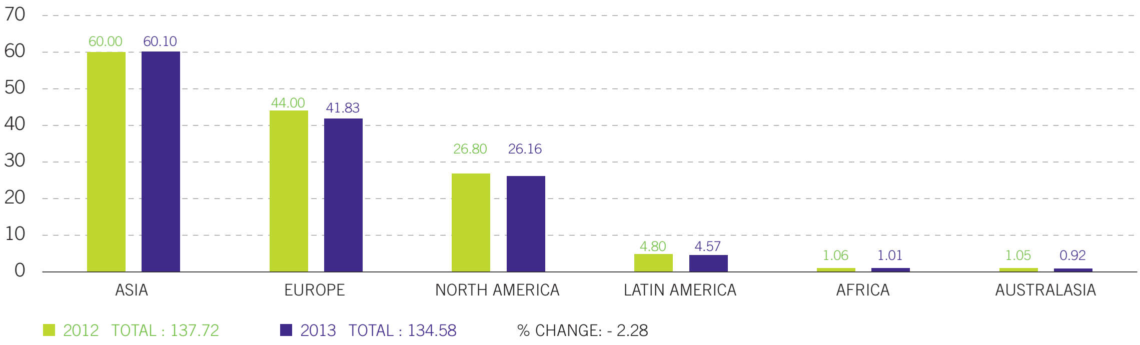
Global per-capita consumption of paper and board remained stable in 2013 when taking into account the growth in population; the record remains the 59.2 kg per head set in 2007. The population figures are estimated from the first half of 2013, and for Europe relate to resident citizens and include Eastern Europeans that were formerly part of the old Soviet Union. For the whole region, foreigners and migrants are estimated at more than 33m. Turkey and the Middle East are included in the figures for Asia.

* Figures are expressed to two decimal places.

WORLD PRODUCTION OF PACKAGING AND BOARDS (MILLION TONNES)*

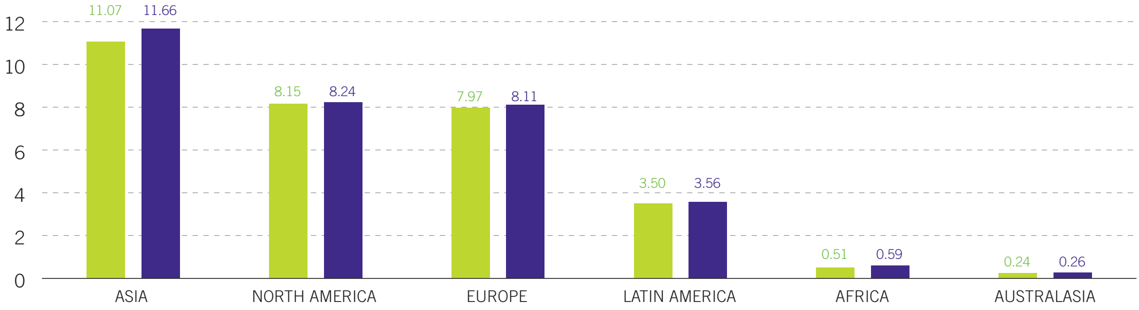


WORLD PRODUCTION OF GRAPHIC AND PRINTING (MILLION TONNES)*



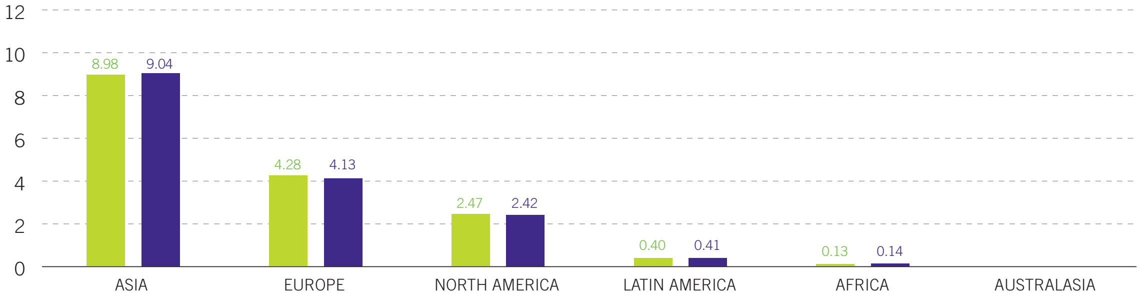
* Figures are expressed to two decimal places.

WORLD PRODUCTION OF TISSUE (MILLION TONNES)*



2012 TOTAL : 31.45   2013 TOTAL : 32.42   % CHANGE: + 3.00

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



2012 TOTAL : 16.26   2013 TOTAL : 16.13   % CHANGE: - 0.70

* Figures are expressed to two decimal places.

MAIN PRODUCERS AND CONSUMERS OF PAPER AND BOARD (TONNES)

	Production 2013	% change 2012/13	Apparent consumption 2013*	% change 2012/13
China	104 700 000	2.1	101 357 000	1
USA	73 750 000	-0.4	71 820 000	0
Japan	26 260 000	13.7	27 311 000	-1.6
Germany	22 630 000	-1	19 525 000	-1.6
Sweden	10 782 000	-5.2	1 800 000	-5.2
South Korea	11 334 000	4	9 550 000	-2
Canada	11 130 000	3.5	5 850 000	-2
India	10 600 000	3.5	12 360 000	5
Finland	10 592 000	-1	1 120 000	4.5
Indonesia	10 573 000	2.5	10 573 000	4.8
Brazil	10 445 000	1.8	10 190 000	7
Italy	8 643 000	-0.2	9 670 000	-1.6
France	8 043 000	-3.9	8 940 000	-3.9
Russia	7 730 000	-0.9	6 825 000	0.4
Spain	6 180 000	0.1	5 900 000	-1.4
Mexico	4 840 000	-0.3	7 540 000	0
Austria	4 837 000	-3.3	2 125 000	2.5
Thailand	4 565 000	2.6	4 720 000	6.2
UK	4 560 000	1.8	9 780 000	-3.1
Poland	4 062 000	5	4 779 000	4
Taiwan	4 047 000	-1.8	4 057 000	0
Turkey	3 900 000	5.5	5 565 000	4.4

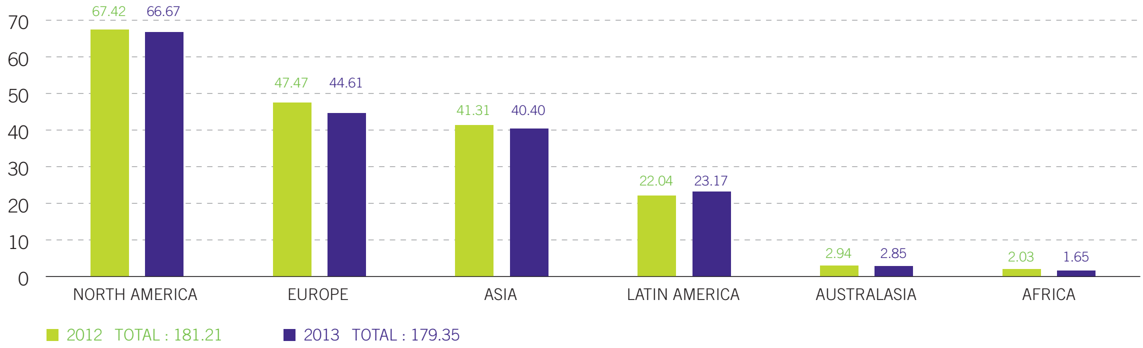
**Apparent consumption = production + imports – exports.*

VIRGIN FIBRES

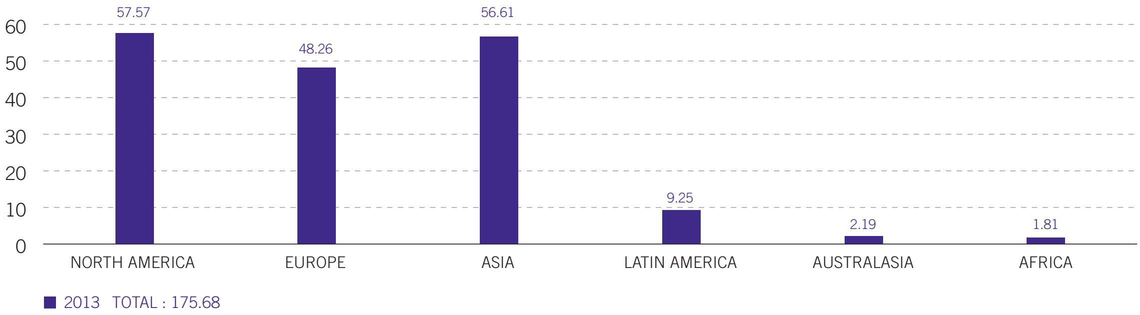
To better compare the data, all of the grades – chemical, semi-chemical, mechanical and non-conventional – are included. The last of these is very relevant in some regions and, in such instances, are expressed specifically for a better understanding.

GLOBAL VIRGIN FIBRE PRODUCTION AND CONSUMPTION

PRODUCTION (MILLION TONNES)*



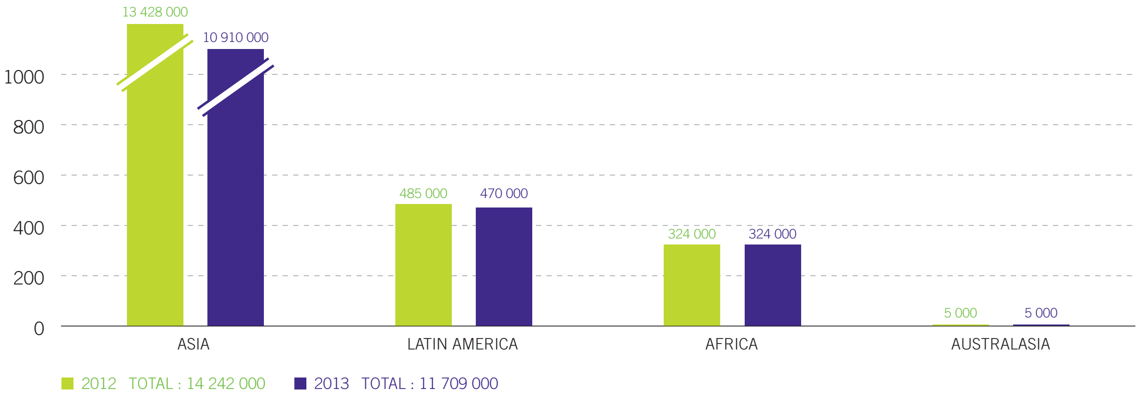
APPARENT CONSUMPTION (MILLION TONNES)*



* Figures are expressed to two decimal places.

The fall in global production amounts to 1.865m tonnes or 1.03%. The above totals include non-wood pulps, which are produced mainly in Asia (see below for further details).

NON-WOOD PULP PRODUCTION (TONNES)



As always, the major producer was China on 7.608m tonnes. Global production declined by 16.8% in 2013. As before, all of these quantities are used in local production because they are more economical and are for the production of special papers.

WORLD'S LEADING PRODUCERS OF TRADITIONAL WOOD FIBRES (TONNES)

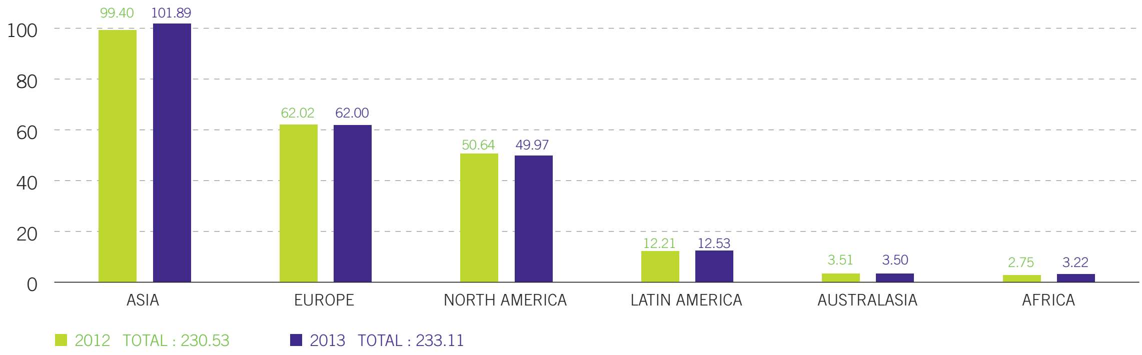
	Production 2013	**% change 2012/13**	**Apparent consumption 2013**	**% change 2012/13**
USA	49 412 000	-1.8	49 220 000	-0.5
Canada	17 254 000	0.6	8 134 000	1.9
Brazil	15 015 000	6.8	5 990 000	-0.2
Sweden	11 720 000	-2.6	9 170 000	-4.2
Finland	10 734 000	1.3	7 925 000	-2.5
China	9 494 000	18.6	24 450 000	7.3*
Japan	8 774 000	1.5	9 935 000	-0.5
Russia	7 075 000	-5.3	5 250 000	-4.1
Indonesia	6 795 000	1.8	4 260 000	1.8
Chile	5 250 000	1.8	680 000	-5.5
Germany	2 680 000	-1	6 200 000	0.1
Portugal	2 480 000	0.7	1 492 000	2.3
Spain	1 978 000	-0.2	1 900 000	2
India	1 735 000	0.5	2 500 000	0.3*
France	1 700 000	-6.4	3 080 000	-1
Austria	1 556 000	-9.8	1 860 000	-4.5

**The figures for China and India do not include local non-wood pulps.*

Significant declines were also recorded by minor wood fibre producers such as Norway (-14.2%), South Africa (-17%), Vietnam (-14%), the Czech Republic (-19.5%) and New Zealand (-6%). Global merchant pulp volumes for 2013 are estimated at between 34m and 37m tonnes.

RECOVERED PAPER

RECOVERED PAPER COLLECTIONS (MILLION TONNES)



The collection total increased only by a modest 1.1%, reflecting in part the difficult economic conditions in some areas as recovered paper volumes have always been a reliable indicator of the industrial health of a nation. The figures also show the progress by those regions that are continuing to develop their industrial base.

RECOVERED PAPER CONSUMPTION IN 2013 (TONNES)

	Collections	Imports	Exports	Apparent consumption
Asia	101 890 000	43 000 000	8 178 000	131 450 000
Europe	62 000 000	14 576 000	15 527 000	53 565 000
North America	49 970 000	1 533 000	21 110 000	29 290 000
Latin America	12 530 000	1 890 000	1 093 000	13 330 000
Australasia	3 500 000	0	1 680 000	1 825 000
Africa	3 218 000	420	255 000	33 070
Total	**233 108 000**	**60 999 420**	**47 843 000**	**229 493 070**

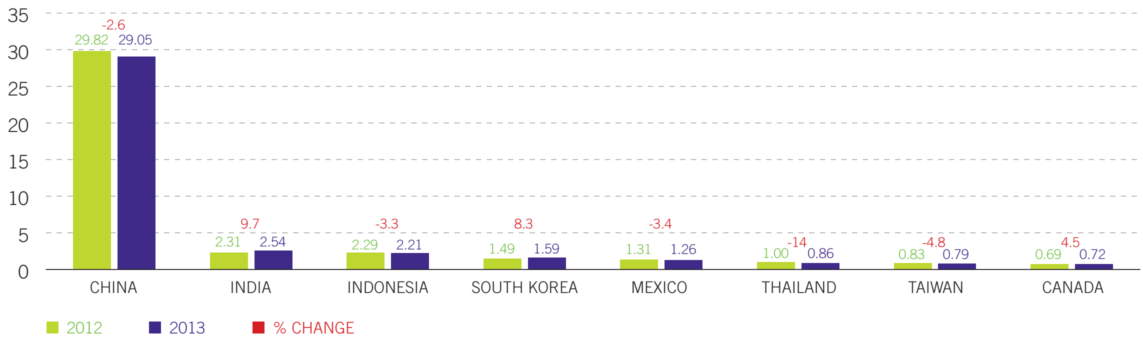
Import and export flows relate not only trading between regions but also internal trade within a region. Consumption figures do not include the relatively consistent quantities that are "on the water". The fact that paper and board production increased by only 0.6% whereas the recovered paper total was 1.1% higher reflects the stability at present in the whole sector.

LEADING COLLECTORS AND CONSUMERS OF RECOVERED PAPER (TONNES)

	Collections 2012	Collections 2013	% change	2013 Consumption	% change
USA	46 300 000	45 800 000	-1.7	26 608 000	1.1
China	44 700 000	45 438 000	1.6	74 846 000	-0.6
Japan	21 675 000	21 800 000	0.57	16 931 000	0.7
Germany	15 270 000	15 360 000	0.6	16 490 000	1.7
South Korea	8 663 000	9 165 000	5.8	10 325 000	7.5
UK	8 168 000	7 885 000	-3.3	3 805 000	-0.1
France	7 330 000	7 245 000	-1.1	5 150 000	2.1
Italy	6 230 000	6 060 000	-2.7	4 715 000	1.4
Spain	4 410 000	4 260 000	-3.4	5 145 000	1.5
Canada	4 382 000	4 180 000	-4.6	2 680 000	1.7
Brazil	4 466 000	4 560 000	2.1	4 540 000	2.1
Mexico	4 160 000	4 170 000	0.2	4 880 000	2.6
Indonesia	3 605 000	4 060 000	12.6	6 250 000	5.9
India	3 420 000	3 430 000	0.2	5 965 000	4.6
Taiwan	3 060 000	3 038 000	-0.8	3 760 000	-1.6
Netherlands	2 710 000	2 560 000	-5.5	2 205 000	3
Russia	2 920 000	3 000 000	2.7	2 654 000	18.6
Belgium	1 875 000	1 690 000	-9.8	1 205 000	4.7
Thailand	2 650 000	2 900 000	9.4	3 714 000	2
Austria	1 458 000	1 458 000	0	2 331 000	-2.8
Switzerland	1 325 000	1 324 000	0	1 154 000	4

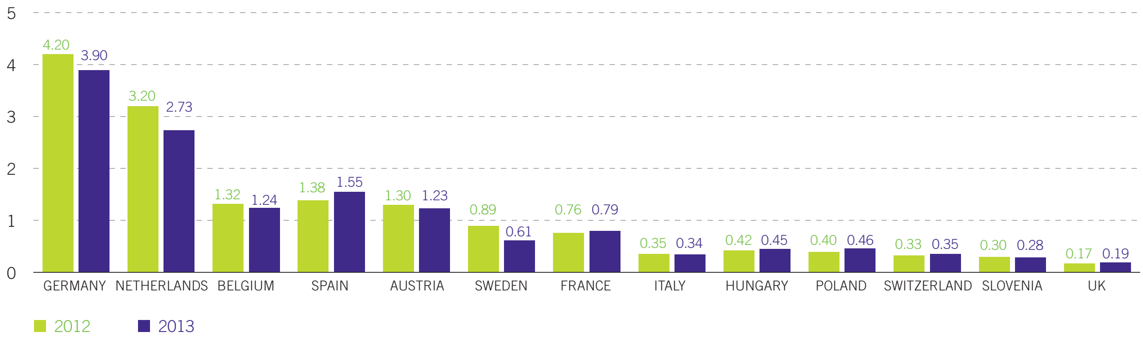
The evidence provided by these figures suggests that the stagnation in global paper and board production and the modest increase in recovered paper generation can be attributed more to the Western economies as a result of widespread liquidity issues resulting from the banking crisis that impacted the region's entire industrial and commercial systems.

MAJOR IMPORTERS OF RECOVERED PAPER (MILLION TONNES)

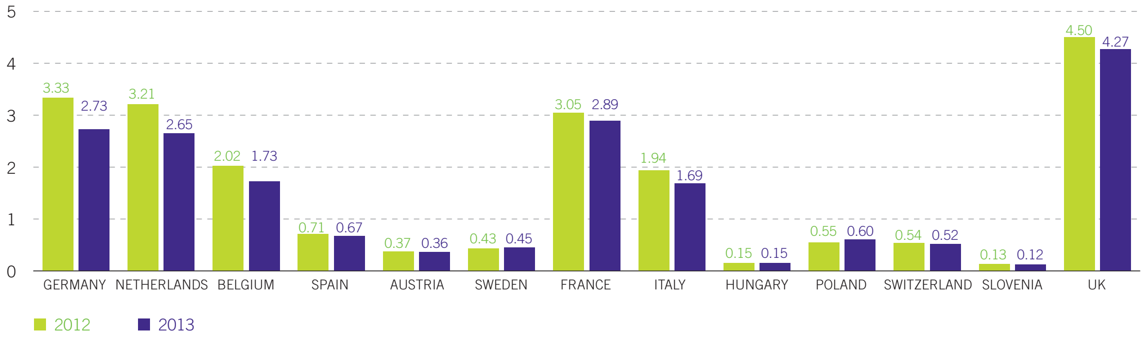


MAIN RECOVERED PAPER MOVEMENTS CONCERNING WESTERN EUROPE

GLOBAL IMPORTS (MILLION TONNES)

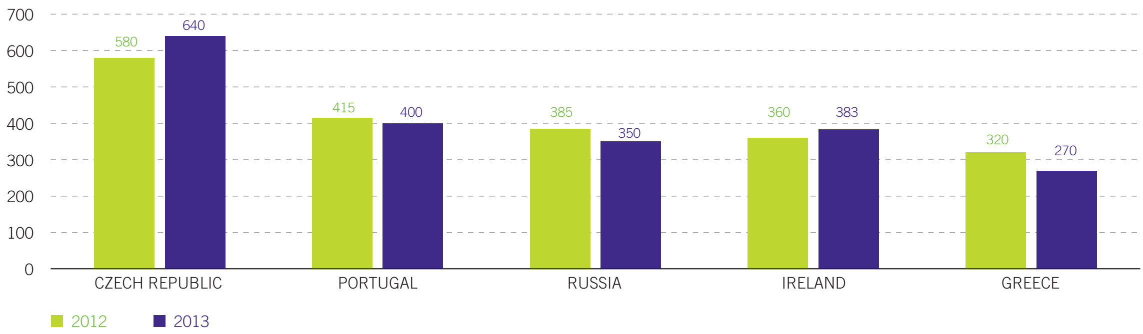


GLOBAL EXPORTS (MILLION TONNES)



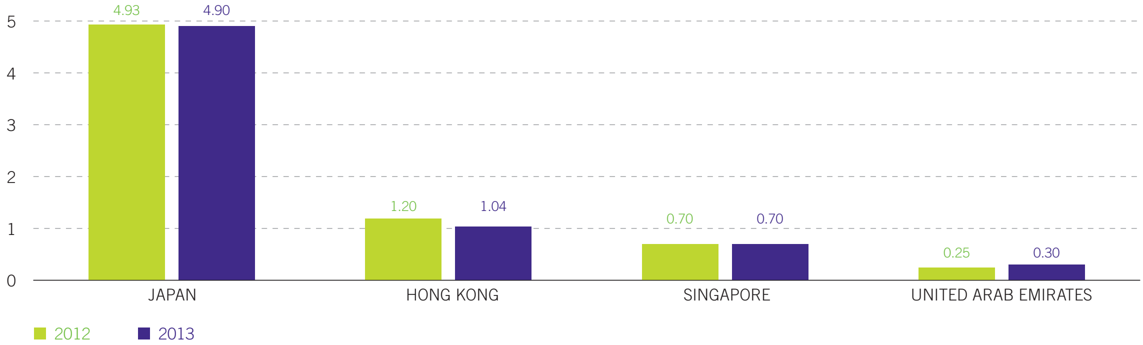
These figures confirm once again that some countries represent significant points of transit because of their geographical location and port structure. Despite importing only small quantities of recovered paper, some other European countries are worthy of mention for their reasonable levels of export.

MINOR EUROPEAN EXPORTERS OF RECOVERED PAPER (THOUSAND TONNES)

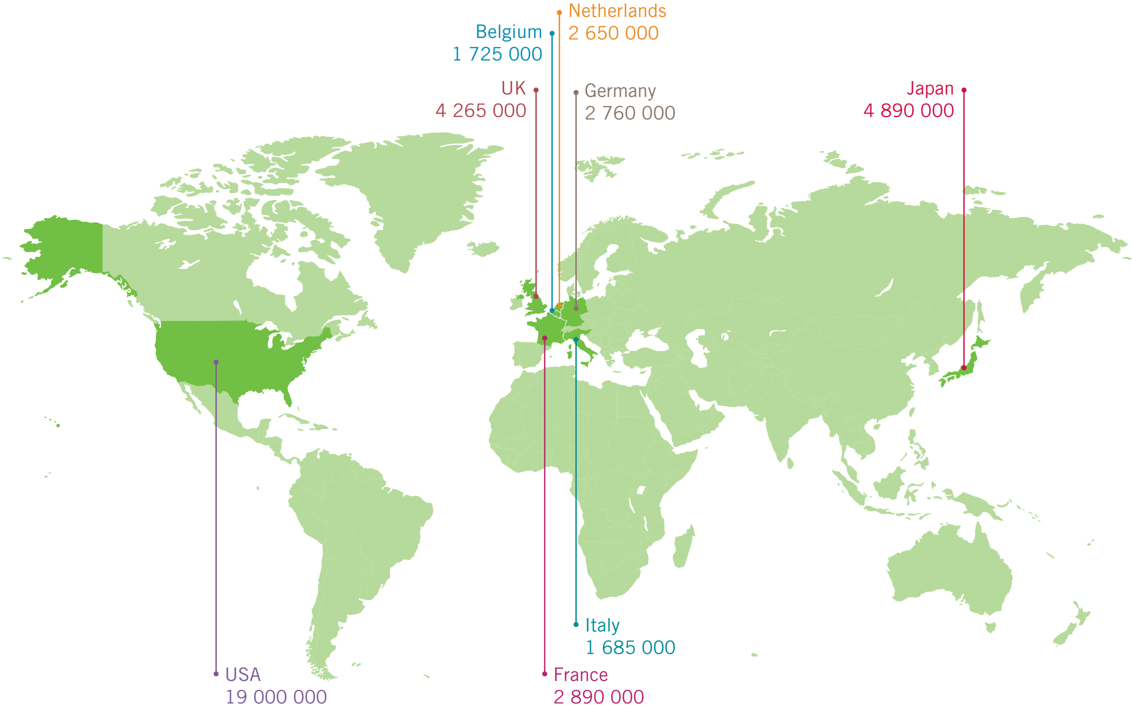


Furthermore, some Asian countries are significant exporters of recovered paper to consumers in the same region.

MAJOR ASIAN EXPORTERS OF RECOVERED PAPER (MILLION TONNES)



WORLD'S MAJOR EXPORTERS OF RECOVERED PAPER (TONNES)



% CHANGE 2012/2013

USA	-5.2	Germany	-10.6
Japan	-0.8	France	-5.1
UK	-5.2	Belgium	-14.6
Netherlands	-26.2	Italy	-13.0

The volume of merchant recovered paper circulating globally has been estimated at 50m tonnes. The Far East remains the major pole of attraction and absorbs the surpluses generated among Western economies.

It is difficult to estimate the quantities on the move because of the length of journey times on water and\or over land to final consumers. As always, freight costs are an important factor related to volumes and periods of the year; local and regional holidays and festivities such as Chinese New Year and Ramadan can have an impact on flows. It is not possible to evaluate the quantities of recovered paper held in stock by consumers owing to variations in their production programmes which are often connected with these same holidays and festivities.

The relative stagnation in paper and board production noted for 2012 was broadly repeated in 2013. As regards associated consumption of raw materials, 233,108m tonnes of recovered paper and 175,682m tonnes of virgin fibre accounted for, respectively, 57% and 43% of what was used by the sector worldwide. The prevalent use of secondary raw materials was once again confirmed in 2013, in parallel with the need for a consistent complement of fresh fibre.

Mention should be made of the minor fraction of recovered papers destined for alternative applications, such as thermal insulation products for the building sector, asphaltic cardboard and gypsum card panels. After the stagnation seen in such sectors over recent years as a consequence of the economic decline in some regions, there has been a renewed impetus of late with the opening of new production units in Europe. Global volumes are estimated at around 800,000 tonnes and are not included in the figures above because of the different selection and preparation requirements compared to normal paper and board.

And as always, it is not possible to evaluate the volume of boxes and newspapers used in emerging countries for domestic purposes such as packaging vegetables and other foodstuffs sold in local markets, as well as alternative uses. These materials are not captured by normal collection infrastructures.

It is important to underline too that some categories of finished paper product do not enter normal recycling circuits, such as hygiene\toilet products, wallpaper and the vast majority of papers used in food and liquid packaging, multi-layer papers and some other special papers. These products have been estimated to account for 20% of total paper and board production worldwide.

A trend has already been highlighted towards some parts of the Western world moving closer to the limits of what can be reasonably and beneficially recovered. It is evident that local collections have created a quantity of recovered paper that exceeds local consumption. Already in our report for 2011, it was underlined that volumes which could not be consumed in their area of generation have been absorbed in still-expanding Asian markets, providing necessary raw materials for consumers while at the same time preventing the accumulation of surpluses in exporting regions.

Since 2012, the quality requirements of major Asian consumer China became stricter with the creation of its Green Fence import controls, with some consignments failing to meet the standard and resulting in penalties for the specific suppliers. Consequently, other consuming nations in the region have adopted similar measures. Achievement of an acceptable general level of quality for recovered paper had already been the subject of long debate. Removal of contaminants and non-recyclable components can require different levels of care given that collection streams vary.

It is also appropriate to mention that consuming mills also feature technical differences and structures in their production processes; packaging, toilet paper and printing papers, for example, all require different grades of recovered paper. In addition, not all plants have the same technical equipment and capacities to filter out impurities.

The majority of recovered paper collectors have introduced structures and specific equipment for better sorting and separation of impurities; such installations are never free of costs and, in some cases, these costs can outweigh the benefits. In such circumstances, and when the original materials have excessive levels of contamination, these should become subject to thermal recovery in appropriate plants rather than being introduced into normal recycling circuits.

The modern plants operated by paper producers and the introduction of new technologies are supposed to allow some latitude, but consumers normally require materials that are as clean as practically possible. However, this should mean a corresponding valuation for the recovered paper they buy. In 2013, tolerance limits were the subject of debates and even confrontation, and efforts continued to be made to ensure that the adoption of more advanced – and costly – systems of sorting resulted in raw material status for the recovered paper, thus finally eliminating the confusion with “waste” that has so assisted the lobbying of some vested interest groups.

In this context, particular attention should be paid to the introduction of new types of contaminant in certain paper products, such as some inks, insoluble adhesives and wet-strength substances. In some instances, these cannot be identified and removed by recovered paper processors and are not highlighted by manufacturers.

FAR EAST

China

In 2013, there was continued growth in domestic production of paper and board with an increase of 2.1% (see table p. 6), thus confirming China as the world's largest producer; meanwhile, local per-capita consumption climbed to 75kg while the country's exports amounted to 6.13m tonnes. Optimisation of the sector continued in 2013 with the closure of ageing pulp and paper production plants that had been the cause of excessive pollution and\or were unprofitable. However, their combined annual capacity of 7.4m tonnes was exceeded by that of new plants coming on stream. In reality, some of the closures were delayed owing to regional organisational difficulties, resulting in a temporary surplus of production that were resolved once the plants in question were finally dismantled before the end of the year.

The constant impetus behind recovered paper collections resulted in an increase of 1.7% whereas imports were reduced by 2.6% (see Table 14). As always, bulk grades accounted for the majority of the imports: OCC (16.57m tonnes), News (6.51m tonnes), Mixed (5.32m tonnes) and others (834,000 tonnes) combined to give an import total of 29.234m tonnes from all destinations. As ever, the major flows were from the USA, Europe and Japan.

The Green Fence import quality controls for recovered paper had been supposed to be in place for a limited period of time but instead became a constant. The Chinese government has officially declared that tumultuous economic and industrial growth now needs to be replaced by a more measured pace. Supported by the simple slogan "more market and less state", changes have targeted higher local standards of living, greater domestic consumption and increased urbanisation, as well as some reforms to the fiscal system and to agriculture. Consequently, some restrictions were placed on the credit available to businesses which had an immediate effect regarding the necessity of achieving real economic results.

Japan

The country's industry has the same structure as Western economies and so was affected by the international financial and economic crisis, giving rise to local political effects. But by maintaining the safeguard of a monetary system that allows direct intervention, it had more options to respond to these developments.

As regards recovered paper, collection volumes were broadly stable while the large majority of Japan's exports (-0.8% in 2013) were destined for China. The level of cleanness is considered good whereas the fibre content is somewhat inferior to that of US material.

India

A recovered paper collection increase of 0.2% was accompanied by a 9.7% increase in imports to 2.535m tonnes – the second highest total in the world behind China. Domestic recovered paper consumption progressed 4.6%. In 2013, per-capita consumption of paper and board was 10kg.

Indonesia

The country remained the world's third-largest importer of recovered paper despite a drop of 3.3% in 2013 (see graph p. 14). Domestic recovered paper collections showed a corresponding increase of more than 12 % while consumption climbed almost 6%. The increase in production of paper and board was 2.5%, and 1.3% for celluloses. Per-capita consumption was 29kg.

South Korea

2013 brought a consistent recovery for local industry, with paper and board production increasing 4% while recovered paper collections climbed 5.8% (see tables pp. 6 + 11). Local consumption of recovered paper climbed 7.5% while imports increased by 8.3%. Per-capita consumption of paper and board was 195kg.

Taiwan

Domestic paper and board production edged 1.8% lower in 2013 while recovered paper collections slid 0.8% and imports 4.8% (see graph p. 14). Per-capita consumption of paper and board was 172kg.

Thailand

Recovered paper collections surged to 2.9m tonnes in 2013 for an increase of 9.4% whereas imports dropped 14% to 858,000 tonnes. Recovered paper usage grew by 2% while per-capita consumption of paper and board equated to 70kg.

Vietnam

The country is a sporadic importer of recovered paper, buying in less than 500,000 tonnes in 2013 as local collections showed some increase. Per-capita consumption of paper and board was 34kg.

PRICES

Prices of recovered paper demonstrated their customary levels of volatility in 2013. Complications with international finance and the frequent variations of devices influenced merchant recovered paper movements, and some localised temporary excesses of production also had impacts on the sector's raw materials.

As ever, other factors – such as the weather – can have an effect on recovered paper collections, and the same applies to holidays and festivals like Christmas, Chinese New Year and Ramadan, often reflecting on logistics and freight movements. The increased levels of quality and cleanness of recovered paper are supposed to provide more clear definition of the grades, as well as easier commercial circulation and resolution of possible claims.

LEGISLATION AND RULES

In 2013, the nature and status of recovered paper, as well as associated technical and legal definitions, continued to be sources of constant debates. All-too-often confusing interpretations of excessively generic existing rules created problems, leading to complications, for example, with inspections at ports.

Impurity levels were one of the main points of debate, in which regard consideration should be given to the fact that the origin and formation of recovered paper are not comparable to the industrial processes for producing virgin fibres. Recovered paper, the paper and board industry's leading raw material, could be the subject not only of more careful sorting but also of the adoption of more efficient systems of cleaning in final consumers' plants. Also, the length of time for claims by end users should be clearly defined.

In 2013, the European Recovered Paper Association (ERPA) and the Confederation of European Paper Industries (CEPI) continued to work towards harmonisation of rules and definitions that would be of supposed advantage to the concerned parties, avoiding the frequent contradictions and evident lobbying of some interests. Once again, however, limited results were achieved.

CONCLUSIONS

The figures reported above provide a realistic picture of the recovered paper sector in 2013 – a year influenced by political change in the USA, China and Europe, and in their respective areas of influence. Instability and conflict in the Middle East and in North and Central Africa, as well as the general banking crisis, contributed to an overall sense of uncertainty that has intensified in recent years. Despite these complications, recovered paper volumes generated by the systems in place in the Western World have found sufficient outlets.

AUTHOR'S FOOTNOTE

Thanks and greetings are due to colleagues in the sector who have continued to promote recycling by introducing more advanced systems and machinery to general advantage. And as always, a salute is also due to the magazines and publications that report on our industry and enable a constant evaluation of its development.

Design by karakas

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