

# Haphazard Use of Plastics: A Real Challenge to Environment

Mukesh Adhikari

BPH 23rd Batch

After a trip to market everyone, doesn't matter, housewife, teenager or a businessman, all brings polythene (plastics) bag to the home. Although we are aware about the impacts of those polythene bags, we use it very extensively as it is handy and easily available. From street hawkers to department stores, customers are provided with plastic bags to carry their purchased belongings home.

In 2003, plastics were 9.5% of the country's total solid waste output (Viraraghavan2005). These numbers are more alarming when coupled with the fact that the higher density plastic bags of the past were recycled by the plastic industry, while today's thin plastic bags are left to clog the environment. Initially, plastic bags were made of High Density Polyethylene (HDPE), more than **20 microns thick**, which when discarded, were collected by rag pickers and sold to plastic industries which can be easily recycled. Recently advancements in technology and intense competition in the plastic industry has lead to the "revenge affect" such that plastic bags have become so thin (2-4 microns) that they are now of no value to recyclers.

Nepal produces 30 thousand tonnes of plastic bags per year (Ghimire, 1999) with a total of between 40 and 50 kilograms of plastic consumed per person per year. Of this, 60 to 70% is used for industrial purposes and 30 to 40% for domestic purposes (Nepal, 2002). Efforts by the government to ban the HDPE bag began with the Environmental Protection Act (1997) which included a provision of control of pollution under section 7(3) and 7(4). The Department of Cottage and Small Industries of Nepal also issued a public notice (1998) to manufacturers, importers, distributors and users not to manufacture, sell or use plastic bags less than 20 microns. As manufacturing did not cease, a further attempt to eliminate the plastic bag began in 2000 when the Ministry of Population and Environment drafted a bill to ban thin black polyethylene bags. Since then government has encouraged people to use traditional biodegradable bags made from jute, cloth and paper as an alternative. Efforts in monitoring and quality check in plastic industry have not been satisfactory. The municipalities has compromised due to the economic revenue generated by the plastic industry, and today, in more than 30 small factories located within the city limits, thin plastic bags are still being manufactured with little or no government monitoring.

Plastics are the long chain polymer of the ethene. The bond between the monomer can't be broken or lysed by the

bacteria, so it is non-biodegradable, thus considered hazardous to both environment and health. Plastics don't decay for hundreds of years creating a huge disposal problem. Further the prevalent 'throw-away' culture has resulted in these bags finding their way into the drainage system. This leads to blockage of drains and emergence of plastic islands amidst rivers. While these are the visible negative impacts, there are other unseen consequences like obstruction in rainwater percolation with plastics in the ground, reducing the already low underground water level. Plastic bags also deteriorate soil fertility and plastics remain in the soil for years. Chemicals in plastics have long term effects on human health. Death of animals eating plastics lying around in the garbage has also been witnessed. The most dangerous feature of plastic is its toxicity. The black polythene bags containing harmful toxic metals like chromium and copper can cause allergies and even cancer.

The government had decided to ban production and distribution of plastic bags below the size of 20 micron a decade ago by publishing in the gazette, but it has gone in vain. About 300 plastic companies registered at the Ministry of Industry are manufacturing the plastic bags below 20 micron. White colour plastic bags that are made up of fresh polymer are thicker than the black colour ones that are made up of recycled materials. Black plastics are harmful to health. There is no any effective monitoring mechanism. Rewards and punishment programme are not also there to control the use of Plastics less than 20 microns. The government has decided Singhadarbar periphery as '**No plastic zone**' but there is no any monitoring mechanism to observe the effective implementation of the programme.

Youths has to be targeted as the youth at this time is educated and energetic. The most important aspect to reduce the impacts of Plastics is to decrease its use; alternative to the plastics other things such as paper bags, jute bags can be used. The concept of 3R i.e. Reuse, Renew and Recycle has to be promoted. We people have to internalise to reduce the use of plastics. Change should bring from every individual. These are some points to reduce the use of Plastics.

## Key points to decrease the use of plastics

- Purchase items in bulk, the least-packaged option.
- Bring your own bag to all stores and say, "*No bag needed thanks.*"

- Choose refillable, reusable containers made of glass, ceramic or stainless steel.
- Choose packaging that's made from the most easily recyclable materials; paper, glass, metal cans.
- Don't buy beverages bottles in plastic. Glass is great.
- Clean with baking soda and vinegar instead of cleaners packaged in plastic.
- Store all your food in glass containers. If you purchase something bottled in glass, clean it and reuse it.
- Compost your trash; reduce use of plastic trash bags.
- When ordering drinks, say, "*No straw (a thin tube made up of plastics) please.*"
- Use matches instead of plastic encased lighters.
- Use cloth napkins to reduce waste.
- Put empty cardboard boxes in your car to transport items to and from your car without a bag.

Unless and until the people get aware and sensitised about the impacts of haphazard use of plastics, the problem can't be solved. So the awareness program has to be conducted.

The information about plastics has to be broadcasted and published in the media. Many communities have taken their own initiation to ban the use of plastics in their community. So Community involvement and active participation of the community can be a key approach to address this burning problem.

#### References

- 1 K. Park. Disposal of Solid Wastes. Preventive and Social medicine 18th edition 2005, pg; 561-563
- 2 Re - Nepal; An initiative to create environmental awareness in the Himalayan Republic cited at 25 august 2011 from <http://www.re-nepal.org/re-nepal.pdf>
- 3 Monitor ban on plastic bags cited 25 august 2011 From [http://www.ngoforum.net/index.php?option=com\\_content&task=view&id=11587&Itemid=1](http://www.ngoforum.net/index.php?option=com_content&task=view&id=11587&Itemid=1)
- 4 Drive against use of plastic bag (cited at 29 July 2011) from <http://www.thehimalayantimes.com/fullNews.php?headline=Drive+against+use+of+plastic+bag&NewsID=297420>