





Report on actions to reduce circulation of single-use plastic bags around the world: August 2015



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## **Background**

In recent years, increasing numbers of jurisdictions around the world have taken action to reduce reliance upon plastic bags. Plastic bag litter has come to symbolise the worst excesses of a throw-away consumerist society. Since 1977 when the supermarket industry first distributed plastic bags in the USA, they have been taken up in huge numbers across the world.<sup>1</sup>

It is estimated that the world consumes 500 billion to 1 trillion plastic bags every year.<sup>2</sup> The plastic bag has been popular because of its extraordinary strength, and its lightweight properties have kept the cost of production and distribution low whilst making it versatile for the consumer.<sup>3</sup> Although the world was introduced to the plastic bag relatively recently, it is now regarded as essential as a vessel for carrying items across much of the world. The plastic bag is used daily by a diverse range of people including in urban centres of developed nations, impoverished towns in developing nations, and remote settlements.

The vast majority of plastic bags in circulation are high density polyethylene (HDPE) bags with handles commonly referred to as 'singlet' plastic bags. They are most commonly distributed by supermarkets and takeaway outlets. The bag is generally referred to as the 'single-use' plastic bag because it is commonly used once only for a short period of time, such as to transport groceries from the shop to the home.<sup>4</sup>

## **Context of Report**

There has been a recent dramatic increase in dialogue and action to mitigate the environmental impact of HDPE bags following from the lead of China who banned the single-use plastic bag in 2008.<sup>5</sup> This report aims to summarise actions by jurisdictions across the world by piecing together information available from various websites and media reports. This includes actions initiated at different jurisdictional levels from national Governments, to State and local Governments, grassroots community-led bans and actions by retailers. Generally speaking, options canvassed have included voluntary measures through educating retailers and consumers, levies on plastic bags payable by retailers or consumers and bans on issuing plastic bags to consumers.

http://www.packagingknowledge.com/plastic\_bags.asp#product\_histroy

<sup>&</sup>lt;sup>2</sup> http://www.reusablebags.com/facts.php?id=14

<sup>&</sup>lt;sup>3</sup> http://www.worldwatch.org/node/1499

http://www.carbonplanet.com/newsletters/be\_the\_change\_8.pdf

http://www.bloomberg.com/apps/news?pid=newsarchive&sid=a4za0nkuXGi4



The reliance on the single-use plastic bag by diverse communities with widely differing economic and cultural systems means that no one measure to reduce the environmental impact of plastic bags will be successful in every context. Rather than imposing a recommendation for every jurisdiction across the world, this paper will provide an outline of actions taken, and incorporate the perspective of Clean Up Australia in the final section.

## **Outline of Report**

This report starts with an explanation of the environmental impacts of HDPE singlet single- use bags. The concept of the life cycle is used to compare HDPE singlet single-use bags to alternatives including paper bags.

The report then examines the Australian experience at the jurisdictional level of the Federal Government, community/town level, and State/Territory jurisdictions to extrapolate different approaches taken to reduce the circulation of plastic bags. Options canvassed have included voluntary measures through educating retailers and consumers, levies on plastic bags payable by retailers or consumers, and bans on issuing plastic bags to consumers.

The paper then outlines actions taken by jurisdictions continent by continent.

It concludes with a section on campaign objectives from the perspective of Clean Up Australia.



## **Environmental Impacts of Plastic Bags & Alternatives**

The useful life of the single-use plastic bag is generally relatively short. It is impossible to quantify length of use, but it has been suggested that the average plastic bag is used for as little as 12 minutes. Whilst the plastic bag has a short useful life, it has a substantial environmental impact. Production is energy intensive with 0.48 MJ of energy required to make one HDPE plastic bag. Fossil fuels are extracted and processed to provide the energy required for production, contributing to climate change. The plastic bag persists in the environment for up to 1000 years, representing a significant waste impact. The combination of long life and high levels of consumption mean that plastic bags can place pressure on landfill capacity. The lightweight properties of the plastic bag allow it to escape from rubbish bins and landfill and if littered, to move around the natural environment causing a variety of problems. On land, the bag can clog stormwater drains, entrap wildlife, create visual pollution and represent a safety threat to children. Marine species including mammals, fish and seabirds mistake plastic bags for food. They may die from starvation from the false sense of being full after ingestion, choke during ingestion itself or die from entanglement. The plastic bag may break up in 450 years in the sea water, with its smaller pieces representing an ongoing threat to wildlife mistaking the pieces for food, and eventual degradation compromising water quality.

Life-cycle assessment methodology is a useful tool to measure the cumulative environmental impact in producing, using, transporting and disposing of a good. This methodology rejects the tendency to focus exclusively on environmental impact at one stage of the life cycle, typically post-use. Information on the life-cycle impacts of plastic bags and their alternatives allow for comparison of the benefits and disadvantages of options to replace plastic bags.

The 2002 Nolan-ITU Report on Plastic Shopping Bags –Analysis of Levies and Environmental Impacts for Environment Australia reported on the life-cycle of a number of different bag options including the HDPE plastic bag, the HDPE bag made from 50% recycled materials, the Low Density Polyethylene (LDPE) plastic bag, the paper bag, the calico bag and the Polypropylene fibre (PP) 'Green Bag'. The assessment looked at a number of environmental indicators across the life cycle. This included material consumption during production as a measure of resource efficiency, primary energy required for production as a measure of global warming potential, embodied energy consumed in the production process, and persistence of waste materials in the environment. The Report found that the Polypropylene fibre 'Green Bag' was the most sustainable option at that time based on a number of assumptions relating to bag weight, capacity and expected life. Whilst the paper bag was less persistent in the environment than the PP Green Bag or any of the plastic bag options, the paper bag consumed vastly more material during production, used more water and generated more waterborne waste. The paper bag also required significantly more primary energy, representing significant global warming potential.

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<sup>6</sup> http://www.nomorebaggage.org/facts.php

<sup>&</sup>lt;sup>7</sup> http://www.carbonplanet.com/newsletters/be\_the\_change\_8.pdf

<sup>8</sup> http://www.adoptabeach.org.uk/pages/page.php?cust\_id=41

<sup>9</sup> http://www.alcas.asn.au/intro-to-lca



The 2002 report also looked at social and economic considerations for each bag option as part of a triple bottom line sustainability assessment. It recognised the existence of a strong market for HDPE plastic bags and the financial outlay required by consumers to invest in the PP Green Bag. The report noted that environmental benefits from increased take-up of PP Green Bags are dependent on consumers reusing a smaller number of bags, and that increased take-up of paper bags does not require consumers to change their habits by bringing reusable bags with them to retail outlets.<sup>10</sup>

As jurisdictions move to ban or reduce circulation of single-use plastic bags, many are endorsing one type of alternative bag as the most sustainable option, typically the PP Green Bag, paper bag or biodegradable plastic bag.

## The Australian Experience

#### **National**

Community concern about the environmental impacts of plastic bags led the Government to commission the 2002 Nolan-ITU Report on Plastic Shopping Bags – Analysis of Levies and Environmental Impacts for Environment Australia. The terms of the report precluded a ban option, and were presaged on the assumption that the Government would work with industry to introduce a tax or levy on plastic bags with the aim of reducing consumption. The report found that a levy set at 15-30c per bag would significantly reduce consumption. The authors found that the Republic of Ireland had introduced a voluntary levy that had reduced consumption of plastic bags whilst maintaining community support.<sup>11</sup>

Following from the report, the Coalition Government and the Australian Retailers Association signed off on a Code of Practice for the Management of Plastic Bags (the Code) that operated from 2003-2005. Major retailers endorsed the Code as Group 1 signatories, committing to reduce plastic bags by 25% by the end of 2004 and to aim for a 50% reduction by the end of 2005. They also committed to collecting 15% of plastic bags in-store for recycling or 30% of plastic bags in-store combined with council kerbside collection by the end of 2005.

Major retailers were warned that they might face mandatory measures if they failed to meet commitments. As part of the Code, smaller retailers were asked to commit as Group 2 signatories, meaning that they were to take actions to reduce plastic bag usage as practicable.

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<sup>10</sup> http://www.environment.gov.au/settlements/publications/waste/plastic-bags/pubs/analysis.pdf

<sup>11</sup> http://www.environment.gov.au/settlements/publications/waste/plastic-bags/pubs/analysis.pdf

http://www.retail.org.au/ara2/fileadmin/sitesections/policy/codes/ARABAGCOde.pdf



During the Code's operation from 2003 to 2005, there was a reduction in consumption of plastic bags in the retail sector. Baseline consumption was 5.95 billion bags in 2002 prior to the Code and this dropped to 3.92 billion bags in 2005.13

This represented a 41-44% reduction by major retailers. A survey revealed that over 85% of smaller retailers were aware of the Code and almost one in four smaller retailers claimed to have stopped using plastic bags altogether. There was a corresponding increase in the consumption of reusable bags especially polypropylene bags. 14

The Australian Labor Party in Opposition did not find the reduction in plastic bag usage a sufficiently fundamental change, and made statements that it supported a plastic bag ban for retailers from 2004. 15

In June 2006 the Environmental Protection and Heritage Council (EPHC) committed to a phase-out of plastic bags by the end of 2008. This intention was reiterated in 2007. Options canvassed included imposing a ban on plastic bags and a mandatory charge upon retailers for use of plastic bags. The EPHC resolved against a regulatory approach in April 2008 after a report they compiled found that regulating a phase-out of plastic bags leading to a ban would impose significant environmental costs that outweighed the environmental benefits. 16

The Government has also come under an obligation to deal with plastic bag litter on the basis that it endangers threatened marine species. In 2003, plastic litter - including plastic bags - was listed as harmful marine debris: a key threatening process under the Environment Protection, Biodiversity Conservation Assessment Act (1999).<sup>17</sup> This listing led to the development of a threat abatement plan for marine debris in 2009. 18 A report by the United Nations Environment Program on marine debris in 2009 suggested that the Australian threat abatement plan might redress the problem of lack of coordination between federal, state and local jurisdictions over the problem of marine debris. However, they also found that Australia lacked data on the extent of the marine debris problem and needed to invest in marine debris projectory modelling. They also mentioned the difficulty of patrolling Australia's large and remote coastline to ensure enforcement of laws against littering. 19

There have been recent developments in the regulatory requirements for product stewardship that are likely to impact upon retailers who use plastic bags as well as plastic bag producers and importers. Product stewardship requires a producer to take responsibility for environmental impact both in the design process and in the post-consumer stage of a product's life cycle. It is based on the principle that producers, importers, governments, retailers and consumers have a level of responsibility for the environmental

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<sup>13</sup> http://www.environment.gov.au/settlements/publications/waste/plastic-bags/pubs/report-2005.pdf

http://www.retail.org.au/ara2/fileadmin/user\_upload/ss- pir/ARA%20Plastic%20Bag%20Report%20Final.pdf

<sup>15</sup> www.smh.com.au/news/environment/plastic-bags-join-endangered-list/2008/01/09/1199554742673.html

http://www.ephc.gov.au/taxonomy/term/54

http://www.environment.gov.au/biodiversity/threatened/publications/tap/marine-debris.html

<sup>18</sup> http://www.environment.gov.au/biodiversity/threatened/publications/tap/pubs/marine-debris-threat-abatement-plan.pdf

http://www.unep.org/regionalseas/marinelitter/publications/docs/Marine Litter A Global Challenge



impacts of the products they use. 20 The 2009 National Waste Policy / Less Waste, More Resources aims to build a legislative framework for a national product stewardship framework within three years and institute regulatory, co-regulatory or voluntary stewardship requirements for a number of products in this time. It may be that plastic bags are one of the first products targeted. As well as instituting national benchmarks, the policy seeks to align national waste policy with international developments.<sup>21</sup> With the increase in regulatory approaches to plastic bag reduction in many jurisdictions overseas, this may heighten impetus towards a ban.

In late 2014 the federal Environment Minister stated that plastic bag litter is a national disgrace, calling on the states to work towards a national ban of lightweight single use plastic bags.

#### **Communities / Towns**

In the absence of consistent national leadership on plastic bags, a number of Australian towns have banned plastic bags. Coles Bay in Tasmania was the first town in Australia to ban plastic bags. <sup>22</sup> In Victoria, towns free from plastic bags include Birregurra, Cannons Creek, Murtoa, Metung, Timboon, Cohuna and Leitchville. In New South Wales, towns include Kangaroo Valley, Huskisson, Oyster Bay, Mogo and Orient Point.23

A number of remote Indigenous communities in the Northern Territory have banned the plastic bags in their community stores. The communities of Milikapati, Wadeye and Lajamanu have banned plastic bags throughout their entire communities.<sup>24</sup> The tourist town of Yulara near Uluru has also banned the plastic bag.25

Two markets in Victoria have also banned the plastic bag. They include Veg Out St Kilda Farmers' Market and Collingwood Childrens' Farm Farmers' Market.<sup>26</sup>

<sup>&</sup>lt;sup>20</sup> http://global.rmit.edu.au/encyclopedia/prod\_stewardship.php

http://www.environment.gov.au/wastepolicy/publications/pubs/wastemgt\_rpt\_\_national\_waste\_policy\_framework\_less\_wast e more resources final 200911.pdf

http://plasticbags.planetark.org/documents/doc-218-colesbayanniversary-26-4-04.pdf

http://www.amazingalternatives.com.au/plasticbags.html

http://www.kabq.org.au/nt/01\_cms/details.asp?ID=144

http://www.kabq.org.au/ dbase\_upl/all%20winners.pdf

<sup>26</sup> http://www.amazingalternatives.com.au/plasticbags.html



#### States and Territories

#### South Australia

South Australia is the first Australian state or territory to ban HDPE plastic bags. From May 2009 retailers may be fined for selling or giving away plastic bags with handles made of polyethylene polymer less than 35 microns thick. The initiative sits within the South Australian Government's "Zero Waste" policy which is built around the concept of waste avoidance via resource recovery.

The ban excludes LDPE bags commonly used in department stores as well as bags used to provide hygienic 'barrier' protection for food including fruit, vegetables and meat. Plastic composting bags that meet the Australian Standard are permitted.<sup>27</sup>

A survey of South Australian consumers prior to the ban and one month after the ban showed a 30% increase in the number of consumers taking their own reusable bags to the store following from the ban. As of July 2015, an omnibus survey conducted by the Boomerang Alliance claims that 81% of respondents are highly supportive of the ban.<sup>28</sup>

## **Northern Territory**

A ban on single-use lightweight bags was legislated on September 2011 with a 4 month phase-out campaign. It was based on the South Australian legislation. Consumers are still able to purchase re-usable and biodegradable bags, e.g. Green Bags, paper, heavy-duty bags and barrier bags for meat and produce.

A report was commissioned by the NT government and conducted by Rawtec Consultants.<sup>29</sup>

## Western Australia

The media has reported that a private member's bill to ban plastic bags is to be introduced in February 2010. With some 400 million plastic bags used each year in Western Australia, the cities of Albany and Fremantle have developed strategies aiming to rid the cities of plastic bags. 30

In 2015, the State Government struck down the plastic bag ban in Fremantle stating that the use of plastic bags is not an issue that should be left to individual local governments.<sup>31</sup>

<sup>27</sup> http://byobags.com.au/

http://www.zerowaste.sa.gov.au/Content/Uploaded/Assets/ExecSummary\_PlasticBagBan\_Research.pdf

<sup>&</sup>lt;sup>29</sup> http://www.ntepa.nt.gov.au/.../plastic\_bag\_ban\_review\_report\_rawtec.pdf

http://news.smh.com.au/breaking-news-national/move-for-wa-ban-on-plastic-bags-20100102-lmjw.html

http://www.abc.net.au/news/2015-05-20/mp-tries-to-get-fremantle-plastic-bag-ban-overturned/6485028



## **Australian Capital Territory**

A ban on single use bags came into effect on November 1, 2011 following a four month transition period with a comprehensive community and retailer education campaign.

In February 2014 a report conducted by Piazza Research for the ACT Department of the Environment and Sustainability surveyed 600 consumers and found support for the ban had increased up to 65%, (up from 58% in the 2012 survey).

#### **New South Wales**

In 2004, then Premier of New South Wales, Bob Carr, was reported stating that he supported urgent action to reduce plastic bag usage, whether in the form of a levy or ban. At that time, the New South Wales Opposition suggested a levy with the money to be refunded to the consumer upon return of the plastic bag to the retail outlet.<sup>32</sup>

In 2015, A Petition signed by 12,344 voters to ban plastic bags was presented by Boomerang Alliance and Plastic Bag Free New South Wales.<sup>33</sup> With bi-partisan support, the state government has undertaken to consider the scope and scale of a statewide ban.

## Queensland

In 2008, Queensland Premier Anna Bligh spoke out against a regulatory approach to plastic bags, making the argument that industry required a national position on plastic bags in order to provide the certainty that would spark investment into plastic bag alternatives. The Premier was of the view that there were no appropriate alternatives to plastic bags.<sup>34</sup>

In 2015, a call to sign a petition to ban plastic bags in Queensland was made and the state government undertook consideration of a state wide ban of lightweight bags.

#### Victoria

In 2008, Victoria conducted a trial levy of 10c per plastic bag at four supermarkets in 3 areas. There was a 79% reduction in plastic bag use at these supermarkets during the trial and the funds raised were channelled into environmental projects. Victoria chose not to continue or expand the trial levy, but in November 2008 the Environment Ministers from Victoria, Australian Capital Territory, Tasmania and Northern Territory stated that they would work together to address the issue of plastic bag usage. 35

 $<sup>\</sup>frac{^{32}}{\text{http://www.parliament.nsw.gov.au/prod/parlment/publications.nsf/0/33469EB37225F1F8CA256ECF00077479/\$File/05-04.pdf}$ 

http://www.boomerangalliance.org.au/ban\_plastic\_bags\_nsw

http://www.brisbanetimes.com.au/news/queensland/state-to-oppose-plastic-bag-levy/2008/04/16/1208025245443.html

<sup>35</sup> www.sustainability.vic.gov.au/www/html/2713-use-less-plastic-shopping-bags.asp



#### **Tasmania**

In 2013, an Act called "Plastic Bag Ban Act" was implemented in Tasmania. This act prohibits retailers in Tasmania from supplying shoppers with lightweight (less than 35 microns thick) plastic shopping bags for the purpose of enabling goods sold, or to be sold, by the retailer, to be carried from the retailers premises.<sup>36</sup>

## **International Experience**

## **Africa**

## Republic of South Africa

In 2003, South Africa banned thin plastic bags and put a tax on thicker plastic bags.<sup>37</sup>

#### **Botswana**

Botswana banned thin plastic bags in 2007 with retailers instructed to charge for new thicker recyclable bags. The Government has not indicated a set price for the charges. These actions followed from a paper published in 2003 after a period of consultation. The paper recommended that the production, importation and use of thin bags of 10-20 micrometres should be banned. The paper also recommended that manufacturers, distributors and retailers of plastic bags institute waste management programs and that manufacturers use local, recyclable materials.<sup>38</sup>

## **Egypt**

The Red Sea (Hurghada) is the first plastic bag free governorate in Egypt having introduced a ban in 2009. The ban has also created employment opportunities for women who have been charged with creating cloth bags in the place of plastic bags. This has occurred under a partnership with Egyptian Resorts Company, Barclays Bank and vocational training centres.<sup>39</sup>

## **Eritrea**

In 2005, the Government banned plastic bags. 40

<sup>&</sup>lt;sup>36</sup> http://epa.tas.gov.au/policy/plastic-bags#overview

http://news.nationalgeographic.com/news/2008/04/080404-plastic-bags.html

http://www.gov.bw/cgi-bin/news.cgi?d=20061107&i=Ministry bans thin plastic bags

<sup>39</sup> http://www.blueotwo.com/news.cfm?nid=1135

<sup>40</sup> http://www.dep.state.fl.us/waste/retailbags/pages/list\_Africa.htm



## **Ethiopia**

In 2008, the Government banned the manufacture and importation of thin plastic bags. 41

#### Ghana

Ghana has been discussing the possibility of banning thin plastic bags. In 2004, the Government required plastics producers to contribute to the labour costs associated with collecting plastic bag litter for recycling.42

### Kenya

In March 2011, Kenya outlawed the manufacture and import of plastic bags up to 60 microns in thickness. The Kenya Bureau of Standards has been tasked with overseeing the change through factory inspections and ports of entry surveillance and monitoring.43

In 2008, the Government instituted a ban on thin plastic bags.44

#### Rwanda

The importation and use of plastic bags was banned in 2006. Whilst the Government wanted to increase reliance on paper bags in the place of plastic bags, critics argued that paper bags are five times more expensive than plastic bags. There have also been issues of plastic bags on the blackmarket and alleged instances of corruption where government militia have stolen goods from citizens carrying them in plastic bags. Citizens have also taken to the streets to clean up litter in 2004. 45

## Somalia

The autonomous region of Somaliland within Somalia banned plastic bags in 2005. 46

## South Africa

A ban was introduced in 2003 with the aim to halve plastic bag use from 8 billion bags per year. The new law allows retailers to sell plastic bags with a minimum thickness of 30 microns, but they are not permitted to distribute the bags for free.

<sup>41</sup> http://www.dep.state.fl.us/waste/retailbags/pages/list\_Africa.htm

http://www.dep.state.fl.us/waste/retailbags/pages/list Africa.htm

http://allafrica.com/stories/201501160720.html

http://www.dep.state.fl.us/waste/retailbags/pages/list\_Africa.htm

http://news.bbc.co.uk/2/hi/africa/4619748.stm

<sup>46</sup> http://www.dep.state.fl.us/waste/retailbags/pages/list\_Africa.htm



There has been some concern that jobs will be lost as a result of the ban on thin plastic bags and that manufacturing businesses may go out of business. It has also been argued that poorer citizens have used the free plastic bags as a resource to make products such as handbags for sale. These citizens would have difficulty absorbing the costs of the plastic bags for the first time.<sup>47</sup>

#### **Tanzania**

In 2006, Tanzania banned plastic bags.<sup>48</sup> The semi-autonomous Tanzanian territory of Zanzibar also banned the importation and production of plastic bags in 2006 due to fears that plastic bag marine debris would harm the marine tourism industry upon which the economy is based. Critics argued that the bans will mean significant tax revenue will be foregone as plastic bags will no longer be imported from the mainland. There were also concerns that the ban would be difficult to enforce.<sup>49</sup>

#### Uganda

In April 2015, The National environment Management Authority otherwise known as NEMA banned the selling, manufacturing and importation of plastic bags. Considering the past failures of enforcing similar bans in the past, many retailers at first, did not take this seriously until NEMA officials started knocking on their doors.

In January 2010, Ugandan manufacturers and retailers were given an additional 6 months to adjust to a ban on plastic bags prior to enforcement. The grace period followed from complaints by the Uganda Manufacturers' Association that the ban designed to start in January had taken them by surprise. The Environment Minister, Maria Mutagamba is opposed to a ban, preferring to work with manufacturers to create employment through plastic bag recycling initiatives. The National Environment Management Authority has stated that no further extensions will be offered.<sup>50</sup>

This follows from a similar scenario played out in 2009. The Minister of Finance had announced that a ban was to commence from October 2009, but in September 2009, the ban was delayed by six months to allow producers to clear stocks and to start producing alternative bags.<sup>51</sup>

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<sup>47</sup> http://news.bbc.co.uk/2/hi/africa/3013419.stm

<sup>48</sup> http://www.dep.state.fl.us/waste/retailbags/pages/list\_Africa.htm

http://news.bbc.co.uk/2/hi/africa/6135886.stm

http://allafrica.com/stories/201002010991.html

<sup>51</sup> http://allafrica.com/stories/200909230132.html

http://uganda.news24.com/National-News/NEMA-imposes-plastic-bag-ban-following-fierce-criticism-20150414



## Asia-Pacific (excluding Australia)

## **Bangladesh**

Some 85-90% of the 9.3 million plastic bags used daily in Dhaka in 2001 were thought to be dumped in the city streets after use. In 2002, the Bangladeshi Government instituted a ban on the distribution and use of plastic bags to combat the rubbish problem. The Government had previously tried to pass legislation following from disastrous floods in 1989 and 1998 where plastic bag litter blocked drains preventing the escape of water. Water-borne diseases flourished in the aftermath of these floods, prompting the Government to take action.<sup>53</sup>

#### **Bhutan**

The Government first introduced a plastic bag ban in 1999. Due to the difficulties of enforcing the ban and a perceived lack of plastic bag alternatives, there has been some criticism that the ban has been ineffective. Indeed, the Government has needed to make statements reinforcing the ban in 2005 and again in 2009.<sup>54</sup>

#### China

From January 2008, the Chinese Government placed a ban on the production, distribution and use of HDPE plastic bags. Retailers are permitted to charge shoppers for LDPE plastic bags with a thickness greater than 0.025micrometres. It is estimated that plastic bag consumption at supermarkets has been reduced by two-thirds as a result of the ban. This translates as a saving of 3 million metric tons of oil per year that would have been required to produce the HDPE plastic bags<sup>55</sup>. Prior to the ban, China used an estimated 3 billion plastic bags daily, which equated to disposal of some 3 million tonnes of plastic bags annually.<sup>56</sup>

Whilst the national ban took commentators by surprise, it followed from the attempt of the southern town of Shenzhen to ban free plastic bags in 2007 through drafting regulations. The ban did not eventuate.<sup>57</sup>

In 2012, a Government Official stated that the ban has saved 4.8 million tons of oil also 800,000 tons of plastic. Retailers in China's largest city, Shanghai had taken action prior to the ban. A selection of supermarkets had imposed a levy on plastic bags in an attempt to reduce usage.<sup>58</sup>

China has also tried voluntary measures to reduce plastic bag consumption. A voluntary 'No plastic bag day' scheme in 2006 led to a 40% reduction in plastic bag use. <sup>59</sup>

<sup>53</sup> http://www.edie.net/news/news\_story.asp?id=5029

http://www.bhutantour.bt/bhutan-news/plastic-ban-imposed-again.html

<sup>55</sup> http://www.bloomberg.com/apps/news?pid=newsarchive&sid=a4za0nkuXGi4

http://www.worldwatch.org/node/5578

<sup>57</sup> http://uk.reuters.com/article/idUKPEK25589820080108

<sup>58</sup> http://hk-imail.singtao.com/news

<sup>&</sup>lt;sup>59</sup> http://hk-imail.singtao.com/news



In Hong Kong, 18 major retailers instituted an end to plastic bag distribution at 2000 outlets in 2009. The campaign entitled, 'Every day No plastic bag day' aimed to halve distribution from 2005 levels when 820 million bags were used.<sup>60</sup>

In Taiwan, a ban on the free distribution of plastic bags was instituted in 2001. It was phased in progressively starting with schools, government agencies and the military before incorporating supermarkets, fast food outlets and department stores. A public health campaign led to an exemption allowing for the use of plastic bags in food packaging.<sup>61</sup>

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#### India

In India, a number of cities have taken action to reduce reliance on plastic bags.

The Bombay (Mumbai) city council banned plastic bags in 2000 largely due to health concerns. Monsoonal flooding carried the large number of dumped plastic bags to the drains, clogging them and preventing free movement of water. As well as exacerbation of flood waters, plastic bag litter on farms had the potential to leach contaminants into vegetable and grain crops with serious human health implications. A municipal enforcement team seized 2000kgs of plastic bags in less than a year following from the ban.<sup>63</sup>

In Chandigarh, polyethylene plastic bags were banned in 2008, and from October 2009, citizens were given 60 days to lodge any objections to a proposed ban on all transparent plastic bags and disposable containers.<sup>64</sup>

From January 2009, shops, five star hotels, restaurants and green grocers in New Delhi were banned from distributing plastic bags. Authorities have considered imposing similar bans on 100-bedded hospitals. Posters have been placed in public places to educate the public on the ban.<sup>65</sup>

The city of Pune has placed a ban on thin plastic bags from May 2009.66

61 http://www.bringyourbag.com/enviro.php

<sup>60</sup> http://news.xinhuanet.com).

<sup>62</sup> http://www.businessinsider.com.au/china-plastic-bag-ban-2012-6

http://news.bbc.co.uk/2/hi/south asia/1329600.stm

<sup>64</sup> http://timesofindia.indiatimes.com/city/chandigarh/Ban-on-transparent-plastic-bags-disposable-tubs/articleshow/5095458.cms

<sup>65</sup> www.hindu.com/thehindu/holnus/002200907190921.htm

http://timesofindia.indiatimes.com/cities/city-on-way-to-ban-plastic-bags/articleshow/4581650.cms



A women's cooperative has partnered with St Stephen's Hospital in Sunder Nagri to further employment opportunities as a result of the hospital looking to source alternatives to plastic bags. The women are paid to sew cloth bags for the pharmacy to package pharmaceuticals for distribution to patients.<sup>67</sup>

In 2015, Maharashtra, a state in west central India re-enforced the ban on plastic bags that was put into place in 2010. There will be a penalty of RS 1-5 Lakh and up to 5 year imprisonment for any sale or manufacturing of plastic bags less than 50 microns in thickness.<sup>68</sup>

In 2012, Delhi placed a ban on the manufacture, sale, storage and use of plastic bags was re-enforced after the 2009 effort did not make much of an impact. The penalty for the violation of the ban is a fine of up to 100,000 rupees or 5 years of jail. Authorities say plastic bags can still be used for bio-medical waste disposal.<sup>69</sup>

#### Malaysia

Businesses within parts of Malaysia have joined with the Energy, Green Technology and Water Ministry to minimise plastic bag use from late 2009.<sup>70</sup>

Penang supermarkets and department stores are planning to educate consumers by opting not to distribute plastic bags on the first Monday of each month following from some successful plastic bag free campaigns in 2009.<sup>71</sup>

Carrefour Malaysia company and the Malaysian Nature Society have partnered to stop distributing plastic bags following from an education period from January 2010. Carrefour outlets allow customers who bring reusable bags to take priority at the checkout over those customers without reusable bags.<sup>72</sup>

In 2011, The Domestic Trade, Cooperatives and Consumerism Ministry has launched a simultaneous nationwide campaign "No Plastic Bag Saturdays" that will see all hypermarkets, supermarkets and Petronas petrol stations no longer giving out free plastic bags on Saturdays. With the campaign, shoppers nationwide now have to pay 20 cents if they want to be given a plastic bag.

In 2014, studies showed that the "No Plastic Bag Saturdays" campaign had very little effect on the amount of plastic waste in landfills. While the campaign has raised awareness of the environment, it has had negligible effect on reducing plastic bag use.<sup>73</sup>

70 http://www.thestar.com.my/news/story.asp?file=/2009/10/9/nation/4869028&sec=nation

 $<sup>\</sup>frac{67}{\text{http://timesofindia.indiatimes.com/city/delhi/with-help-from-slum-women-this-hospital-goes-plastic-free/articleshow/5309255.cms}$ 

<sup>68</sup> http://indianexpress.com/article/india/india-others/maharashtra-ban-on-plastic-carry-bags-comes-into-force/

<sup>69</sup> http://www.bbc.com/news/world-asia-india-20457764

http://www.thestar.com.my/news/story.asp?file=/2009/5/23/nation/3967153&sec=nation

http://www.thesundailv.com/article.cfm?id=39018

<sup>73</sup> http://www.monash.edu.my/news/archive/2014/no-plastic-bag-saturday-we-need-to-do-better



#### **Myanmar**

A series of bans were instituted in Myanmar in 2009 including in the cities of Mandalay, Bagan and Nay Pyi Taw. In November 2009, authorities extended plastic bag producers a grace period of four months in which to cease production in Yangon. Disposed plastic bags are being collected to use in plastic piping, and Japan has pledged to help the city of Yangon set up plastics recycling plants to create resource value from the 200 tonnes of plastic bags disposed each year. Authorities have subsequently declared the northwestern areas of Myitgyina and Sagaing plastic-bag free zones.74

In April 2011, Yangon authorities have banned the production, sale and storage of plastic bags. This ban comes after two years after authorities in Myanmar's central city of Mandalay successfully prohibited polyethylene bags to protect the environment.<sup>75</sup>

### **New Zealand**

A number of retail outlets introduced levies on plastic bags in 2009 as a result of community concern voiced over plastic bags. The Warehouse introduced a 10c per bag levy in April with revenue going back to local stores to donate to local communities. From July to September following from the levy, plastic bag usage fell 84% at The Warehouse retail outlets. Supermarket chains New World and Four Square introduced a 5c per bag levy in August but revoked it one month later arguing that there had been a consumer backlash.<sup>76</sup>

## **Thailand**

In December 2009 a memorandum of understanding was signed between most of the Phuket's major retailers agreeing to place a levy on plastic bags.77

However, a number of Phuket's large retailers were reluctant to participate, and the uncertainty undermined the memorandum of understanding by early 2010. In February 2010, there was a change of tack with a new focus on educating consumers about the environmental impacts of plastic bags. The Vice-Governor made the argument that a levy is not consistent with the long-term goal of eliminating plastic bag use through a ban.78

#### **Philippines**

In 2011, Senator Loren Legarda authored the "Total Plastic Ban Act" and is being practiced in 15 Cities within the Country's Capital, Metro Manila. The act seeks to protect and advance the rights of the people to a balanced and healthful ecology. It prevents businesses from using any non-biodegradable bags; instead, they

<sup>&</sup>lt;sup>74</sup> http://english.people.com.cn/90001/90777/90851/6831261.html

http://www.myanmar-business.org/2011/04/yangon-city-bans-production-and-sales.html

<sup>76</sup> www.nzherald.co.nz/nz/news/article.cfm?c\_id=1&objectid=10612577

http://www.phuketgazette.net/news/detail.asp?id=8227

<sup>78</sup> http://phuketwan.com/tourism/plastic-phuket-turns-banana-leaf-12101/



could only provide recyclable paper bags or bio-degradable plastic bags. Fines have been imposed depending on the city from 500 pesos above, loss of business license or suspension is also imposed depending on the frequency of violations.79

## **Europe/Middle East**

## **Belgium**

From June 2007, the Belgian Government commenced a progressive tax on retailers' use of plastic bags. The costs have been passed on to consumers.80

#### **Denmark**

The Danish placed a 22 DKK per kilo tax on the wholesale price of plastic bags such that retailers carry the cost. Critics have argued that absorbing the cost at the retailer level does not provide such a powerful incentive for consumers to reject plastic bags as does a tax payable by consumers. However, plastic bag use has been reduced by one-third and over 170 million DKK has been raised for environmental projects.81

#### **France**

In 1999, the French island of Corsica banned plastic bags. In 2007, the city of Paris banned nonbiodegradable plastic bags in large stores.82

In 2005, the French Government committed to phasing in of a ban on non-degradable plastic bags by 2010.83

In 2007, non-biodegradable plastic bags were banned in Paris. A tax of about €0.06 per plastic bag will come into force across France on 1 January 2014. Single use plastic bags have been included in the general tax on polluting activities (TGAP) regime through an amendment to the 2010 Finance Bill. 84

The country's Environment Minister made it clear that she has every intention of making plastic bags a thing of the past. The proposal to ban Plastic Bags completely from the 1st of January 2016 will not include biodegradable bags.85

<sup>79</sup> http://www.mb.com.ph/more-cities-comply-with-total-plastic-bag-ban/

<sup>80</sup> http://www.bringyourbag.com/enviro.php

<sup>81</sup> http://www.plasticbageconomics.com/index.php?option=com\_content&task=view&id=26&Itemid=40

http://www.biocom-pe.com/PDF/Paris%20to%20Ban%20Non-Dec-10-06.pdf

http://plasticshoppingbagfree.org.nz/global-news/france-plan-ban-in-2005-for-2010

http://www.eupackaginglaw.com/packaging-and-recycling/france-plastic-bag-tax-from-2014--1.htm

http://www.thelocal.fr/20141002/france-plastic-bag-ban-supermarkets



#### **Germany**

Whilst the Government has not initiated any economic measures to reduce production or consumption of plastic bags, most grocery stores charge consumers up to 25 euro cents per bag to cover supply.<sup>86</sup>

#### Israel

Israel instituted a levy on plastic bags in 2008.87

The levy of 1NIS was designed to fund the provision of reusable bags as part of an education campaign.<sup>88</sup>

In 2014, the Ministry of Environmental Protection promoted a Bill that would prohibit distribution of free plastic bags in supermarkets. A levy of .30 Nis will be put into place in 2015-2016, then .20 in 2017-2018, and .10 in 2019. The money collected from the levy will be put into the Maintenance of Cleanliness fund. Each household will be provided with coupons to exchange for re-usable bags.<sup>89</sup>

#### Italy

In 1989 the Italian Government introduced a tax on the production and importation of plastic bags. The tax of 100 lira per plastic bag represented five times the cost of production, providing an economic disincentive for production.<sup>90</sup>

In 2011, A Plastic Bag Ban came into effect in Italy. However, Retail stores and Supermarkets will be allowed to use up their remaining stock of plastics bags, which they will have to hand out for free.<sup>91</sup>

In 2013, Britain opposed the Plastic Bag Ban of Italy, stating that since the bags are not banned by the EU, they could not be banned by a member of state. <sup>92</sup>

### Macedonia

The free distribution of plastic bags was banned in Macedonia in 2009. Customers are allowed to purchase plastic bags for items weighing more than 5 kilograms.<sup>93</sup>

<sup>86</sup> http://www.thelantern.com/2.1346/plastic-bag-obsession-1.83680

http://www.dep.state.fl.us/waste/retailbags/pages/list\_Asia.htm

<sup>88</sup> http://www.inhabitat.com/2008/01/16/small-charge-for-plastic-bags-in-israel/

<sup>89</sup> http://www.sviva.gov.il/English/env\_topics/Solid\_Waste/Pages/Supermarket-Bags.aspx

<sup>90</sup> http://www.economicinstruments.com/index.php/solid-waste/article/188-

<sup>91</sup> http://www.environmentalleader.com/2011/01/06/italy-carries-out-plastic-bag-ban/

http://www.telegraph.co.uk/news/worldnews/europe/italy/10083487/Italy-furious-as-British-block-ban-on-plastic-bags.html

<sup>93</sup> http://www.setimes.com/cocoon/setimes/xhtml/en\_GB/features/setimes/features/2008/09/29/feature-02



#### **Norway**

Whilst the Government has not initiated any economic measures to reduce production or consumption of plastic bags, most grocery stores charge consumers to cover supply costs. 94

#### Republic of Ireland

The Republic of Ireland was the first nation to tax plastic shopping bags. The PlasTax was introduced in 2002 in an attempt to reduce the consumption of plastic bags below 1.2 billion per year. In the first year of the 15 euro cents per bag tax, use of plastic bags decreased by over 90%. 9.6 million euros worth of revenue was raised in the first year with the revenue funding environmental projects. A number of plastic bags were exempt from the tax including heavier reusable plastic bags, bags used for meat, fish or poultry, as well as bags for ice.

From a low of 85 million plastic bags in 2003, consumption increased to 100 million plastic bags in 2004 and to 113 million plastic bags in 2005. There have also been reports of breaches of the regulations with retailers allegedly giving away plastic bags without collecting the levy.95

A 2007 increase in the tax from 15 euro cents to 22 euro cents led to a moderate decrease in plastic bag consumption.96

In late 2009, the Irish Government doubled the tax to 44 euro cents. 97

## **Spain**

Whilst the Government has not initiated any economic measures to reduce production or consumption of plastic bags, most grocery stores charge consumers to cover supply costs. 98

In 2010, Andalucía, Spain had put a 5 cent tax on Plastic Bags until 2012. 2012 onwards it will be raised to 10 cents per bag. This excludes plastic bags used for fruits and vegetable, bio-degradable bags and plastic bags designed for re-use.99

#### Sweden

Whilst the Government has not initiated any economic measures to reduce production or consumption of plastic bags, most grocery stores charge consumers to cover supply costs. 100

95 www.friendsoftheirishenvironment.net 96 http://plasticbags.planetark.org/about/othercountries.cfm

<sup>94</sup> http://dnr.wi.gov/org/aw/wm/recycle/issues/plasticbagsgovt.htm

http://www.guardian.co.uk/world/2009/sep/24/ireland-tax-plastic-bags

http://dnr.wi.gov/org/aw/wm/recycle/issues/plasticbagsgovt.htm

http://plasticbagbanreport.com/andalucia-spain-imposes-tax-on-plastic-bags/



#### **Switzerland**

A Swiss MP has proposed a ban on plastic bags in 2009. 101

In 2012, both houses of the Swiss Parliament voted to forbid the distribution of Plastic Bags. The next step is for the government to implement the ban. <sup>102</sup>

## **United Kingdom**

In 2007, London Councils introduced a private bill to ban plastic bags, asking locals to lobby their MPs to back the bill in Parliament. Despite some 90% of those consulted supporting action on plastic bags, no legislation resulted.<sup>103</sup>

In 2009, the UK Government and British Retail Consortium announced a campaign to encourage consumers to reuse carrier bags. The campaign entitled, 'Get a bag habit' pointed out that 9.9 billion new plastic bags were distributed in 2008. Seven major supermarkets committed to halving distribution of plastic bags by May 2009. <sup>104</sup>

Major retailer Tesco claimed in 2009 that it had halved plastic bag distribution over 3 years through its green loyalty point scheme. Under the scheme, Tesco offers customers who bring their own bag a green loyalty point to reward them for the plastic bag foregone as a result of bringing the reusable bag. The Daily Mail reported that there was some furore over the endorsement of the scheme by a professor who works for a research institute that had received a 25 million pound donation by Tesco in 2007.<sup>105</sup>

The National Trust has recorded an 85% reduction in the use of plastic bags following from the 2008 introduction of a 5 cent levy per bag in its 220 retail outlets. 106

This accompanies the 10 cent levy per bag instituted by Marks and Spencer retail outlets from May 2008. 107

The supermarket chain Sainsburys has held 'Make the difference' days where they remove free plastic bags from their retail outlets and replace with free reusable bags. Sales of reusable bags have doubled outside their 'Make the difference' days. 108

1 (

http://dnr.wi.gov/org/aw/wm/recycle/issues/plasticbagsgovt.htm

http://www.worldradio.ch/wrs/news/switzerland/is-it-unfeasible-to-ban-plastic-bags.shtml?12612

http://ens-newswire.com/2012/12/17/swiss-parliament-passes-plastic-bag-ban/

http://www.telegraph.co.uk/earth/earthnews/3314215/Plastic-bag-ban-set-for-London.html

http://uk.reuters.com/article/idUKTRE5356U120090406

http://www.dailymail.co.uk/news/article-1231481/Climate-change-expert-says-Tesco-plastic-bag-policy-success-years-supermarket-makes-25m-donation-university.html

<sup>106</sup> www.telegraph.co.uk/finance/newsbysector/retailandconsumer/5252335/Plastic-bag-demand-drops-by-85-per-cent-at-National-Trust.html

http://news.nationalgeographic.com/news/2008/04/080404-plastic-bags.html



The UK held its first Plastic Bag Free Day in 2009 drawing inspiration from the 14-odd towns that have banned plastic bags locally. 109

In 2009, the Welsh Assembly Government announced legislation requiring retailers to charge for all plastic bags from the beginning of 2011. It is intended that revenue raised will be channelled into environmental projects.<sup>110</sup>

The Scottish Parliament has backed away from plans to introduce a tax on plastic bags, and instead welcomes voluntary measures by retailers such as providing speedier service for those customers with reusable bags in their possession.<sup>111</sup>

In 2013, Northern Ireland introduced a tax levy of 5p per bag, which has dropped the number of plastic bags use in Northern Ireland by 71% on the first year. <sup>112</sup>

In 2014, The Scottish Parliament introduced the 5p levy per bag, causing an 18.3% decrease in the number of plastic bags handed out by retailers. <sup>113</sup>

In England, the number of single-use plastic bags from supermarkets rose from 7.4bn in 2013 to just over 7.6bn. From October 2015 large shops in England will be required to charge 5p for all single-use plastic bags.<sup>114</sup>

#### **United Arab Emirates**

The first emirate of Ajman will enforce a ban on plastic bags from July 2010. Recyclable plastic bags will be allowed to be imported into Ajman under strict conditions, and all importers must register their interest.<sup>115</sup>

Retail outlets in the capital city of Abu Dhabi have six months from January 2010 to cease distribution of plastic bags prior to enforcement of a ban. This is part of a plan to ban all non-biodegradable plastic bags in the nation by 2013.<sup>116</sup>

The United Arab Emirates cabinet has endorsed a decree to phase out plastic bags across the seven emirates by 2012. Biodegradable plastic bags will be permitted. 117

 $<sup>\</sup>underline{\text{http://www.telegraph.co.uk/earth/earthnews/3314215/Plastic-bag-ban-set-for-London.html}}$ 

www.adoptabeach.org.uk/pages/page.php?cust\_id=80

http://www.dailymail.co.uk/news/article-1225067/Welsh-lead-blitz-plastic-bags-charge-promise-2011.html

http://www.bringyourbag.com/enviro.php

http://www.theguardian.com/environment/2015/jul/24/uk-plastic-bag-use-up-for-fifth-year

http://www.theguardian.com/environment/2015/apr/17/scotland-plastic-bag-usage-falls-after-5p-charge-introduced

http://www.theguardian.com/environment/2015/jul/24/uk-plastic-bag-use-up-for-fifth-year

http://www.bernama.com/bernama/v5/newsworld.php?id=470035

http://www.projectgreenbag.com/blog/2009/11/capital-prepares-to-ban-all-plastic-bags-in-shops/

http://gulfnews.com/news/gulf/uae/environment/uae-to-ban-plastic-bags-from-2012-1.500055



In 2013, The Waste Management Department of Dubai launched a 6 month awareness campaign on reducing plastic bag usage and waste. At the campaign launch, thousands of re-usable and recyclable bags were distributed at each cooperative societies together with a leaflet outlining methods of reducing plastic bag waste.<sup>118</sup>

In Abu Dhabi, The Ministry of Environment and Water announced a ban on the circulation and marketing of non-biodegradable plastic products in the beginning of 2014.

The ban also covers biodegradable plastics bags that are not registered in accordance with the Emirates Conformity Assesment Sytem. A list of requirements and conditions applicable in this regard and in accordance with the UAE standard specifications (5009:2009) have to be met by manufacturers of this product not exceeding December 2013.<sup>119</sup>

## The Americas

#### **Argentina**

The province of Buenos Aires placed a ban on non-biodegradable plastic bags in 2008 but allowed a 2 year period prior to enforcement. Two Patagonian towns including El Calafate and El Bolson have also enacted bans with a 2 year period prior to enforcement. 120

## Brazil

A bill to ban non-biodegradable plastic bags was defeated in 2007. A campaign was initiated by the Ministry of Environment following from this. The "conscious consumption of packaging" campaign sought a reduction in plastic bag consumption by voluntary means.<sup>121</sup>

In April 2015, Sao Paulo initiated a ban on petroleum based plastic grocery bags, following a multi-year dispute between plastic trade groups and city government.

Supermarkets can now only offer bags made from plant based products, and those bags must be color-coded green or grey for use with recycling or trash. Stores that continue distributing non-biodegradable plastic bags face a fine of 2 Million Real. Citizens must use green bags at home just for recyclables or face fines of 50 - 500 Real.  $^{122}$ 

<sup>118</sup> http://plasticbagbanreport.com/dubai-says-no-to-plastic-bags/

http://gulfnews.com/news/uae/environment/uae-bans-non-biodegradable-plastic-products-1.1153432

http://www.treehugger.com/files/2008/09/plastic-bags-ban-buenos-aires.php

http://www.dep.state.fl.us/waste/retailbags/pages/list\_SouthAmerica.htm

http://www.plasticsnews.com/article/20150409/NEWS/150409920/brazils-s%C3%A3o-paulo-



#### Canada

The city of Toronto is positioning a campaign to reduce plastic bag use under its waste diversion strategy after the Premier of Ontario stated in 2008 that Ontario will not pursue a ban. 123

The city of Vancouver's proposal to introduce a ban remains under review by the British Columbia Government. 124

In 2009, the city of Toronto introduced a bylaw instructing retail outlets to charge a levy on plastic bags, at a minimum of 5 cents per plastic bag. There has been some confusion as to whether stores are also required to offer alternate bags for sale. 125

A number of retail businesses have taken Toronto's lead and introduced a plastic bag levy. They include Metro Inc, Loblaw and Ikea. Sobeys has introduced a fee for its Ontario stores. Thrifty stores have also instituted a ban from mid-2009. 126

The Retail Council of Canada, the Canadian Grocery Distributors, the Canadian Federation of Independent Grocers and the Canadian Association of Chain Drug Stores are working towards halving plastic bag distribution over a five-year period. 127

Liquor stores in Nova Scotia and Quebec have agreed to cease distributing plastic bags. 128

In January 2008, Capers Whole Food Market stores began to phase in a plastic bag ban over a period of three months. 129

In 2007, the town of Leaf Rapids in Manitoba became the first Canadian town to ban plastic bags following from a levy imposed a year earlier. 130

The small town of Huntingdon in Quebec banned plastic bags in 2008. 131

The Indigenous community of Nain instituted a ban in late 2009 and a local grocery store has promised to provide two reusable bags for every household in the community. 132

<sup>123</sup> http://www.thestar.com/News/Ontario/article/292025

http://www.dep.state.fl.us/waste/retailbags/pages/list NorthAmerica.htm#Huntingdon

http://www.thestar.com/news/gta/article/704248

http://www.thestar.com/news/canada/article/635931

http://www.dep.state.fl.us/waste/retailbags/pages/list\_NorthAmerica.htm#Huntingdon

http://www.dep.state.fl.us/waste/retailbags/pages/list\_NorthAmerica.htm#Huntingdon

http://www.canada.com/vancouversun/news/business/story.html?id=4b329366-c302-4be5-9966-912c2c9419b5 http://www.cbc.ca/canada/manitoba/story/2007/04/02/manitoba-bags.html

http://www.dep.state.fl.us/waste/retailbags/pages/list\_NorthAmerica.htm#Huntingdon

http://www.cbc.ca/canada/newfoundland-labrador/story/2009/07/24/nl-nain-bag-ban.html



#### Chile

In 2008, a bill proposing to ban non-biodegradable plastic bags was defeated. The bill also proposed to impose a tax on production of biodegradable plastic bags, specifying that the cost must be borne by manufacturers and not passed on to consumers.<sup>133</sup>

In 2013, Pucon became the first city in Chile that bans plastic bags. Once regulations for the municipal law are in place, the city began a 6 month awareness campaign to promote the use of cloth and bio-degradable bags. In the following months, businesses will be forced to decrease the amount of plastic bags given out in stores. By 2015 they will be completely phased out. 134

In 2014, Patagonia put into effect a law that gives businesses a year to phase out "the use of any kind of polyethylene or plastic polymer bags" and replace them with reusable or compostable bags. <sup>135</sup>

#### **Mexico**

Mexico City made the decision to ban non-biodegradable plastic bags in 2009, although there is a one-year phase in of the ban prior to enforcement. 136

## **USA**

#### **National**

In the USA, there has been an unsuccessful attempt at the national level to legislate for a levy on single-use plastic bags. In April 2009, the "Plastic bag reduction Act" entered Congress. The bill detailed a 5c fee per plastic bag from January 2010 increasing to a 25c fee per plastic bag in 2015. 137 It was not passed.

On Earth Day 2013, a bill known as the Trash Reduction Act of 2013 was introduced. If passed, the bill would place 5 cents tax on disposable carry out bags nationwide across the USA. The tax would be charged by all retailers for any disposable bag, paper or plastic. This bill is similar to the "Plastic bag reduction act" that wasn't passed in 2009.<sup>138</sup>

<sup>133</sup> http://www.dep.state.fl.us/waste/retailbags/pages/list\_SouthAmerica.htm

http://santiagotimes.cl/pucon-becomes-first-chilean-city-to-ban-plastic-bags/

http://www.ilovechile.cl/plastic-bag-ban-punta-arenas-helps-preserve-environmen/

http://planet.earthclinic.com/initiatives/plastic-bags.html

http://www.dep.state.fl.us/waste/retailbags/pages/list\_USA.htm

http://plasticbagbanreport.com/national-disposable-bag-tax-in-congress/



## State by State

#### Alaska

Fairbanks North Star Borough, Alaska has a 5c levy on plastic bags in place. Retailers are permitted to keep 3% of revenue raised with the rest going into recycling programs. This law did not pass. 139

A Bill was introduced to Alaskan legislature in 2009 arguing that revenue raised from a 15c fee per plastic bag could be used to fund a litter reduction and recycling campaign. The bill remains with the Resources and Finance Committees.<sup>140</sup>

In September 2010, A Plastic Bag Ban in Bethel was approved. Banning all non-biodegradable bags and allowing recyclable ones. Hooper bay also banned plastic bags a month before Bethel. 141

In August 2012, The Homer City Council voted to pass an ordinance to ban plastic bags. In September 2012 Mayor James Hornaday vetoed the Ordinance. The Ban was intended to reduce litter and retailers are prohibited from distributing plastic carry out bags at the counter. The ban excludes thicker plastic shopping bags. But in October 2013, the citizens of Homer, Alaska overturned the plastic bag ban.<sup>142</sup>

#### Arizona

In 2014, Bisbee, Arizona introduced a Plastic Bag Ban which excludes 100% Recyclable bags and 40% of PCW and specific ID requirements. Reusable bags should be made of cloth or other machine washable fabric that has handles, or a durable plastic bag designed for multiple uses. The bags should not contain lead, cadmium or any other heavy metal in toxic amounts.<sup>143</sup>

#### **Arkansas**

In 2015, a bill was introduced that would ban plastic bags at retail shops in the state. The bill did not pass. 144

## California

In 2007, the City of San Francisco became the first to enact a ban, prohibiting large grocery stores and pharmacies from distributing non-biodegradable plastic bags. 145

http://www.dep.state.fl.us/retailbags/pages/list\_USA.html

http://www.dep.state.fl.us/retailbags/pages/list\_USA.htm

http://www.adn.com/article/20090721/tundra-trash-bethel-prohibits-plastic-bags

http://fighttheplasticbagban.com/2013/10/05/citizens-of-homer-alaska-overturn-plastic-bag-ban/

http://www.baglaws.com/legislation.php?state=Arizona

http://www.baglaws.com/legislation.php?state=Arkansas

http://www.washingtontimes.com/news/2009/oct/12/sack-the-plastic-bag-levy/



The City of Oakland has followed suit banning large supermarkets and drug stores from offering non-biodegradable plastic bags to consumers. The city is encouraging consumers to switch to compostable plastic bags and make use of the city's composting system.<sup>146</sup>

The city of Los Angeles plans to institute a ban on plastic bags from July 2010 with paper and biodegradable plastic bags attracting a levy of 25c per bag. The retailer will receive 3% of revenue collected from the levy. 3% will go to the state and the rest will be spent on an educational campaign initiated by the city council.<sup>147</sup>

The Los Angeles County council in California has also taken a consultative approach with retailers. After initially proposing a ban in 2008, supervisors have encouraged voluntary compliance with reduction targets of 65% by 2013. Failing those targets, the county council may revisit the possibility of a ban.<sup>148</sup>

Although most of the Cities in California have banned or have placed a thicker plastic bag requirement and put a 10c levy on paper bags, this has not pushed the state wide ban to be approved. It has now been suspended till 2016.<sup>149</sup>

#### Colorado

Some of the Cities in Colorado have imposed a ban on plastic bags and putting a levy on paper bags. Aspen, Boulder City, Roaring Fork Valley and Town of Carbondale have imposed a 20c levy on paper bags. While Boulder City, Breckenridge and Durango a 10c levy.

A state wide ban was not approved in 2012 and there are no talks for another try. 2011. 150

## Connecticut

The city of Westport, Connecticut banned plastic bags in 2008 and fines businesses who distribute them. 151

## **District of Columbia**

In Washington DC a plastic bag ban was approved in 2009 that put a 5c levy on paper/plastic bags, with requirements of no old growth fibre, 100% recyclable, 40% minimum PCW and specific ID requirements.<sup>152</sup>

This legislation was a way to clean up the Anacostia River, a waterway notorious for its toxic history. The nickels from the bag fee have contributed about \$10 million to the Anacostia River Clean Up and Protection Fund.<sup>153</sup>

<sup>146</sup> http://dnr.wi.gov/org/aw/wm/recycle/issues/plasticbagsgovt.htm

http://www.huffingtonpost.com/2008/07/23/la-plastic-ban-dispos\_n\_114557.html

http://www.dep.state.fl.us/waste/retailbags/pages/list\_USA.htm

http://www.baglaws.com/legislation.php?state=California#SanBruno

<sup>150</sup> http://www.baglaws.com/legislation.php?state=Colorado

<sup>151</sup> http://www.baglaws.com/legislation.php?state=Connecticut

http://www.baglaws.com/legislation.php?state=District+Of+Columbia



#### **Florida**

The Florida legislature in 2008 prohibited cities and counties from enacting local regulations on bags. In April 2015, a senate committee approved a bill that allows coastal communities to create a 2 ½ year pilot program to regulate or ban plastic bags. 154

#### Hawaii

In 2008, a ban in the Islands of Maui and Pala was passed, this banned non-reusable plastic bags and there was no levy imposed on it.

In 2011, Big Island Hawaii banned the use of plastic bags and only allowed the use of reusable plastic bags.

In 2012, Honolulu and Kauai followed the plastic bag bans that were imposed in the surrounding islands, imposing requirements for bags to have no old growth fibre, should be 100% recyclable and have a minimum of 40% PCW.<sup>155</sup>

In July 2015, Hawaii became the first state to put a plastic bag ban into effect. This prohibits grocery stores from handing out certain types of plastic bags. However, the new law allows stores to provide reusable biodegradable plastic bags to customers.<sup>156</sup>

#### Illinois

Starting August 2015, the City of Chicago will put into effect a plastic bag ban that was approved in March 2015. The plastic bag ban will apply to stores with a floor area greater than 10,000 sq. ft. or 929 sq. m. The rules will be extended to 10,000 sq. ft. or less in August 2016. 157

#### Iowa

In 2009, Marshall County in Iowa imposed a ban on plastic bags. The requirements were no old growth fiber, 100% recyclable, 40% minimum PCW. 158

#### Maine

In 2014, Portland City in Maine has passed a ban on plastic bags. A 5c levy put on reusable plastic bags and paper bags. <sup>159</sup>

http://www.washingtonpost.com/investigations/nickel-by-nickel-is-the-dc-bag-fee-actually-saving-the-anacostia-river/2015/05/09/d63868d2-8a18-11e4-8ff4-fb93129c9c8b\_story.html

<sup>154</sup> http://floridapolitics.com/archives/16905-bill-doesnt-lift-prohibition-on-plastic-bag-bans-but-does-allow-pilot-programs

http://www.dep.state.fl.us/waste/retailbags/pages/list\_USA.htm

http://www.dep.state.fl.us/waste/retailbags/pages/list\_USA.htm

http://www.washingtontimes.com/news/2009/oct/12/sack-the-plastic-bag-levy/

http://www.dep.state.fl.us/waste/retailbags/pages/list\_USA.htm



## Maryland

In 2011, Chestertown, Maryland imposed a ban on single use plastic bags. Requirements for new plastic bags are no old growth fibre, 100% recyclable, 40% PCW and specific ID requirements.

Montgomery County quickly followed in 2012 with a plastic bag ban where they've imposed a 5c levy on paper and plastic bags.

In 2014, Baltimore proposed a ban on plastic bags that proposed a 5c levy on plastic bags. This ban has not been passed. 160

#### Massachusetts

In 2012, Brookline, Massachusetts approved a ban on plastic bags and imposing requirements like no old growth fibre, 100% recyclable, 40% PCW and specific ID requirements.

In 2014, Falmouth, Marblehead and Newbury Port followed in Brooklines footsteps imposing the same requirements.<sup>161</sup>

## **New Mexico**

In 2014, Santa Fe in New Mexico imposed a ban on plastic bags. Only bags that had no old growth fiber, 100% recyclable, 40% pwc and specific ID requirements were allowed. This ban affected retail establishments excluding businesses that receive 90% or more of its revenue from sale of food which is prepared in the premises.

In 2015, Silver City in New Mexico followed what Santa Fe was doing. 162

#### **North Carolina**

In 2009, North Carolina banned plastic bags for the Outer Banks region, a chain of barrier islands off the coast. However, in 2011, the state passed legislation to temporarily suspend that ban due to a tornado that hit Dunn, NC, which is the major distribution center for paper bag in the area. The ban has yet to be restored.<sup>163</sup>

 $<sup>\</sup>underline{http://dnr.wi.gov/org/aw/wm/recycle/issues/plasticbagsgovt.htm}$ 

 $<sup>^{160}\</sup> http://www.baglaws.com/legislation.php?state=Maryland$ 

http://www.baglaws.com/legislation.php?state=Massachusetts

http://www.baglaws.com/legislation.php?state=New+Mexico

http://www.ncsl.org/research/environment-and-natural-resources/plastic-bag-legislation.aspx



#### **New York**

It appears that the recent global financial crisis has firmed up some opposition towards economic measures in New York City with the city council divided over whether consumers could absorb the additional costs of tax when already under financial hardships. Attempts to introduce tax in 2009 has failed.<sup>164</sup>

Instead, New York City now requires retailers to accept returned plastic bags for recycling. Retailers in Rhode Island with annual sales exceeding \$8 Million are required to provide receptacles for plastic bag recycling in their outlets.

Some other areas in the state have already passed a plastic bag ban like East Hampton, hasting on the river, Larchmont, Mamaroneck, New Paltz, Rye and south Hampton. They require plastics bags to have no old growth fibre, 100% recyclable, 40% minimum PCW and have specific ID requirements. <sup>165</sup>

#### **Oregon**

In Portland, a Plastic Bag Ban was approved in 2011; Plastic bags now had to be 4.0 thick with specific ID requirements.

Other areas like Corvallis and Eugene have also banned plastic bags, and have also put a levy of 5c per paper bag. 166

## **Texas**

In March 2013, Austin began a plastic bag ban that bans disposable plastic and paper bags at all retailers in the City of Austin. Plastic bags that were 4.0 mil thick and recyclable were allowed, and paper bags that were 40% recyclable which was raised to 80% recyclable in March 2014.<sup>167</sup>

In Dallas, An ordinance to ban plastic bags was repealed and retailers will once again be able to offer plastic bags for free. Unlike the ban in Austin, the Dallas ban did not prohibit the use of plastic bags but charged customers a levy of 5c. <sup>168</sup>

Other Cities in Texas has also imposed a ban on plastic bags. In Brownsville, Laredo and Sunset Valley plastic bags require to be 4.0 Mil thick, In Kermit, 2.25 mil thick, In Fort Stockton and Laguna Vista plastics need to be made of durable material, but in all these Cities the plastic bags should have no old growth fiber, is 100% recyclable, have a 40% minimum of PCW and specific ID requirements.<sup>169</sup>

<sup>164</sup> http://www.washingtonimes.com/new/2009/oct/12/sack-the-plastic-bag-levy

http://www.baglaws.com/legislation.php?state=New+York

http://www.baglaws.com/legislation.php?state=Oregon

http://www.austinbagban.com/quick-facts.html

http://www.breitbart.com/texas/2015/06/04/dallas-trashes-the-plastic-bag-ban/

http://www.baglaws.com/legislation.php?state=Texas



## Washington

In all the cities that have a ban in Washington, they require plastic bags to be 2.25 thick like Bainbridge Island, Port Townsend, Tumwater and Thurston County. Additional requirements of no old growth fibre, 100% recyclable, 40% minimum PCT and specific ID requirements are set in Edmonds, Issaquah, Mukitleo, Olympia, Seattle and Shoreline. In Bellingham, Olympia and Issaquah the plastic bags should have a lifetime capacity of 125 or more uses, carry 22 or more pounds over 175 feet distance and a minimum volume of 15 litres. 170

## Wisconsin

Madison County in Wisconsin has implemented an unusual approach to reduce consumption. Rather that instituting a ban, they have declared it illegal to place rubbish bags into municipal rubbish collection. The City plans to provide 10 containers across the city for citizens to drop off plastic bags for recycling. Plastic bags used as bin liners may still be placed in the rubbish. The city recognizes that enforcement of the rule will be difficult, and hopes to educate citizens towards compliance.<sup>171</sup>

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<sup>170</sup> http://www.baglaws.com/legislation.php?state=Washington

http://www.wsaw.com/home/headlines/57250102.html



## Clean Up Australia's perspective

Clean Up Australia has been at the forefront of efforts to reduce the environmental impacts of plastic bags by working with Government, business and community towards a national ban. Clean Up Australia was instrumental in discussions to develop the Code of Practice for the Management of Plastic Bags that saw retailers commit to significant reductions in plastic bag use from 2003-2005.

It is the view of Clean Up Australia that a ban is the best mechanism to provide retailers with the economic certainty they require to phase out plastic bags and move to more sustainable alternative bags. The Say NO to Plastic Bags campaign was initiated by Clean Up Australia in partnership with the Australian Government and the Australian Retailers' Association. The campaign continues to argue for a ban and to work with retailers and communities to provide information and assistance towards a phasing out of plastic bags. Part of the campaign involves a program whereby businesses, local councils, environmental groups and schools can register as campaign ambassadors. Ambassadors are provided promotional materials, media assistance and practical advice to work in their local communities and businesses to phase out plastic bags.

Clean Up Australia has partnered with Indigenous communities in the Kimberley and Northern Territory to phase out plastic bags. Remote communities have been surveyed on attitudes towards plastic bag alternatives to assist in the development of culturally appropriate strategies and the production of resources such as fact sheets in community languages. Clean Up Australia has also worked closely with community store managers to ensure availability of appropriate plastic bag alternatives.

The public interface for the campaign is the Say NO to Plastic Bags website at <a href="www.noplasticbags.org.au">www.noplasticbags.org.au</a> which contains a suite of resources to help small businesses phase out plastic bags. In addition, the Clean Up Australia website at <a href="www.cleanup.org.au">www.cleanup.org.au</a> continues to provide communities, businesses and retailers with up to date information on the environmental impact of plastic bags, practical advice on alternative products, as well as campaign developments.

Clean Up is working with communities and the state governments of Queensland and New South Wales to progress banning lightweight single use plastic bags in these states.