

Can Waste Management in Brazil Be Sustainable?

AN INTERVIEW WITH MARYEGLI FUSS, PHD STUDENT AT ITAS

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Maryegli Fuss



FOTO: MANUEL BALZER

Mary Fuss is a doctoral candidate at ITAS and holds an M.Sc. in Material Flow Management from the Environmental Campus Birkenfeld at FH Trier. The Brazilian researcher is currently finishing her dissertation about sustainable options to improve the waste management of Belo Horizonte. To determine the sustainability of different approaches for Belo Horizonte, she uses the integrative concept of sustainability (IKoNE). This

concept was developed by ITAS for the Helmholtz Association and is based on the most relevant sustainability resolutions, such as the Brundtland Report, Rio 92 and Agenda 21. The integrative concept of sustainability encompasses 3 goals and 15 rules for sustainable development. "The goals and rules are expressed in a rather general way – to work out practical tools and results for my research, I had to translate the

concept into the language of waste management." To contextualize the concept, she did a survey with waste experts of Belo Horizonte and developed several indicators to analyze the sustainability of waste management. The conception for sustainable waste management is published in the well-known scientific Journal Cleaner Production, and further results will be part of her dissertation.

But can waste management ever be sustainable? Isn't this a contradiction in terms? "When it comes to sustainability, waste management can be seen as part of the solution," she responds. "It can help to overcome many urban issues, from energy access to poverty – for example, by providing alternative technologies to produce electricity and becoming monetary resources for income in the developing world, respectively. You have to see the bigger picture and it is not recommended to consider it as an isolated urban problem area," she says. To be able to understand the bigger picture, one needs to know how garbage collection works in Brazil: In 2010, the Brazilian Policy for Solid Waste was institutionalized – meaning that all municipalities were forced by law to redesign their existing waste management systems. "Before that, garbage collection was messy," says Mary. Appropriate disposal wasn't mandatory, so there were huge spaces for dumping, where waste pickers worked to separate valuable waste from garbage. "As you can imagine, the hygienic conditions were bad, there were a lot of diseases, not to mention the pollution that was caused." When Brazil decided that it needed a new law to improve waste management, the idea behind it was to increase sustainability with the objective of relieving poverty among the families who use dumping sites as their working and home site. Belo Horizonte became a reference city for this project: "Instead of open dumping, landfills were created where conditions are far better. Waste pickers were legalized, and several cooperatives were founded. Unfortunately, just over 40% of all Brazilian cities have implemented a plan like this as of today," she adds.

Until 2010, waste pickers were informal workers. Because of the new law, they were integrated into municipal waste management. "It was time to treat waste pickers like people and to recognize them as agents of waste management," states Mary. "The idea was to create justice: Instead of competing with each other, we should work on a solution together and make each other stronger. They help us, we help them." To do so, the waste pickers had to organize themselves into cooperatives on a municipal level, and the city acceded to agreements with them to legalize their work.

Changing the system is never easy, be it on a municipal, national or an international level. Mary knows this from experience: "It's the same story everywhere – whether in Brazil or in Germany, nobody likes to change the patterns of their daily life." Forcing people to alter their habits didn't work in Brazil: "Although taxes were raised to punitive levels for non-adherence to the law, this approach didn't work out: People simply didn't pay. They didn't understand why suddenly they should pay for a service that



Blick über die Stadt Belo Horizonte im Südosten Brasiliens (Foto oben). In dem Fußballstadion Mineirão gewann die deutsche Nationalmannschaft im Juli 2014 im Halbfinale gegen Brasilien 7:1

View of the city of Belo Horizonte in Southeast Brazil (top). At the Mineirão football stadium, the German national team won 7:1 against Brazil in the semi-final in July 2014

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Das Müllproblem ist offensichtlich:
Der verdreckte Lake Pampulha in
Belo Horizonte

The waste problem is obvious:
The polluted Lake Pampulha in
Belo Horizonte

FOTO: PICTURE ALLIANCE / ESTADÃO CONTEUDO



Mit rund 2,5 Millionen Einwohnern und über fünf Millionen Menschen in der gesamten Metropolregion gehört Belo Horizonte zu einer der wichtigsten Städte Brasiliens

With about 2,5 million inhabitants and more than 5 million people in the entire metropolitan region, Belo Horizonte is one of the most important cities of Brazil

Kann die Abfallwirtschaft in Brasilien nachhaltig sein?

Ein Interview mit Maryegli Fuss, Doktorandin am ITAS

Mary Fuss ist Doktorandin am ITAS und hat einen M.Sc. in Stoffstrommanagement des Umwelt-Campus Birkenfeld an der FH Trier. Die brasilianische Forscherin schließt derzeit ihre Dissertation über nachhaltige Optionen zur Verbesserung der Abfallwirtschaft von Belo Horizonte ab. Um herauszufinden, ob und wie nachhaltig die verschiedenen Ansätze in Belo Horizonte sind, arbeitet sie mit dem integrativen Konzept der Nachhaltigkeit (IKonE). Dieses Konzept wurde von ITAS für die Helmholtz-Gemeinschaft entwickelt und basiert auf den wichtigsten Nachhaltigkeitsbeschlüssen wie dem Brundtland Report, Rio 92 und der Agenda 21. Das integrative Konzept der Nachhaltigkeit beinhaltet 3 Ziele und 15 Regeln für eine nachhaltige Entwicklung. „Die Ziele und Regeln sind eher allgemein formuliert – um praktische Werkzeuge und Ergebnisse für meine Forschung zu erarbeiten, musste ich das Konzept in die Sprache der Abfallwirtschaft übersetzen.“ Um das Konzept zu kontextualisieren, führte die Forscherin eine Umfrage mit Abfallexperten aus Belo Horizonte durch und entwickelte mehrere Indikatoren zur Analyse der Nachhaltigkeit der Abfallwirtschaft.

Als Brasilien beschloss, ein neues Gesetz zur Verbesserung der Abfallwirtschaft zu verabschieden, stand die Idee dahinter, die Nachhaltigkeit mit dem Ziel zu erhöhen, die Armut der in den Mülldeponien wohnenden und arbeitenden Familien zu lindern. Belo Horizonte wurde zu einer Referenzstadt für dieses Projekt: „Wilde Müllhalden wurden durch Deponien mit sehr viel besseren Bedingungen ersetzt. Die Abfallsammler wurden legalisiert, und es wurden mehrere Genossenschaften gegründet. Leider sind derartige Projekte bis heute aber nur von etwas mehr als 40 Prozent aller brasilianischen Städte umgesetzt worden“, fügt Mary Fuss hinzu.

Das System zu ändern, ist nie einfach, sei es auf kommunaler, nationaler oder internationaler Ebene, weiß Maryegli Fuss aus Erfahrung. „Wenn ein Konzept erfolgreich sein soll, muss man über dieses Konzept vor allem sprechen. Immer und immer wieder. Kommunikation ist der Schlüssel. In Brasilien nutzen wir dazu den direkten Weg über Vermittler, die von Tür zu Tür gingen, um mit den Menschen zu reden“.

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had been free for as long as they could remember and, from their point of view, was forced upon them.” What helped was to talk to them: “People are more likely to change when they understand why it is important,” Mary contends. “Therefore, you need to initiate a dialogue. If you want your concept to be successful, the most important thing is to talk about it. Over and over again. Communication is the key.” But what exactly do you have to do? Mary explains: “To start, you have to communicate on a local level, use media to inform people – here in Karlsruhe, for example, you can see posters and ads for different waste containers that explain how to separate your waste correctly. In Brazil, we used a direct approach, with mediators who went door-to-door to talk with the people.” On an international level, things get more complicated – but Mary maintains that is no reason to capitulate: “Sustainability is a difficult topic, and sometimes you need to know the right people to open a door for you. It is kind of redundant to say, but you have to think globally and act locally if you want to address the global issues. We share the same atmosphere, lithosphere, i.e., the same Earth. If we want to reduce air pollution or plastics in the ocean, for example, we have to understand and change how waste is being treated locally. Disseminating that improvement will have a national and global effect.”

Was that the reason for her to come to work at ITAS, to change the world? “Here at ITAS, I have the opportunity to help Brazil and all the other countries that are dealing with the same problems,” she explains. When I ask her if it was difficult to gain ground in the German scientific community, she pauses briefly before answering: “I would describe myself as an international person; it’s not hard for me to adapt to the lifestyle of another country she says. “One thing that I noticed as a female researcher in Germany was the gender issue: I had never paid attention to it before because I had never felt a barrier, and I still don’t feel one. But I can say that I am proud to be a woman in science here. It seems to me that there are an increasing number of female colleagues. Maybe I am mistaken but the very fact that it occurs to me shows that being part of the German scientific community changed my perception.”

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