

RECYCLING OF MUNICIPAL SOLID WASTE IN BRAZIL: CHALLENGES AND OPPORTUNITIES FOR EXPANSION

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Brazil produced 62 million tons of urban solid waste in the year of 2012. More than 80% of these were composed by reusable and recyclable materials, near 30% were composed by papers and plastics (ABRELPE, 2011). The country has very significant recycling indexes to paper (28%), cardboard (70%) and PET (59%), despite the fact that only 17% of Brazilian municipalities do selective collection of waste (IBGE, 2011). These indexes are bigger or the same of those obtained by others countries where recycling directives are older or stronger than those proposed by the Brazilian National Law for Waste (BNLW) –Law nr. 12 305/2010. The Brazilian index of PET recycling, for example, is bigger than indexes observed in USA, England, Italy and Portugal (VALOR ECONÔMICO, 2013). In the year of 2011, Brazil consumed of 9,6 million tons of paper, and recycled 4,4 million tons of paper. Seventy five percent of the paper industry in Brazil is formed by recyclers industries, what means that more than 50% of theirs products utilize, in some proportion, recycled fibers as raw material (BRACELPA, 2013). The recycling of waste in Brazil is an activity that grows on each year. This industry had 150.000 workers at 1999, and at 2008 were registered 375.000 employees in this sector (IBGE, 2010). So, it is possible to talk about productive chains of recycled paper and plastics in Brazil, which are very significant. But there aren't many studies about these chains and markets. This paper presents an analysis of these productive chains, which have become more and more important with the growing of recycling industries and the exportation of waste in all the world (COOPER, 2013). Beyond a vision of productive sector and the value chain of recyclable paper and recyclable plastics in Brazil, we discuss the challenges to amplify the waste recycling, considering the recycling indexes defined by Brazilian law and the environmental, social and economic benefits that this politics brings to the waste management. The data of this research were got from technical visits in the different actors that form each link of the investigated chains, at the five regions of Brazil. In this way, we attempted to discuss with enterprises of all sizes, included the informal ones and the waste pickers cooperatives, in order to observe specificities and the diversity of the sector. The actors of each chain link were characterized and it is discussed what they need to strengthen their activities. Particularly we were interested in understanding what they need to increase the consumption of recyclable waste as raw material in their production lines. As a conclusion, we discuss the challenges to solve the bottlenecks identified at these productive chains and their implication to waste management, since it was showed that the waste recycling is primarily a question of distribution channels, with the biggest costs and quality requirements being associated to collection, selection and transport.

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