

## PLASTICS AND THE ENVIRONMENT

### **Why thin plastic regulations?**

Solid waste management is undoubtedly one of the most topical environmental challenges of our time. Almost every street corner in major towns and cities and even growth points are mushrooming waste dumps. Plastic waste remains a challenging issue because of its non-biodegradable nature. The Environmental Management Act (Cap 20:27), section 140, empowers the Minister of Environment to, come up with regulations to curb imminent and foreseen environmental challenges from time to time, hence Statutory Instrument 98 of 2010 (Plastic Bottles and Plastic Packaging Regulations) which prohibits the use of certain plastics. Section 3(1) bans the manufacture for use within Zimbabwe, commercial distribution or importation of plastic packaging with a wall thickness of less than thirty micrometres unless it is biodegradable plastic packaging.

A prohibitive approach to plastic bags acts as a driving force for people to adopt environmentally friendly alternatives such as reusable bags. It may take humanity time to get used to life without plastic bags, to be more conscious about recycling, and to develop and embrace clean, effective, reusable alternatives, but it is a path in the right direction. The banning of plastic bags could be a useful way to begin reducing waste pollution because they are:

- produced in huge quantities, and one of the product most commonly disposed in the environment;
- have a slow rate of decomposition, and are very dangerous to sea life;
- sources of "micro plastic" particles, which is vastly present in many marine areas around the world;
- Able to absorb high concentrations of the toxic substances in water, which can in turn be absorbed by living organisms;
- are now one of the most easily reproduced plastic materials using biodegradable biopolymers;

### **A look at Zimbabwe**

As of 2011 a study by the Institute of Environmental Studies at the UZ estimated revealed that Zimbabwe generates 1.65 million tonnes of waste, of which 18% is plastic (297 000 tonnes) Environmental groups estimate that 500 billion to one trillion of plastics used worldwide every year. In 2012, it was estimated that there was approximately 165 million tons of plastic pollution in the world's oceans. ). In Zimbabwe as of 2010, plastics were responsible for the deaths of 5,000 animals annually – including donkeys, cattle, sheep and goats. Decomposition of plastics takes up to 1,000 years.

### **What are the disadvantages of thin plastics?**

- They are non-biodegradable, that is, they cannot decompose in the ecosystem;
- They are designed for single use/not reusable;
- They are not easily recyclable;
- They easily break to the disadvantage of the consumer who is likely to lose fragile groceries;
- Several plastic bags are needed to sustain groceries adding to the much unwanted waste/ecological footprint;
- They lead to double or triple packaging.

### **What problems do thin plastics pose?**

- They clog sewer reticulation systems resulting in constant sewer burst exposing us to health risks such as cholera which is a feacal-oral transmitted disease through contaminated water or food. Cholera resulted in 4 287 deaths in 2008/9, a recurrence of it should be avoided at all costs;
- They clog water reticulation systems resulting in constant bursts leading to excessive loss of treated water and water rationing;
- They choke storm drains in most towns and cities resulting in flash flood water poodles conducive for mosquito breeding;
- They lead to the death of livestock, every year domestic animals such as donkeys, cattle sheep and goats are killed after ingesting plastic bags.

### **Advantages of thicker plastics**

- They are stronger and re-usable;
- Easily recyclable;
- Leads to a reduction of plastic waste in the ecosystem;
- They sustain more groceries at once;
- Less is used leading to a reduction in the ecological footprint.

Our call as the Environmental Management Agency is for retailers to adopt thicker plastic bags or other bio-degradable alternatives because of their benefits. Consumers are also encouraged to adopt thin plastics alternatives because we all have a duty to protect the environment. Upholding our right to live in a clean, safe and healthy environment as

comes with responsibility.

### **What are thin plastics alternatives?**

- Thick plastic bags;
- Shopping baskets;
- Shopping bags;
- Paper bags and
- Cardboard boxes.
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### **What are other countries doing?**

- Rwanda –total ban;
- South Africa- increased thickness of biodegradable polymer bags;
- Europe-increased thickness of biodegradable polymer bags.

### **What retailers need to do?**

- Issue out recommended plastics to consumers;
- Explore alternatives;
- Consider the “cradle to the grave principle,” which calls on manufacturers to track their goods from production up to the time they become waste so as to ensure environmental protection.

### **What rights do consumers have?**

As consumers we have a right to a clean, safe and healthy environment. However, this right comes with responsibility and each of us has a duty to protect the environment for the benefit of present and future generations and to participate in the implementation of legislation that prevents pollution as prescribed in the Environmental Management Act.

### **Why are plastics undesirable to the environment?**

Plastic is a handy and potentially indestructible material, which makes it ideal for a number of commercial and household uses. It has become a substitute for many items which used to be made from other substances and, in many cases is extremely useful and convenient. However, it has many environmental downsides starting from production to disposal.

Plastic is a derivative of petroleum, natural gas or similar substances. They are transformed into a substance known as polymer resin, which is then shaped and formed

into whatever object is desired. However, as a petroleum by-product, plastic production presents a major source of air and water pollution.

Huge volumes of plastics, especially plastic bags, end up in landfills. Besides the fact that available landfill space is becoming increasingly scarce, plastic poses problems for landfills because most plastic is not biodegradable, which means that it does not break down to its simple component parts. It remains in landfills indefinitely, posing a threat to animals and birds that frequently become tangled in plastic bags and plastic rings for soft drink cans, either choking or breaking their wings.

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