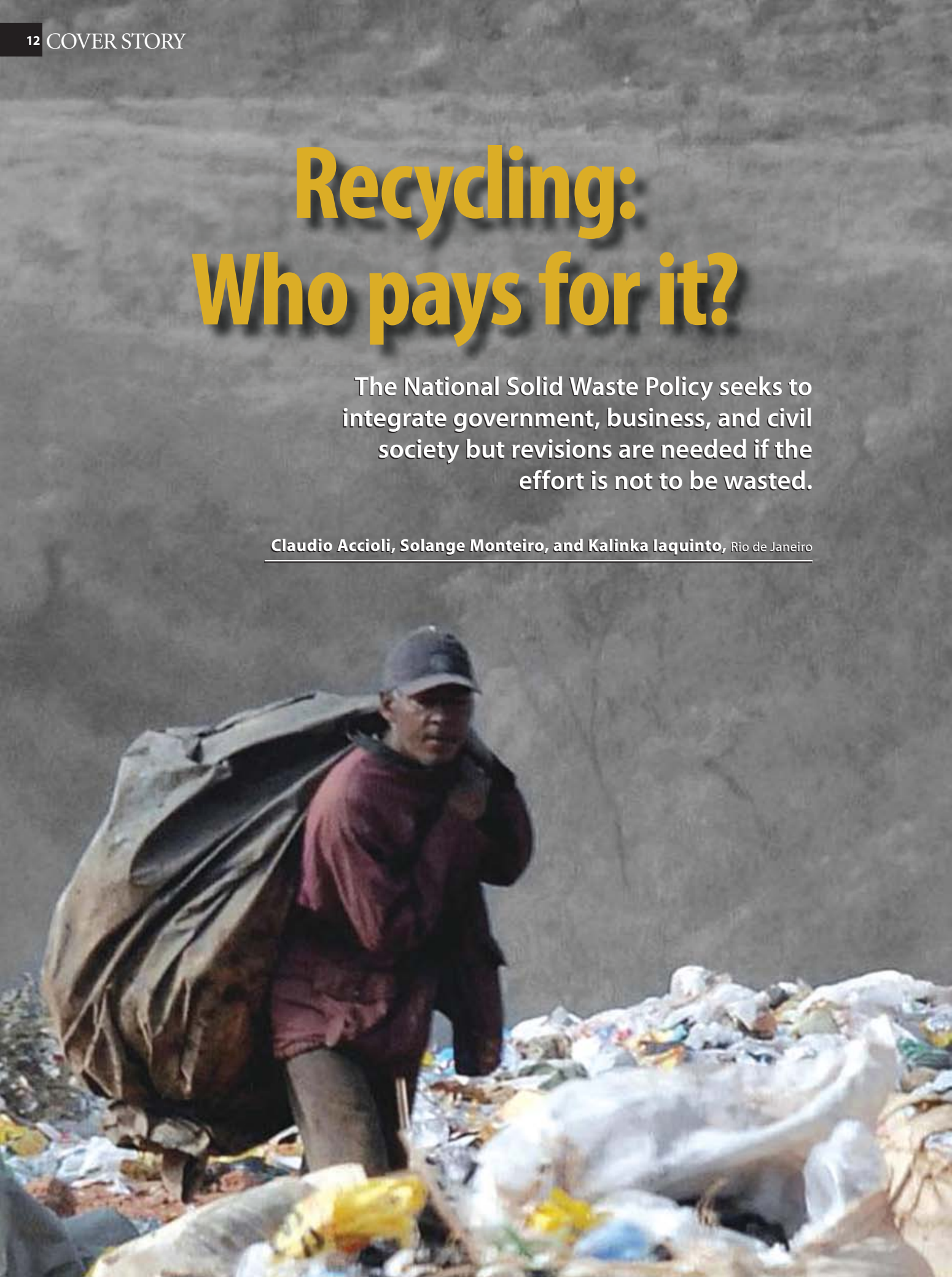
Recycling: Who pays for it?

The National Solid Waste Policy seeks to integrate government, business, and civil society but revisions are needed if the effort is not to be wasted.

Claudio Accioli, Solange Monteiro, and Kalinka Iaquinto, Rio de Janeiro



In 2010 Brazilians threw away 61 million tons of municipal solid waste, about half of which was not properly disposed of, according to the Brazilian Association of Public Hygiene and Special Waste (Abrelpe). To keep growth sustainable, Brazil should minimize both industrial and household waste, extend product life cycles, and commit to reusing or recycling products.

The National Solid Waste Policy (PNRS) sets out principles, guidelines, goals, and actions to those ends. Presented in late 2010 after 21 years of congressional discussions, the draft PNRS aims to promote cooperation between government, civil society and manufacturers, importers, distributors, retailers, consumers, and public waste collectors in finding ways to correctly dispose of organic waste and to recycle all waste, whether food or the rubble of a building. The emphasis is on shared responsibility. The draft was circulated this September and public consultation, and heated debate, is expected to last until December.

EACH SECTOR A CHALLENGE

A fundamental, and highly controversial, aspect of the law is "reverse logistics," which requires that waste materials be returned to those who generated the products to be treated or reused in new products. It will be mandatory for many industries. By year-end the sectors that are supposed to suggest options for recycling in their activities are packaging in general; electronics; fluorescent, sodium vapor, and mercury lighting; drugs; and packaging for oils and lubricants. The law covers pesticides, tires, and batteries, but these are already subject to specific regulations. When a sector cannot reach a consensus, the federal government can do so by decree. "Because immediate deadlines would be arbitrary and difficult to comply with, economic and financial feasibility studies are being conducted to establish benchmarks," says Nabil Georges Bonduki, Ministry of Environment (MMA) Secretary of Water Resources and the Urban Environment.

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So far progress in recycling has been made in a few segments where the economic viability was evident. For aluminum cans (see box), for instance, the recycling rate is already approaching 100%. Without any support or training, collectors have recognized cans as a source of income and strive to get them quickly back to their point of origin.

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In sectors like electronics, the situation is not so simple. The sheer variety of products, from refrigerators to mobile phones, adds huge complexity.

Emilio Loures, manager of technology programs of Brazil's Intel, cites the Brazilian market for PCs — 14 million units in 2010. "In a computer, there are valuable components like platinum, gold, silver, but you need to know how to handle them appropriately," he says, adding that in Southeast Asia, some people burned computer cards to extract gold, causing pollution, and "we do not want that to happen here." And the used materials themselves are not the only problem, he explains: "The tax treatment for recycled products is not harmonized; this type of waste transported from one state to another pays state value-added tax ... if there were more incentive, local industry would be very interested in taking back all the machines on the market."

Other sectors are negotiating progressive recycling goals and incentives, though so far, "It's a trend mainly driven by large companies, which have both an image to preserve and a need for more sustainable production to continue growing," says Ricardo Rose, director of the Brazil-Germany Chamber of Commerce Department of Renewable Energy, Sustainability and Energy Efficiency. This can be a force for progress. "Take supermarkets," Rose points out. "On one hand they force suppliers to adopt certain standards and on the other they raise consumer awareness regarding disposal of waste."

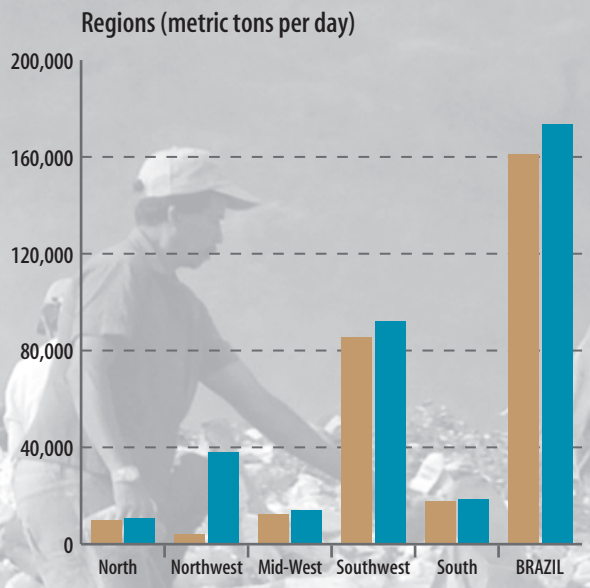
According to Ligia Korkes, manager of sustainability, Pão de Açúcar group, the biggest challenge of the new PNRS will be formation of intersectoral alliances. "For example, the recycling stations we have allow us to share responsibilities with companies that are our partners and thereby reduce costs, but in reverse logistics it is not possible to share this type of activity," she says. "For instance, just one of the group's companies, Extra supermarkets, works with 50,000 different products. It is almost impossible to deal with this universe without the help of other players, including consumers."

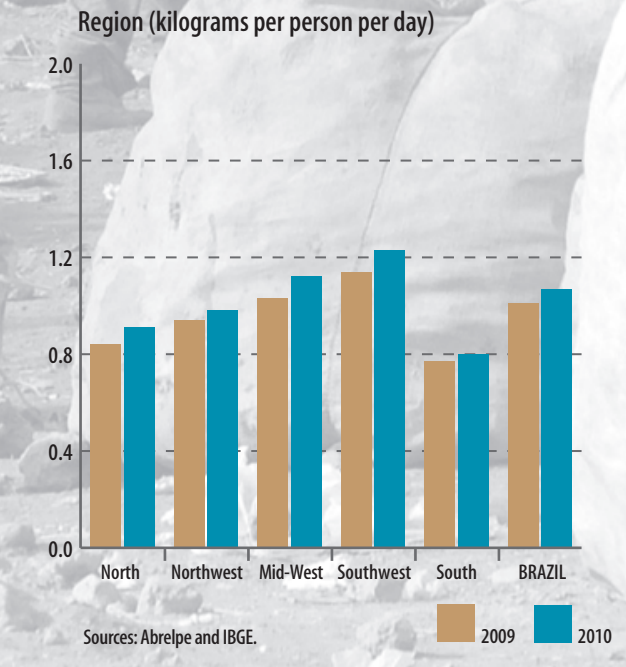
PUBLIC SECTOR SUPPORT

Especially for sectors in which the return of used waste is more complex, "It is essential that there be partnerships between producers and local governments," says Lucien Belmonte, superintendent of the Technical Association of Brazilian Glass (Abividro). By law, municipalities must clean up trash. The PNRS mandates that by 2014 all cities will have to close open dumpsites, carry out selective collection, and properly dispose of organic waste

Our daily garbage

Collection of solid waste





Sources: Abrelpe and IBGE.

in landfills. Unfortunately, many municipalities simply do not have the financial resources to comply.

"At the moment replacing open dumpsites by landfills is unrealistic. The Ministry [of Environment] has complicated the life of mayors," says Paulo Ziulkoski, president of the National Confederation of Municipalities (CNM). To comply, the municipalities would have to spend about R$52 billion (US$28 billion) in less than three years. Research by FGV Projects for the Brazilian Association of Waste (Abetre) found that the lifecycle costs of a large landfill, capable of receiving 2,000 tons of garbage a day, is about R$525 million, an annual cost of R$14 to R$18 per capita. The estimate covers everything from studies to installation to post-closure activities for a landfill with a life of 20 years. "We do not have the technical or financial resources for this," Ziulkoski says.

Diadema city in São Paulo state has about 400,000 inhabitants and for more than 10 years has been disposing of waste in a landfill. In its Clean Life program, the city has also hired scavengers who used to work in the Alvarenga dump site (closed in 2001) and separately collect about 150 metric ton a month. "Today, we pay R$2 million a month to collect waste; waste management has high maintenance and operation costs," says Mayor Mário Reali (Workers Party-PT).

But municipalities that have addressed the problem of waste disposal are

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the exception. In 2010, according to Abrelpe, 58% of the 5,565 municipalities reported some initiative for waste management, but a CNM survey found that only 37% of Brazilian cities have landfills, most rely on dumpsites, and only 20% do composting, which turns organic waste into fertilizers. "Selective collection costs 70% more than normal, and composting also has a very high cost. The government demands that we must do it but does not indicate with what resources. This is irresponsible," Ziulkoski says.

Felipe Zakari Antunes, manager of sustainability for Wal-Mart, stresses the need to reconcile eradication of the dumpsites, which has set deadlines, with processes for selective collection: "Recycling stations in retail stores cannot be the only solution to ensure that packaging is recycled, for example. We need a selective collection program with municipal support to increase the volume of material collected and raise public awareness."

To make the necessary changes, especially in smaller municipalities, there are two possible options. The first is private waste management. "The private sector has technical and human resources and can offer solutions at reasonable costs," says Diógenes Del Bel, Abetre chief executive. Second, the PNRS suggests creation of consortia of municipalities that could share costs and receive resources from the federal government. For Ziulkoski, however, there is no guarantee that there will be money to maintain these consortia.

Carlos Roberto Vieira da Silva Filho, Abrelpe executive director, believes that dumpsites can be closed within the deadline if "we quit talking and begin doing." Cacilda Teixeira de Carvalho, president of the Brazilian Association of Sanitary and Environmental Engineering (ABES), points out the need to educate people for selective collection. "Establishing landfills will depend on institutional and technical support, and equipment, making room for new technologies. But this is all meaningless without informed people, "she says. Adalgiso Teles, Bunge Brazil director of corporate affairs and sustainability, agrees, emphasizing that "The biggest challenge is to promote consumer awareness."

Abividro's Belmonte says consumers do not realize the changes the new policy will make in their lives, pointing out, "This is a program with huge players who depend on the consumer, and consumers have not been educated about their role." Alísio Jacques Mendes Vaz, executive chairman of the National Union of Distributors Fuel and

Lubricants (Sindicom), thinks there is a risk that the effects of the new policy on consumers will first show up on their pockets: "The entire chain of production and distribution will bear the recycling costs, and it is important that consumers know that they will paying more for it. [Recycling] is a society demand but its costs must be recognized."

MUCH TO GAIN

Despite the doubts, Rose of the Brazil-Germany Chamber of Commerce believes the PNRS is necessary, but says one of the biggest obstacles to the new policy is the lack of research: "We accept the fallacious argument that to adapt to a sustainable process is more expensive; that is not so. Streamlining processes tends to make costs drop."

Some argue that achieving the PNRS targets depends on both reducing recycling costs and expanding the recycler sector. "Today, making a recycled product is more expensive than using raw material. Having more recycling parks is important because we are very focused on selective collection," says Victor Bicca, president of Business Committed to Recycling (Cempre).

Nelson Pereira dos Reis, director of the Department of Environment, Federation of Industries of São Paulo State (FIESP), underlines the need for a tax review, particularly in certain segments: "One example is paint sludge. The tax burden on this material prevents its recycling because the difference in VAT between buying and selling the sludge generates a credit that the recycler cannot use."

Another good exercise is to look for sectors that have already addressed recycling. For example, the lubricating oils sector already has an agreement to collect 60% of the packages distributed to service stations and dealerships through 2015.

To Wanderley Baptista, policy and industry analyst, National Confederation of Industry (CNI), economic support for PNRS-related activities demands more discussion of alternatives such as special VAT rates for recycled material and equal tax treatment by states.

Although Brazil stands out in recycling of some materials, it is still far short of being able to fully comply with the PNRS. Abrelpe data show that in 2010 only 4% of 61 million metric tons of solid waste was recycled. André Luís Saraiva of the Brazilian Association of Electrical and Electronics Industry (Abinee) suggests that providing adequate infrastructure for recycling his industry's waste products could make the market for recycling more attractive.

Cempre's Bicca points out other opportunities. "This new policy

will allow Brazil to profit from huge economic opportunities that we have been wasting," he says. "Just by recycling plastic containers, aluminum, and cardboard, it is estimated that Brazil could have economic gains of R$8 billion a year, and so far we do not reach even R$3 billion."

Arguments and debates aside, the various sectors are unanimous that the PNRS must define the role of each player to ensure that economic growth is environmentally sustainable. Companies operating nationally are being pressed to comply with local legislation, as in São Paulo and Curitiba cities. "We welcome the adoption of the new National Policy of Solid Waste because we are under pressure from local governments to comply with requirements for recycling materials, [but their protocols] lack standardization and allocation of responsibilities," says Rino Abbondi, vice president of logistics for Coca-Cola. "We hope [the PNRS] will be a national umbrella … making it possible to address [waste management] from Amazonas state to Rio Grande do Sul state with the same approach."

Nationally, it is still difficult to ensure that decisions will occur quickly. For Abinee's Saraiva, the ideal would be to select products from every industry and some municipalities with different specificities to pilot total recycling. He explains that "With this, we would have a map of the difficulties, material conditions, and tax document of title of ownership. From these pilots, we could assess the country's installed recycling capacity and its specificities."

Another good exercise is to look at sectors that have already addressed recycling. For example, the lubricating oils sector already has an agreement to collect 60% of the packages distributed to service stations and dealerships through 2015. A program Sindicom put together five years ago is the baseline for its projections. The Play Clean program began in Rio Grande do Sul state and has already reached the other two Southern states and Rio de Janeiro and São Paulo states. Gas stations collect the packaging, which is sent to receiving stations where it pressed, baled, and sent to plants that recycle polyethylene. "There they become raw material, including for new packaging," says Mendes Vaz. "Last year, we collected 23 million packages; this year, we expect to collect 40 million."

"We are anxious to start a more structured and formalized [recycling] process," says FIESP's Reis. He believes that it is most important to seek solutions that take into account local structure and educational levels and avoid any ideological bias. "We cannot expect industry to pay for everything," he says. Sindicom's Mendes Vaz reiterates that at present, more than setting goals the important thing is to start taking steps, recognizing that "the best can be the enemy of the good," and keeping in mind that to even get to the good, it is necessary to keep up the pace.