SUBJECT: Plastic Shopping Bag Reduction and Recycling (PW07155b) - (City Wide)

RECOMMENDATION:

(a) That the Ministry of Environment be advised that their efforts on plastic shopping bag reduction are supported by the City of Hamilton as they are consistent with our position on increased extended producer responsibility;

(b) That staff continue to monitor plastic film capture rates in the Recycling Program and ongoing private sector initiatives to reduce plastic shopping bag use, in light of the 2007 Provincial voluntary initiative calling for the 50% reduction of plastic shopping bags by 2012;

(c) That the use of stronger policy tools such as bans or levies to achieve the necessary reduction in film plastic going to landfill be considered by the City of Hamilton if sufficient progress towards the 50% reduction goal is not reported by the end of 2009;

(d) That plastic film including plastic shopping bags continue to be accepted and promoted in the City of Hamilton Recycling Program;

(e) That staff promotes the reduction in non-recyclable plastic bags through a reusable bag initiative and by educating area retailers on identifying recyclable and non-recyclable bags;

(f) That a copy of this report be sent to local Members of Provincial Parliament and the Association of Municipalities of Ontario (AMO).
EXECUTIVE SUMMARY:

At the direction of City Council, staff has undertaken a review of single-use plastic shopping bag reduction, reuse and recycling initiatives. Film plastic constitutes approximately 1% of the total waste managed by the City of Hamilton. Currently this material is accepted in the City’s Recycling Program and approximately 36% is captured and recycled. Single-use plastic shopping bags comprise approximately 43% of the total plastic film collected in the Recycling Program and 33% of this material is currently captured. The remaining plastic film captured in the Recycling Program is comprised of other plastic packaging such as bread, milk and frozen food bags.

The recent increase in environmental awareness and the identification of the negative environmental impacts of plastic shopping bags has led to efforts from government and the private sector to reduce the quantity of single-use bags and to increase the amount of them being recycled as outlined in Appendix A. The most significant of these is the Province of Ontario launch of a voluntary initiative in 2007 for a 50% reduction in the use of plastic shopping bags by 2012, to be achieved through partnerships with retail and plastics industry groups. The initiatives by others include implementing outright bans and enacting taxes on plastic bags, to reduce or limit the use of plastic bags in their jurisdictions. Private sector initiatives have largely been focused on the sale of reusable grocery bags and the promotion of in-store recycling or “return-to-retailer” programs for customers to return their used plastic shopping bags for them to be recycled. In addition, some major retailers have begun charging for plastic bags or have completely eliminated plastic shopping bags in their establishments.

In view of the small quantity of plastic bags in the waste managed by the City and the recent acquisition of a film grabber to increase capture of this material at the recycling facility, as well as our long-standing support of increased extended producer responsibility, the recent provincial directive and increased efforts of retailers to reduce or eliminate the use of plastic shopping bags, it is recommended that no action be taken by the City at this time. Plastic shopping bags will still be collected and promoted in the Recycling Program. Waste Management staff will continue to monitor tonnages in relation to these private and public sector initiatives and gauge whether any additional action will be required to achieve sufficient reductions in plastic bags being sent to landfill. A one-time distribution of reusable shopping bags through local non-profit food service organizations and food banks will be implemented in 2009 to encourage reduction of plastic bags. Also, staff will communicate with area retailers to promote the use of recyclable plastic bags and to educate them on the identification of recyclable and non-recyclable bags.

BACKGROUND:

This report has City wide implications.

At the June 20, 2007 Solid Waste Management Master Plan Waste Reduction Task Force (WRTF) meeting a motion was made to the Solid Waste Management Master Plan Steering Committee requesting that staff undertake research and report back on the feasibility of a ban on plastic bags, as well as the promotion of plastic bag reuse and recycling. Resulting from this, in November 2007 Waste Management staff was directed by City Council to research and report back on efforts to reduce, reuse and recycle plastic shopping bags (report PW07155). In March 2008, Information Report
PW07155a provided an update on the Waste Management Work Plan and direction for a report in January 2009. In February 2009, the WRTF put forward an additional motion requesting that the Solid Waste Management Master Plan Steering Committee consider the ban on non-recyclable plastic bags and the reduction in the use of recyclable plastic bags to be implemented in 2010, in accordance with the best practices of other municipalities. The motion was put forward as follows:

“That the Waste Reduction Task Force (WRTF) request the Solid Waste Management Master Plan Steering Committee to consider the ban of non-recyclable plastic bags and the reduction in the use of recyclable plastic bags to be implemented in 2010, in accordance with best practices of other municipalities.”

It is estimated that 4.32 billion plastic shopping bags are used in Ontario each year, which would mean an estimated 210 million plastic shopping bags are used by the residents of the City. Since 2005, Hamilton has accepted film plastic in the Recycling Program. In 2005, the recycling capture rate for plastic film was 10%, increasing to 30% in 2006 and 36% in 2008. Based on 2008 single family waste audit results and year-end tonnages it is estimated that the City captures and processes 40 to 45 tonnes of plastic film per month, with approximately 43% of this amount being plastic shopping bags. This represents approximately 33% of plastic shopping bags being recycled in the City. In 2008, 487 tonnes of plastic film were collected with a remaining 866 tonnes of plastic film disposed at landfill as garbage or litter or returned to the retailer for recycling where programs exist. Although waste audit capture rates indicate the amount of plastic film captured in the Recycling Program to be increasing substantially since 2005, the comparison of overall plastic film tonnages to prior years is difficult due to changes in sorting processes to improve capture of this material. Nonetheless, the capture rate increase from 10% to 36% since the City started collecting film plastic in the Recycling Program has demonstrated that it has increasingly been an effective means of recovering plastic film and reducing the amount sent to landfill.

Plastic shopping bags are estimated to account for 1% of the total waste managed. Additionally, studies in other municipalities have determined that 0.5 to 2% of litter, by weight, is found to be comprised of plastic shopping bags. While these numbers appear low, it is important to note that due to the very low weight of plastic shopping bags, the nuisance of their significant presence in garbage and litter is more noticeable.

This report will assess the current options available to the City to increase plastic shopping bag reduction and recycling and make recommendations on preferred future initiatives.

**ANALYSIS/RATIONALE:**

This report has been prepared at a time when plastic shopping bag reduction and recycling has seen significant public interest and media attention. This has resulted in initiatives undertaken by both the provincial government and the private sector aimed at reducing the use of bags and promoting greater levels of recovery of plastic film from the waste stream. These initiatives have the potential to impact the amount of plastic film currently managed through the City’s Recycling Program and should be evaluated prior to undertaking any program changes to promote further reduction and recycling of plastic bags. As such, it is not recommended that a ban be implemented at this time.
It is recommended that the City of Hamilton continue to accept plastic shopping bags for recycling in the Recycling Program. Since the introduction of plastic film to the program in 2005, the residential capture rate has increased from 10% to 36% and improved film sorting equipment has been installed at the City’s Materials Recycling Facility allowing for better recovery of this material.

Furthermore, as government and private sector reuse and reduction initiatives continue to expand, the City will be able to monitor reductions in the amount of plastic film being received and the progress reported through the 2007 provincial 50% reduction initiative. At that time Waste Management staff will be able to determine whether further consideration of stringent plastic bag reduction initiatives is warranted.

As an enhancement to the existing plastic bag recycling program, a promotion of plastic bag reduction and recycling will be undertaken through a reusable bag giveaway. The Waste Management Division will acquire a number of reusable bags and partner with local not-for-profit food bank organizations to distribute the bags to their clientele as a replacement to single-use plastic shopping bags. In this way, the reusable bag giveaways would target City residents who are less able to purchase reusable bags. This promotion will be completed using existing staff resources and the purchase of the reusable bags will be at an upset limit of $5,000.

Some retailers are utilizing bags made of films that are not recyclable in the City's Recycling Program. A ban of these materials could be implemented, however, based on the quantities of non-recyclable film being received staff are of the opinion that a ban is not required at this time. An information approach is recommended at this time to promote the reduction in the use of non-recyclable plastic bags by local businesses. Staff will communicate with area retailers to educate them on the identification of recyclable and non-recyclable bags and importance of offering bags which are acceptable in the City’s Recycling Program.

**ALTERNATIVES FOR CONSIDERATION:**

To appropriately evaluate the alternatives available, a review of current initiatives was undertaken and is provided in Appendix A.

**a) Options Available**

Four (4) alternatives were considered to enhance the reduction and recycling of plastic shopping bags in the City of Hamilton based on the review of current initiatives:

- **Industry Return-to-Retailer Partnership** - A municipal/plastics industry partnership which promotes residents returning their used plastic bags to local retailers
- **Retail Levy** - The institution of a per bag fee on all plastic shopping bags distributed by retailers
- **Retail Ban on Sale and Use of Plastic Bags** - A ban preventing the distribution of single-use plastic shopping bags by retailers within the City of Hamilton
- **Retail Ban on Sale and Use of Non-Recyclable Plastic Bags** - A retail ban focused solely on plastic bags made of film material which is not accepted in the City’s Recycling Program.
Table 1 below outlines the advantages and disadvantages of the four (4) alternatives considered.

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<th>Alternatives for Consideration</th>
<th>Advantages</th>
<th>Disadvantages</th>
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| **Industry Return-to-Retailer Partnership** | • Reduced waste to landfill  
• Possible lowering of recycling processing costs  
• Minimal cost to municipality | • Focus on recycling over reduction  
• Limited diversion effectiveness compared to existing Recycling Program  
• Lack of available data on tonnages collected by retailers |
| **Retail Levy** | • Reduced waste to landfill  
• Targets waste reduction over recycling  
• Potentially significant reduction in bag use  
• Potential revenue source to fund program administration and enforcement requirements | • Potentially high implementation costs (legal and enforcement)  
• Increased cost to consumers  
• Would require amendment to Ontario Municipal Act |
| **Retail Ban on Sale and Use of Plastic Bags** | • Reduced waste to landfill  
• Highest reduction in plastic bag use  
• Targets waste reduction over recycling  
• Cost savings to municipality through lower film plastic processing costs | • Potentially high implementation costs (legal and enforcement) |
| **Retail Ban on Sale and Use of Non-Recyclable Plastic Bags** | • Reduced waste to landfill  
• Targets waste reduction over recycling  
• Elimination of materials which contaminate existing film plastic recycling stream | • Potentially high implementation costs (legal and enforcement)  
• Low diversion potential due to small quantity of this waste material collected  
• Potential for resident confusion over “biodegradable” plastics |

i) **Industry Return-to-Retailer Partnership**

The opportunity exists for the City of Hamilton to sign onto the EPIC-sponsored “Take it Back!” return-to-retailer program like the City of Ottawa and the Regions of Durham, Halton and York have already done. Under this scenario, EPIC and participating retailers would supply communication materials and organizational support to implement a program to encourage residents to return their bags back to retailers. It is important to note that these municipalities differ from Hamilton in that they do not currently accept plastic film in the Recycling Program, so return-to-retailer programs offer the only alternative for plastic shopping bag recycling for their residents.

While this program could be undertaken in combination with the acceptance of plastic bags in the Recycling Program, the available data shows that recycling capture in Hamilton is significantly higher and offers residents a more convenient method for recycling their bags than a return-to-retailer arrangement. As the City already operates an effective Recycling Program for plastic film, the staff resources that would be required to run a “Take-it-Back” program would be directed away from other diversion activities. Therefore it is not recommended that the City sign onto an industry partnership until verifiable results have shown that this type of program is as effective at capturing plastic shopping bags as the City’s Recycling Program.
ii) **Institute a Levy on Plastic Shopping Bags Issued at Retailers**

The City could enact a by-law that would require retailers to charge customers for each bag they use at the checkout. Under this system the funds collected under the levy would be collected from the retailers by the City and could be used to fund environmental initiatives. Specifically, revenue generated could be directed towards programs aimed at promoting waste reduction and extended producer responsibility, particularly for plastic shopping bags.

A similar strategy to this was applied by the Government of Ireland in 2002 where a fifteen (15) cent levy was instituted on plastic shopping bags. Conflicting reports have been provided on the effectiveness of this initiative; however a 90% reduction in plastic shopping bag use was reported.

Implementation of a levy would require an amendment to the Ontario Municipal Act as current legislation would not permit the City to pass such a by-law. Enacting a levy such as this would also require significant staff resources to design and implement the fee collection program and to ensure that all retailers are in compliance. Furthermore the issue of what would be done with the collected funds would have to be addressed.

iii) **Ban on the Sale and Use of Shopping Bags at Major Retailers**

A ban on plastic shopping bags would be the strongest policy instrument to deter the use of single-use plastic shopping bags in the City. However, it would require significant legal, enforcement and planning staff resources to be carried out effectively. A ban would need to be put in place through enacting legislation such as a by-law and the decision would need to be made as to what retailers would be subject to the ban and what types and thicknesses of plastic shopping bags would be prohibited. For enforcement to be undertaken in a cost-effective manner, it would have to be carried out on a “response to complaint” basis. The initial response to complaint would be by customer service consultation with the retailer, with severe or repetitive infractions referred to by-law enforcement staff. The implementation of a retail ban on plastic shopping bag use would also have to address the issue of the bags brought into Hamilton from neighbouring jurisdictions, and how these would be disposed of.

iv) **Ban on the Sale and Use of Non-Recyclable Shopping Bags at Major Retailers**

A ban focused solely on non-recyclable shopping bags could be implemented and enforced in the same manner as an outright ban on all bags as outlined above. However, focusing on materials not accepted in the blue box would be more consistent with our established film recycling program and would only target materials which are sent to landfill and which currently pose a contamination problem in the recycling of film. Under this ban the distribution of non-recyclable petroleum-based plastics, as well as biodegradable and oxo-biodegradable plastics, would be prohibited.

A ban of this type would still not address the importation of bags from neighbouring municipalities. Also, non-recyclable plastic film comprises a very low quantity of the total waste managed by the City and a ban would not provide a significant increase in waste diversion. As well, the difficulty in recognizing the difference between “biodegradable” and “compostable” products may lead to resident and retailer confusion as “compostable” bags are promoted for use in the Green Cart Program. Nonetheless, the use of a ban on non-recyclable plastic bags may be considered if sufficient reductions of plastic shopping bags are not achieved under the current programs. In
order to facilitate a reduction in non-recyclable plastic bags use, staff will undertake promotion activities with area retailers on the importance of offering recyclable bags and education in identifying the difference between recyclable and non-recyclable bags.

b) Conclusions & Recommendations

The quantity of plastic shopping bags sent to landfill is estimated to be approximately 400 tonnes, which accounts for only 0.2% of the total residential waste generated in the City of Hamilton. In light of the various private sector and provincial initiatives being undertaken, and the continued improvement in plastic film recovery in the City’s Recycling Program, the City is likely to see the continued increase in recycling and reduction of plastic shopping bags. Therefore the implementation of stronger policies to reduce plastic bag use in the City of Hamilton, such as bans and taxes, is not warranted at this time. Over the next couple of years these initiatives can be monitored and a more accurate assessment of their success considered.

FINANCIAL/STAFFING/LEGAL IMPLICATIONS:

The cost of purchasing reusable plastic or cloth bags for use as promotional materials would be at an upset limit of $5,000 and would be funded from the existing Research and Development Capital budget (Account # 5120755137).

Existing staff resources would be sufficient to undertake the promotional activities associated with distributing the reusable bags to the participating food banks and promoting the use of recyclable bags with local retailers.

POLICIES AFFECTING PROPOSAL:

Corporate Strategic Plan
Promoting the increased reduction and recycling of plastic shopping bags increases waste diversion in pursuing our target of 65% diversion in Performance Measure 6.5 of Focus Area 6 Environmental Stewardship.

Public Works Strategic Plan
Actions focused on minimizing the use of plastic shopping bags and increasing waste reduction and recycling contribute to the greening of the City.

Solid Waste Management Master Plan (SWMMP)
The following recommendations of the Solid Waste Management Master Plan pertain to recommendations being put forward in this report:

Recommendation 2 - "The Glanbrook landfill is a valuable resource, and the City of Hamilton must optimize the use of its disposal capacity to ensure that there is a disposal site for Hamilton’s residual materials that cannot be otherwise diverted".

Recommendation 10 - "The City of Hamilton must implement, sustain and support a comprehensive public education, awareness and marketing program in all areas of the city outlining the benefits and encouraging participation in waste reduction, re-use and recycling programs".

Recommendation 13 - "The City of Hamilton is committed to continually improving its waste management system and will support annual investment in research and development".
Recommendation 17 - “The City of Hamilton should establish a waste management implementation task force to help staff and politicians implement and monitor the new waste management system”.

RELEVANT CONSULTATION:

In preparation of this report the following groups have been consulted with:

- SWMMP Steering Committee - This committee considered the available alternatives at the January 2009 meeting and supported the recommendations of this report at the March 2009 meeting.
- SWMMP Waste Reduction Task Force (WRTF) - Extensive discussion of the issues has taken place and the WRTF has reaffirmed its position in support of a ban on non-recyclable plastic bags at their February 2009 meeting. Staff will undertake promotion and education activities to target voluntary reductions in the distribution of non-recyclable shopping bags by area retailers.
- Municipal Law Enforcement
- Community Food Security Stakeholder Committee - Preliminary consultation was undertaken with charitable food bank organizations.
- City of Ottawa
- Region of Durham
- Region of Halton
- Region of Peel
- Discussion and information exchange was undertaken with Region of Niagara Waste Management staff.

CITY STRATEGIC COMMITMENT:

By evaluating the “Triple Bottom Line”, (community, environment, economic implications) we can make choices that create value across all three bottom lines, moving us closer to our vision for a sustainable community, and Provincial interests.

Community Well-Being is enhanced. ☑ Yes ☐ No
Waste diversion is increased and litter and other impacts on the City of Hamilton are reduced.

Environmental Well-Being is enhanced. ☑ Yes ☐ No
Waste is reduced and recycled.

Economic Well-Being is enhanced. ☑ Yes ☐ No
Reduced use of plastic bags may result in lower recycling processing costs for the City.

Does the option you are recommending create value across all three bottom lines? ☑ Yes ☐ No
Waste reduction and diversion increases the lifespan of our landfill and ultimately reduces costs for taxpayers. Litter reduction improves the overall image of the City.

Do the options you are recommending make Hamilton a City of choice for high performance public servants? ☑ Yes ☐ No
Not relevant
Review of Current Canadian and International Plastic Bag Reduction and Recycling Initiatives

This Appendix will provide an overview of the pertinent provincial, municipal and private sector initiatives dealing with plastic bag reduction and recycling.

i) Provincial Plastic Bag Reduction Program

In May 2007 the Province of Ontario announced an agreement with five (5) key industry associations to achieve a 50% reduction in the use of petroleum-based plastic bags by 2012. The agreement, reached with the Recycling Council of Ontario (RCO), the Canadian Federation of Independent Grocers (CFIG), the Canadian Council of Grocery Distributors (CCGD), the Retail Council of Canada (RCC) and the Canadian Plastic Industry Association (CPIA), is a collaboration of initiatives to reduce plastic bags through employee training, promotion of reusable alternatives and expanded recycling programs. The first annual report released in February 2009 stated a province-wide reduction in plastic shopping bag use of 6.2% from 2006 to 2007. In addition, it claims a 2% increase in the plastic shopping bag recycling through Recycling Programs and return-to-retailer programs. Overall, a province-wide reduction of 269 million plastic shopping bags used was reported from 2006 to 2007.

ii) Private Sector Initiatives

Various private sector initiatives have been undertaken by retailers to promote the reduction and recycling of plastic shopping bags. While some of these have been in place for several years, many have been initiated over the past year in light of the increased concern over the impact of plastic bags on the environment.

For example, major retailers such as Costco do not offer bags at their checkout and No Frills and Food Basics stores have charged for plastic bags for several years. More recently, Goodwill stores have begun charging for bags and in the past year the Liquor Control Board of Ontario (LCBO) announced that it would no longer be offering plastic bags, instead offering paper bags and cardboard boxes or reusable cloth bags at a charge. IKEA has stopped offering plastic bags as well as paper bags, and only makes reusable bags available at a small cost to consumers. In January 2009, Loblaws stores announced that they will be enacting a five (5) cent charge on all single-use plastic grocery bags that will be implemented province-wide on Earth Day, April 22, 2009.

Other retailers, such as Metro stores (and Loblaws in the past), have opted for less direct methods to curtail plastic bag use, instead choosing to sell reusable plastic or cloth grocery bags and offering a small store credit for each reusable bag used by their customers, although often the customer must request the credit. Several grocery retailers throughout the province, including Hamilton and Niagara, also operate return-to-retailer programs where customers can place their used bags in containers located in participating stores. As of 2007, 437 retail locations offered in-store plastic bag recycling programs in Ontario which is up from 184 in 2006.

In addition, new single-use products are being introduced in stores which are made of compostable or biodegradable materials. These products are considerably more costly than petroleum-based plastic bags and the widespread use of them has not yet occurred. In addition, these products cause confusion when residents use them in the City’s Green Cart Program as they are difficult to distinguish from petroleum-based
plastic bags, which can result in waste collectors not emptying the cart due to perceived contamination. Biodegradable plastic bags are not accepted in either the City’s Green Cart or Recycling Programs.

In response to the increased concern regarding single-use plastic shopping bags, the Canadian Plastic Industry Association (CPIA), through its Environment and Plastics Industry Council (EPIC), has developed the “Take it Back!” program with participating retailers and interested municipalities in Ontario. This program is a more formal return-to-retailer program, where the municipality provides communications resources, including staff time and some materials for in-store promotions, and the participating retailers supply the collection containers, arrange for the processing of the collected bags and provide their own in-store program promotion.

Over the past two (2) years the City of Ottawa and the Regions of Durham, Halton and York have signed onto the “Take it Back!” program, with the number of participating store locations in each of these regions ranging from thirty (30) to sixty (60). Under this program plastic bag collection data is limited as the quantity of bags collected by the stores is not reported by EPIC or the retailers and the data is not tracked separately for each municipality. Durham Region estimates their capture to be approximately 10 tonnes per month which is approximately 25 to 30% of the quantity currently captured through the City of Hamilton Recycling Program.

iii) Other Municipal Initiatives

Municipalities throughout Canada have been attempting to address the environmental and waste management issues related to plastic shopping bags with a variety of approaches.

The City of Sault Ste. Marie implemented a partnership with local retailers by supplying residents with reusable cloth bags in an effort to reduce the use of plastic bags at the checkout. This program, entitled “Say YES to Reduce and Recycle”, was launched in 2007 and has been an initial success. Program funding has been provided through the Province’s new plastic bag reduction initiative to continue the program and to develop a pilot shopper loyalty program to further encourage the use of reusable shopping bags.

In December 2008, the City of Toronto moved to reduce the amount of plastic shopping bags in the city through the phased introduction of a retail levy and eventual ban of non-recyclable bags. Commencing June 1, 2009 all retailers will be required to accept reusable containers and must charge five (5) cents per bag if they chose to continue offering them. Retailers must identify the charge through signage and on the merchandise receipt. As of June 1, 2010 the City of Toronto will ban the sale or distribution of bags which are not recyclable. In order to support and enhance these initiatives, Toronto will undertake annual reporting, further stakeholder consultation, public awareness, work with small independent retailers and further alternatives should the goal not be met.

In 2007, the Town of Leaf Rapids, Manitoba became the first Canadian municipality to implement a by-law banning single-use plastic shopping bags. The program first enacted a three (3) cent charge for plastic bags and later switched to offering only recyclable paper bags. Reports indicate that the implementation of the ban was
relatively easy as it is a small town of 20,000 residents with a very small number of retailers.

The City of San Francisco implemented a ban on single-use plastic bags solely targeted at major retailers, where the majority of plastic bags are distributed. Under the San Francisco initiative significant reductions in plastic bag use have been achieved, however the ban is currently being legally challenged by the State of California. It is also important to note that the City of San Francisco differs from the City of Hamilton, in that it does not operate a curbside recycling program which accepts plastic film.

In contrast to the efforts of the above municipalities, some municipalities have determined it not to be feasible to undertake action to reduce or recycle plastic shopping bags. For example, the City of Victoria, British Columbia decided in May 2008 that enacting a ban on plastic shopping bags was not a viable option due to resistance from some regional governments in the Capital Regional District. Victoria determined that the cost of adding plastic film to their curbside recycling program was too high. Resulting from these decisions the municipality relies solely on industry recycling initiatives to achieve plastic bag reductions.

Internationally, several governments have implemented bans and taxes aimed at reducing the number of plastic shopping bags in their jurisdictions. In 2003, South Africa implemented a combined ban and levy on plastic bags through the banning of thin plastic bags and placing a forty-nine (49) cent tax on thicker bags which are intended for reuse. A portion of this tax goes towards recycling and awareness. France has chosen to ban non-biodegradable bags country-wide by 2010. Kenya, Rwanda and Pakistan also have bans on the distribution of plastic bags.