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A bagful of wrong info

WE refer to articles arising from Penang's decision to ban plastic bags. The Malaysian Plastics Manufacturers Association (MPMA) is disappointed as it believes that the authorities have been influenced by some misconceptions about plastic bags such as they are bad because they are non-biodegradable and are the cause of littering, and that a ban will encourage the use of re-usable bags.

Many people consider plastic bags to be "harmful" because they do not biodegrade. The sad truth is that degradation in the presence of oxygen causes the emission of carbon dioxide (CO₂) – a greenhouse gas (GHG) that causes global warming. Degradation in the absence of oxygen (anaerobic respiration) is even worse. Methane gas, which is 22 times more harmful than CO₂ as a GHG, is released.

San Francisco banned plastic retail bags in 2007 to encourage the use of reusable bags. A 2008 survey (www.use-less-stuff.com) found that few switched to reusable bags. Instead, large amounts of paper bags, many with double bagging were issued, causing an even greater environmental impact.

Compared to a paper bag, a plastic bag consumes 71% less energy during production, generates 68% less GHG emissions, and uses less than 6% of the water needed to produce paper bags (www.use-less-stuff.com). In addition, plastic bags create 80% less solid waste and use 90% less energy to recycle.

Littering is a behavioural problem. San Francisco commissioned a Streets Litter Re-Audit in 2008 which showed that plastic retail bags as a composition of total large litter increased from 0.60%, before the ban, to 0.64% after the ban. Thus, plastic bags are a very small component of total large litter; and the ban did not reduce this composition.

Even if plastic bags are not used during the purchase stage, a plastic bag is still needed for disposing garbage. In the absence of a plastic bag, consumers will have to pay for garbage bags. The cost of a regular size plastic bag is four sen while a medium size garbage bag is 40 sen. This will only cause hardship to the poor.

Garbage bags are comparatively thicker and require more energy and resources to produce. Shopping bags have handles which allow easy tying of the bag for garbage disposal. A garbage bag uses more plastic material as the top part of the bag does not have a "cut-off". Consequently, more, not less, plastics actually end up in the landfills.

Ireland levied a fee on plastic bags which was initially hailed as a success due to a 90% drop in bags being dispersed.

However, what is not commonly mentioned is that there was a 400% increase in the sale of garbage bags. Four years later, consumers reverted to plastic bags, despite the tax, for practical reasons.

Other effects of the ban would include the potential of garbage being thrown indiscriminately, and the danger of bacteria contamination of reusable bags used for fish, meat and other wet food products.

To judge the impact of a material on the environment, it is necessary to measure all the parameters right from the source of the raw material ("cradle") up to its end of life ("grave"), ie Life Cycle Assessment (LCA).

Plastic bags, whether in terms of the total energy used, fossil fuel used or greenhouse gas emission, have the best LCA compared to other packaging material.

The wise use of plastic bags – only take what is required (reduce), using the same plastic bag at both the purchase stage and the disposal stage (reuse) and returning any excess (recycle) – will benefit the consumer and the environment. Our proposal is to set up a work group based on the 3Rs model (reduce, reuse and recycle) with all stakeholders working together.

The Penang authorities should put in place stronger mechanisms to punish litterbugs and increase the collection and recycling of all materials, including plastics.

We call upon the authorities to adopt the 3Rs model as an integrated and holistic approach which would not only benefit the environment but also not burden the rakyat.

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