



"CLEANER PRODUCTION TOWARDS A SUSTAINABLE TRANSITION"

## Cooperative Recycling as a Tool for Social Inclusion and Reduction of Urban Solid Waste

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## **Abstract**

The recycling cooperatives have been considered as a good alternative for removal of solid waste from the cities and also as a way to create a source of income for these workers. The present study demonstrated the difficulties and the contributions that this cooperative promotes to removing the solid waste from the city through a case study based on a survey carried out in the Cooperativa Central de Reciclagem da Zona Norte (CRZN) located in Sorocaba-SP. As the survey results showed that the cooperative must operate consistently and be managed properly can result as increasing the efficiency of collecting, segregation and selling the recyclable material can be resulting in higher income for workers. During the 2011 for 2014 period the average income grow to R\$ 785,29 to R\$ 1.409,49 and in the same period, the amount of waste removed from the city, grew three times at least. This result was possible by applying an organized management and due to use of a quality tool known as the Ishikawa diagram. The adoption of the tool also, contributed to increase the productivity and workers began to participate more actively in the strategic decisions and therefore improved self-esteem and provide good relationship with other workers.

Keywords: Recycling, Cooperative, Management.