

Fact Sheet

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Collect-a-Can – Working with the BOP to help protect the environment

Over the past few decades, rising population numbers and rapid economic growth has led to an explosion in the consumption of the planet's natural resources, and put huge pressure on the global environment. Even the most sceptical among policymakers now agree that human economic activities are an important factor in accelerating global warming and the ensuing climate change. Recycling is one of the responses to these environmental concerns. The benefits are clear, as processing materials for re-use most often result in saving precious resources and energy: in fact according to some studies, up to 95% less energy is used to recycle steel, for example, than to produce it from scratch.¹

This factsheet will look at how Collect-a-Can, a joint-venture between Nampak and ArcelorMittal, has been successfully recycling used beverage cans (UBCs) across Southern Africa. Its model not only provides a regular income to an estimated 37,000 people in the lower income segments at the Base of the Pyramid (BOP), but results in a recovery rate of 70 % in South Africa, one of the highest beverage can recovery rates in the world. One of the most interesting dimensions of the Collect-a-Can model is that it provides an excellent example of an initiative where the onus is on sourcing from the BOP rather than selling to it.

Situational information

a. Corporate ID¹

Collect-a-Can was started in its current form in 1993 as a joint-venture between Nampak, Africa's largest packaging firm and beverage can producer, and ISCOR, the country's main steel producer, known today as ArcelorMittal South Africa (see separate boxes on these two corporations). Collect-a-Can has a specific mission to ensure that steel cans and related can production material can be effectively and sustainably recovered in Southern Africa². Collect-a-Can is, essentially, a response by the main

producers and consumers of steel in the country to live up to their environmental responsibilities, while at the same time providing economic opportunities in the lower income segments.

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Any intelligent fool can make things bigger and more complex... It takes a touch of genius - and a lot of courage to move in the opposite direction.

Albert Einstein

¹ X, The Truth about recycling , The Economist, June 7, 2007.

² COLLECT-A-CAN, Corporate brochure, 2007.

b. Case background: The growth of mobile phone communications in emerging countries

As Africa's main industrialised economy, South Africa consumes significant amounts of resources and energy. Concurrently, the amount of waste produced and the overall environmental impact of the economy mean that recycling has become increasingly important as a policy response to managing and protecting the environment. Back in 1993, there was no unified policy or body of laws in South Africa to cope with the growth of waste and litter. This was radically changed with the enactment of the National Environmental Management Act in 1998, which provides the overall framework for the protection of the environment³. One of the core principles contained in the Act is the "polluter pay" concept⁴, i.e. the principle that industry in general shares the responsibility for the effect of its production on the

Collect-a-Can in Figures (2007):

- Beverage steel cans produced in South Africa : 2 billion
- Recovery rate : 70 % of all beverage cans
- Estimate number of people earning a regular income from collecting cans : 37,000

environment and needs to take measures to deal with its consequences.

The Environmental Management Act was complemented in July 2007 with the National Waste Management Bill. One of the bill's essential features is the establishment of a national waste management strategy and criteria, including specific reduction targets for the so-called big five waste products: glass, paper, cans, plastics and tyres. The strategic target is for a 70% reduction by 2022. The remaining 30% is to be minimised and treated or recycled.⁵ The

Act's preamble specifically underlines the notion that waste is a resource and represents economic opportunities.⁶ The bill is also meant to provide a general framework for the waste management industry, including the granting of waste management licences, and penalties for non-compliance in the form of fines, or even imprisonment.

From this standpoint, Collect-a-Can is also a form of compliance with legislation for ArcelorMittal and Nampak. The focus in this regard is less on yielding a profit and more on achieving the highest possible recovery rate.

2. The Business case: is recycling always the better option?

While recycling may seem to be an obvious and desirable answer to waste management, things are not systematically as clearcut. The cost of recycling, both in monetary and even environmental terms, needs to be carefully weighed against alternative options such as burying or burning waste. Recycling paper, for example, involves a complex chemical process and causes emissions which themselves are harmful to the environment. Generally speaking, however, recycling is without doubt an efficient and environmentally friendly solution. In fact a recent study in Denmark on a range of 200 products has found that recycling is indeed the better solution for the environment in 83 % of the cases.⁷

When it comes to tin cans and many other metallic objects, the recycling option is by far the better one. According to ArcelorMittal, "Steel is one of the most



ArcelorMittal South Africa (formerly ISCOR)

"Our commitment to the world around us extends beyond the bottom line, to include the people in which we invest, the communities we support and the world in which we operate. This long-term, sustainability approach is central to our business philosophy.

Excerpt from ArcelorMittal's Vision & Commitment statement, Corporate Social Responsibility Report.

ArcelorMittal South Africa is the local Southern African unit of ArcelorMittal, the largest steel producer in the world, with over 320,000 employees and producing 10% of the world's total steel output. The corporation was originally founded in 1928 as ISCOR, which was part of a strategic state-sponsored programme to create national industrial giants. ISCOR functioned as a parastatal company until the late nineties, when globalisation and industry consolidation led to its privatisation and eventual purchase by ArcelorMittal in 2005. Over the decades, the company has developed a unique expertise and has made a huge contribution to South Africa's industrial development. It is currently Africa's largest steel producer, with a production of 6.4 million tonnes of liquid steel per year.

By this time, Collect-a-Can was already well established and had been successfully run as a joint ISCOR/Nampak recycling initiative for more than a decade. The Collect-a-Can model fits perfectly into ArcelorMittal's global sustainability efforts: not only as expressed in its corporate sustainability vision and commitment to communities, but also as stated in its overall environmental policy framework, approved in June 2007 by its executive board.

3 REPUBLIC OF SOUTH AFRICA, Government Gazette nr 19519, 27 November 1998. Act number 107 of 1998.

4 COLLECT-A-CAN, Corporate Brochure, 2007

5 SOUTH AFRICA Yearbook 2007/2008, Chapter 8, Environmental Management, p213

6 REPUBLIC of SOUTH AFRICA, National Waste Management Bill, November 2006, p2

recyclable products in the world, losing little of its inherent value in the recycling process. More than 95% of steel products gets recycled eventually, making the material one of the most sustainable in the world. ArcelorMittal South Africa currently makes use of 20% of scrap steel in its processes to produce crude steel”⁸. Furthermore, “Not only is it more environmentally friendly to sell, reuse or recycle by-products, but it makes sustainable business sense as well, generating income for ArcelorMittal South Africa and contributing to cost reduction of raw materials in the iron and steel production process”⁹.

The business case for Nampak and ArcelorMittal can also be linked to committing to the “triple bottom line”: achieving economic success, being socially responsible and protecting the environment. In short:

- **Recovering and recycling cans is environmentally desirable**
- **Nampak and ArcelorMittal need to fulfill their national and international targets as good corporate citizens and ensure compliance with legislation**
- **Used cans have economic value to be unlocked**
- **A well-managed and flexible recovering model is economically viable**
- **The positive socio-economic impact of recovering and recycling cans is substantial**

3. Challenges

Two of the main challenges faced in the South African recycling context in general are how to ensure the long-term success of the “sourcing from” model, and how to improve and increase awareness about recycling and its importance to the environment.

- **The “Sourcing from” model: how to fit the established scrap dealers into the model?**

The metal recycling market in South Africa is mainly organised around local scrap dealers, who would typically purchase scrap metal from individual metal collectors and pay by weight and grading. These scrap dealers usually have compactors or bailing

⁷ X, The Truth about recycling, op. cit.

⁸ ARCELOMITTAL SOUTH AFRICA, Sustainability Report 2007, Managing our environmental impact, p40. Website : <http://www.arcelormittal.co.za/InvestorRelations/2007/sustainability/index.htm>

⁹ Ibid., p39

¹⁰ & ¹¹ www.collectacan.co.za

¹² COLLECT-A-CAN, Corporate brochure, 2007


Nampak

“As Africa’s largest packaging company we are acutely aware of the impact that our products can have on the environment in which we live and are therefore directly involved in many recycling initiatives”. *Nampak Sustainability Report, 2007.*

Nampak is one of the world’s most diversified packaging groups. Its products include paper, plastic, glass and metal packaging for food and beverages, perishable products, healthcare products and cosmetics among other common items.

Based in South Africa, the group is listed on the Johannesburg Stock Exchange, and declared revenues of 17 billion rand for 2007.

The company is present in a number of other African countries, including Zimbabwe, Mozambique, Tanzania, Nigeria and Ethiopia. Nampak explicitly places its commitment to the African continent, as evidenced by its expansion and investment drive, within the context of NEPAD (New Partnership for Africa’s Development), a government-driven initiative for Africa’s economic upliftment founded in 2001.

Since packaging in all its forms is a major contributor to waste, protecting the environment and supporting recycling is a major part of Nampak’s social investment programme. It is in this light that one should view its partnership with ISCOR, now ArcelorMittal, to create Collect a Can.

machines, which can bale 250kg of cans together. They would then sell the scrap metal in this form to steel mills for a profit. For Collect-a-Can, this structure represents a challenge: how to best ensure that its aim to empower lower income individuals is achieved, while not compromising the viability of legitimate and established business ventures, which play an important role in the community. In practice, Collect-a-Can works with many of these scrap dealers in areas where it is not directly represented. This is one of the factors leading to the high recovery rate. In fact many of these scrap dealers were able to start their business with Collect-a-Can’s support, and have successfully built small businesses themselves, providing employment and empowerment to people from the bottom of the pyramid.¹⁰

- **Making recycling an automatism in South Africa**

For all the progress made over the last 20 years or so, recycling is still not as widespread in South Africa as it could be. There is much room for further improvement: the recovery

rate for plastic, for example, is less than 15%, and for glass between 20% and 30%. Collect-a-Can is addressing this issue in several ways, through educational campaigns and organised competitions at schools across the country, and by challenging firms from all sectors to implement internal recycling measures as part of their Corporate Social Investment programmes.¹¹ In schools across the country, an estimated 1 million learners participate in an annual Collect-a-Can competition. Crucially, recycling is given practical meaning by being integrated into mainstream subjects such as mathematics, for example by compiling weekly recovery rates into graphs, statistics and tables.

4. The Model – giving value to used cans

Collect-a-Can’s model is essentially market-driven and based on the inherent economic value of metal and the ability to transform it. At every level of the value chain, prices are market-based and vary on objective criteria such as volumes, grading

and onward usability. Individual collectors sell their raw material either directly to Collect-a-Can for cash, or through scrap dealers established as micro enterprises. Collect a Can's basic pricing model aims for a gross margin of around R 200/tonne of collected cans. This level, however, is too low to keep the operation viable, so Collect-a-Can has developed other means of breaking even, adding value by transforming and upgrading the scrap metal through an industrial process into higher grade material that is sold on to its clients.

At the lower end of the value chain, one of the main characteristics of the model is that it is flexible and based on the "people power" of a mass of collectors. Cans would be collected by individuals, schools, charities, church groups and others from various sources including roadside litter, taverns, shebeens, and large social gatherings such as sports meetings. There is, in other words, no single collecting channel or method: it is variable and is a factor of local circumstances, including social structures, population density, local government measures and infrastructure. This process provides an income to collectors that can vary from anything between a few hundred rand to R20,000 per month, in the case of collectors who have established themselves as small entrepreneurs and employ one or more permanent workers.

The next step in the value chain is to transform the "raw material" into a more valuable product: These processes include baling, briquetting and detinning.

Baling ensures that cans can be palletised and transported in the most cost-efficient and environmentally friendly manner. Steel mills will, as a rule, only accept cans in this form, as they are usually not equipped with baling facilities. Because baling is a simple procedure and only requires fairly basic equipment, Collect-a-Can often provides some of the larger can collectors with baling machines. This increases the efficiency of can collecting and also considerably reduces transport costs. The machines remain the property of Collect-a-Can but this type of outsourcing is one way through which the operation remains cost-effective.

Briquetting is the process of shredding cans into small pieces, and evenly distributing the steel content of the cans. The briquettes are sold on to mining companies who use it as a catalyst and alternative to ferro-silicone in the leaching of copper, nickel and cobalt.¹⁴

De-tinning refers to the electro-chemical separation of the tin and steel contents of the cans. The resulting tin can be sold onward to industrial clients, sometimes for export, and the steel can be remelted. The margins achieved through the sale of tin-bearing scrap is in fact one of the most important sources of revenue for Collect-a-Can, and in effect this revenue stream cross-subsidizes the low-margin can recovery process.¹⁵

Conclusion

When measured by the yardsticks of the recovery rate and the number of people empowered by the venture, Collect-a-Can is clearly a huge success. That it could expand its activities across the border to neighbouring countries Botswana, Namibia and Zimbabwe is further evidence of its credibility.

Recycling does, in effect, have an employment creation potential for thousands of South Africans and Collect-a-Can provides a model which could be extended to other materials, especially glass, plastics and paper.

The next step would be to find ways of making the model profitable in the long run, i.e. without having necessarily to rely on the occasional financial support of Nampak and ArcelorMittal.

One way forward may be for Collect-a-Can to consider integrating its collecting agents into a more formalised microfranchise-type model, in which it could get local scrap dealers and would-be small entrepreneurs on board and as part of a nationwide network of micro-franchises. This would possibly improve the recovery rate even further and improve the overall visibility of recycling. It would create a space in which Collect-a-Can could become more involved in helping to create micro-entrepreneurs with training and some level of operational support, without taking an unreasonable level of financial risk, as the micro-franchises would be stand-alone businesses which fail or succeed on their own merits. There also is potentially much further value still to be unlocked in Collect-a-Can's brand image, which is very positive, yet perhaps arguably not visible enough as it stands.

By Pierre Coetzer for Reciprocity

Your Contacts at the BOP Learning Lab in the Southern Africa:



University of Stellenbosch Business School

Prof. W. Thomas

T: +27 21 82 770 9694

E: wthomas@usb.ac.za

Norma Sayman (Secretary)

E: reg@usb.ac.za

W: www.usb.sun.ac.za



Reciprocity

Nicolas Pascarel

T: +27 (0) 21 424 4488

M: +27 (0) 82 319 8404

E: info@reciprocity.co.za

W: www.reciprocity.co.za

Contact details: Collect-a-Can



5/13 Forssman Close, Barbeque Downs, Kyalami, MIDRAND

T: +27 11 466 29 39

F: +27 11 466 29 41

E: info@collectacan.co.za

W: www.collectacan.co.za

13 Rodrick Resandt, COLLECT-A-CAN Cape Regional Manager, Interview, September 26th, 2008

14 COLLECT-A-CAN, « A decade of leading the clean initiative », Corporate Communication Department, 2003.

15 Funani Mojono, COLLECT-A-CAN, Managing Director