ANNUAL SUMMARY

2020/2021* PRODUCTION STATISTICS OF THE SOUTH AFRICAN PULP AND PAPER INDUSTRY

"We live in a paper world. Without paper our lives would be unimaginable. Or almost unimaginable".

IAN SANSOM, *Paper: An Elegy*

PAPER
MANUFACTURERS ASSOCIATION OF SOUTH AFRICA (PAMSA)

Renewable, recyclable and remarkable

Paper – in its myriad of forms – is not only the world's oldest technology, but nowadays one of the most environmentally sustainable products. Paper is by nature, biodegradable and recyclable, and when produced from wood fibre harvested from sustainably grown trees, it is renewable.

Its versatility is almost boundless. We use paper from morning till night, in the kitchen, in the bathroom and at our bedside. It teaches children, protects products, and, as tissue, makes life more hygienic.

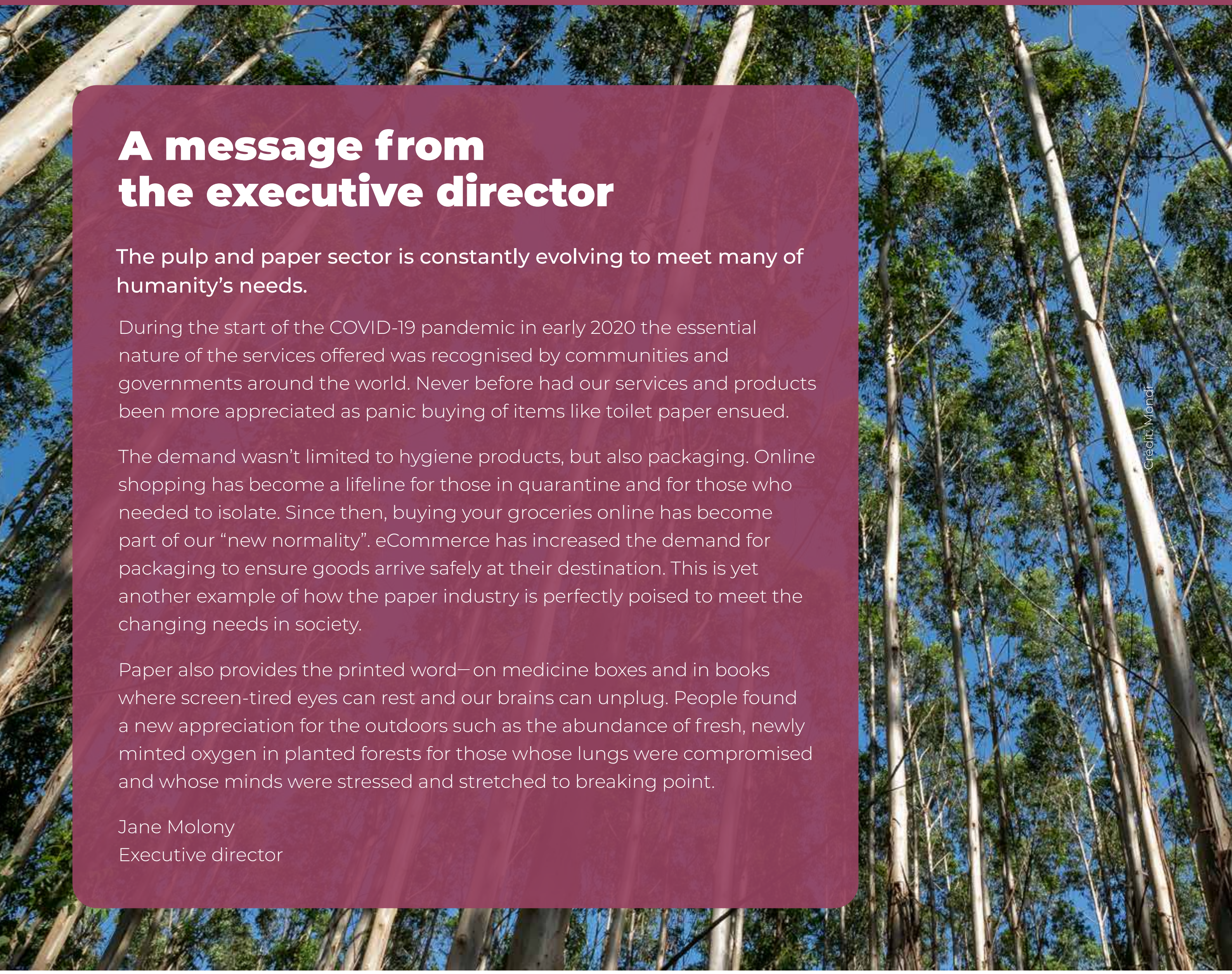
Just like other harvested wood products such as timber, paper stores carbon. By recycling paper, we keep the carbon locked up for longer. By printing long documents that we refer to often, instead of opening them up on our computer each time, saves energy.

Paper truly is remarkable. It is the mother of many inventions, and the rival of many carbon-intensive materials. These are just a few reasons why working in the sector is so rewarding. We trust that the facts and statistics in this report will prove valuable to all who read them.

Watch our video

Visit our new website at www.thepaperstory.co.za

@paperrocksza



Credit: Mondi

A message from the executive director

The pulp and paper sector is constantly evolving to meet many of humanity's needs.

During the start of the COVID-19 pandemic in early 2020 the essential nature of the services offered was recognised by communities and governments around the world. Never before had our services and products been more appreciated as panic buying of items like toilet paper ensued.

The demand wasn't limited to hygiene products, but also packaging. Online shopping has become a lifeline for those in quarantine and for those who needed to isolate. Since then, buying your groceries online has become part of our "new normality". eCommerce has increased the demand for packaging to ensure goods arrive safely at their destination. This is yet another example of how the paper industry is perfectly poised to meet the changing needs in society.

Paper also provides the printed word – on medicine boxes and in books where screen-tired eyes can rest and our brains can unplug. People found a new appreciation for the outdoors such as the abundance of fresh, newly minted oxygen in planted forests for those whose lungs were compromised and whose minds were stressed and stretched to breaking point.

Jane Molony
Executive director

**NOTE TO THE READER: Due to a number of issues in the collection of our annual statistics, this report has been published a little later than usual. For this reason, we have included data up to the third quarter of 2021.*

Highlights

46%
of locally made paper products contain sustainably sourced fresh wood fibre

R30 BILLION
Contribution of the pulp and paper sector to South Africa's annual Gross Domestic Product (GDP) in 2020

R9.3 BILLION
Contribution of the sector to the country's Balance of Trade

69.8%
Paper recovery rate for 2020

70%
South Africa's average paper recovery rate for the past four years

850 MILLION TREES
Planted over 676 000 hectares for the purpose of pulp and paper production.

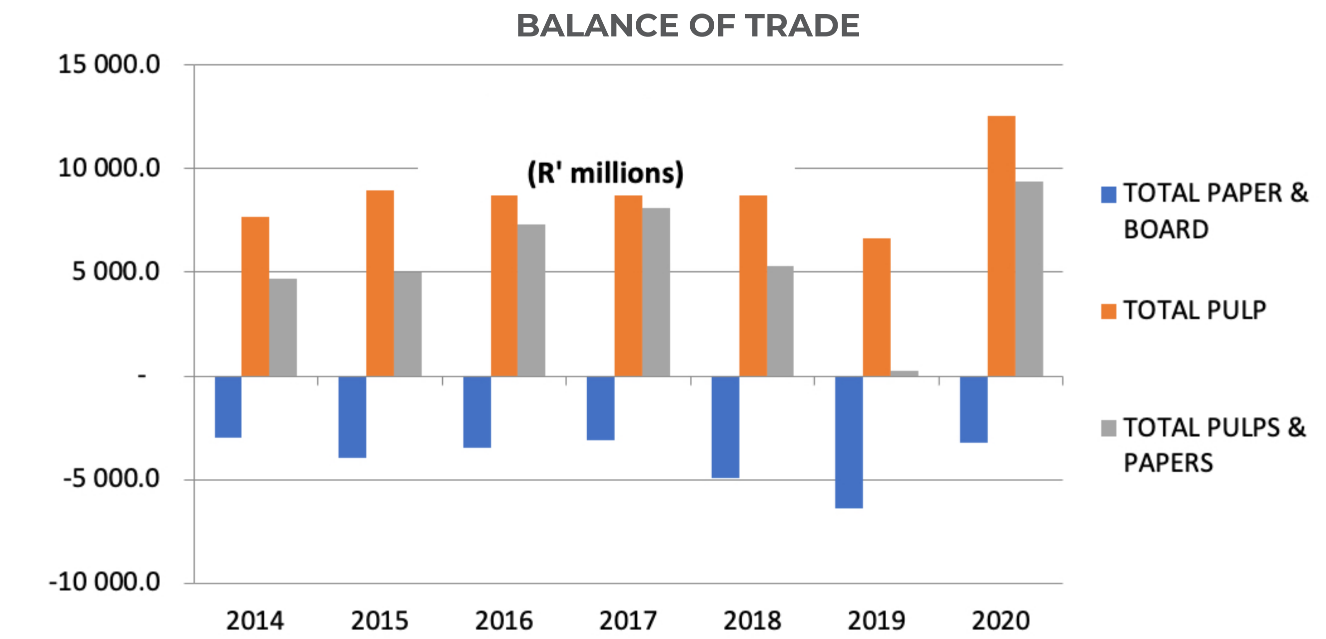
1.1 MILLION TONNES
Paper recovered for recycling

54%
of locally made paper products contain recycled fibre

164 780
People who are employed because South Africa grows trees, makes paper products and recycles them.

BALANCE OF TRADE

The value of imported paper and board was R3.2 billion in 2020 but pulp exports once again brought in foreign exchange with a contribution of R12.5 billion. This created a positive balance of trade of R9.3 billion.



	2016	2017	2018	2019	2020
Total Paper & Board	-R3.48bn	-R3.09bn	-R4.92bn	-R6.38bn	-R3.2bn
Total Pulp	R10.80bn	R12.48bn	R12.24bn	R6.63bn	R12.5bn
Total Pulps & Papers	R7.32bn	R9.39bn	R7.32bn	R0.25bn	R9.3bn

Production

TONNES OF PRODUCT PRODUCED	2019	2020	2021 Q1-Q3
Pulp	1,937,000	1,909,000	1,401,000
Tissue	248,000	227,000	180,000
Printing and writing	448,000	322,000	290,000
Packaging and papers	1,463,000	1,342,000	1,106,000

PACKAGING AND PAPERS SUB-CATEGORIES	2019	2020	2021 Q1-Q3
Linerboard	791,000	705,000	577,000
Fluting	505,000	494,000	393,000
Kraft wrapping	11,000	7,000	11,000
Folding boxboard	87,000	71,000	68,000
Other	69,000	66,000	57,000

PULP

Pulp grades are used to make the two major paper types – wood-containing and woodfree (lignin removed, such as A4 copy paper), as well as dissolving woodpulp which makes cellulose/rayon products.

MECHANICAL PULP

2019	2020
86,000 TONNES	49,000 TONNES

Mechanical pulp is largely used in newsprint, tissue and paperboard, as there are no coated grades made locally.

CHEMICAL PULP

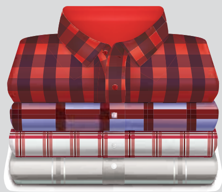
2019	2020
667,000 TONNES	653,000 TONNES

Chemical pulp is used in white paper grades such as A4 copy paper and whitetop liner (the white printable layer on paper packaging)

DISSOLVING WOOD PULP

2019	2020
996,000 TONNES	818,000 TONNES

Dissolving wood pulp is used to make man-made cellulosic textile fibres (viscose)



SEMI-CHEMICAL PULP

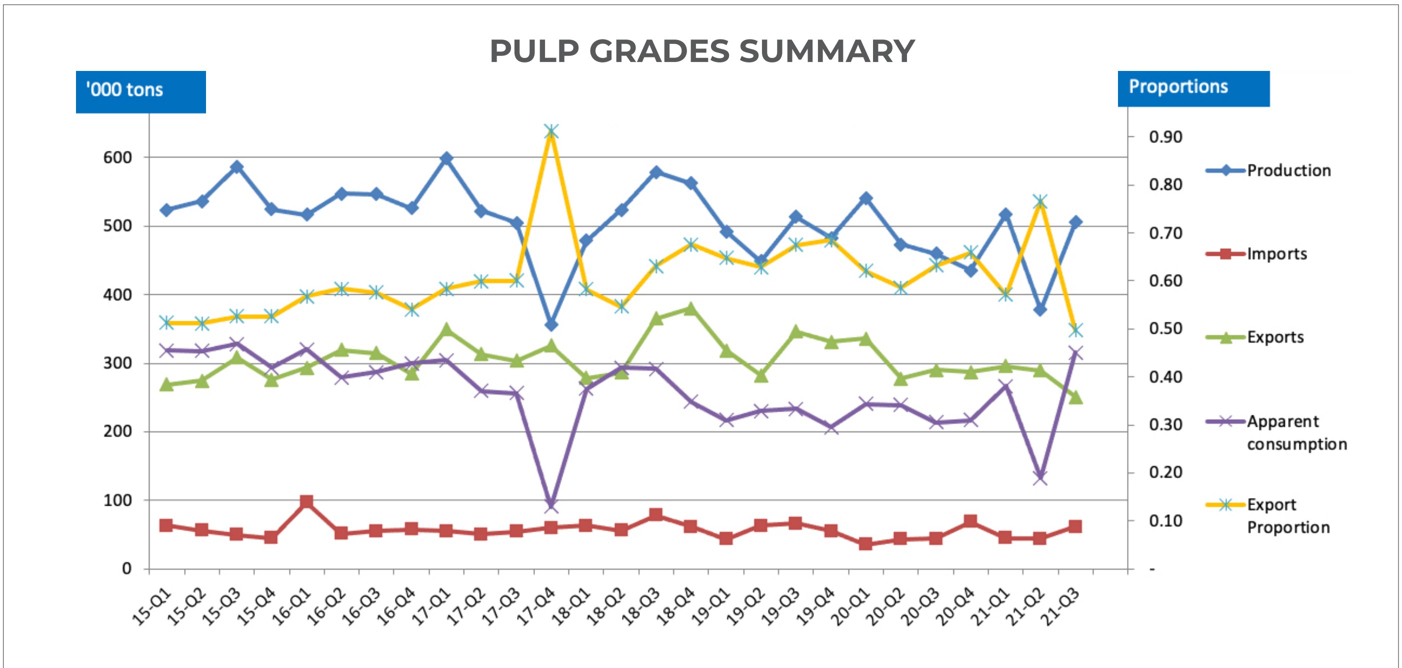
2019	2020
189,000 TONNES	201,000 TONNES

Semi-chemical pulp is used to make corrugated paperboard, cardboard roll cores, and containers

In 2020, pulp production broadly continued its decline with an increasing proportion directed to the export market. Apparent consumption (domestic consumption) remained low which is indicative of the weak domestic market. In 2021, pulp production, while a little erratic, did not show the same market changes as the paper grades.

Exports weakened marginally from Q1 of 2020 to Q3 of 2021 while domestic consumption rose.

Given that pulp grades cover all types and applications, the trends are expected to be mixed. As economic activity resumes, the situation is expected to normalise.



PRINTING AND WRITING PAPERS

From Q3 of 2020, we saw a recovery in the production of printing and writing grades, but demand still remains weak. While imports do not appear to be recovering to 2018 levels, exports are showing a gradual increase, but not to levels in the past – although the proportion of exports to production remains relatively high.

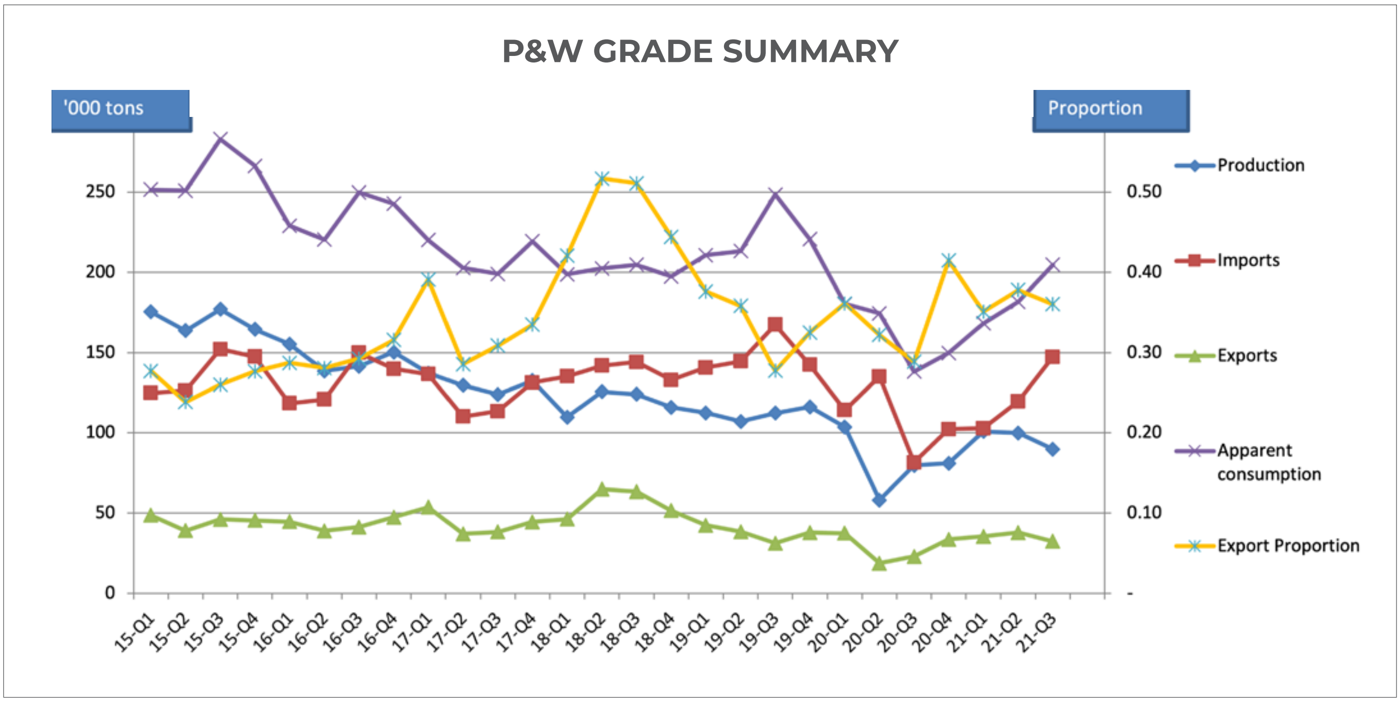
Apparent consumption of printing and writing grades shows a short-term recovery. The remainder of the year will show if domestic consumption returns or whether the use of electronic media – especially for news consumption and communication – will continue to move the demand downwards. Exports continue to be relatively high compared to the previous year.

Looking at 2021, apparent consumption has rebounded from the low of Q2 of 2020 and continues to improve as economic activity resumes. All coated papers are imported and office papers are manufactured locally. The increased consumption has been driven by imported volumes.

Unfortunately for the local manufacturers, both coated and office papers are showing strong import growth. Domestic production (office papers) recovered to pre-COVID-19 levels in Q2 of 2021, thereafter dropping off to maintain its gradual long run decline which began in 2015.

From late 2019 imported office paper showed some decline extending to Q3 of 2020. From Q3 of 2020 it appeared as if domestic production was rebounding, along with exports. However, as the time series shows, looking at the quarters of 2021, production and exports have tapered off while imported product has continued to rise, as the recovery gathers momentum.

This includes office paper (uncoated woodfree), newsprint and scholastic grades. South Africa does not make coated papers for magazines and brochures – these grades are imported by printers and paper merchants.



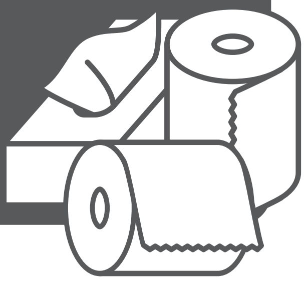
TISSUE

Early in 2020, a very strong demand for tissue (toilet rolls in particular) was experienced as the COVID-19 lockdown began – we believe this was largely fuelled by consumers panic-buying in South Africa. At the time, many thought South Africa did not have enough capacity for domestic demand. Panic buying created supply chain issues and as a result of unusually high demand, production responded with all-time high volumes.

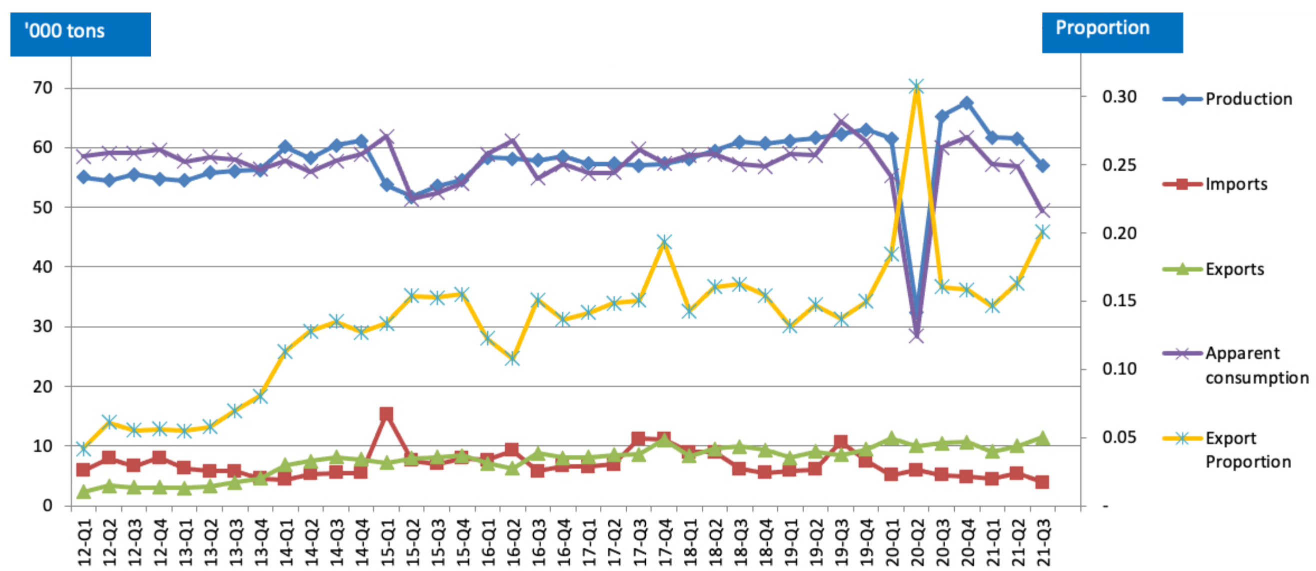
The trend of strong purchasing appears to have abated, with a slowdown in apparent consumption The trends are showing us that domestic production is being exported more as domestic demand has fallen. Imports too, have fallen. It is reasonable to expect apparent domestic consumption to rebound in the last quarter of 2021, similarly for exports to decline as domestic demand should return although with Quarter three showing a 1.5% decline in GDP and recent Omicron scares, this may not actually materialise.

(This commentary includes estimates from independent tissue producers).

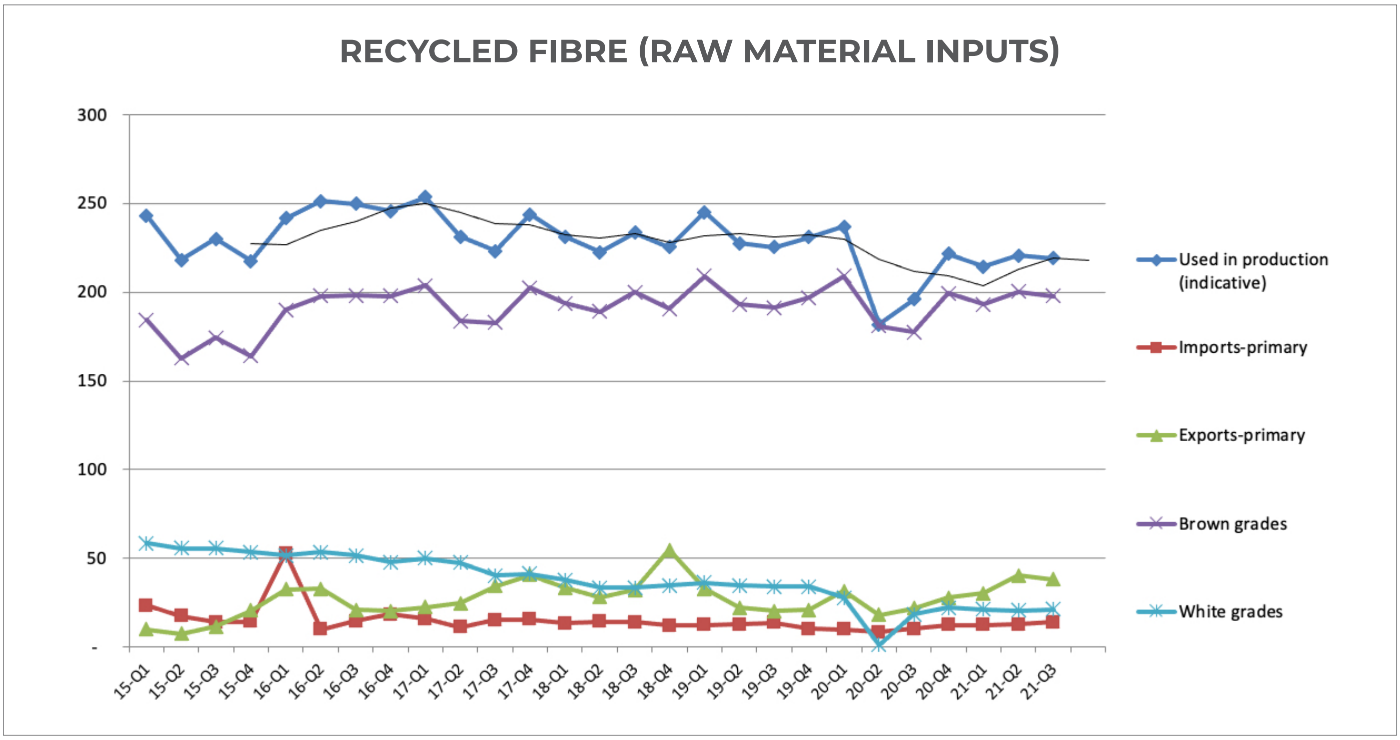
Tissue includes toilet and facial tissue, kitchen towel, napkins, industrial and away-from-home tissue and towel products.



TISSUE GRADES SUMMARY



Paper recovery and recycling



The consumption and beneficiation of recycled fibre by members during 2021 appeared to be on its way to recovering to 2019 levels.

Considering the first three quarters of 2021, the use of recycled papers (brown and white grades) show fluctuations in the production of packaging and tissue papers. Of concern is the strong rise in exported recycled fibre, driven by a weak Rand.

White grade usages – such as office paper – appear to follow the long-run decline in consumption – with less people printing due to the digital age as well as school and office closures in 2020 and remote working in 2021.

Imports of waste paper remain relatively low. Demand for waste paper has grown, and the pressure of high prices and declining absolute numbers of tonnes being placed in the market, especially of office papers, could mean possible shortages in the future.

A good fruit season always means greater demand, effecting an increase in the exports of secondary packaging like fruit boxes and ready-to-display trays.

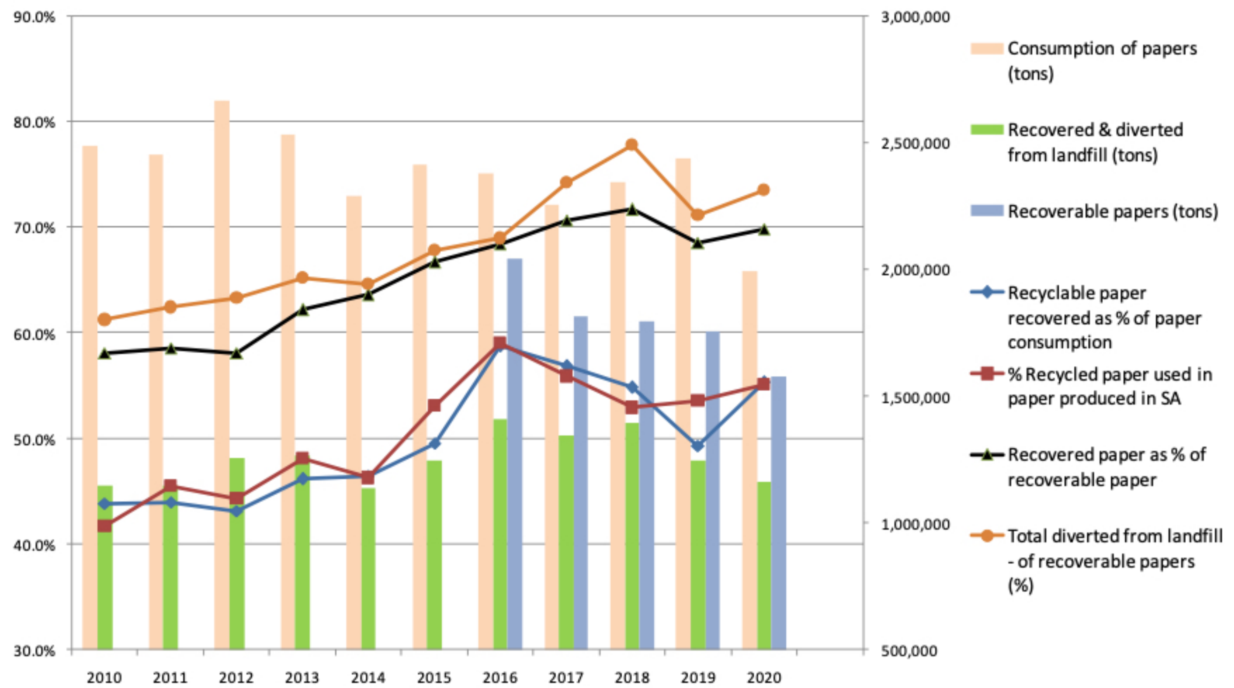
The long-term trend for old corrugated and cardboard containers (OCC) leaving the country as secondary packaging materials used to transport mostly non-agricultural product categories is expected to continue to grow. In addition we are starting to see some impact of product substitution for plastic packaging with paper packaging.

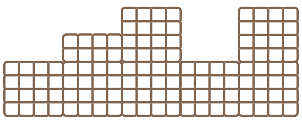
In fact, due to exports of goods in secondary packaging exceeding imports of goods in cardboard boxes, there is bound to be a shortage of brown waste paper grades (corrugated boxes) for the foreseeable future.

Considering the recycling industry as a whole, Stats SA's labour statistics show a sharp drop in recycling jobs (all types, metals, glass, papers etc) late in 2021.Employment figures showed a reduction in late 2021 – these declines were not there in early 2020, when the peak of COVID-19 hit.

In terms of recovery rates, 2020 saw a 69.8% paper recovery rate, slightly down on 2019. However, at a four-year average, South Africa's paper recovery is 70.0%, well above the global average of 59.3%. The data for 2021's recovery rate is not currently available.

RECYCLING AND RECYCLING RATES





In 2020, **1.1 million tonnes** of paper and paper packaging were recovered for recycling into new products.

1 322 Olympic sized swimming pools

200 Soccer fields

142 Rugby fields

1 300KM Paper bales, laid end to end would roughly mark the distance from Johannesburg to Cape Town.

69.8% Paper recovery rate for 2020

70.0% Average paper recovery rate for past four years.

LIQUID BOARD PACKAGING

The recovery rate for liquid board packaging – food and beverage cartons – was around 14%. Currently, post-consumer liquid board packaging is collected, sorted, baled and primarily transported to two paper mills in the Gauteng Province of South Africa.

Research and development

South African pulp and paper mills use their raw materials, process waste and employ their processes to make bio-based additives, chemicals, plastics and fuels.

The PAMSA Process Research Unit (PRU) oversees all research and innovation-related projects on behalf of its members, in partnership with several South African universities and institutions.

Some 60% of all trees planted for commercial use are used by the pulp and paper industry, yet a large proportion of biomass is left behind when harvesting (branches, leaves, bark). By re-engineering and optimising processes, the PRU seeks to extract the full benefit of the tree and other by-products from pulp and papermaking.

Every year, the PAMSA Master of Engineering bursary programme accepts applications from Bachelor of Science chemical engineering final-year students or graduates. A limited number of students will have the opportunity to complete their master's studies at participating universities by way of a R130 000 bursary per year over two years.

By supporting young engineers, we are developing the skills required to turn products of the imagination into real word innovation.

LEARN MORE

Right: Students participating in the paper industry research programme in partnership with the Department of Science and Innovation.


Bethuel Tselana


Franco Pretorius


Nasreen Gardee


Thabang Mphateng


Mashudu Lipharama


Farirai Matshaba

About PAMSA

The Paper Manufacturers Association of South Africa (PAMSA) lives and breathes all things paper. We look after the education, environment, research and recycling interests of the pulp and paper sector in South Africa, supported by RecyclePaperZA, our paper recycling arm.

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