48 - RECICLAJE, UNA NUEVA VISIÓN: IDEAS PARA USO INNOVADOR DE NUEVOS PRODUCTOS

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doi:10.16887/86.a1.48

1. INTRODUCTION

With the technological and scientific progress of the country in order to an economic and sustainable development, the search for a better quality of life for man is inevitable, and that the preservation of the environment is essential. But at the same time that they have so many technological advances of nature, the environment suffers increasingly with increasing "production" of waste and its inadequate disposal; and not only the environment, but the entire population, damaging your health and well being. Despite the growing interest in sustainability, the waste is not treated properly, although its proper disposal is essential for sustainable development.

Garbage is inherent in all activities performed by humans in one way or another, the man is a constant producer of waste, whether in basic activities of everyday life or working in large companies. The volume of solid waste was accentuated after the Industrial Revolution, where mass production stimulated consumption; and increasing production, greater consumption and consequently higher production of waste. It is a supply chain with an end, because after the product turn trash, nothing or little is done; and this is what must be reversed, so that after the phase of waste, that can turn into another product, returning again to the market with an economic value.

With more and more high-tech products emerging in the Brazilian market, often what you buy in a given month, it is already outdated the next month, from a technological point of view, which means that consumerism is explored to the fullest and thus the disposal of products is more frequent. With this, and with the ease of the current use of personal loans, Brazil has become one of the countries that consume the world. And the more consumption, more waste; and the more waste, the greater the cost to the taxpayer and the greater the environmental and social impact.

The question of the appropriate treatment of solid waste is not simple, as it involves all sectors of society working together. Not just the creation or increase of landfills, which are the most adopted solutions by public managers, a broader view is needed. You should think about reducing the amount of waste that is destined for landfills. Other solutions adopted to this issue is the use of methane gas as energy, composting and recycling.

But we must go further, because that alone is not enough to optimize the treatment of waste. Public managers should view waste as a generator of employment and income and not as a problem, passing it to society as a whole through effective public policies.

Recycling is one of the solutions for the treatment of waste, but we must go further in this matter. It all starts with the awareness of the population for garbage separation is done after the collection and disposal to recycling points. But what happens in most cases, first is that not the entire population makes the sorting of waste suitably second is that the cost of collection of the material is still high, and third and most serious, is that most of recyclable waste is sent directly to landfills, that is, they do not go to recycling points, which would be their proper disposal. This is because in cities where there are these places, which are not all they work over capacity and do not account for the large amount of waste generated.

Starting from these premises, there is the importance and relevance of this work, which aims to analyze new views on ways of recycling, with new ideas to use and creation of products in order to minimize the impact of landfills on the environment and the population minimizing the costs of collection, improve waste treatment, reuse solid waste in an efficient and innovative way, and change the garbage vision to society, turning into an economic development generator. For this, the documentary and bibliographic collection was used, seeking to show examples of how waste can be reused directly from the generating source, as in the case of reverse logistics policy; and also showing how waste can be turned into "luxury", generating a high added value.

2 RECYCLING, A NEW VISION: IDEAS FOR USE AND INNOVATIVE NEW PRODUCTS

2.1 BRIEF HISTORY OF GARBAGE

"In prehistory, nomadic groups fed up hunting, fishing and vegetables and the remains of the meal - bones, hides and skin of fruit. - Were dropped on the ground and followed the natural cycle, a kind of ecological Eden" (PADOVANI, 2011). So basically, the garbage was only from organic and naturally decomposed in the ground without damage to the environment and the population.

> As was, "up civilizing" the man went on to produce parts for promoting your comfort: ceramic containers, tools for planting, more appropriate clothing. It also began to develop habits such as housing construction, breeding, growing food, as well as settling permanently in one location. The production of waste is therefore increasing, but had not yet made a worldwide problem. (HISTORY, 2014).

With this, the recyclable waste began to emerge gradually, but still in small quantities, without causing great concerns about their destination.

Only after the Industrial Revolution, with the explosion of manufacturing of consumer goods, it is that the issue of garbage intensified quickly. According to Ribeiro (2014):

> However, from the second half of the twentieth century began a turnaround. Mankind started to worry about the planet where you live. But it was no accident: facts like the hole in the ozone layer and global warming aroused the world's population about what was happening to the environment. In this "awakening", the issue of generation and disposal of waste was perceived, but unfortunately today is not being viewed with the necessary urgency. (HISTORY, 2014).

2.2 THE COST OF GARBAGE

Solid waste cause a number of environmental impacts, such as water pollution, impairment of water resources, air pollution, groundwater pollution, global warming, proliferation of vectors of disease; all causing many problems to public health. However, the impacts caused by waste, are not only environmental concerns but also socio-economic order, since large amounts of money are intended for collection and treatment of urban waste, generating high costs to the taxpayer.

São Paulo consumes R $ 965 million per year with garbage and Rio de Janeiro consumes R $ 850 million. (WHAT, 2014). And the newspaper Gazeta do Povo/PR (2014), expenditure on waste grows almost 50% in two years in the Metropolitan Region of Curitiba and the collection rate would have to rise 150% to cover the costs in Curitiba. As an example of the high costs generated by waste, we can mention the city of Curitiba:

> A survey conducted by the Gazeta do Povo shows that between 2010 and 2012, the values of the collection and transportation of waste contracts rose on average 46% - not to mention the cost of the landfill, which has doubled in the period. Considering only 11 of the 21 cities of the Intermunicipal Consortium for Urban Solid Waste Management (Conresol), responsible for 95% of the waste generated this year, spent together with collection and transportation from R $ 119 million in 2010 to R $ 174 million in 2012. of the 29 cities of the MRC, 21 are part of Conresol. Together, they produce 2200 tons of garbage a day this year, a figure 10% higher than in 2012. (FELIX, 2013, p. 4).

"This growth trend is one of the reasons that lead to the adjustment of collection and transportation contracts, since the payment is made according to weight. In addition, it reduces the useful life of the landfill. "(Felix, 2013, p. 4).

Thus, we see the great challenge that public administrators will have to face, not only in Curitiba, an example, and throughout the country. Therefore, the issue of reduction of waste volume generated becomes so urgent and necessary.

2.3 RECYCLING

According to Law 12,305 of August 2, 2010, establishing the national policy on solid waste, recycling is:

> The process of transformation of solid waste that involves changing its physical, physico-chemical or biological weapons, in order for processing into raw materials or new products, subject to the conditions and standards set by the competent bodies of Sisnama and, if applicable, the SNVS and Suasa. (BRAZIL, 2010).

To sum up, one can say that recycling is the recycling of waste solids for processing into new products.

Recycling has emerged as an economically viable alternative and environmentally friendly for waste treatment, as it reduces the progressive accumulation of waste, and also features contributions from economic and social order, such as using more rational utilization of natural resources, which consequently provides better quality of life for people.

Most materials are recycled glass, aluminum, paper and plastic. But according Nitahara (2013), less than 2% of solid waste is recycled and that Brazil loses R $ 8 billion per year:

> Even with 60% of municipalities in the country taking some initiative on separate collection, the amount of municipal solid waste that actually returns to the production chain does not reach 2%. According to the Panorama of Solid Waste in Brazil in 2012, the Brazilian Public Cleaning Companies and Special Waste Association (Abrelpe), 51.4% of the collected material is organic matter; 13.5% are plastic; 13.1% are paper, cardboard and tetra pak; 2.9% are metals; 2.4% of waste is glass; and 16.7% are other materials.

So that the recycling process is actually completed efficiently, it needs a joint action of various sectors of society. First, it is necessary that the society as a whole has ecological awareness and environmental education for the separation of waste is done right. Second, it is necessary that all municipalities have the selective collection program. Third, after collection, it is necessary that these materials are transported to recycling points and not to landfill, as happens most of the time. Since this process depends on several factors, what occurs is that most of solid waste is not recycled, as can be seen in the above data.

Seen it, one has to think of simple and viable alternatives to the volume of waste generated does not increase more and more, only causing negative impacts. One such alternative is the policy of reverse logistics, in which the solid waste will return to the home businesses, where they will be reused.

2.4 REVERSE LOGISTICS

According to the National Policy on Solid Waste, reverse logistics is:

> The economic and social development tool characterized by a set of actions, procedures and means to facilitate the collection and recovery of solid waste to the business sector, to reuse in your cycle or other production cycles, or other disposal environmentally sound . (BRAZIL, 2010).

The main products that will be part of the reverse logistics system are: tires, batteries, packaging and residues of pesticides, fluorescent lamps, mercury and sodium vapor, automotive lubricants, parts and electronic equipment and computers, appliances. In the process of reverse logistics, there is also the use of shared responsibility, where each sector of society must do its part.

Consumers should return the product no longer used in specific posts, traders should be responsible for the installation of these locations, and industries should withdraw the products and repackage them; and yet the government must monitor the implementation of all the steps and create education and awareness campaigns among consumers.

The benefits of this process for society and the environment are (LOGISTICS, 2014):

- Enables the return of solid waste for home businesses, preventing them could pollute or contaminate the environment (soil, rivers, seas, forests, etc.);
- Allows savings in the production processes of the companies, since these residues come back in the supply chain, reducing the consumption of raw materials;
- Creates a shared responsibility system for the disposal of solid waste. Governments, businesses and consumers

are now responsible for the selective collection, separation, disposal and disposal of solid waste (mostly recycled);

- The industry will now use cleaner technologies and to facilitate reuse, create packages and products that are more easily recycled.

Despite all the benefits, the law establishing the reverse logistics (Law No. 12.305, of August 2, 2010), which is already more than three years in operation, it is not implemented for much of the industrial sector. "According to the Ministry of Environment, the law establishing the reverse logistics, however, does not set deadlines membership limits or penalties for those who fail to comply with the agreements. Still, the industries that ignore the pacts may incur environmental crimes. "(SILVA, 2013, p. 4).

> The law was passed in August 2010 and regulated in December of that year, but only now seeing the first signs of progress in reverse logistics systems of recyclable or toxic products. The expectation of the Ministry of Environment is that by 2015 the policy is effectively implemented. (SILVA, 2013, p. 4).

"It is believed that with the reverse logistics implemented properly, it is possible to reuse around 85% of total waste generated." (SILVA, 2013, p. 4). However, we need the cooperation of all segments of society involved, and is of fundamental importance the awareness of the average citizen.

2.5 INNOVATIVE IDEAS RECYCLING

Even with the solutions offered to reduce the volume of solid waste generated, such as recycling and reverse logistics, we need to explore also new solutions, because as we have seen the two systems still have shortcomings and the waste produced only increase every passing year.

The garbage vision in society needs to be modified, so it is not seen only as a problem but as a source of sustainable products with high added value, generating jobs and income. So can waste be turned into "luxury", and avoiding the costs and impacts of collection and transport of waste.

"In nature nothing is created and nothing is lost, everything is transformed". That is the law of Lavoisier, who despite being the 18th century, could well apply to the current environmental issue. It takes us to exercise the law of Lavoisier to the fullest if we are to have a sustainable planet for future generations.

2.5.1 Sustainable Design

Nowadays, the term sustainability is in evidence, and products made from environmentally sound manner are being increasingly valued by consumers, and have gained to the foreign market.

> Unique and generous way, Bia Hajnal designers, Nido Campolongo and sisters Sara Rosenberg and Anete Ring use art to show the possibilities of recycling. Disposable cups saw lights, gigantic cardboard boxes give rise to tables and firm and comfortable chairs and industrial aluminum scrap are transformed into charming chandeliers. As the cardboard comes from cellulose, extracted from the wood, you can produce with it firm and durable parts. Nido then enhanced its joinery technique and created shelves, chairs and tables. He did not stop there. With industry waste and clay, invented in his studio in São Paulo "bricks" of cardboard to construct a hollow, exposed in 2001 at St. Andrew's SESC. "Before our work was seen as something alternative. Today there is a concept of vision, design and technology," ensures Bia. She believes that people are more open to investing in products that benefit the environment. (MELO, 2014).

The cardboard and the hives of paper, for being a tough and durable material can give rise to amazing pieces of furniture such as benches, tables and chairs, as well as decorative objects such as lamps, clocks and vases. Thus generate environmentally friendly products, with lightweight material and easy to install. It is a sustainable, economic and creative solution for the decoration of homes and businesses, and for use for temporary events.

2.5.2 Ecological Surfing

The ecological plank brought together about 500 children in the coast of Paraná to unite sustainability lessons from sports. The project boards are made from plastic bottles.

> The idea of building boards with plastic bottles came in 2007, when Lumertz lived in Hawaii (USA). "I looked at the bottles floating in flood, rivers or the sea always thought it was a material that could be turned into a board. One day, I decided to put the idea into practice, "he says. Ecological board is built primarily through plastic bottles, PVC pipes, plastic EVA, resistant glue, plastic boards and dry ice. "With the bottles make the whole structure of the board and the glue tubes and make the skeleton. Give buoyancy to the board, insert dry ice inside the bottles. Plastic EVA will surface for the practitioner does not slip and have stability. We cut the boards and ready. We have a plank, "said Serginho Laus, Paraná surfer two-time world surfing record in pororoca and godfather Ecological plank project in Parana. (SURF ..., 2014).

With this simple and original idea, children and may also play a relatively expensive sport, also have lessons on sustainability, recycling of materials and caring for nature, which causes them to grow more environmentally conscious adults.

2.5.3 Project Dulcinea picker

The project Dulcinea picker, named after a picker paper called Dulcinea, was created in 2007 in order to transform cardboard into book covers. Besides aiming at social inclusion, as has the participation of waste pickers and their children also encouraging the arts and the reading habit.

For making the covers, youth of different ages and backgrounds live together in a harmonious atmosphere in a workshop of Vila Madalena. Many are children of scavengers. These young people have complete freedom to play what goes into your imagination. "The boys paint quite spontaneously. Police seek me not to interfere with their creativity, not to transform work in a technical thing, "said Lucia Rosa. Already more than 50 writers who have published their works by Dulcinea picker. Young and experienced writers join this awareness plan. Among the writers is the poet Lau Siqueira, who has published several books on various conventional publishers and is launching his book To Utopia Predators for alternative publisher. (JR, 2014).

2.5.4 Skyscraper made of recycled material

For the international competition of ideas "2012 Skyscraper Competition", Curitiba architects have modular skyscraper proposal made of recycled material to be installed at the edge of the rivers Tiete and Pinheiros in Sao Paulo. The structure will be built using material collected in the trash and will house the homeless.

> In the proposal, the mixed-use tower will have villas in your body and a kind of garbage recycling plant at the bottom. The aim is to house people working in the factory, focused on the profile of the homeless living collecting garbage around the city.The central trunk will be the basis for the vertical skyscraper growth, access to floors and installation of power supply and water. Through it, different housing modules are coupled and interleave the volumes of the façade, with some balance in points amid a structural system of external steel (exoskeleton). The structure is made up of abandoned or discarded pieces by old industrial sites. Each piece is cataloged and fed by software that organizes them. The program, based on genetic algorithms for structural return, find the combination of parts available to form the structure that best explores the verticality. The housing module is made of upcycled materials by concept - use the one discarded and waste as little energy - as windscreens, car doors or refrigerators, which determine the uniqueness of the shape of each building. (ARCHITECTS ..., 2014).

2.5.5 houses containers

A new concept in sustainable architecture is emerging in Brazil, are the homes containers. Due to the large amount of containers that are dropped in ports after use because it is more economically viable to buy a new piece than carry it empty to the starting point, construction, accounting for more than 50% of solid waste in Brazil, saw the reuse of containers an ecological choice of housing. The project is already trend in Europe, Asia and the United States, and gradually has been gaining adherents in Brazil, so that the country already ranks fourth in the ranking of nations that invest in sustainable buildings.

The use of containers in addition to the use of waste material generates savings of natural resources that were not used for the structure of the house, such as sand, brick, cement, water, iron etc. This means a cleaner work, down debris and other materials. Besides being a very durable material, the cost is lower than that of conventional construction, and implementation can be done in record time.

2.5.6 A thousand and one uses for PET bottles

> Who looks for empty PET bottles usually only think of throwing them in the trash. A tremendous environmental problem, since this type of plastic can take 400 years to decompose. However, some see this scrap a good raw material for inventing the imagination leave. From toys to home furnishings, old PET bottle shows it can more. (TRISOTTO, 2013, p. 12).

Just take creativity to turn a simple PET bottle into useful and practical objects for everyday life, and also contribute to the environment.

The Recinicicle project, in partnership with Cini drinks, goes to schools and teaches workshops, teaching children to turn the bottles in toys. With only one bottle can be made to three toys. With the bottom of the bottle, an octopus appears. With the environment, can you make a crown. And with the tip, it is easy to assemble a classic bilboquet.

Other uses for PET bottle are:

- Cut them, fill with soil and plant whatever you want, transforming it into a garden;
- recycle them and make the bristles of a broom;
- Creation garlands and decorative articles.

> In Brazil, Santa Catarina José Alcino Alano has invented a solar heating system using PVC pipes, PET bottles and milk cartons used. The idea was to make this system a tool for improving the lives of the neediest communities. In Paraná, the state government embraced the idea and trained several communities. Another Brazilian, mining Alfredo Moser, realized that these bottles could be used to light up a room as well as a 60-watt bulb. The logic is simple: a very clean crystal bottle is filled with a mixture of water and health and water embedded in the roof. Ready: he turned a prism, and refraction, spreading the sunlight illuminating a room very well. (TRISOTTO, 2013, p. 12).

3. CONCLUSION

This study aimed to discuss the importance of a new approach to the concept of recycling, making it possible to realize the urgent need to broaden the ways of proper treatment of urban waste, with an emphasis on new views and ideas on the issue of recycling. So the work went with a brief history of garbage, showing their costs and the conventional forms of treatment, such as recycling and reverse logistics; and finally bringing innovative recycling ideas.

It was found that progress is needed on the issue of recycling of urban waste, with new forms that add to the conventional model, further contributing to the reduction of solid waste; in addition to the mitigation of impacts caused to the environment and population during transport and inadequate disposal, and reducing costs to the taxpayer to the collection. But for that we need to invest in environmental education of the population, for all sectors of society should effectively participate in this process so that we have a sustainable planet.

With respect to the appropriate waste treatment, it was realized that it was not until the mid-twentieth century that the population is generally looked on the fact, worrying about having a better quality of life. Because even with the Industrial Revolution brought a number of consumer goods, this was not enough for the garbage generate major concerns, leaving only years later that debate; which brought a delay on new ideas for appropriate treatment of solid waste.

It was also found that the garbage not only causes environmental and social impacts but also generate high costs for governments and people to their collection and disposal, so one sees the urgent need for the reduction of solid waste generation and not only the construction more landfills or other solutions "partial", which do not solve the whole problem, which is the large

amount of waste generated by humans, and that every year only grow if no action is taken by public managers and by society.

Still, it was only in 2010 that the national solid waste policy was implemented, bringing important tools to allow the necessary progress to the country in addressing the major environmental, social and economic problems arising from the inadequate management of solid waste, such as reverse logistics.

The recycling and reverse logistics solutions are found for the proper treatment of urban waste, but nevertheless, still have flaws in their processes. Because it depends on all sectors of society participate effectively, and how much of the population does not have environmental education, or on the other hand, public managers do not create effective public policies, these processes are not implemented the way they should be.

Finally, they were presented new solutions for the disposal of solid waste, with innovative recycling solutions, such as the transformation of waste into design objects with high added value, creative projects for use of recyclable materials, container houses, the use of PET bottles for decoration, toys, etc.

Thus, it was noticed that just creativity and dedication to the garbage can turn into profitable products, generating jobs and income, as well as change the view of the company with the trash, aiming to show that it is possible the transformation of waste into "luxury "or objects practical and useful for day to day, without having to generate environmental, social and economic impacts to society.

Just a set of people and effort of public officials so that with creative ideas such as the ones we can reduce the volume of solid waste generated and thus ensure a more sustainable planet for future generations.

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RECICLAJE, UNA NUEVA VISIÓN: IDEAS PARA USO INNOVADOR DE NUEVOS PRODUCTOS

ABSTRACT

The study of recycling is extremely important at the present time the country due to the increasing production of waste. Not only just the sorting of waste and its proper disposal, it is necessary and urgent, which are ways to reduce the volume of solid waste generated in Brazil. It is in this area that this study develops, looking for ways to solve this issue through recycling. But not only the recycling itself, which is made after the collection and disposal end of the waste, but rather take advantage of the waste solids directly from your source generating in order to reduce the costs of waste collection in Brazil and avoid their impacts on the environment and population throughout its transportation and subsequent disposal in landfills. For this, this paper aims to analyze new views on ways of recycling, with innovative ideas for the use of recyclable materials and the creation of new products from these materials. This research used documentary collections through information sources and also the bibliographic reference. The result achieved is expressed by a greater understanding of the possibility of reducing the generation of waste through innovative recycling ideas, reverse logistics policy and also the transformation of view of society on waste, promoting it as an opportunity generator. In conclusion, it follows that it is possible to reduce the generation of waste, just a joint effort of the public and public officials for Brazil to have a sustainable economic development.

KEYWORDS: Recycling; Garbage; Sustainable.

RECYCLAGE, UNE NOUVELLE VISION: des idées pour l'utilisation novatrice DE NOUVEAUX PRODUITS

RÉSUMÉ

L'étude du recyclage est extrêmement important à l'heure actuelle du pays en raison de la production croissante de

déchets. Non seulement tout le tri des déchets et de leur élimination, il est nécessaire et urgent, qui sont des moyens de réduire le volume des déchets solides produits au Brésil. Il est dans ce domaine que cette étude se développe, à la recherche de façons de résoudre ce problème grâce au recyclage. Mais non seulement le recyclage lui-même, qui est présentée après la collecte et l'élimination des ordures, mais profiter des déchets solides directement à partir de sa source de production afin de réduire les coûts de la collecte des déchets au Brésil et éviter leurs impacts sur le environnement et la population tout au long de son transport et l'élimination ultérieure dans les décharges. Pour cela, ce document vise à analyser de nouvelles vues sur les moyens de recyclage, avec des idées novatrices pour l'utilisation de matériaux recyclables et la création de nouveaux produits à partir de ces matériaux. Cette recherche a utilisé des collections documentaires grâce à des sources d'information et aussi la référence bibliographique. Le résultat obtenu est exprimé par une meilleure compréhension de la possibilité de réduire la production de déchets à travers des idées de recyclage innovants, inverser la politique de la logistique et aussi la transformation de vue de la société sur les déchets, la promotion comme un générateur d'opportunité. En conclusion, il en résulte qu'il est possible de réduire la production de déchets, juste un effort conjoint des fonctionnaires publics et pour le Brésil d'avoir un développement économique durable.

MOTS-CLÉS: recyclage; Déchets; Durable.

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RESUMEN

El estudio de reciclaje es muy importante en la actualidad el país debido a la creciente producción de residuos. No sólo sólo la clasificación de los residuos y su eliminación adecuada, es necesario y urgente, que son formas de reducir el volumen de residuos sólidos generados en Brasil. Es en este ámbito que este estudio desarrolla, en busca de maneras de resolver este problema a través del reciclaje. Pero no sólo el propio reciclaje, que se hace después de la recolección y disposición de basura, pero se aprovechan de los residuos sólidos directamente de su fuente de generación con el fin de reducir los costes de la recogida de residuos en Brasil y evitar sus impactos en la medio ambiente y la población en todo su transporte y posterior eliminación en vertederos. Para ello, el presente trabajo tiene como objetivo analizar los nuevos puntos de vista sobre la forma de reciclaje, con ideas innovadoras para el uso de materiales reciclables y la creación de nuevos productos a partir de estos materiales. Esta investigación utilizó fondos documentales a través de fuentes de información y también la referencia bibliográfica. El resultado obtenido se expresa mediante una mayor comprensión de la posibilidad de reducir la generación de residuos a través de ideas innovadoras de reciclaje, revertir la política de la logística y también la transformación de la visión de la sociedad en materia de residuos, promoviendo como un generador de oportunidades. En conclusión, se deduce que es posible reducir la generación de residuos, a un esfuerzo conjunto de los funcionarios públicos y privados para Brasil tener un desarrollo económico sostenible.

PALABRAS CLAVE: Reciclaje; Residuos; Sostenible.

RECICLAGEM, UMA NOVA VISÃO: IDÉIAS INOVADORAS DE UTILIZAÇÃO E NOVOS PRODUTOS

RESUMO

O estudo da reciclagem é de extrema importância no momento atual do país, devido ao aumento crescente da produção do lixo. Não basta somente a separação do lixo e sua adequada destinação, é preciso, e urgente, que se encontrem maneiras de diminuir o volume de resíduos sólidos gerados no Brasil. É nessa área que esse estudo se desenvolve, buscando formas de solucionar essa questão através da reciclagem. Mas não somente a reciclagem em si, que é feita após a coleta e destinação final do lixo, mas sim aproveitar os resíduos sólidos diretamente de sua fonte geradora, visando diminuir os custos da coleta do lixo no Brasil e também evitar os seus impactos ao meio ambiente e população durante todo o seu transporte e posterior destinação nos aterros sanitários. Para isso, esse trabalho objetiva analisar novas visões sobre as formas de reciclagem, apresentando idéias inovadoras de utilização de materiais recicláveis e a criação de novos produtos a partir destes materiais. Essa pesquisa utilizou-se de coletas documentais, através de fontes informativas e também da consulta bibliográfica. O resultado alcançado se expressa por uma maior compreensão da possibilidade de diminuir a geração de lixo através de idéias inovadoras de reciclagem, da política da logística reversa e também da transformação da visão da sociedade sobre o lixo, fomentando-o como um gerador de oportunidades. Como conclusão, tem-se que é possível diminuir a geração de lixo, basta um esforço conjunto da população e dos administradores públicos para que o Brasil tenha um desenvolvimento econômico sustentável.

PALAVRAS-CHAVE: Reciclagem; Lixo; Sustentável.