



**Briefing paper on petition**

**Sustainability Committee**

**24 April 2008**

This paper provides information for the Committee in its deliberations on the petition on banning plastic bags in Wales

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## 1. Introduction

"If government compulsion is needed to implement the change [to eliminate single-use plastic bags], we will take the necessary steps... the damage that single-use plastic bags inflict on the environment is such that strong action must be taken"<sup>1</sup>.

*Prime Minister Gordon Brown, 29 February 2008*

DEFRA research indicates that the number of plastic bags distributed in the UK is greater than 13 billion per annum<sup>2</sup>, or 216 per person per year. In Wales, this equates to approximately 648 million plastic bags per year. Almost all of these are distributed 'free of charge', although using figures calculated by Keep Wales Tidy, the hidden cost to Welsh consumers of these bags is more than £6 million a year<sup>3</sup>. The cost is likely to have increased since September 2006, when anti-dumping measures were imposed on plastic bags produced in China and Thailand<sup>4</sup>. Because plastics are usually produced from oil, the cost of plastic bags will also escalate as oil increases in price<sup>5</sup>.

The 2008 UK Budget contained the following commitment<sup>6</sup>:

6.80 The Government has already called on retailers to take voluntary action to encourage the shift away from single-use carrier bags. Given the damage that single-use bags inflict on the environment, the Government is committed to taking strong action. Budget 2008 announces that the Climate Change Bill will legislate so that, if there is not sufficient progress on a voluntary basis by the end of the year, the Government can exercise powers early next year to impose a charge on these bags.

6.81 The Government will consult in the meantime on the operation of the charge and how to ensure that any money raised goes to environmental charities. The Government will ensure that donations made by retailers to charitable causes out of any money raised will attract tax relief in the normal way.

<sup>1</sup> Gordon Brown, *Government ready to act on plastic bags – PM*, <http://www.number-10.gov.uk/output/Page14779.asp>

<sup>2</sup> DEFRA, *Local environmental quality: Plastic bags*: greater than 13 billion, <http://www.defra.gov.uk/environment/localenv/litter/plasticbags/index.htm>

<sup>3</sup> Keep Wales Tidy, *Papur datgan sbwriel bagiau plastig/Plastic bag litter position paper*, July 2006, [http://www.keepwalestidy.org/welsh/images/plasticbags\(w\).pdf](http://www.keepwalestidy.org/welsh/images/plasticbags(w).pdf); value updated using DEFRA figure of 13 billion bags distributed

<sup>4</sup> European Council, *Council Regulation (EC) No 1425/2006 of 25 September 2006 imposing a definitive anti-dumping duty on imports of certain plastic sacks and bags originating in the People's Republic of China and Thailand, and terminating the proceeding on imports of certain plastic sacks and bags originating in Malaysia*, <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2006:270:0004:0041:EN:PDF>

<sup>5</sup> BBC, *I don't drive; why should I care about oil prices?*, 10 August 2005, <http://news.bbc.co.uk/1/hi/magazine/4135122.stm>

<sup>6</sup> HM Treasury, *Budget 2008*, March 2008, p. 106, [http://www.hm-treasury.gov.uk/media/9/9/bud08\\_complereport.pdf](http://www.hm-treasury.gov.uk/media/9/9/bud08_complereport.pdf)

## 2. Background

A ban on plastic bags in Wales has been on the political agenda since November 2006, when, in an interview with the *Western Mail*, a ban on the use of plastic bags in Wales was suggested by the then Minister for the Environment, Planning and Countryside as an alternative to a levy<sup>7</sup>.

In June 2007, BBC Wales launched a project – 'If I Ruled Wales' – which gave people the chance to voice their opinion on laws they wanted to create in Wales<sup>8</sup>. A panel of experts<sup>9</sup> scrutinised the suggestions, and short-listed three for a final public vote. A proposal to ban plastic bags was the most popular option, and it was submitted as a petition to the Presiding Officer<sup>10</sup>.

The Minister for Environment, Sustainability and Housing said that she welcomed the outcome of the poll, and added that she personally supported a ban<sup>11</sup>:

The banning of plastic bags is an issue I raised last month at the assembly when I announced that we were seeking powers to help make Wales a greener, cleaner place. These new powers would allow the assembly to consider a ban on plastic bags

The Petitions Committee of the National Assembly for Wales received the petition on 20 September 2007<sup>12</sup>. The lead petitioner, Neil Evans, outlined his reasons for supporting a ban on plastic bags at the Petitions Committee of 4 October 2007<sup>13</sup>. The Petitions Committee referred the petition to the Proposed Environmental Protection and Waste Management LCO Committee, with a request to consider whether or not the proposed LCO would give the Assembly the legislative competence to do so<sup>14</sup>. That Committee's response to the Petitions Committee<sup>15</sup> quoted the following passage from an earlier meeting<sup>16</sup>:

Mick Bates: Would the proposed LCO be of sufficient scope for legislation banning plastic bags?

Jane Davidson: It would be of sufficient scope in terms of legislation to ban plastic bags, or it would enable a Measure to be passed to impose a levy on plastic bags by way of a charge made to consumers at the till point. There are a number of ways that you could take this forward. We would have to be mindful of European law in this context. Legal advice currently suggests that an outright ban on plastic bags may be contrary to EU law, because it is likely to be disproportionate to the aim pursued insofar as other steps, such as a levy, could be taken to address the problem. All of these matters would have to be considered by the Assembly of the future. So, in a sense, the broad answer to the question is 'yes', but you would have to take account of any other laws that are relevant in this context.

<sup>7</sup> Martin Shipton, "Caring for the Planet: I Want to be Able to Look my Children in the Eye", *Western Mail*, 9 November 2006, p. 7

<sup>8</sup> BBC Wales, *Ideas roll in for Welsh laws plea*, 21 June 2007,

<http://news.bbc.co.uk/1/hi/wales/6288798.stm>

<sup>9</sup> Baroness Finlay of Llandaf, David Lambert, Dylan Iorwerth and Glyn Matthias: BBC Wales, *Welsh law project finalists named*, 2 July 2007,

<http://news.bbc.co.uk/1/hi/wales/6256892.stm>

<sup>10</sup> BBC Wales, *Plastic bag ban wins popular vote*, 11 July 2007,

<http://news.bbc.co.uk/1/hi/wales/6288798.stm>

<sup>11</sup> *ibid*

<sup>12</sup> National Assembly for Wales, [Petitions Committee](#), 20 September 2007,

<sup>13</sup> National Assembly for Wales, [Petitions Committee](#), 4 October 2007,

<sup>14</sup> National Assembly for Wales, [Petition – banning plastic bags](#), 8 October 2007,

<sup>15</sup> National Assembly for Wales, [Petitions Committee](#), 6 December 2007,

<sup>16</sup> National Assembly for Wales, [Proposed Environmental Protection and Waste Management LCO Committee](#), 25 September 2007,



At its meeting of 6 December 2007, the Petitions Committee decided to pass the petition on to the Sustainability Committee<sup>17</sup>, with the agreement of the Chair of the Sustainability Committee, for consideration of

...whether banning plastic bags was a good or bad thing, in order to take it further forward, anticipating that, when the LCO is passed, this issue will be discussed

The carrier bag manufacturing industry is opposed to a levy or a ban on plastic bags. An e-mail to the former Minister, Carwyn Jones from a Glasgow-based packaging company setting out the industry's views is shown in [Annex A](#), and a Members' Research Service analysis of some of the statements made is shown in [Annex B](#).

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<sup>17</sup> National Assembly for Wales, [Petitions Committee](#), 6 December 2007,

### 3. Ban or levy?

Bans on plastic bags have been introduced in a number of areas. Bans have tended to focus on specific issues: in Bangladesh, for example, a plastic bag ban was enforced following severe flooding, for which a contributory factor was bags blocking drains<sup>18</sup>. Elsewhere, bans in developing countries have tended to focus on very thin plastic bags which rip easily and are less likely to be reused than thicker bags<sup>19</sup>. The only ban covering a large population in the OECD is in San Francisco<sup>20</sup>. The head of the city's Environment Department estimated the ban would save approximately 4,200 tonnes of carbon dioxide annually<sup>21</sup>.

A statement comparing a ban and a levy comes from a piece of environmental research from University College Dublin<sup>22</sup>:

Is the tax dynamically and statically efficient? It is certainly likely to be more statically efficient than an absolute ban, as it allows those for whom a plastic bag is important to pay the tax rather than do without.

Further evidence indicates that<sup>23</sup>:

Where policymakers are trying to reduce plastic bag consumption considerably and there is a well-developed and defined retail market... a consumer-based 'downstream' levy is the appropriate policy measure.

Keep Wales Tidy notes<sup>24</sup>:

...the most effective trigger that leads to consumer behaviour change – particularly for goods for which demand is elastic – is an economic signal to the consumer. If a fundamental change in consumer behaviour is sought, as it is by Keep Wales Tidy, a pricing signal needs to be given to consumers. A levy is the most appropriate tool to achieve this.

<sup>18</sup> The Independent, *China boosts global war against menace of the plastic bag*, 12 January 2008, <http://www.guardian.co.uk/environment/2008/jan/12/plasticbags.recycling>

<sup>19</sup> McDonnell S and Convery F, 2008. *The Irish plastic bag levy – A review of its performance 5 years on*, Draft paper awaiting publication.

<sup>20</sup> City and County of San Francisco, *Commission on the Environment: Regular meeting approved minutes*, 27 March 2007, [http://www.sfgov.org/site/sfenvironment\\_page.asp?id=58406](http://www.sfgov.org/site/sfenvironment_page.asp?id=58406)

<sup>21</sup> CBC, *San Francisco bans traditional plastic grocery bags*, <http://www.cbc.ca/technology/story/2007/03/28/sanfrancisco-plastic.html>

<sup>22</sup> Convery and McDonnell, 2003, *Applying environmental product taxes and levies – lessons from the experience with the Irish Plastic Bag Levy*,

<http://www.ucd.ie/gpep/gpepinfo/publications/workingpapers/03-01.pdf>

<sup>23</sup> Convery *et al*, 2006. The most popular tax in Europe? Lessons from the Irish plastic bag levy. *Environ Resource Econ*, 2007, 38: 1-11.

<sup>24</sup> Keep Wales Tidy, *Papur datgan sbwriel bagiau plastig/Plastic bag litter position paper*, July 2006, [http://www.keepwalestidy.org/welsh/images/plasticbags\(w\).pdf](http://www.keepwalestidy.org/welsh/images/plasticbags(w).pdf)

#### 4. The Irish experience

"The environmental performance of the levy is unquestioned"<sup>25</sup>

*McDonnell and Convery, 2008*

"It is simply not possible for a plastic bag tax to have any significant effect on litter"<sup>26</sup>

*Carrier Bag Consortium, undated*

The levy in Ireland was introduced by the *Waste Management (Amendment) Act 2001* (section 9)<sup>27</sup>, to tackle the problem of littered plastic bags in the Republic. Although there is a generic ban on littering, the levy – targeting consumption – had the two-fold benefit of addressing the durability and visibility of plastic bags as compared to other littered items, and sending a strong signal to consumers to change behaviour towards more sustainable modes<sup>28</sup>. The Department of the Environment, Heritage and Local Government described plastic bag litter as a visible and persistent component of litter pollution throughout the countryside and along the coastline<sup>29</sup>. Convery and McDonnell note that<sup>30</sup>:

The effect of the combination of wind, hedgerows and fecklessness on the part of many of the public as regards their disposal of such bags means that the hedges and trees of the country side are randomly adorned with plastic bags in various states of disintegration, a landscape feature which becomes particularly evident in the winter, when the masking effect of deciduous vegetation is absent. The rural landscape in Ireland is valued by the locals, but is also an important dimension of the tourist industry.

The Irish plastic bag levy was predicated on the idea that consumer behaviour can be influenced<sup>31</sup>:

...by the imposition of product taxes that in some sense reflect the external costs imposed by such products that are not included in the price of the product itself... these external costs are incurred because of 'too many' plastic bags in the Irish environment.

The levy was not intended to reduce plastic bag consumption to zero, but to give each bag a price. McDonnell and Convery suggest that if the former was the aim, then a ban would have been administratively simpler<sup>32</sup>.

The levy was initially set at 15c, which was perceived as being 'well above'<sup>33</sup> the estimated maximum willingness to pay<sup>34</sup>. Only 8 per cent of consumers in Ireland felt it was worth paying more than 7.5c per plastic bag<sup>35</sup>. However, partly as a result of a period of substantial consumer price index inflation

<sup>25</sup> Convery *et al*, 2006. The most popular tax in Europe? Lessons from the Irish plastic bag levy. *Environ Resource Econ*, 2007, 38: 1-11.

<sup>26</sup> Carrier Bag Consortium, undated. *The holes in the argument for a carrier bag tax*, <http://www.carrierbagtax.com/downloads/CBC2ppLeaflet61.pdf>

<sup>27</sup> Irish Statute Book, *Waste Management (Amendment) Act 2001*, <http://www.irishstatutebook.ie/2001/en/act/pub/0036/sec0009.html#sec9>

<sup>28</sup> Convery *et al*, 2006. The most popular tax in Europe? Lessons from the Irish plastic bag levy. *Environ Resource Econ*, 2007, 38: 1-11.

<sup>29</sup> Quoted in Convery *et al*, 2006. The most popular tax in Europe? Lessons from the Irish plastic bag levy. *Environ Resource Econ*, 2007, 38: 1-11.

<sup>30</sup> Convery F and McDonnell S, 2003. *Applying environmental product taxes and levies – lessons from the experience with the Irish plastic bags levy*, Environmental Studies Research Series Working Papers 2003: Dublin, University College Dublin, <http://www.ucd.ie/gpep/gpepinfo/publications/workingpapers/03-01.pdf>

<sup>31</sup> *ibid*

<sup>32</sup> McDonnell S and Convery F, 2008. *The Irish plastic bag levy – A review of its performance 5 years on*, Draft paper awaiting publication.

<sup>33</sup> McDonnell S and Convery F, 2008. *The Irish plastic bag levy – review and lessons*. Presentation at the UK Network of Environmental Economists seminar, 16 January 2008.

<sup>34</sup> Drury Research on Behalf of the Department of the Environment and Local Government (2000). *Attitudes and actions – a national survey on the environment*. Drury, Dublin

<sup>35</sup> Convery *et al*, 2006. The most popular tax in Europe? Lessons from the Irish plastic bag levy. *Environ Resource Econ*, 2007, 38: 1-11.

(an increase of nearly 23 per cent over the period December 2001 to August 2007<sup>36</sup>), more plastic bags have been consumed over time. Revenue from the plastic bag levy was 50 per cent greater in the year ending June 2007 than it was in the year ending June 2003<sup>37</sup>. As a result of this increase in the use of plastic bags among Irish consumers – broaching 30 bags per person per year in 2006 – the Minister for the Environment, Heritage and Local Government announced an increase in the levy from 15c to 22c<sup>38</sup>.

It should be noted that while there has been an increase in plastic bag consumption, it is still 91 per cent below levels immediately prior to the levy's introduction<sup>39</sup>.

A central provision of the levy was that proceeds would be ring-fenced into an environment fund, and would be used for purposes such as the prevention and reduction of waste, the prevention of litter, and environmental education and training<sup>40</sup>. The hypothecation of revenues in this manner is unusual in Ireland, but an exemption for the plastic bag levy was secured by the then Minister for Environment through personal communication with the then Minister for Finance<sup>41</sup>. The motivation for the exemption was that it would be more acceptable to consumers if they were aware that the tax was specifically related to the environment, and that revenues would be used for solely environmentally related purposes. It also enabled retailers to avoid charges of making profit from the change<sup>42</sup>. Revenues from the levy have been greater than €12.5 million in each full year of levy operation, with total revenue from July 2002 to August 2007 greater than €85 million<sup>43</sup>. Administration costs amounted to about 3 per cent of revenue<sup>44</sup>. This revenue can be considered as an implicit form of revenue recycling, through an avoidance of tax increases that would otherwise be required to implement the environmental projects supported by the environment fund<sup>45</sup>.

The primary effect of the levy was an 'immediate and dramatic'<sup>46</sup> reduction in the use of plastic carrier bags, in the order of 94 per cent<sup>47</sup> - and the environmental performance is still 'spectacular'<sup>48</sup>. Retailers found the effect on the well-being of their businesses to be neutral or positive, and shoplifting returned to pre-levy levels after an initial increase<sup>49</sup>. Householders were found to be 'very much' in favour of the levy<sup>50</sup>. Researchers claim to be unaware of any other tax that "induces such enthusiasm and affection from those who are liable to pay it"<sup>51</sup>. The plastics industry may have

<sup>36</sup> McDonnell S and Convery F, 2008. *The Irish plastic bag levy – A review of its performance 5 years on*, Draft paper awaiting publication.

<sup>37</sup> *ibid*

<sup>38</sup> Convery F and McDonnell S, 2003. *Applying environmental product taxes and levies – lessons from the experience with the Irish plastic bags levy*, Environmental Studies Research Series Working Papers 2003: Dublin, University College Dublin, <http://www.ucd.ie/gpep/gpepinfo/publications/workingpapers/03-01.pdf>

<sup>39</sup> McDonnell S and Convery F, 2008. *The Irish plastic bag levy – A review of its performance 5 years on*, Draft paper awaiting publication.

<sup>40</sup> Convery F and McDonnell S, 2003. *Applying environmental product taxes and levies – lessons from the experience with the Irish plastic bags levy*, Environmental Studies Research Series Working Papers 2003: Dublin, University College Dublin, <http://www.ucd.ie/gpep/gpepinfo/publications/workingpapers/03-01.pdf>

<sup>41</sup> McDonnell S and Convery F, 2008. *The Irish plastic bag levy – A review of its performance 5 years on*, Draft paper awaiting publication.

<sup>42</sup> *ibid*

<sup>43</sup> *ibid*

<sup>44</sup> Convery *et al*, 2006. The most popular tax in Europe? Lessons from the Irish plastic bag levy. *Environ Resource Econ*, 2007, 38: 1-11.

<sup>45</sup> *ibid*

<sup>46</sup> McDonnell S and Convery F, 2008. *The Irish plastic bag levy – A review of its performance 5 years on*, Draft paper awaiting publication.

<sup>47</sup> McDonnell S and Convery F, 2008. *The Irish plastic bag levy – review and lessons*. Presentation at the UK Network of Environmental Economists seminar, 16 January 2008.

<sup>48</sup> McDonnell S and Convery F, 2008. *The Irish plastic bag levy – A review of its performance 5 years on*, Draft paper awaiting publication.

<sup>49</sup> Convery F and McDonnell S, 2003. *Applying environmental product taxes and levies – lessons from the experience with the Irish plastic bags levy*, Environmental Studies Research Series Working Papers 2003: Dublin, University College Dublin, <http://www.ucd.ie/gpep/gpepinfo/publications/workingpapers/03-01.pdf>

<sup>50</sup> *ibid*

<sup>51</sup> Convery *et al*, 2006. The most popular tax in Europe? Lessons from the Irish plastic bag levy. *Environ Resource Econ*, 2007, 38: 1-11.

suffered 'some losses', although the extent or existence of such losses is uncertain<sup>52</sup>, and the plastic bag levy was not cited as the main reason for closure in any case<sup>53</sup>.

An illustration of the result is provided by the London Assembly's Environment Committee<sup>54</sup>:

Between 2002 and 2007, five billion plastic bags have not been issued that otherwise probably would have been. Five billion bags have not gone to landfill. That is the undeniable positive outcome to the introduction of the levy.

As part of a piece of work commissioned by the Scottish Parliament for their deliberations of the *Environmental Levy on Plastic Bags (Scotland) Bill*, AEA Technology conducted a review of the plastic bag levy in the Republic of Ireland. Part of the review is detailed here<sup>55</sup>:

The Irish Government introduced the PlasTax on plastic bags (HDPE and degradable plastic) in spring 2002 at a time when 1.2 billion bags were being used annually. The PlasTax was introduced because of the same concerns as in Scotland, i.e. litter, resource use and respect for the environment...

In the first year of operation, the scheme raised some €10–12 million (£7–8 million) [DEH], which was substantially less than anticipated. Use of lightweight plastic carrier bags fell by around 90%, with a significant increase in the use of 'bags for life' [EuroCommerce]. Before the introduction of the levy, the expectation by retailers was that the reduction would plateau at around 95% of the consumption rate [EuroCommerce]. This level of reduction has been confirmed by the Department of Environment, Heritage, and Local Government, with revenue levels at €1 million per month. The funds have been used to support waste recycling and litter initiatives. Waste recycling infrastructure, ongoing running costs and dedicated staff to enforce legislation (e.g. to tackle illegal dumping) have been introduced. A survey of retailers conducted a year after the levy's introduction found that they felt the effects of the levy on them were generally positive or neutral [UCD]. The additional costs of implementation and bookkeeping were seen as modest and, in actual fact, they were generally less than the savings that retailers were enjoying from buying fewer lightweight plastic carrier bags. After an initial rise in theft, retailers reported that it had returned to levels before the introduction of the levy. A similar survey conducted with householders of varying social and economic standing gave a consistent response – the levy was a good thing overall for the environment and was not a problem for the consumers [UCD].

However, there has been evidence of an increase in sales of plastic bags to compensate for those that are no longer received 'free' from shops. The London Assembly notes<sup>56</sup>:

There are negative effects however as people substituted with other carriers. For example, the number of swing bin liners sold in Ireland's branches of Tesco rose by 77 per cent. Swing bin liners are much more damaging to the environment, taking significantly longer to degrade and requiring more virgin materials in their production.

<sup>52</sup> Convery F and McDonnell S, 2003. *Applying environmental product taxes and levies – lessons from the experience with the Irish plastic bags levy*, Environmental Studies Research Series Working Papers 2003: Dublin, University College Dublin, <http://www.ucd.ie/gpep/gpepinfo/publications/workingpapers/03-01.pdf>

<sup>53</sup> McDonnell S and Convery F, 2008. *The Irish plastic bag levy – A review of its performance 5 years on*, Draft paper awaiting publication.

<sup>54</sup> London Assembly Environment Committee, *Bag to basics: Why and how free shopping bags should be removed from London's shops*, December 2007, <http://www.london.gov.uk/assembly/reports/environment/bag-to-basics.pdf>

<sup>55</sup> AEA Technology, *Proposed plastic bag levy – extended impact assessment final report, Volume 2: Appendices*, August 2005, <http://www.scotland.gov.uk/Resource/Doc/57346/0016900.pdf>

<sup>56</sup> London Assembly Environment Committee, *Bag to basics: Why and how free shopping bags should be removed from London's shops*, December 2007, <http://www.london.gov.uk/assembly/reports/environment/bag-to-basics.pdf>



The 'bin liner' point is analysed by Friends of the Earth Scotland<sup>57</sup>:

The extent to which consumers increased purchases of kitchen tidy bags where they previously used plastic bags has been estimated in the Irish case. This suggests a 77% increase in sales of plastic kitchen tidy bags. The 90% reduction in plastic check-out bags equates to a reduction of one billion plastic bags and a 77% increase in kitchen tidy bags equates to an increase of 70 million of these bags. The net effect is an overall reduction in plastic bag use of 930 million bags, with apparently insignificant levels of substitution by paper bags.

The Irish Minister for the Environment, Heritage and Local Government told Members' Research Service that "the increase in the use of bin liners cannot be equated with the reduction in the use of plastic bags"<sup>58</sup>.

In conclusion, plastic bag use in the Republic of Ireland decreased from an estimated 328 bags per person per year to 21 bags per person per year after the levy<sup>59</sup>. Up to 90 per cent of shoppers used long-life bags in 2003, compared with 36 per cent in 1999<sup>60</sup>. The response from the main stakeholders – the public and the retail industry – has been so 'overwhelmingly positive' that it is considered that it would be politically damaging to remove it<sup>61</sup>. The former Minister for the Environment in the Republic of Ireland, Martin Cullen, revealed that a major benefit of the plastic bag tax was as a Trojan horse for getting the public to adopt more environmentally-friendly behaviour<sup>62</sup>:

Education and awareness is crucial - how do you get people to 'buy in' to it?... the real success of the plastic bag levy was in changing behaviour, getting people involved, making them understand why it was important".

<sup>57</sup> Friends of the Earth Scotland, *Evidence to the Environment Committee on Environmental Levy on Plastic Bags (Scotland) Bill*, [http://www.foe-scotland.org.uk/publications/plastic\\_bag\\_bill\\_evidence.pdf](http://www.foe-scotland.org.uk/publications/plastic_bag_bill_evidence.pdf)

<sup>58</sup> Minister for the Environment, Heritage and Local Government, personal communication number REP1293/JG/08, 4 April 2008

<sup>59</sup> Department of the Environment, Heritage and Local Government, *Plastic bags levy to be increased to 22c from 1 July next*, 21 February 2007,

[http://www.environ.ie/en/Environment/Waste/PlasticBags/News/MainBody\\_3199.en.htm](http://www.environ.ie/en/Environment/Waste/PlasticBags/News/MainBody_3199.en.htm)

<sup>60</sup> *ibid*

<sup>61</sup> Convery *et al*, 2006. The most popular tax in Europe? Lessons from the Irish plastic bag levy. *Environ Resource Econ*, 2007, 38: 1-11.

<sup>62</sup> The Post, *Plastic bag levy may go EU-wide as gum tax looms*, 25 April 2004, <http://archives.tcm.ie/businesspost/2004/04/25/story191062328.asp>

## 5. The Scottish experience

The *Environmental Levy on Plastic Bags (Scotland) Bill*<sup>63</sup> (a Private Members' Bill) was introduced to the Scottish Parliament by Mike Pringle MSP on 17 June 2005. The stated objectives of the Bill were to:

- Protect the environment both by the reduction in the number of plastic bags and by investing the money raised by the levy in local environmental projects;
- Assist local authorities towards meeting their Scottish National Waste Plan targets by encouraging the reduction and reuse of plastic bags that are in circulation; and
- Raise awareness of environmental issues such as recycling and litter<sup>64</sup>

The Bill aimed to apply a 10p tax to certain plastic carrier bags in Scotland. Mike Pringle withdrew the Bill when it became clear that the members of the Environment and Rural Development Committee were not going to support it in the form in which it was submitted. McDonnell and Convery conclude that "the lack of a clear leadership role at ministerial level" has resulted in legislation similar to the Irish levy failing to be enacted<sup>65</sup>.

The Bill ran into problems of procedure. A Scottish tax may be raised where two of the following three criteria are performed at a local authority basis:

- Its collection
- Where it is set (national or local)
- Where it is spent

Since it was being introduced at a national level, its collection and expenditure were required to be performed at a local authority level, which made it a much more cumbersome tax to operate than would have been the case at the national level.

The Committee concluded the following<sup>66</sup>:

9. The Committee stated in its previous report that it wishes to see firm action to tackle resource use and waste management issues. Mike Pringle's Bill has been valuable in raising awareness of the issues and provoking debate about how environmental benefits and culture change in resource use can be achieved. The Committee very much welcomes that and wants to see that important debate continue and develop

10. The likely extent to which plastic bag use may be reduced by a levy (estimates of approximately 90% were given in evidence) does make it a potentially powerful tool. Putting a value on an item can change people's behaviour and, in at least some instances, there is a place for statutory regulation being used to achieve that. A levy does have the potential to reach virtually every citizen immediately and could cause them to reconsider their resource use decisions. The Committee is, therefore, sympathetic to the aims of the Bill and considers that positive steps are required to achieve these aims

<sup>63</sup> Scottish Parliament, *Environmental Levy on Plastic Bags (Scotland) Bill*, <http://www.scottish.parliament.uk/business/bills/43-environmentalLevy/b43s2-introd.pdf>

<sup>64</sup> Scottish Parliament, *Environmental Levy on Plastic Bags (Scotland) Bill: Policy memorandum*, <http://www.scottish.parliament.uk/business/bills/43-environmentalLevy/b43s2-introd-pm.pdf>

<sup>65</sup> McDonnell S and Convery F, 2008. *The Irish plastic bag levy – A review of its performance 5 years on*, Draft paper awaiting publication.

11. However, as the Committee stated in its previous report, the evidence it has considered has made it clear that there are a number of complex interacting implications of a levy which make it very difficult to judge whether this particular levy scheme is an appropriate one that will achieve its desired effect...

13. However, after considering the further evidence received, the Committee remains of the view that there are a number of unintended consequences that appear likely to be connected with using the proposed levy to achieve a large reduction in the number of single-use plastic bags issued at checkouts. The net environmental impact of the proposed levy is an issue of considerable dispute in a range of areas.

14. The Committee considers that it remains impossible to be definitive about the likely environmental impact of the Bill and the arguments about whether this will be a net positive benefit are very finely balanced. The Committee considers that, on its own, the Bill cannot achieve the obvious and unequivocal benefits that it intends...

18. However, the Committee is disappointed that the Executive has not, to date, responded more robustly to its request to consider integrating the aims of the Bill into its strategy. The Committee considers that a levy has most potential as part of a strategy, and considers that the Executive has the power to promote measures which would achieve the impact of the Bill without the unintended consequences.

19. The Committee reiterates its support for the Bill's stated objectives. To achieve these objectives, the Committee urges the Executive to include ambitious measures to address plastic bag use in its waste prevention strategy. The Committee is not persuaded that the levy as currently proposed in this Bill is an effective means to achieve these objectives. The Committee, therefore, recommends that the Parliament does not agree to the general principles of the Bill.

The Environment and Rural Development Committee noted that a levy could "act as an awareness-raising 'trail-blazer', which helps to establish a strong and direct 'polluter pays' principle", and could therefore play a disproportionately important role in influencing public attitudes<sup>67</sup>.

The Waste Strategy Team of the Scottish Executive commissioned AEA Technology to produce a report addressing the likely impacts of the proposed levy on the environment, consumers, business, waste, and local authorities<sup>68</sup>. The study concluded that:

- Five of eight environmental indicators showed an improvement under the proposed levy scenario
- Consumers act to reduce the financial impact by switching away from using plastic carrier bags – this limits the financial impact to a maximum of £10 per person per year
- The impacts would be positive for food retailers, and negative for non-food retailers and plastic bag manufacturers
- Waste increases 'due to a switch from plastic to paper bags' (see below)
- The levy is expected to cover on-going administration costs for local authorities<sup>69</sup>

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<sup>66</sup> Scottish Parliament, *Environment and Rural Development Committee Report SP Paper 642*, <http://www.scottish.parliament.uk/business/committees/environment/reports-06/rar06-12.htm>

<sup>67</sup> Environment and Rural Development Committee Report, *Stage 1 Report on the Environmental Levy on Plastic Bags (Scotland) Bill*, <http://www.scottish.parliament.uk/business/committees/environment/reports-05/rar05-13-vol01-02.htm#Report>

<sup>68</sup> AEA Technology, *Environment group research report: Proposed plastic bag levy – extended impact assessment*, <http://www.scotland.gov.uk/Resource/Doc/57346/0016898.pdf>

<sup>69</sup> *ibid*, p. 2

One of the disputed assumptions in AEA Technology's assessment was that 25 per cent of consumers would switch to using paper bags under the proposed levy. A 2003 survey in the only comparable levy scenario, in the Republic of Ireland, indicated that approximately 90 per cent of shoppers had switched to using robust reusable/long life bags, 6 per cent to cardboard boxes, 4 per cent still used plastic bags and 1 per cent switched to 'other means'<sup>70</sup>. Substitution with paper bags did not happen. McDonnell and Convery comment that<sup>71</sup>:

...the report estimates a 25% switch to paper bags without any concrete evidence to support this assumption. It also requires the assumption that 36% of those who remain using a bag (as opposed to those who refuse bags) switch to paper. This seems like an unreasonable assumption given the Irish experience.

The submission to the Environment and Rural Development Committee from the UK Bag Manufacturers' Association stated<sup>72</sup>:

In making its calculations, the extended impact assessment fails to compare like with like, comparing a thin plastic sleeve bag with a premium quality handled bag, despite the fact that there is no possibility of such a substitution taking place. Indeed it is probable that there will be little substitution between thin vest bags and paper, at all.

Musgrave Group plc provided the following information in oral evidence to the Committee<sup>73</sup>:

As a large retail business in Ireland—we have about 25 per cent of the retail food sector in Ireland—we do not offer a paper alternative. Your assumption is that plastic will automatically be replaced with paper, but that has not happened, as far as we are concerned. We provide long-life, reusable bags and, in some stores, cardboard boxes, which are ultimately recycled anyway. There is now a large drive for recycling in Ireland. I would not imagine that fuel usage or transport usage for transporting large amounts of paper bags is a big problem. We simply do not offer the alternative.

In his response to the Committee's Stage 1 Report, Mike Pringle MSP noted<sup>74</sup>:

There is evidence that around 80% of plastic bags used are issued by the supermarkets. Evidence from the supermarkets was clear that they would not substitute paper for those bags [Committee Report para 68]. There is thus an immediate reduction of 800 million bags. Evidence also suggested that smaller retailers would use the passing of the Bill as an opportunity to save on overheads and the vast majority would also not substitute paper for plastic [Committee Report para 72]. Again evidence given to you was that many high street retailers have already made the switch to paper based products [Committee Report para 73]. The evidence you have heard on this matter is supported by the experience in Ireland where the Musgrove Group, who have 25% of the retail food sector, do not offer a paper alternative [Official

<sup>70</sup> Department of the Environment, Heritage and Local Government, *Submission from the Department of the Environment, Heritage and Local Government*,  
<http://www.scottish.parliament.uk/business/committees/environment/inquiries/pb/ERD.S2.05.27.1d%20-%20DEHLG.pdf>

<sup>71</sup> McDonnell S and Convery F, 2008. *The Irish plastic bag levy – A review of its performance 5 years on*, Draft paper awaiting publication.

<sup>72</sup> UK Bag Manufacturers' Association, *Submission from UK Bag Manufacturers' Association*,  
[http://www.scottish.parliament.uk/business/committees/environment/inquiries/pb/UK\\_BMA.pdf](http://www.scottish.parliament.uk/business/committees/environment/inquiries/pb/UK_BMA.pdf)

<sup>73</sup> Curran J, 2005. Environmental Levy on Plastic Bags (Scotland) Bill: Stage 1. *Oral Evidence Before the Environment and Rural Development Committee*. John Curran, Musgrave Group Environmental Executive, 2 November 2005.  
<http://www.scottish.parliament.uk/business/committees/environment/or-05/ra05-2702.htm>

<sup>74</sup> Mike Pringle MSP, *Mike Pringle MSP's response to the Environment and Rural Development Committee's Stage 1 Report on the Environmental Levy on Plastic Bags (Scotland) Bill*, 7 July 2006,

Report, Wednesday 2 November 2005, column 2322]. It is further supported by the evidence that there are increased costs through substitution which retailers generally are unlikely to take on [Committee Report para 77]...

Finally the Committee will have noted that even with a small level of substitution this is relatively good news given that paper is now heavily recycled in Scotland in contrast to the complete absence of any local authority facilities to recycle plastic bags.

The assumption that there would be a 25 per cent substitution of plastic bags with paper, and its effect on the 'waste' element of the assessment, was an important factor in the Bill's demise<sup>75</sup>:

Evidence to the Committee demonstrated that assessing the expected impacts of what appears on the face of it to be a simple proposal is, in fact, a very complex matter. This is complicated by the fact that, as the levy focuses on plastic bags, it is thought likely that there will be some degree of compensatory shift towards greater use of paper bags... The net environmental impact of the proposed levy is an issue of considerable dispute in a range of areas... The Committee considers that it remains impossible to be definitive about the likely environmental impact of the Bill and the arguments about whether this will be a net positive benefit are very finely balanced.

Keep Wales Tidy also felt that the comparison between paper and plastic bags was inherently flawed, because "the environmental externalities of longevity have not been sufficiently accounted for in any analysis of plastic bags"<sup>76</sup>.

A factor that is not contested by life cycle analyses is that a switch to paper bags could be less environmentally beneficial. Indeed, an environmental assessment in Australia concurred that less significant and consistent gains are made by switching from HDPE (plastic) to other single use bags, such as paper and biodegradable bags, with potential gains in litter being offset by negative resource use outcomes<sup>77</sup>.

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<sup>75</sup> Scottish Parliament, *Environment and Rural Development Committee report: SP Paper 642*, <http://www.scottish.parliament.uk/business/committees/environment/reports-06/rar06-12.htm#anna>

<sup>76</sup> Keep Wales Tidy, *Papur datgan sbwriel bagiau plastig/Plastic bag litter position paper*, July 2006, [http://www.keepwalestidy.org/welsh/images/plasticbags\(w\).pdf](http://www.keepwalestidy.org/welsh/images/plasticbags(w).pdf)

<sup>77</sup> Department of the Environment and Heritage, *Plastic shopping bags – Analysis of levies and environmental impacts: Final report*, December 2002, <http://www.environment.gov.au/settlements/publications/waste/plastic-bags/pubs/analysis.pdf>

## 6. Litter

A general prohibition on littering exists in Wales, but it is not particularly effective at stopping littering, for a number of reasons. Local authorities, for example, have different policies regarding prosecuting offenders: one local authority has issued 1,500 Fixed Penalty Notices for littering in the last three years, while others have issued none. In Ireland<sup>78</sup>:

...the main motivating factor for addressing plastic bag consumption and ultimately litter was their visibility... legislators opted for an additional levy on plastic bags at point of sale. Such a levy directly targets the consumption of plastic bags through the use of a fiscal signal with the aim of reducing consumption. The resulting reduction in the number of bags entering the waste stream is intended to indirectly address the differential impact (in relation to plastic bag durability and visibility) compared to other litter items. Thus, such measures are intended not only to directly change consumer behaviour in a more sustainable manner but to indirectly address the specific characteristics of the product which makes it so visible.

According to McDonnell and Convery, in order to pursue a levy effectively, the policy process should focus on the visibility of plastic bag litter rather than a narrow analysis of its share of general waste<sup>79</sup>.

### *The problem*

The proportion of plastic bags in litter has often been quoted as less than 1 per cent. The source of this figure is a study by EnCams (Environmental Campaigns – the English equivalent of Keep Wales Tidy) that has been questioned by Keep Wales Tidy.

The submissions to the Scottish Parliament that quoted research to back up their assumptions of the proportion of plastic bags in litter (e.g. SEPA<sup>80</sup>, AEA Technology<sup>81</sup>, Scottish Retail Consortium<sup>82</sup>, Scottish Consumer Council<sup>83</sup>, British Polythene Industries Ltd.<sup>84</sup>) can be traced back to the report by EnCams<sup>85</sup>. Indeed, DEFRA uses the same report to quantify plastic bag litter in the UK (0.1-1 per cent)<sup>86</sup> – even though the report examined sites only in England. According to Keep Wales Tidy, this report, funded by the packaging industry (an opponent of plastic bag levies<sup>87</sup>), suffers from the following flaws:

- It includes 'chewing gum stains' as litter. Chewing gum stains are not classed as litter in any country in the UK, because such a classification would require local authorities to remove it.

<sup>78</sup> McDonnell S and Convery F, 2008. *The Irish plastic bag levy – A review of its performance 5 years on*, Draft paper awaiting publication.

<sup>79</sup> *ibid*

<sup>80</sup> SEPA, *Submission from SEPA*,

<http://www.scottish.parliament.uk/business/committees/environment/papers-05/rap05-24.pdf#page=58>

<sup>81</sup> AEA Technology, *Proposed plastic bag levy – extended impact assessment final report – Volume 1: Main report*, August 2005,

<http://www.scotland.gov.uk/Resource/Doc/57346/0016899.pdf>

<sup>82</sup> Scottish Retail Consortium, *Submission from the Scottish Retail Consortium*,

<http://www.scottish.parliament.uk/business/committees/environment/papers-05/rap05-25.pdf#page=3>

<sup>83</sup> Scottish Consumer Council, *Submission from the Scottish Consumer Council*,

<http://www.scottish.parliament.uk/business/committees/environment/papers-05/rap05-25.pdf#page=3>

<sup>84</sup> British Polythene Industries Ltd., *Submission from British Polythene Industries Ltd.*,

<http://www.scottish.parliament.uk/business/committees/environment/papers-05/rap05-26.pdf#page=3>

<sup>85</sup> EnCams, *Litter composition survey of England: April-July 2004*, October 2004,

<http://www.incpen.org/pages/userdata/incp/LitterCompSurvey24Jan2005.pdf>

<sup>86</sup> DEFRA, *Local environmental quality: plastic bags*,

<http://www.defra.gov.uk/environment/localenv/litter/plasticbags/index.htm>

<sup>87</sup> Incpen, *Plastic carrier bag tax – 'the facts'*,

Ironically, the ENCAMS report itself acknowledges that chewing gum stains are not litter. More than 61 per cent of 'litter' in the study should therefore not be classified as such.

- Under the heading 'Methodology', the report states "The INCPEN survey would comprise 30 sample sites" – a sample too low to be statistically representative of littering throughout England.
- Keep Wales Tidy notes that it uses a methodology that only examines litter on adopted land, principally streets<sup>88</sup>:

These surveys do not usually take account of items caught in hedges or trees, nor is there a rigorous programme of riverside, submarine, or offshore litter analysis. Plastic bags form a disproportionately large fraction of litter caught in vegetation.

McDonnell and Convery criticise the AEA Technology Report's analysis of plastic bag litter<sup>89</sup>:

...the report notes that plastic bags are a small proportion of overall litter, ignoring the visibility and durability of such items.

Additionally, US litter experts Stein and Syrek state<sup>90</sup>:

...litter is usually considered to be first and foremost a visual form of pollution where the larger items are more visible to pedestrians and doubly so to motorists. However, the primary problem with including the small items [in research methodology] is they bias the results towards the less visible components of litter... Adding a cigarette butt litter category... would also distort other categories, making them appear inappropriately smaller.

Since cigarette ends comprise about 85 per cent of litter items in most cases, all other forms of litter will look insignificant in comparison. Keep Wales Tidy believes that this 'skewing' effect of cigarette ends<sup>91</sup>:

...has been used in the information produced by all other categories of litter-producing industries as a pretext for inaction.

Keep Wales Tidy has conducted an analysis of a litter segmentation study conducted on behalf of the Welsh Assembly Government. This indicates that **plastic bags comprise 2.7 per cent of litter in Wales by weight**<sup>92</sup>. Keep Wales Tidy calculated the cost for local authorities of dealing with this litter to be £1 million per year. Furthermore<sup>93</sup>:

Perhaps the biggest visual pollutant effect of plastic bags is on riverside vegetation. When rivers are in spate, all manner of debris is carried along, and of these, the plastic bag is one of the most likely to get

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<http://www.incpen.org/pages/userdata/incp/PCBFS.pdf>

<sup>88</sup> Keep Wales Tidy, *Papur datgan sbwriel bagiau plastig/Plastic bag litter position paper*, July 2006,

[http://www.keepwalestidy.org/welsh/images/plasticbags\(w\).pdf](http://www.keepwalestidy.org/welsh/images/plasticbags(w).pdf)

<sup>89</sup> McDonnell S and Convery F, 2008. *The Irish plastic bag levy – A review of its performance 5 years on*, Draft paper awaiting publication.

<sup>90</sup> Stein and Syrek, *New Jersey litter survey: 2004*,

<http://www.njclean.org/New-Jersey-Litter-Report.pdf>

<sup>91</sup> Keep Wales Tidy, *Papur datgan sbwriel bagiau plastig/Plastic bag litter position paper*, July 2006,

[http://www.keepwalestidy.org/welsh/images/plasticbags\(w\).pdf](http://www.keepwalestidy.org/welsh/images/plasticbags(w).pdf)

<sup>92</sup> *ibid*

<sup>93</sup> *ibid*

caught on low-hanging branches. These river-hanging bags are far more difficult to clean up than general street litter, because of their location on the riverbank and on overhanging branches.

As a result of topography and high rainfall, Wales is blessed with a particularly high density of rivers. However, this means that Wales has a disproportionately high amount of tree-hanging plastic bag litter compared to other countries in the UK. Many of these rivers, particularly in the south Wales valleys, run directly through the centre of densely populated communities, and plastic bag litter will therefore be a highly visible component of litter. These valleys communities are also largely the poorest communities in Wales: in a very real sense, plastic bag litter has an inordinately visually polluting effect on Wales' poorest communities.

This analysis leads Keep Wales Tidy to the conclusion that plastic bags are a significant cause of litter in Wales, in terms of number, mass, area, and visibility.

The Beachwatch 2006 survey showed that with 40 items per kilometre of coastline, or one every 25 metres, plastic bags are 15<sup>th</sup> in the list of most commonly found items of litter on UK beaches<sup>94</sup>. Plastic bag litter on beaches has followed an increasing trend over the decade 1996-2006<sup>95</sup>.

### *Litter reduction*

It is estimated that plastic bags comprised 5 per cent of litter in the Republic of Ireland before the levy was introduced<sup>96</sup>. According to the national litter pollution monitoring system, the proportion of plastic bag litter had fallen to 0.32 per cent by December 2002, 0.25 per cent in 2003, and 0.22 per cent in August 2004<sup>97</sup>. Use of plastic bags has increased in recent years, to more than 100 million bags per year, and their prevalence in litter has likewise increased to 0.52 per cent in 2007<sup>98</sup>. As a result, the Minister for the Environment, Heritage and Local Government announced an increase in the levy from 15c to 22c<sup>99</sup>.

Evidence presented to the Environment and Rural Development Committee in Scotland suggested that a levy would reduce littering of plastic bags substantially, with some witnesses suggesting that a levy was a valid proposal on those terms alone<sup>100</sup>. The Director of the Scottish Retail Consortium commented "There is no denying that the plastic bag tax in Ireland has proved popular and has

<sup>94</sup> Marine Conservation Society, *Top 20 items*, [http://www.adoptabeach.org.uk/pages/page.php?cust\\_id=10](http://www.adoptabeach.org.uk/pages/page.php?cust_id=10)

<sup>95</sup> Marine Conservation Society, *Plastic bags*, [http://www.adoptabeach.org.uk/pages/page.php?cust\\_id=41](http://www.adoptabeach.org.uk/pages/page.php?cust_id=41)

<sup>96</sup> Department of the Environment, Heritage and Local Government of the Republic of Ireland, *Plastic Bag Levy: Written Submission to the Environment and Rural Development Committee*,

<http://www.scottish.parliament.uk/business/committees/environment/inquiries/pb/ERD.S2.05.27.1d%20-%20DEHLG.pdf>  
<sup>97</sup> O'Suilleabhain S, 2005. Environmental Levy on Plastic Bags (Scotland) Bill: Stage 1. *Oral Evidence Before the Environment and Rural Development Committee*. Sean O'Suilleabhain, Department of the Environment, Heritage and Local Government, Government of Ireland, 2 November 2005.

<http://www.scottish.parliament.uk/business/committees/environment/or-05/ra05-2702.htm>

<sup>98</sup> London Assembly Environment Committee, *Bag to basics: Why and how free shopping bags should be removed from London's shops*, December 2007,

<http://www.london.gov.uk/assembly/reports/environment/bag-to-basics.pdf>

<sup>99</sup> O'Suilleabhain S, 2005. Environmental Levy on Plastic Bags (Scotland) Bill: Stage 1. *Oral Evidence Before the Environment and Rural Development Committee*. Sean O'Suilleabhain, Department of the Environment, Heritage and Local Government, Government of Ireland, 2 November 2005.

<http://www.scottish.parliament.uk/business/committees/environment/or-05/ra05-2702.htm>

<sup>100</sup> Environment and Rural Development Committee Report, *Stage 1 Report on the Environmental Levy on Plastic Bags (Scotland) Bill*, <http://www.scottish.parliament.uk/business/committees/environment/reports-05/rar05-13-vol01-02.htm#Report>



reduced the amount of plastic bag litter across the country"<sup>101</sup>. In his response to the Committee's Stage 1 Report, Mike Pringle MSP states<sup>102</sup>:

No witnesses before the Committee disputed that a levy would lead to a reduction in litter from plastic bags, indeed such an effect is self evident.

The number of plastic bags distributed in the Republic of Ireland decreased by 94 per cent in the first year the levy was introduced<sup>103</sup>. Research on litter indicators showed a "dramatic decrease in the presence and visibility of plastic bags"<sup>104</sup>. Keep Wales Tidy considers that the reason for litter reduction being even greater than this – 95.6 per cent – is attributable<sup>105</sup>:

...to consumers being less likely to waste a resource that now bears a cash value, and for which they themselves have paid.

An Australian study concluded that the best environmental outcome of five options would be to introduce a levy of approximately 10p per plastic bag. Such a levy would result in a 63 per cent reduction in primary energy use, a 65 per cent reduction in global warming impacts, and an 82 per cent reduction in contribution to litter<sup>106</sup>.

Keep Wales Tidy states<sup>107</sup>:

The experience of the Republic of Ireland would certainly suggest that a well-implemented and well-advertised levy with retailers on board is the best option for reducing the number of bags being used by consumers and then entering the litter stream.

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<sup>101</sup> Moriarty F, *Scotland – Retailers fear Scotland plastic bag tax scheme is littered with problems*, <http://www.brc.org.uk/lrcdetails04.asp?id=724>

<sup>102</sup> Pringle M MSP, *Mike Pringle MSP's response to the Environment and Rural Development Committee's Stage 1 Report on the Environmental Levy on Plastic Bags (Scotland) Bill*, 7 July 2006, <http://www.scottish.parliament.uk/business/committees/environment/inquiries/pb/documents/MikePringleResponsetoPlasticBagsStage1Report.pdf>

<sup>103</sup> University College Dublin, *Submission from University College Dublin*, [http://www.scottish.parliament.uk/business/committees/environment/inquiries/pb/UCDublin\\_submission.pdf](http://www.scottish.parliament.uk/business/committees/environment/inquiries/pb/UCDublin_submission.pdf)

<sup>104</sup> McDonnell S and Convery F, 2008. *The Irish plastic bag levy – A review of its performance 5 years on*, Draft paper awaiting publication.

<sup>105</sup> Keep Wales Tidy, *Papur datgan sbwriel bagiau plastig/Plastic bag litter position paper*, July 2006, [http://www.keepwalestidy.org/welsh/images/plasticbags\(w\).pdf](http://www.keepwalestidy.org/welsh/images/plasticbags(w).pdf)

<sup>106</sup> Department of the Environment and Heritage, *Plastic shopping bags – Analysis of levies and environmental impacts: Final report*, December 2002, <http://www.environment.gov.au/settlements/publications/waste/plastic-bags/pubs/analysis.pdf>

<sup>107</sup> Keep Wales Tidy, *Papur datgan sbwriel bagiau plastig/Plastic bag litter position paper*, July 2006, [http://www.keepwalestidy.org/welsh/images/plasticbags\(w\).pdf](http://www.keepwalestidy.org/welsh/images/plasticbags(w).pdf)

## 7. Differences between a levy and a ban

Environmental taxation has its roots in Pigou, who noted that if pollution is imposing costs on society that are not borne by the perpetrator, these external costs should be internalised by imposing a tax on the pollutant in question<sup>108</sup>. A further benefit of environmental taxes results when revenue is used in ways that reduce 'distorting' taxes (eg on labour)<sup>109</sup>. McDonnell and Convery note that taxation can have advantages over other instruments in terms of equity and competitiveness<sup>110</sup>.

The levy in Ireland<sup>111</sup>:

...was explicitly aimed at changing consumer's behaviour, and fixed at an amount sufficiently high to give most consumers pause for thought, and stimulate them to avoid paying by bringing their own 'permanent' reusable shopping bags with them... the tax, set at €0.15, is more than six times higher than the average maximum WTP [willingness to pay], around €0.024, and that only 8% of the consumers surveyed felt it was worth paying for a plastic bag when its price exceeded half of the approved tax or €0.076.

One caveat that Convery *et al* note is that prior consultation with and acceptance by stakeholders and consumers is central to the successful implementation of a levy<sup>112</sup>, although it is probably fair to suggest that the same would hold for a ban. They also caution<sup>113</sup>:

The commitment of a Minister at Cabinet level was crucial in ensuring that the various arms of government collaborated, so that the proposal went from concept to successful execution. Without Mr. Dempsey's enthusiastic and effective support, it would not have happened, and it is likely that the voluntary scheme initially preferred by industry would have been selected...

McDonnell and Convery note<sup>114</sup>:

This may be... depressing for advocates of policy interventions such as this. We have seen that the levy needed the guidance of a senior Minister to first get on the policy agenda and then to overcome initial opposition. In addition, no similar levy proposals have been enacted elsewhere despite widespread interest.

Keep Wales Tidy comments that<sup>115</sup>:

A voluntary scheme operating in Australia reduced bag use by just 21% over the 2-year scheme, which was described by one Australian Senator as "a flop". The problem with voluntary codes is that they depend on the goodwill of the retailers: in Australia, just 4% of the smaller businesses responsible for 55% of carrier bags distributed, have signed up to the campaign... Voluntary initiatives to minimise plastic bag use will never be as effective as a levy. Levies reduce use by more than 90%, voluntary codes by up to 25%.

<sup>108</sup> Pigou AC, 1960. *The Economics of Welfare*. London: MacMillan.

<sup>109</sup> Convery F and McDonnell S, 2003. *Applying environmental product taxes and levies – lessons from the experience with the Irish plastic bags levy*, Environmental Studies Research Series Working Papers 2003: Dublin, University College Dublin, <http://www.ucd.ie/gpep/gpepinfo/publications/workingpapers/03-01.pdf>

<sup>110</sup> McDonnell S and Convery F, 2008. *The Irish plastic bag levy – A review of its performance 5 years on*, Draft paper awaiting publication.

<sup>111</sup> Convery *et al*, 2006. The most popular tax in Europe? Lessons from the Irish plastic bag levy. *Environ Resource Econ*, 2007, 38: 1-11.

<sup>112</sup> *ibid*

<sup>113</sup> *ibid*

<sup>114</sup> McDonnell S and Convery F, 2008. *The Irish plastic bag levy – A review of its performance 5 years on*, Draft paper awaiting publication.

<sup>115</sup> Keep Wales Tidy, *Papur datgan sbwriel bagiau plastig/Plastic bag litter position paper*, July 2006, [http://www.keepwalestidy.org/welsh/images/plasticbags\(w\).pdf](http://www.keepwalestidy.org/welsh/images/plasticbags(w).pdf)

A levy can operate in either of two ways:

- A Pigouvian levy, which endeavours to recoup the environmental costs of plastic bags, but does not seek to reduce plastic bag use beyond the level at which the marginal benefits of internalising the environmental costs exceed the marginal costs of abatement (reducing use beyond this point adds more in costs than would be gained through the benefits – although it would be important to have a valid assessment of the costs of abatement).
- A levy which makes no attempt to link the levy cost to the environmental cost of plastic bags.

The latter case, as in Ireland, can be akin to a tax if that is politically desirable, because the levy can theoretically be increased to a level which would not be paid by a person acting in a rational manner. McDonnell and Convery state<sup>116</sup>:

In introducing the increase [of the levy to 22c], the Minister indicated that the goal of the levy was not to maximize revenue but to minimise plastic bag usage and reduce consumption levels to 2002 levels and beyond. However, in a mirror of the original policy process, there has been no attempt to quantify what effect the levy increase will have on plastic bag usage. The main constraining factor in increasing the levy further beyond €0.22 was the need for additional legislation rather than any price elasticity analysis related to the levy increase or quantification of the marginal external costs of plastic bag litter.

The various advantages of a ban and a levy are outlined in Table 1.

Table 1 Pros and cons of a ban and a levy on carrier bags

	Ban	Levy
Cost to consumer	Minimal cost once reusable bags are purchased	Minimal cost once reusable bags are purchased
Convenience to consumer	Potential inconvenience if consumer is not prepared for shopping	Enables consumer to purchase carrier bags if it is propitious to do so
Cost of implementation	Should be minimal with public 'buy-in'	Some for retailers, although costs are less than the cost of purchasing and storing bags <sup>117</sup>
Litter reduction	Probably substantial (>98% reduction)	Probably substantial (>95% reduction)
Political acceptability	Less popular than a levy <sup>118</sup>	Very popular (Ireland)
Political commitment	Considerable (but less than for a levy) <sup>119</sup>	Considerable
Flexibility	Can not act as a levy	Can act as a levy or, effectively, as a ban
Net revenue to government <sup>120</sup>	Small negative <sup>121</sup>	A few million pounds <sup>122</sup>

Source: Members' Research Service

<sup>116</sup> McDonnell S and Convery F, 2008. *The Irish plastic bag levy – A review of its performance 5 years on*, Draft paper awaiting publication.

<sup>117</sup> *ibid*

<sup>118</sup> May incur accusations of state interference

<sup>119</sup> Primarily because the levy as implemented in Ireland required the finance ministry to cede authority over general revenue

<sup>120</sup> And therefore a saving from general taxation

<sup>121</sup> As a result of implementing and enforcing the ban

<sup>122</sup> Revenue from the levy

## **Annex A**

In November 2006, the following email was sent from the Managing Director of a Glasgow-based packaging company to Carwyn Jones, then Minister for the Environment, Planning and the Countryside, and copied to all AMs.

Dear Mr Jones,

Forgive me for emailing you and your fellow members to try to save the Welsh nation from making an expensive and damaging mistake. The Celtic connection seems to have disengaged.

After two brutal, expensive and time consuming years, at the end of October 2006, ('aye just 2 weeks ago), the Bill to tax plastic bags, which had been presented to the House at Holyrood, your somewhat more expensive counterpart in Edinburgh, was withdrawn unequivocally by the sponsor. Why, I hear your cry?

Simply because the Environment and Rural Development Committee at Holyrood had spent 12 months and an estimated £2 MILLION Scottish pounds, examining the full life cycle of the product and its alternatives, had commissioned an independent report on the effect of the tax, had been advised by various parties, myself included, of the enormous unintended consequences of the passage of the Bill, and had concluded unanimously, which included a Green Party member, that the passage of such an ill conceived idea would be detrimental to the environment in Scotland and that the Bill could not and would not satisfy the aims for which it was initially introduced. There was proven to be no net environmental gain for Scotland and thankfully our politicians had the intelligence, good common gumption and the courage to consign the Bill to the scrapheap by refusing to recommend the Bill to the House. To save face, the sponsor hastily and immediately withdrew his ill conceived Bill.

The much touted and vaunted Irish Plastax Bill was shown by the opponents of the Scottish Bill to be a disaster environmentally, and the proven facts, once all the fluffy political nonsense spouted by the Greens and the so called Environmentalists had been PROVEN to be nothing more than hype, had saved the day for Scotland, as they will for Wales.

The Australian Government has reiterated their stance that they do NOT favour a tax on plastic bags. The Taiwanese Government recently (May 2006) repealed a law banning plastic bag tax, and now the Scottish Parliament has rejected a tax albeit some 4 years after Westminster rejected the call for a tax on plastic bags. The world is waking up to the environmentalists crying wolf.

Do not be fooled into suggesting a further tax on the Welsh population, for if you do, you and your Environment Department will be ridiculed by the rest of the world for introducing a tax which is damaging to the environment and which achieves more unemployment in Wales, more weight of waste in Wales, more bulk capacity in landfill in Wales, more carbon dioxide emissions from landfill, more methane from landfill, more lorries on the road in Wales, more carcinogenic exhaust fumes in Wales, more furry animals killed on Welsh roads, and more tax on the population, the relative burden of which will be placed on the weekly income of the poor, the needy and those on fixed incomes. Not exactly a vote catcher is it?

Go to your Scottish counterparts - read the thousands of pages of evidence that the Committee took, read the over 1050 responses from the initial consultation document of which more than 1000 were from the public who were against the tax. Do the sums, understand the problems of the unintended consequences of such a tax, and you will wish you had kept your mouth firmly shut.

This idea you have on taxing plastic bags is about as much use to Wales as premarital sex is to someone who has no intention of getting married.

Yours sincerely,

J.Neil Young.

Managing Director.

Simpac Ltd.

[www.simpac.co.uk](http://www.simpac.co.uk)

## Annex B: MRS analysis of Neil Young's email, dated 20 November 2006

### Plastic Bags

#### Supplementary evidence regarding the email of Neil Young (Managing Director, Simpac Ltd.) to all AMs.

The text of Mr. Young's email is reproduced in Annex A. Some of Mr. Young's statements have been analysed for their accuracy.

#### Background

Mike Pringle MSP sponsored the Environmental Levy on Plastic Bags (Scotland) Bill, which aimed to apply a 10p tax to certain plastic carrier bags in Scotland. He withdrew the Bill when it became clear that the members of the Environment and Rural Development Committee were not going to support it in the form in which it was submitted. The Bill ran into problems of procedure. A Scottish tax may be raised where two of the following three criteria are performed at a local authority basis:

- Its collection
- Where it is set (national or local)
- Where it is spent

Since it was being introduced at a national level, its collection and expenditure were required to be performed at a local authority level, which made it a much more cumbersome tax to operate than would have been the case at the national level.

The Committee concluded the following<sup>123</sup>:

"9. The Committee stated in its previous report that it wishes to see firm action to tackle resource use and waste management issues. Mike Pringle's Bill has been valuable in raising awareness of the issues and provoking debate about how environmental benefits and culture change in resource use can be achieved. The Committee very much welcomes that and wants to see that important debate continue and develop

10. The likely extent to which plastic bag use may be reduced by a levy (estimates of approximately 90% were given in evidence) does make it a potentially powerful tool. Putting a value on an item can change people's behaviour and, in at least some instances, there is a place for statutory regulation being used to achieve that. A levy does have the potential to reach virtually every citizen immediately and could cause them to reconsider their resource use decisions. The Committee is, therefore, sympathetic to the aims of the Bill and considers that positive steps are required to achieve these aims

11. However, as the Committee stated in its previous report, the evidence it has considered has made it clear that there are a number of complex interacting implications of a levy which make it very difficult to judge whether this particular levy scheme is an appropriate one that will achieve its desired effect".

<sup>123</sup> Scottish Parliament, *Environment and Rural Development Committee Report SP Paper 642*, <http://www.scottish.parliament.uk/business/committees/environment/reports-06/rar06-12.htm>

13. However, after considering the further evidence received, the Committee remains of the view that there are a number of unintended consequences that appear likely to be connected with using the proposed levy to achieve a large reduction in the number of single-use plastic bags issued at checkouts. The net environmental impact of the proposed levy is an issue of considerable dispute in a range of areas.

14. The Committee considers that it remains impossible to be definitive about the likely environmental impact of the Bill and the arguments about whether this will be a net positive benefit are very finely balanced. The Committee considers that, on its own, the Bill cannot achieve the obvious and unequivocal benefits that it intends.

18. ...However, the Committee is disappointed that the Executive has not, to date, responded more robustly to its request to consider integrating the aims of the Bill into its strategy. The Committee considers that a levy has most potential as part of a strategy, and considers that the Executive has the power to promote measures which would achieve the impact of the Bill without the unintended consequences.

19. The Committee reiterates its support for the Bill's stated objectives. To achieve these objectives, the Committee urges the Executive to include ambitious measures to address plastic bag use in its waste prevention strategy. The Committee is not persuaded that the levy as currently proposed in this Bill is an effective means to achieve these objectives. The Committee, therefore, recommends that the Parliament does not agree to the general principles of the Bill".

## Analysis of statements

### 1. "... there was proven to be no net environmental gain for Scotland..."

The Extended Impact Assessment commissioned by the Scottish Executive<sup>124</sup> stated the following:

"The environmental impact of each of the four levy scenarios was assessed using 8 indicators. These include energy, water, waste and litter. Under the levy as proposed (scenario 1A) 5 out of the 8 indicators show an improvement".

The analysis has been criticised for using an unrealistic assumption of substitution of plastic bags with paper, and for using paper bag weights in excess of those that would be used if substituted. In the only existing case study of a consumer-directed levy, in the Republic of Ireland, it is believed that the effect of the levy has been neutral on landfill<sup>125</sup>.

The environmental analysis did not consider litter issues. The Department of the Environment, Heritage and Local Government of the Republic of Ireland noted:

<sup>124</sup> AEA Technology, *Environment Group Research Report: Proposed Plastic Bag Levy – Extended Impact Assessment. Volume 1: Main Report*,

<http://www.scotland.gov.uk/Resource/Doc/57346/0016899.pdf>

<sup>125</sup> O'Suilleabhain S, 2005. Environmental Levy on Plastic Bags (Scotland) Bill: Stage 1. *Oral Evidence Before the Environment and Rural Development Committee*. Sean O'Suilleabhain, Department of the Environment, Heritage and Local Government, Government of Ireland, 2 November 2005.

<http://www.scottish.parliament.uk/business/committees/environment/or-05/ra05-2702.htm>

"Plastic bags used to account for 5% of our litter arisings. Since the introduction of the levy they now account for only 0.22% of litter arisings"<sup>126</sup>.

Keep Wales Tidy has analysed a detailed segregation study of litter in Wales<sup>127</sup>, commissioned by the Welsh Assembly Government, and concluded that 2.7% of litter in Wales by weight is comprised of plastic bags<sup>128</sup>. The estimated cost of cleaning up littered plastic bags in Wales is £1 million per year<sup>6</sup>.

2. *"The... Irish Plastax Bill was shown by the opponents of the Scottish Bill to be a disaster environmentally..."*

It is only the opponents of the Irish plastic bag tax who claim that it has been environmentally damaging. In 2003, 90% of householders surveyed for research conducted by University College Dublin thought the environmental impact was positive<sup>129</sup>. Only 2% thought there had been a negative environmental impact.

Plastic bag use in Ireland has been reduced by 94%<sup>130</sup>. The Office of the Revenue Commissioners of the Republic of Ireland stated:

"The introduction of the Levy has resulted in a visible move away from plastic based packaging at retail level to other more environmentally friendly alternatives"<sup>131</sup>.

In 2002, Martin Cullen, the Minister of Environment, Heritage and Local Government of the Republic of Ireland stated:

"The reduction in the use of disposable plastic shopping bags has been immediate and the positive visual impact on the environment is plain to see... By implementing practical measures such as this [plastic bag levy], the environment wins"<sup>132</sup>.

3. *"Do not be fooled into suggesting a further tax on the Welsh population..."*

The Minister has not suggested a tax. He has suggested a ban. One of the conclusions of research conducted in the Republic of Ireland was:

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<sup>126</sup> Department of the Environment, Heritage and Local Government of the Republic of Ireland, *Written Submission to the Environment and Rural Development Committee*,

<http://www.scottish.parliament.uk/business/committees/environment/papers-05/rap05-27.pdf#page=3>

<sup>127</sup> AEA Technology, *The Composition of Municipal Solid Waste in Wales: A Report Produced for the Welsh Assembly Government*. Abingdon: AEA Technology.

<sup>128</sup> Keep Wales Tidy, *Papur Datgan Sbwriel Bagiau Plastig/Plastic Bag Litter Position Paper*,

<http://www.keepwalestidy.org/english/images/plasticbags.pdf>

<sup>129</sup> Convery F and McDonnell S, 2003. *Applying Environmental Product Taxes and Levies – Lessons from the Experience with the Irish Plastic Bags Levy*. Environmental Studies Research Series Working Paper 03/01. Dublin: University College Dublin Department of Environmental Studies.

<http://www.ucd.ie/gpep/gpepinfo/publications/workingpapers/03-01.pdf>

<sup>130</sup> McDonnell S, 2005, quoted in SPICe, 2005. *Plastic Bags Policy in Ireland and Australia*,

<http://www.scottish.parliament.uk/business/research/briefings-05/SB05-53.pdf>

<sup>131</sup> Office of the Revenue Commissioners of the Republic of Ireland, *Written Submission to the Environment and Rural Development Committee*,

<http://www.scottish.parliament.uk/business/committees/environment/papers-05/rap05-27.pdf#page=3>

<sup>132</sup> Department of the Environment and Local Government, Press Release, 19 August 2002, *Over 1 Billion Plastic Bags Removed from Circulation*,

[http://www.environ.ie/DOEI/DOEIPol.nsf/0/edd69c7c591b96bb80256f62003c99a3/\\$FILE/Plastic%20Bag%20Returns.doc](http://www.environ.ie/DOEI/DOEIPol.nsf/0/edd69c7c591b96bb80256f62003c99a3/$FILE/Plastic%20Bag%20Returns.doc)

"Edmund Burke observed that 'To tax and to please, no more than to love and be wise, is not given to men.' The extent of support by the public shows that this is not always true. When people are faced with a choice where they can readily respond at relatively low cost to achieve a socially desirable end, they adapt quickly and in many cases enthusiastically"<sup>7</sup>.

4. *"... the relative burden of which will be placed on the weekly income of the poor, the needy and those on fixed incomes"*.

The Extended Impact Assessment commissioned by the Scottish Executive<sup>2</sup> concluded the following:

"Consumers act to reduce the financial impact by switching away from use of carrier bags. This limits the detrimental financial impact for consumers to a maximum of £10 per person per year".

Research in the Republic of Ireland has shown "no evidence... that even those who are unemployed feel it is 'unfair'"<sup>7</sup>. The Scottish Consumer Council is of the opinion that:

"while the proportion of real income may be greater, the impact is not likely to be significant because consumers can change their behaviour, and opt not to pay the levy"<sup>133</sup>.

Keep Wales Tidy notes:

"poorer consumers will have greater incentive to change their behaviour than the better off, and so it is the well-off who will be more likely to be paying into the environmental fund... The fact that cut-price grocery chain Aldi already charges for plastic bags shows that a levy will be unlikely to adversely affect poorer Welsh people. The reality is that Aldi customers, whether economically-challenged or not, avoid the plastic bag charge by bringing their own bags or containers to Aldi stores"<sup>6</sup>.

This sentiment is supported by evidence from MORI showing that people in all wealth brackets support a tax on plastic bags<sup>134</sup>. In fact, people from households where the income is less than £17,500 are more supportive of a levy than those in the £17,500 to £30,000 wealth bracket<sup>12</sup>.

Keep Wales Tidy has also concluded that "poor people are disproportionately affected by plastic bag litter"<sup>6</sup>.

5. *"Not exactly a vote catcher is it?"*

Research in the Republic of Ireland indicates that householders are very much in favour of the plastic bag tax<sup>7</sup>. 76% of B&Q's customers think the company's policy of charging 10p for carrier bags in Scotland is a good or very good idea<sup>135</sup>. The Scottish Consumer Council stated that:

"Consumers were concerned about the 'visibility and complete lack of necessity of plastic bags from retailers... and were in favour of banning such items, as a means of forcing change in our behaviour'...

<sup>133</sup> Scottish Consumer Council, *Written Submission to the Environment and Rural Development Committee*, <http://www.scottish.parliament.uk/business/committees/environment/papers-05/rap05-25.pdf#page=25>

<sup>134</sup> MORI, 2003. Environment Tracker (Continuation of Table 8). Data from a 2003 survey on the environment. London: MORI. Background information available on <http://www.ipsos-mori.com/polls/2003/meb1.shtml>; contact Paul Ilett for detailed findings.

<sup>135</sup> B&Q, *Written Submission to the Environment and Rural Development Committee*, <http://www.scottish.parliament.uk/business/committees/environment/papers-05/rap05-25.pdf#page=3>



The research evidence from Ireland and the UK suggests that this is true: that consumers will broadly accept a plastic bag levy and it is likely to lead to a change in consumer behaviour"<sup>10</sup>.

In the UK, the people of Wales are the most supportive of a tax on plastic bags; 81% of people support paying 10p at shops for plastic bags<sup>11</sup>. Across Britain, the levy is popular across the political spectrum<sup>11</sup>.

6. *"... read the over 1050 responses from the initial consultation document of which more than 1000 were from the public who were against the tax".*

The written consultation responses received by the Committee are detailed at <http://www.scottish.parliament.uk/business/committees/environment/inquiries/pb/env-pb-evid.htm>.

The Scottish Parliament analysed the responses and found:

"In total 117 parties responded to the consultation. Overall responses to the proposed Bill were positive with 54% indicating strong support and 13% supporting the Bill's environmental agenda but not necessarily through a levy on plastic bags. Those against the Bill comprised 32% and were mainly from the packaging trade"<sup>136</sup>.

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<sup>136</sup> Scottish Parliament, *Analysis of Responses to Consultation*,  
<http://www.scottish.parliament.uk/business/bills/pdfs/mb-consultations/environmentalLevyAnalysis.pdf>