

# **A Sustainable Environment: Our Obligation to Protect God's Gift**

by  
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## **Is Zero Waste Achievable?**

About ten years ago, I was talking to an Environmental Engineering professor and told this person that in a few decades there won't be a need for environmental engineers. Why? Because we are now teaching concepts on how to operate a company or an organization without generating any waste. If there is no waste or pollution being generated, why would you need environmental engineers? However, I also added that I would probably never see this in my lifetime. Are we getting closer?

There are a number of companies that started pursuing a goal of "zero waste" before I even made that comment to the professor. For example, carpet manufacturer Interface set a zero waste goal about 15 years ago. They introduced their Evergreen line of floor covering whereby they would lease the carpeting to the commercial interior. The carpet was made in tiles, and periodically Interface would inspect the floor covering and replace the tiles that were worn rather than replacing all of the carpet. These tiles would then be taken back to their plant, separated into various components and reused to make new carpeting. Nothing would go to a landfill. In 2009, Interface purchased about 400 million pounds of raw material but only 3.4 million pounds were disposed in a landfill – less than one percent.

Although I am not aware of any companies that have achieved the "zero waste" goal, there are many that are on their way – and some will surprise you. For example, General Motors started on a zero waste goal over ten years ago and it is reporting that more than half of their 146 global manufacturing plants had achieved zero waste. Xerox started almost 20 years ago and it is now recycling 92% of its non-hazardous materials. On the other hand, the largest Consumer Packaged Goods company, Procter and Gamble, has just started on their mission and recently announced that one of their plants in North America has achieved zero waste. Just how are they doing this?

Kraft used to generate waste consisting of about five million pounds per year of mustard seed hulls that were left over from the production of Grey Poupon. Now they are sending these hulls for animal feed. The whey that was left over from the production of Philadelphia cream cheese is now sent to digesters to make biogas and generate heat for the plant. Kraft has learned that with some creativity, they can divert almost any material from the landfill. Several companies like Dell have focused their attention on reducing packaging. By making the packaging a little smaller, more units can be added to a pallet which means the cost of transportation for each unit is reduced – not to mention a lower cost for packaging.

When talking about “zero waste”, it raises a question as to what does this really mean, just as questions arise when talking about a “green” product or company. Today, there is no generally accepted definition for “zero waste”. Some companies only consider diverting waste from the landfill as achieving their “zero waste” goal. They don’t consider any material going to incineration or other thermally driven technologies as waste, like Kraft sending whey to make biogas. However, many nonprofits, public agencies and environmental consultants don’t feel that destruction of the waste achieves “zero waste”. On the other hand, there is a Zero Waste International Alliance that states that “Businesses and communities that achieve over 90 percent diversion of waste from landfills and incineration are considered to be successful in achieving zero waste, or darn close.” But does this make it a form of “greenwashing”?

Regardless of what is and what isn’t “zero waste”, the important point is that companies are now trying to achieve this goal. Several very large companies like Procter & Gamble, Sony and Wal-Mart are all heading that way even though their goal of 100% zero waste is many years away. So maybe I won’t see it!