

WHAT HAPPENS TO RECYCLING MATERIALS?

By Thea Holm

When sending waste to landfill in South Africa, not only do we contribute to greenhouse gas emissions, but we keep on increasing a 'dead' piece of land that constantly needs maintenance, otherwise the dangerous gases emitted from this site could explode and have serious health risks for kilometers around. Methane gas is emitted from a landfill and is **21 times** more dangerous than CO₂. Until our local governments start implementing the new REFIT (Renewable Energy Feed In Tariff) Law where landfill gas can be harvested to produce electricity and be sold back to the national electricity grid, we as the community need to reduce, re-use and recycle.

Picture 2

Fürth Solar City, Bavaria, Germany.

The landfill site has been sealed with a clay cover and holes in it are used to collect the methane gas. The gas is used to generate electricity, together with the photo voltaic panels on the hill, generate electricity twice on the same site!

The following waste items take up landfill space in SA proportionally:

Glass 9,7%

Metals 9,6%

Paper & Paperboard 37,1%

Polystyrene < 1%

General plastics 6,9%

Other materials 35,7%

(info supplied by Polystyrene Packaging Society)

In 2003 90% of SA's waste went to landfill.

It costs our country **R100 million per year** to clean up behind ourselves.

But what happens to waste that I recycle?

It takes 70 to 90% less energy to produce an item from recycled paper.

Recycled office paper is available on the market, at this stage a bit more expensive than normal office paper due to the low demand and knowledge about this item, but as soon as the demand picks up, the price will drop!

A well known supermarket has a green range available in which they supply toilet paper made from recycled paper; absolute no difference in texture or appearance than normal toilet paper.

Recycled polystyrene are used in various applications, for example: picture frames, coat hangers, seedling trays, cornices, skirtings, outdoor furniture, poles & decking.

Today, about 550 000 tons of waste **glass** finds its way into landfills in South Africa. Despite being 100% recyclable, approximately 25% of all non-returnable glass containers produced annually are retrieved for recycling in South Africa, which is relatively poor when compared to international rates.

The energy saved by recycling just one glass bottle is enough to power a 100W glass bulb for almost an hour. (Source: The Glass Recycling Company)

Beverage cans now contribute less than 1% of litter, thanks to the highly successful efforts of Collect-a-Can.

From a recovery rate of 18% in 1993, to 66% in 2003, Southern Africa is a world-leader in terms of quoted steel beverage can recovery rates. These figures make the can the most successfully recycled primary packaging in SA.

The recovery of **tin scrap**, are being used in the manufacturing process of prime steel and the processing of tin sludge.

The recovery of tin, by means of a de-tinning process, which can be used in the making of new tinplate, while recovered steel is used for prime steel production and the production of shredded and briquetted cans, which replace ferro-silicon imports in the mining industry. (Source: Metal Recycling; Collect-a-can)

PET, (plastic) or polyethylene terephthalate, is the key point of focus as it is encountered so frequently in the form of soft drink and water bottles, plastic jars, containers, trays and clamshell packages. PET consumption increases steadily year on year. Strong growth can be expected for many years to come. By 2001, per capita consumption in Africa was between one quarter and one fifth the level found in Europe and America, suggesting that huge increases in volumes are on the horizon as African PET consumption reaches 'maturity'. (Source: PETCO South Africa)

It is within everyone capability to recycle. Instead of sending all your waste to landfill, sorting the recyclables from the rest, you will have a huge impact on cleaning up the environment.

If you would like to get involved in any way with waste recycling, either recycling your own house hold waste or want to become the recycling collector, please contact Thea Holm on 082 824 8340 or send a mail to tholm@omnibussolar.com