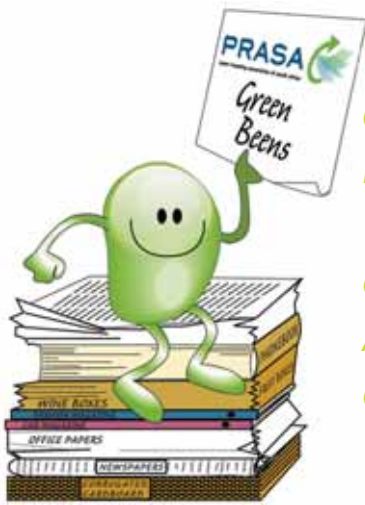


RECYCLING FEATURE

RECOVERING OUR PACKAGING, MAXIMISING OUR OPPORTUNITIES



The current crisis in South Africa is not that we do not have enough fibre, but that we are not recovering the fibre that we could have available. In talking to Ursula Henneberry, Operations Director of PRASA (Paper Recycling Association of South Africa), TAPPSA Journal delves into the challenges, opportunities and paybacks of recovered fibre.

Paper, packaging and tissue manufacturers are enduring a severe shortage of recovered fibre. After forest fires in Mpumalanga and Kwa-Zulu Natal depleted supplies of virgin fibre, fires in the paper recycling industry destroyed nearly 5500 tonnes. What little recovered fibre was left is now being stretched between the expansions of a number of mills throughout South Africa. It is therefore essential, if we are to ensure the industry's continued growth, that we increase the collection of recovered fibre.

“This is where the paper recycling industry steps into the breach. PRASA members boast a success story: to ourselves; to the mills we provide; to the economy; and to the environment, as we have steadily increased our rate of recovery to in excess of 2 million tonnes of recovered fibre during the past two years*,” says Ursula.

TAKING IT PUBLIC

These 2 million tonnes collected over 2 years correlates into a current collection rate by PRASA of approximately 55% of the total recoverable fibre available for collection each year. Although Ursula is hopeful that this will be increased to 65% by 2011, that still leaves a vital 35% of precious recoverable fibre lying useless in landfills instead of in our paper mills.

** Exact figures are still being correlated.*

So how does PRASA intend ensuring a better collection rate?

It comes down to accessing the biggest source of recoverable fibre around: the domestic consumer. PRASA intends driving a number of media campaigns in schools, homes, offices and industries, which will heighten public awareness on the necessity of recycling. And if this does not seep in, PRASA is also in constant discussions with the Department of Environmental Affairs and Tourism (DEAT) to promote government intervention in recycling, through recycling legislation for the average consumer and industries alike.

However, as Ursula puts it, attempting to increase recoverable fibre collection remains “a tricky chicken and egg scenario”. The industry can invest millions of rand into educating the householder on how and what to recycle, but these are empty actions without providing the tools to do so. On the other hand, PRASA can spend even more money providing a two bin system in each household for dry and wet waste, but these are useless without providing the knowledge to promote their use.

To overcome this, it seems PRASA has had to become squint - keeping one eye on educating the public while simultaneously keeping the other trained on the collection process of recovered fibre.



EXPLOITATION, MISSING LINKS AND A FEW HUNDRED DEAD DOGS

The process of recovering fibre is one full of unsung heroes, Ursula will tell you. From the street sweepers who collect rubbish off the streets, to landfill workers who sort the waste directly, there are many hard workers and noble causes – and, unfortunately, just as many missing links that break the collection chain's strength. Here's a look at each stage of collection:

1. Street collectors

Before many of us have awoken each morning, our streets are quietly scoured for treasures by street collectors. The earlier these ad hoc collectors hit the streets, the more rubbish they can recover and sell to buy-back centres, and the cleaner the rubbish is too.

The hard work of the street collector does not end there as he then has to push, pull and navigate his way to a buy back centre to sell his wares. Ursula believes there is opportunity to add dignity to the profession of street waste collection by registering collections, initiating incentive schemes and providing them with some form of identification.

2. MRFs (Materials Recovery Facility)

Street collection seems like a dream job in comparison to work at the MRFs (pronounced murfs). Here, the rubbish bags of household waste that you laid outside your house this morning are placed on a conveyor belt, opened and sorted by hand into plastics, paper, glass, cans and unrecoverable waste.

The job seems simple enough. But try placing your bare hands into your week-old rubbish bag to get a better insight into the job. Due to the complete ignorance of domestic consumers, no matter their income bracket, MRF workers are forced to sort through for example, soiled nappies and on occasion even find themselves face to face with the dead family dog thrown out with the trash.

What PRASA is intent on getting through to households is the importance of simply separating dry from wet waste, which would reduce contamination and yield far better quality waste; make the MRFs far more efficient in their fibre recovery and far more hygienic for employees working in them. A number of "cleaner" MRFs, servicing more affluent areas, are already providing householders with 2 bags (one for dry and one for wet waste) which goes a long way in ensuring that the quality of the waste is better when separated at source.

PRASA has plans in place to erect a MRF that will be used as a collection point for all recyclables, not just paper. This will be done through a public private partnership with the City of Johannesburg, PRASA and an independent contractor. The MRF will demonstrate to the government and other

interested parties the extent to which PRASA (and recycling) can make a difference. The PRASA MRF will also contribute to an increased rate of fibre recovery and poverty alleviation through job creation.

3. Buy-back centres and recycling agents

From both collection processes above, recovered fibre is delivered and sold to buy-back centres and recycling agents. In turn, these centres sell the recovered fibre to the paper mills. There are limited cases where recovered fibre is exported from these recycling agents to overseas markets that lap up the fibre for its cheap price. However, with overseas markets facing their own surplus of recovered fibre due to the downturn in their economy, the export market is quiet.

Ursula urges members of the paper industry to extend their internal reward and recognition schemes to the buy-back centres and recycling agents, and to make these suppliers our business partners. In this way, Ursula believes that the suppliers will "come through for us when the demand is high and understand and continue to support us when there is a surplus". PRASA is looking at partnerships with FIETA, IDC, DTI and DEAT in order to promote such incentive schemes.

BUT WHAT GOOD WILL RECYCLING DO?

To increase our rate of recovered fibre is to increase the pulp and paper industry's strength, its environmental integrity and the bottom line. "The opportunities to achieve this are endless," says Ursula.

Financially, recycled fibres are marginally cheaper than virgin fibre – due at this stage, Ursula explains,





Jodie Davies-Coleman (TAPPSA) and Ursula Henneberry, (PRASA), discuss the future of recovered fibre at the TAPPSA Berg Conference held in February this year.

to the exchange rate and world economy factors. The potential uses for recovered fibre also opens the industry up to innovation. “There is opportunity for the industry to find more innovative uses for recycled fibres,” says Ursula. “Improving technology has already enabled some products containing recycled fibres to come close to the quality standards required, but at a relatively cheaper cost. Further, recycled fibre enables income generation, evident by the increase in requests for assistance from potential buy-back centres.”

Environmentally, the increased use of recovered fibres will substantially improve the public image of the paper industry. “We see a window of opportunity for us to consistently and critically look at our processes to see how we can do things differently (at a mill level) to make the end product more recyclable,” says Ursula. “Let’s take the example of the banana box. The development of a wax coating that protects the banana has been great. But we need to take that further and look at how our processes can be improved to handle or dissolve the wax when the box comes back for recycling. Coatings that are 100% recyclable have been invented but not all banana farmers use this option.”

Further, the more recoverable paper we collect through street collectors and vendors, the less there is to transport to landfill sites, resulting in reduced costs to local municipalities. “If all household paper/cardboard was recycled, $\frac{3}{4}$ million m³ of

landfill space would be saved per annum – reason enough for legislation encouraging separation at source,” Ursula argues.

PRASA AS A POTENTIAL CDM PROJECT

When one quantifies the environmental saving that is achieved through PRASA’s work, it is possible for the association to qualify as a Cleaner Development Mechanism (CDM). The results speak for themselves:

- 40% less energy is required to manufacture paper from recovered paper
- Air emissions in papermaking are reduced by 70% when recycled fibres are used
- There is a reduction of 10 kg of SO₂.
- Water consumption is reduced by 50% and waste water by 35% - a conservative equivalent of a reduction of 8 m³ of waste water discharged.

PRASA sees the savings above as potential selling points to obtain carbon credits. Despite the ‘screening form’ on the CDM website indicating that PRASA would not qualify, Ursula remains “optimistic that a meeting with the appropriate people could assist with them swaying in our favour”. She urges those in the industry who could work with PRASA and assist them to promote and be rewarded for the paper recycling industry’s contribution to the environment, to contact her.

YES, THERE ARE CHALLENGES

The major challenge of the recycling industry is not being able to quantify the availability of recovered fibre. “Today, we estimate that the shortage of recoverable fibre will be in the region of 100,000 tonnes in 2009. Tomorrow, we may be told that sales are down at this mill and that mill due to the world economy.” If you can’t sell, you stop manufacturing paper which in turn reduces your recoverable fibre requirements - suddenly you are faced with a surplus of recovered fibre.

What PRASA knows for certain is that South Africa will have to deal with large quantities of waste during the 2010 World Cup, with the increased demand for paper. The extent of this surplus will depend dramatically on what 2010 organisers allow into the stadiums – paper, glass or plastic. But even outside the 2010 stadiums, paper demands will soar with the increased amounts of flyers, posters and pamphlets, let alone packaging boxes, newspapers, maps and so on. Education is key to separating and recovering as much of that paper as possible and we have got to start the education process now, says Ursula.

But is it possible to educate an entire nation on how to recycle in less than a year? PRASA are taking a different stance, and refusing to focus only on the

World Cup in their educational campaigns for fear that once 2010 has come and gone, consumers will revert back to their bad habits. Instead, PRASA will focus on simply educating households to separate dry from wet waste – a simple plan, that Ursula argues will help South Africa cope far more efficiently with packaging waste before, during and post- 2010.

THE FUTURE IS LOOKING LEGISLATIVE

In the coming 2-3 years, South Africa will be introduced to recycling legislation that will do wonders for the availability of recovered fibre – albeit at a cost to paper manufacturers.

The first is a packaging levy, similar to the plastic bag levy. Discussions at government level to introduce such a levy are at an advanced stage, making the levy a certainty in the near future. “We need to take a critical look at our processes to find ways of counteracting the additional cost to our businesses and to minimize erosion of our profit margins,” says Ursula. This would entail re-visiting the principles of Total Productivity Management (TPM); implementing employee incentives to reduce costs; and vigorously applying lean manufacturing principles.

Many of these actions already fit in with the environmental stance of most pulp and paper mills.

The second is Extended Producer Responsibility (EPR). As with the packaging levy, government is intent on making it the responsibility of the entire supply chain including the original manufacturer to handle their waste. As Ursula explains, government (and more specifically DEAT)’s stance is: “you make it, you profit from it, you get rid of it.”

WE WANT YOU.

These two legislative acts should be incentive enough to promote the recycling of packaging and other paper-based products at the office and at home. But look beyond the legislation, back to street sweepers and MRF employees, who need our cooperation with or without legislation to make their work easier, more dignified and better paid. In the end, it is really our industry – let’s make it our own and start recycling - now.

Says Ursula: “It takes all of us to make a difference. Don’t just talk about it, do it!”



ABOUT PRASA

The Paper Recycling Association of South Africa (PRASA) was established in 2003 and is allied to PAMSA (Paper Manufacturers Association of South Africa).

PRASA’S primary objectives are to:

- Promote a culture of recycling
- Promote and support the reduction, reuse and recycling of paper waste
- Reduce the amount of recoverable paper and board packaging materials ending up in landfill
- Establish awareness campaigns aimed at educating the public about the benefits of and necessity to recycle
- Promote employment and economic empowerment opportunities, in particular in SMME’s (Small, Medium and Micro Enterprises), through material recycling
- Promote sustainable recycling opportunities and engage in activities that will grow and develop the recycling industry
- Contribute to the preservation and protection of our environment