

COMMENTS

MAIN INGREDIENT IN "MARINE SOUP"¹: ELIMINATING PLASTIC BAG POLLUTION THROUGH CONSUMER DISINCENTIVE

TABLE OF CONTENTS

I. INTRODUCTION	292
II. THE IMPORTANCE OF NATIONAL LEGISLATION AS A PROPHYLACTIC SOLUTION.....	295
A. <i>Dangers of Plastic to Marine Life and the Aquatic Environment</i>	295
B. <i>Concerns with Recycling Plastic Bags</i>	299
C. <i>Paper vs. Plastic</i>	302
III. ENVIRONMENTAL TAXES WORLDWIDE	303
A. <i>What are Green Taxes?</i>	303
B. <i>The Polluter Pays Principle</i>	304
C. <i>Worldwide Legislation to Eliminate Plastic Bags in the Waste Stream</i>	305
IV. FOCUS ON FOREIGN LEGISLATION AND PROPOSED U.S. LEGISLATION	309
A. <i>Ireland</i>	309
B. <i>South Africa</i>	312
C. <i>Bangladesh</i>	315
D. <i>House Bill 2091</i>	318

1. Richard Grant, *Drowning in Plastic: The Great Pacific Garbage Patch is Twice the Size of France*, UK TELEGRAPH, Apr. 24, 2009, <http://www.telegraph.co.uk/earth/environment/5208645/Drowning-in-plastic-The-Great-Pacific-Garbage-Patch-is-twice-the-size-of-France.html>. "Marine Soup" is the term coined to describe the Great Pacific Garbage Patch. *Id.*; see also discussion, *infra* Part I. Some people picture the Patch as a mass of welded together plastic. However, the plastic bags, bottles, containers, and more, float together within the ocean waters as though they were ingredients in a soup. *Id.*

292 CALIFORNIA WESTERN INTERNATIONAL LAW JOURNAL [Vol. 40

V. ONE STEP FORWARD: PROPOSED REVISIONS TO HOUSE BILL
2091 321
A. *Constitutionality of a Plastic Bag Tax*..... 321
B. *Suggestions for Improving House Bill 2091* 326
1. The Double Dividend and Employment 327
2. The Influence of Education and Information
Dispersal on Consumer Behavior 328
3. Additional Considerations 330
VI. CONCLUSION 332

I. INTRODUCTION

Satara, Milwaukee County Zoo's sole performing harbor seal,² swims around the Oceans of Fun pool to the Mission Impossible theme song.³ Her job in this part of the show is to gather green, two-liter plastic bottles⁴ and wriggle them into a blue recycling bin outside the pool. The message conveyed to the audience: recycling is so easy, a seal can do it!

To congratulate Satara on a job well done, her trainer grabs a few fish and tosses them into the pool. The afternoon show is nearly over, so only a few words are said between the lesson in recycling and bidding the audience goodbye. As exciting as her tricks are to the young audience, trainers and volunteers know how important this last message is to the survival of wild seals and sea lions, and they want it to be remembered.

Around the world, from areas like Cape Cod to the Bay of Biscay, plastics make up nearly ninety percent of the pollution found on

2. During the summer of 2004, the author volunteered at the seal and sea lion show at the Milwaukee County Zoological Society. The group, Oceans of Fun, had just welcomed a new baby sea lion named Diego in April. Volunteers were enlisted to clean the pools and containment areas, defrost fish, put vitamins in the fish, prepare show props, play music for the shows, and more. For more animal and show information, see Oceans of Fun, <http://www.oceansoffun.org/> (last visited Feb. 2, 2010).

3. LARRY MULLEN & ADAM CLAYTON, *MISSION IMPOSSIBLE THEME SONG* (Island Records 1996).

4. The labels were peeled off of the bottles, which were crushed in the middle so Satara could easily pick them up in her mouth.

beaches or in the sea.⁵ The Ocean Conservancy International Coastal Cleanup picked up 1,377,141 plastic bags in 2008 alone.⁶ These bags were the second most common form of litter on 6485 beaches,⁷ comprising twelve percent of the pollution⁸ collected in 100 countries.⁹

It is estimated that "90 billion thin plastic bags" end up as unrecycled trash and litter annually.¹⁰ Despite the large number of bags that are not recycled or reused, eighty percent of groceries are still taken home in plastic bags.¹¹ While many of the plastic bags are left in the cupboard under the sink and reused as garbage or lunch bags,¹²

5. José G.B. Derraik, *The Pollution of the Marine Environment by Plastic Debris: A Review*, 44 MARINE POLLUTION BULL. 842, 843 (2002).

6. Ocean Conservancy Media Kit, Table of Top 10 Marine Debris Items, http://www.oceanconservancy.org/site/PageServer?pagename=icc_press (last visited Jan. 15, 2010) [hereinafter Ocean Conservancy Table].

7. The most common form of beach litter is, not surprisingly, cigarette butts. *Id.*

8. *Id.*

9. Press Release, Ocean Conservancy, Ocean Conservancy Activates Global Volunteer Network for 24th Annual International Coastal Cleanup: Goal is Ending Marine Debris (Sept. 19th, 2009), http://www.oceanconservancy.org/site/News2?abbr=press_&page=NewsArticle&id=13527.

10. *UN Environment Head Calls for Global Ban on Plastic Bags*, PEOPLE'S WKLY. WORLD, June 10, 2009, <http://www.peoplesworld.org/un-environment-head-calls-for-global-ban-on-plastic-bags/> [hereinafter People's World]. In this comment, the author refers to litter as bags left stranded in outdoor locations and refers to trash as plastic bags that end up in landfills through secondary use or direct dumping.

11. L.J. Williamson, *It's Not My Bag, Baby!*, ONEARTH, June 22, 2003, at 32, available at <http://www.nrdc.org/OnEarth/03sum/bag.asp>.

12. One common argument against any sort of plastic bag tax or ban is that the sale of plastic bags for pet waste and bin liners will rise dramatically, offsetting any possible benefit that may be had from lowering bag use at retail stores. Patrick M. Gleason, *Sack the Plastic Bag Levy*, WASH. TIMES, Oct. 12, 2009, available at <http://www.washingtontimes.com/news/2009/oct/12/sack-the-plastic-bag-levy/>; see also PackagingKnowledge.com, Carrier Bags, http://www.packagingknowledge.com/carrier_bags.asp (last visited Nov. 13, 2009) (claiming that the tax in Ireland had a negative effect because sales have risen dramatically and the purchased bags use more resources). Yet, the use of these larger, sturdier bags is insignificant considering the drop in single-use plastic bags. NOLAN-ITU, PLASTIC SHOPPING BAGS-ANALYSIS OF LEVIES AND ENVIRONMENTAL IMPACTS 24 (Env't Austl. 2002). While it is claimed that consumers often reuse plastic bags, studies have averaged that a paper bag is more likely to be reused 2.7

many more make their way into the environment. The most obvious example exists in the Pacific Ocean. Covering an area nearly double the size of France is the “Great Pacific Garbage Patch.”¹³ The “Patch” was accidentally discovered by scientist Charles Moore while traveling the North Pacific Subtropic Gyre.¹⁴ The Gyre is a high pressure zone where sea currents settle “flotsam” from the United States, Canada, Mexico, and Southeast Asia.¹⁵ Three million tons of floating plastic make up ninety percent of the flotsam, creating a “marine soup.”¹⁶ Much of this plastic is litter from land-based sources; not from ships, which may be prohibited from dumping by law.¹⁷ Plastic here, and in other locations, may directly kill local marine life by choking, clogging digestive tracts, or entangling.¹⁸

Nations worldwide are responding to the damage caused by plastic bags through voluntary programs, taxes, bans, and combinations of the three.¹⁹ The United States has joined these nations by considering a bill proposing a nationwide tax on plastic bags.²⁰

times, compared to 1.6 reuses of plastic bags. Elaine Ritch, Carol Brennan & Calum MacLeod, *Plastic Bag Politics: Modifying Consumer Behaviour for Sustainable Development*, 33 INT’L J. CONSUMER STUD. 168, 172 (2009) (citing Prendergast, Wal Ng & Lee Lung, *Consumer Perception of Shopping Bags*, 19 MARKETING INTELLIGENCE & PLAN. 475, 478 (2001)). Additionally, taxes and fees often exempt in-store bags, such as produce bags, which are commonly used to dispose of pet waste. See e.g. Plastic Bag Reduction Act, H.R. 2091, 111th Cong. (2009) (discussed *infra* Part IV.D.).

13. Laurence O’Sullivan, *Environmental Damage Caused by Discarded Plastic: Waste Plastic is a Terrestrial Eyesore and a Lethal Marine Pollutant*, April 27, 2009, http://pollution-control.suite101.com/article.cfm/environmental_damage_caused_by_discarded_plastic (citing Grant, *supra* note 1).

14. Grant, *supra* note 1.

15. *Id.*

16. *Id.*

17. *Id.* See generally Dumping Permit Program, 33 U.S.C. § 1412(a) (2006) (stating that certain criteria, such as land based alternatives, changes in marine ecosystem stability, and permanence of the effects, “shall” be considered before a ship, aircraft, or vessel receives a dumping permit) and Pat Phibbs, *Joining Environmental Treaties Prompts Sharp Debate in United States*, BNA ENV’T REP., July 23, 2004 (listing and discussing international treaties which aim at protecting the marine environment).

18. Grant, *supra* note 1.

19. See *infra* Part III.C.

20. Plastic Bag Reduction Act, H.R. 2091, 111th Cong. (2009).

This bill, introduced into the House of Representatives on April 23, 2009, is only in the initial stages of development, as it currently sits in Committee.²¹ This comment will show that the bill can be improved through a comparison to taxes and bans implemented by nations around the world, making it more beneficial to citizens and easier to implement.

Part II considers the importance of plastic bag regulation by looking at its impact on marine life, issues with recycling, and the impact of paper in relation to plastic bags. Part III of this comment will provide some necessary background information on theories of improving the environment through taxation. Part III will also consider examples of legislation in place around the globe specifically relating to plastic bags and some of the reasons for their implementation. The focus then considerably narrows in Section IV to study the legislation implemented in Ireland, South Africa, and Bangladesh. Here, there will also be a more in-depth discussion of the Plastic Bag Reduction Bill. In Part V, constitutional concerns will first be addressed, and then the benefits and downfalls of the different legislation examples will be considered. The examination will show that other nations' legislation can be used to improve on the proposed bill through adoption, such as use of an advertising campaign, or avoidance, in the case of placing revenues in an environmental trust.

II. THE IMPORTANCE OF NATIONAL LEGISLATION AS A PROPHYLACTIC SOLUTION

A. Dangers of Plastic to Marine Life and the Aquatic Environment

Polyethylene, the main component of plastic, was invented in the 1930s²² from petroleum.²³ 1957 welcomed the appearance of the first

21. GovTrack, Overview of the Plastic Bag Reduction Act of 2009, <http://www.govtrack.us/congress/bill.xpd?bill=h111-2091> (last visited Jan. 15, 2010). The bill was sent to the House Ways and Means Committee, the House Natural Resources Committee, and the House Natural Resource Subcommittee on National Parks, Forests, and Public Lands. GovTrack, Committee Assignments, <http://www.govtrack.us/congress/bill.xpd?bill=h111-2091&tab=committees> (last visited Jan. 15, 2010).

22. Williamson, *supra* note 11.

23. Lorena M. Rios, Charles Moore & Patrick R. Jones, *Persistent Organic Pollutants Carried by Synthetic Polymers in the Ocean Environment*, 54 MARINE

plastic sandwich bag, with trash bags showing up less than a decade later.²⁴ In 1977, polyethylene was modified to create plastic, single-use grocery bags.²⁵ The bags were marketed to grocery stores as a cost-effective alternative to paper bags, popularizing their use by 1982.²⁶

Due to low production costs and weight, plastics are “one of the most persistent macroscopic pollutants in oceanic waters and beaches in the world.”²⁷ When left out in the open, sunlight and friction break the polymers down into small pieces, which blow around beaches and oceans, and eventually land in animals’ stomachs.²⁸ This breakdown process is known as photodegrading,²⁹ which is different from biodegrading, the process of decomposition and returning to the environment.³⁰ When plankton and higher forms of marine life eat photodegraded fragments, they are still ingesting plastic.³¹ Once the initial organism ingests the plastic, everything within that species’ food web will be affected.

One potential effect is caused by plastic particles collecting chemical poisons from the water, which can build up in animals and filter through the rest of the food chain.³² The Woods Hole Oceanographic Institution is conducting studies which have been finding high concentrations of polychlorinated biphenyls (“PCBs”),

POLLUTION BULL. 1230, 1230 (2007).

24. Kurt Spokas, *Plastics – Still Young, but Having a Mature Impact*, 28 WASTE MGMT. 473, 473 (2008).

25. Williamson, *supra* note 11.

26. *Id.*

27. Rios, Moore & Jones, *supra* note 23.

28. Grant, *supra* note 1.

29. *Id.*

30. MERRIAM WEBSTER DICTIONARY 88 (New Ed. 1994).

31. Rios, Moore & Jones, *supra* note 23. Experiments called respirometry tests have been conducted to determine the decomposition rate of many different types of products. Juliet Lapidus, *Will My Plastic Bag Still Be Here in 2507?*, SLATE, June 27, 2007, <http://slate.com/id/2169287/>. Waste samples are left in microbe-rich compost where the microorganisms eat through the sample and excrete carbon dioxide. *Id.* The tests have been used to determine the time it will take the products to break down, such as a few days for banana peels and between two and five months for newspapers. *Id.* When the tests were conducted on plastic bags, nothing happened because the microorganisms did not recognize the plastic as food. *Id.*

32. Rios, Moore & Jones, *supra* note 23, at 1231; Grant, *supra* note 1.

dichlorodiphenyltrichloroethane ("DDT"), and polybrominated diphenyl ethers ("PBDEs") in marine mammal cerebrospinal fluid and gray brain matter.³³ Their effect on animals is undetermined; however, the toxins have already been found to cause cancer, interfere with thyroid hormone systems, impair reproductive ability, and slow the development of cognition and motor control in humans.³⁴ It is possible that the increasing amounts of plastic carriers marine mammals are eating are part of the reason the toxins are being absorbed in such large amounts.

A lawsuit brought by the Sierra Club also introduced a new fear for marine life: male fish growing female eggs.³⁵ Nonylphenol ethloxyate ("NPE") is a chemical found in cleaning products and detergents, which causes an estrogen-like effect on fish.³⁶ It is possible that the plastic debris floating from fresh to salt water can act as a carrier for this chemical, bringing this same problem to marine species. Further, this fear now extends to plastic's effect on human males. Women with higher exposure to phthalates, a chemical that is used to make plastics flexible, give birth to sons who show more feminine physical attributes.³⁷

These concerns are in addition to the direct dangers plastic bags

33. Science Daily, Marine Mammals Brains Exposed to Hazardous Cocktail of Pesticides Including DDT, PCBs, Brominated Flame Retardants (May 21, 2009), <http://www.sciencedaily.com/releases/2009/05/090520122227.htm>. There is also research being conducted relating to whether bisphenol A, vinyl chloride, styrene, and phthalates are being spread through plastic pollution. State of California Ocean Protection Council, Resolution of the California Ocean Protection Council on Reducing and Preventing Marine Debris (Feb. 8, 2007), <http://www.opc.ca.gov/2007/02/resolution-of-the-california-ocean-protection-council-on-reducing-and-preventing-marine-debris/>.

34. Science Daily, *supra* note 33.

35. JoAnn Blake, *EPA Agrees to Tackle the Feminization of Wild Fish*, EXAMINER, July 1, 2009, <http://www.examiner.com/x-12720-DC-Environmental-Policy-Examiner~y2009m7d1-EPA-agrees-to-tackle-the-feminization-of-wild-fish>.

36. *Id.*

37. The babies of women who were exposed to four types of the phthalates had smaller penises, undescended testicles, and shorter perineum. Ian Sample, *Plastic's Harmful Side Effects*, SALON, May 27, 2005, http://www.salon.com/news/feature/2005/05/27/plastics_and_boys/index.html. These differences are similar to those found in exposed animals. *Id.* One theory is that food commonly wrapped in plastic film or bags absorbs the phthalates and then the chemicals make their way into the bloodstream when ingested. *Id.*

present to marine life. Plastic bags are often mistaken for jellyfish or squid, favorite meals of sea turtles, pygmy whales, and dolphins.³⁸ The bags, when ingested, either choke the animals or clog their digestive systems over time.³⁹ Marine victims of entanglement and ingestion often go undiscovered because they become easy prey to larger predators or sink to the depths of the ocean.⁴⁰ Some groups estimate the casualties of plastic pollution to be upwards of 100,000 annually.⁴¹

No one reliably knows how long plastics remain in the ocean before breaking down completely.⁴² Some estimate two hundred years,⁴³ others five hundred,⁴⁴ others one thousand.⁴⁵ This uncertainty, in combination with plastic's other dangerous side effects, lends credence to the argument that the amount of bags in the waste stream must be decreased significantly.

38. Ocean Conservancy, Marine Debris, http://www.oceanconservancy.org/site/PageServer?pagename=issues_debris (last visited Jan. 15, 2010).

39. *Id.*

40. Derraik, *supra* note 5, at 844 (citing D.A. Wolfe, *Persistent Plastics and Debris in the Ocean: An International Problem of Ocean Disposal*, 18 MARINE POLLUTION BULL. 303 (1987)). Even more difficult to determine is plastic's impact on marine populations, which naturally fluctuate in response to numerous factors. *Id.*

41. Katharine Mieszkowski, *Plastic Bags Are Killing Us*, SALON, Aug. 10, 2007, http://www.salon.com/news/feature/2007/08/10/plastic_bags/index.html.

42. Rios, Moore & Jones, *supra* note 23, at 1231. An eleventh grader in Ontario decided that he wanted to find a more concrete estimation of the time it takes for plastics to break down. OnEarth, Canada's Wunderkind, Aug. 28, 2008, www.onearth.org/article/canadas-wunderkind. He mixed dirt, sodium chloride, and yeast with ground up plastic, and then refined it to increase the number of microbes. *Id.* In three months, the volume of plastic was reduced by 43%. *Id.* This discovery could have a huge impact on plastic disposal.

43. People's World, *supra* note 10.

44. Marian Burros, *Just the Thing to Carry Your Conscience In*, N.Y. TIMES, July 18, 2007, at F1; Mark Rice-Oxley, *Plastic Bag Revolt Spreads Across Britain*, USA TODAY, June 20, 2007, available at http://www.usatoday.com/tech/news/2007-06-20-plastic-bag-britain_N.htm (quoting Eugenie Harvey, the co-founder of We Are What We Do, a grass-roots action group).

45. Eco-ethical, Plastic, Paper, or Cotton Bags?, <http://www.eco-ethical.co.uk/plasticbag.html> (last visited Jan. 15, 2010). Another theory for the estimates of five hundred or one thousand years is scientists' "way of saying 'a really, really long time.'" Lapidus, *supra* note 31.

B. Concerns with Recycling Plastic Bags

The first curbside recycling program began in Berkeley, California, in 1973.⁴⁶ Three years later, the federal government enacted the Resource Conservation and Recovery Act, which created standards for disposing of garbage.⁴⁷ In 2000, the EPA officially declared a link between reducing garbage and recycling and a reduction in harmful emissions.⁴⁸ Now, there are over eight thousand curbside recycling programs throughout the country,⁴⁹ and efforts are being made to make recycling easier than ever⁵⁰ and to reduce the amount of plastics left un-recycled.⁵¹ Yet, it is estimated that seventy-five percent of consumer plastics are not recycled.⁵² As recorded, only 6.8% of the plastic products produced in 2008 were recovered for recycling.⁵³

The trouble does not stop once plastic actually reaches recycling centers. Many people do not know that one dirty piece of plastic can contaminate an entire bale of recycled plastics, forcing a recycling center to send thousands of pounds of plastic to a landfill.⁵⁴ Even a

46. Natural Resources Defense Council, *The Past, Present, and Future of Recycling*, www.nrdc.org/cities/recycling/fover.asp (last visited Nov. 27, 2009).

47. *Id.*; Resource Conservation and Recovery Act, 42 U.S.C. §§ 6901-92 (2006).

48. Natural Resources Defense Council, *supra* note 46.

49. *Id.*

50. *Id.* For example, instead of collecting paper, plastic, glass, and aluminum separately, some communities allow them to be recycled together for consumer convenience. *Id.*

51. The U.S. municipal solid waste (MSW) stream contained nearly thirteen million tons of plastics in 2008, almost half of the worldwide total MSW of thirty million tons. United States Environmental Protection Agency, *Common Wastes & Materials: Plastics*, www.epa.gov/epawaste/conserves/materials/plastics.htm (last visited Jan. 15, 2010). Plastics thus made up twelve percent of the MSW stream, compared to less than one percent in 1960. *Id.* Yet, despite technological advances and a demand for recycled plastics, recycling rates worldwide are "dismal." Spokas, *supra* note 24, at 473.

52. Spokas, *supra* note 24, at 474.

53. Approximately 2.1 million tons of plastics were recovered for recycling. *Common Wastes & Materials: Plastics*, *supra* note 51.

54. ThinkGreen.com, *What Can Be Recycled?*, <http://thinkgreen.com/recycle-what-detail?sec=plastics&prod=learn-more> (last visited Nov. 27, 2009) [hereinafter *What Can Be Recycled?*].

small amount of the wrong type of plastic can send an entire bale to the landfill.⁵⁵ For example, biodegradable plastic bags which are placed in a recycling bin along with regular, #2 or #4⁵⁶ plastic bags can ruin a bale if not separated before recycling or reuse.⁵⁷

The average consumer does not know that the recycling emblem on many plastic products, showing a number surrounded by three arrows, does not necessarily mean that a product can be recycled.⁵⁸ The number only identifies the resin type used to make the product.⁵⁹ To determine whether a plastic bag is recyclable, citizens must research their district's recycling program. Some potential recyclers may continually forget to do the research and throw products straight into the garbage instead. Even when citizens do their research, they may find that their local recycling programs simply do not collect plastic bags.

Recycling programs are not required to accept plastic bags – and for good reason. The bags are very lightweight and do not make recyclers much money.⁶⁰ The plastic industry uses this same

55. *Id.*; Williamson, *supra* note 11 (according to a representative of a Colorado-based recycler).

56. *See id.* Bags labeled with the number two symbol refer to high density polyethylene (“HDPE”), which is stronger and stiffer than the number four low density polyethylene (“LDPE”). AMERICAN CHEMISTRY COUNCIL, PLASTICS DIVISION, PLASTIC PACKING RESINS, Mar. 2007, *available at* http://www.americanchemistry.com/s_plastics/bin.asp?CID=1102&DID=4645&DOC=FILE.PDF. HDPE is commonly used for grocery bags and bags within cereal boxes. *Id.* LDPE is more often used for its flexibility and resistance to all types of liquids, in products such as produce bags, frozen food bags, and cups designed for hot drinks. *Id.* at 2.

57. AMERICAN CHEMISTRY COUNCIL, RECYCLABLE PLASTIC BAGS INFO SHEET, *available at* <http://www.plasticbagrecycling.org/02.0/download/bagfactsheet.pdf>. *See also* NOLAN-ITU, BIODEGRADABLE PLASTICS: DEVELOPMENTS AND ENVIRONMENTAL IMPACTS 34-36 (Env't Austl. 2002) (discussing the difficulties in sorting lightweight plastics and problems caused in downstream products because of the different chemical composition of biodegradable plastics).

58. What Can Be Recycled?, *supra* note 54; ThinkGreen.com, Plastic Recycling Code, <http://thinkgreen.com/recycle-what-detail?see=plastics&prod=plastic-recycling-code> (last visited Feb. 16, 2010).

59. Plastics Recycling Code, *supra* note 58.

60. Sharon Jacobsen, Plastic Bag Pollution, Google Bits, July 21, 2005, <http://www.googobits.com/articles/p0-1604-plastic-bag-pollution.html>; Reusable Bags, Recycling Can Fix This, Right?, <http://www.reusablebags.com/facts.php?id=5>

lightweight argument when claiming that the bags do no harm in landfills because they compact so well.⁶¹ The bags are also prone to clog recycling machinery, and it can take hours for workers to complete the dangerous job of cutting them out.⁶²

When recycled, plastics are sorted by resin type before being sent to a reclaimer, where they are cleaned, ground down, and separated to make new plastic pellets.⁶³ These pellets are made into "secondary products" which are not recyclable.⁶⁴ When recycling technology developed initially, reclaimers were not technologically capable of converting certain plastics into the original product.⁶⁵ Now, the demand for some non-recyclable secondary products is so strong that it uses the available supply of plastic.⁶⁶ This means that much of the plastic still ends up in landfills after the secondary product has worn down.⁶⁷ As a further disincentive for plastic recycling, processing recycled plastics can exceed the cost of simply creating new plastic.⁶⁸

In sum, recycling plastic bags is not as simple and easy as many people believe. The first hurdle is determining whether a recycler even accepts plastic bags. Many attempts to recycle stop here. If the bag is recycled, it may become contaminated and unrecyclable before it can be created into a new product. If a new product is actually made, the new product may be unrecyclable. Considering the problems involved, recycling programs would be benefitted by the elimination of the bags.

(last visited Jan. 15, 2010).

61. John Vidal & David Stanway, *China Boosts Global War Against Menace of the Plastic Bag*, GUARDIAN, Jan. 12, 2008, at 33.

62. Mieszkowski, *supra* note 41.

63. U.S. EPA, *supra* note 51.

64. Ecology Center, Plastic Task Force: Seven Misconceptions About Plastic and Plastic Recycling, <http://www.ecologycenter.org/ptf/misconceptions.html> (last visited Nov. 27, 2009); Mieszkowski, *supra* note 41 (secondary products are not considered recycling, but downcycling, because the product being made cannot be recycled after it wears out).

65. Posting of Patty Moore, American Chemistry blog, Plastic Recycling Myths, June 4, 2009, <http://blog.americanchemistry.com/2009/06/plastic-recycling-myths/>.

66. *Id.*

67. Ecology Center, *supra* note 64.

68. *Id.*

C. Paper vs. Plastic

Like many plastic supporters, the Executive Director of the Australian Retailers Association is adamant that reducing the use of plastic bags will not help the environment.⁶⁹ He insists that they will be replaced by paper, which will require more trees to be cut down and will cause a greenhouse gas increase.⁷⁰ The plastic industry can support the short-term benefits of plastic bags. Twenty years ago, plastic bags used seventy percent more plastic.⁷¹ Now, plastic bag manufacturing uses “40% less energy, generate[s] 80% less solid waste, produce[s] 70% fewer atmospheric emissions,⁷² and release[s] up to 94% fewer waterborne wastes.”⁷³ Paper bags are four to five times larger than plastic bags, and thus require more deliveries, storage space, and gasoline.⁷⁴ While plastic bags only take up around 0.3% of landfill space, paper bags take up a significant amount.⁷⁵ The paper bags also release more greenhouse gases while decomposing.⁷⁶

While many early factors seem to support a pro-plastic lifecycle analysis, determining what happens to the bag after it is taken and

69. Vidal & Stanway, *supra* note 61.

70. *Id.* See also Sheila Killian, *Revenue Services and Environmental Taxes: A Comparative Study of the Irish and South African Approaches to a Levy on Plastic Bags*, 3 CRITICAL ISSUES IN ENVTL. TAX’N 491, 498 (A. Calvieri ed., Richmond Law and Tax 2005) (discussing the point that while a number of studies have concluded that a switch from plastic to paper is unlikely to have a positive environmental effect, these studies usually do not consider plastic’s longevity after consumption or their visibility as litter).

71. Ritch, Moore & Jones, *supra* note 12, at 172 (citing British Retail Consortium, Retail Myths: Plastic Bags, <http://www.brc.org.uk/details04.asp?id=1109&kCat=&kData=263&sCat=Retail+Myths>) (last visited Jan. 15, 2010).

72. NOLAN-ITU, *supra* note 12, at 33 (stating that the processes of bleaching and pulping create more air and water wastes).

73. John Roach, *Are Plastic Grocery Bags Sacking the Environment*, NAT’L GEOGRAPHIC, Sept. 2, 2003, available at http://news.nationalgeographic.com/news/2003/09/0902_030902_plasticbags.html (citing Film and Bag Federation, Myths and Facts about Plastic Grocery Bags, http://www.plasticsindustry.org/files/about/fbf/myths+facts_grocerybags.pdf) (last visited Jan. 15, 2010). Plastic bags also only use 0.05% of a barrel of oil. *Id.*

74. British Retail Consortium, *supra* note 71.

75. *Id.*

76. NOLAN-ITU, *supra* note 12, at 33.

used reframes the argument. Scientists remain uncertain how long plastic remains in our environment.⁷⁷ In contrast, paper bags have a shorter decomposition time if sent to a landfill.⁷⁸ If littered, paper bags take up less space over time because they decompose, unlike plastic bags.⁷⁹ Though producing paper bags uses trees, this resource is more easily renewed than an exhaustible oil supply. In the long run, paper seems to be the better of the two evils.

Analyzing the differences is complicated, but the best answer is that we need to reduce the need for both. Before either type of bag became popular, people had many different methods of carrying their goods, which can still be used today. In addition to the cotton, hemp, and jute bags used before plastic, we can now make and use thick, sturdy recycled plastic bags. This argument does not need to consider whether paper is worse than plastic, but whether we need to take steps at all to reduce the use of these items. A plastic bag tax is simply a first step.

III. ENVIRONMENTAL TAXES WORLDWIDE

A. *What are Green Taxes?*

Green taxes are market-based instruments ("MBIs") which can have an effect on the environment by addressing the source of the problem.⁸⁰ Since the 1990s, more countries have begun experimenting with new types of environmental taxes.⁸¹ The taxes take into account the "hidden costs" of producing or consuming a particular product, and apply a charge.⁸² In the case of plastic bags, some hidden costs to take into account are explored above, including damage to marine species, water pollution, and inefficient disposal.⁸³ The charge on production or consumption creates an incentive for the producer or

77. *See supra* notes 43-46 and accompanying text.

78. NOLAN-ITU, *supra* note 12, at 33.

79. *Id.* at 33, 36.

80. EUR. ENV'T AGENCY, USING THE MARKET FOR COST-EFFECTIVE ENVIRONMENTAL POLICY: MARKET-BASED INSTRUMENTS IN EUROPE 5 (EEA Report No. 1/2006 (2006)) [hereinafter EEA Report].

81. *Id.* at 6.

82. *Id.* at 5.

83. *See supra* Part II.

consumer to consider an “eco-efficient” type of behavior in order to avoid the tax.⁸⁴

Both the amount of the tax and its combination with other MBIs are relevant to creating an actual incentive to change consumer and producer behavior. If the taxes are high enough to successfully create an incentive, they often work to decrease pollution levels.⁸⁵ However, creators of the tax must still consider whether the tax is low enough to be realistic and affordable.⁸⁶ When two MBIs are used together as a package, the environmental effects are even more apparent.⁸⁷ For example, Denmark uses a combination of taxes and subsidies for the most effect.⁸⁸ The European Union taxes different fuels along with either the sale or registration of vehicles, leading to a large revenue collection and energy efficient cars with significantly less CO₂ emissions.⁸⁹ Having different taxes on the different types of fuels, such as sulfur or unleaded, has also successfully altered consumer choice, along with lowering air pollution.⁹⁰

*B. The Polluter Pays Principle*⁹¹

The Polluter Pays Principle (“PPP”) was first developed in 1972 by the Organization for Economic Cooperation and Development (“OECD”).⁹² The PPP was considered a way to avoid regulations, which could deplete free trade and change how the market operated.⁹³

84. *Id.*

85. *Id.* at 7.

86. *Id.* at 6.

87. *Id.* at 7.

88. *Id.*

89. *Id.*

90. *Id.*

91. STEVEN BERNSTEIN, *THE COMPROMISE OF LIBERAL ENVIRONMENTALISM* 51-52, 91, 115 (2001) (emphasizing that this principle is intended to be an economic principle, not one of liability). The PPP is intended to “internalize” the cost of pollution within a national market, not require developing nations to shoulder the burden of increasing pollution, which may occur during their country’s development. *Id.*

92. *Id.* at 50.

93. *Id.* at 51 (citing OECD, *Guiding Principles on the Environment*, 11 INT’L LEGAL MATERIALS 1172 (1972)); see also OECD, *THE POLLUTER PAYS PRINCIPLE* (1975).

It advanced as a popular theory in the late 1980s as part of a trend toward using MBIs to solve environmental problems.⁹⁴ The initially restricted meaning⁹⁵ gave way to the modern interpretation. The modern interpretation of the PPP looks only at the polluter carrying the costs of keeping the environment "in an acceptable state."⁹⁶ A wider interpretation is often used, which says that the polluter should pay for environmental recovery, lowering pollution, and victim damages.⁹⁷

While we cannot limit the pollution itself, we can create disincentives to polluting by implementing this principle. Direct regulations can be, and have been, put into place, and market incentives are manipulated so that the polluter must pay to pollute.⁹⁸ This creates protection for the environment while allowing for economic growth, instead of favoring one over the other.⁹⁹ Often, the broad use of MBIs is justified by legislatures under the PPP.¹⁰⁰ A plastic bag tax would likewise use this principle to advance the idea that the consumer using the bag should pay for the possibility that the bag will end up as litter.

C. Worldwide Legislation to Eliminate Plastic Bags in the Waste Stream

According to Clapp and Swanson,¹⁰¹ experts in the study of

94. BERNSTEIN, *supra* note 91, at 91.

95. At first, the OECD said the PPP meant governments should not financially support pollution reduction by the private polluters. *Id.* at 51. They were afraid that this sort of action would end up burdening citizens and eventually have an effect on trading. *Id.* Using the PPP, private polluters would be forced to pass on the price of producing their goods using more or less pollution. *Id.* Price differences, with polluters paying more for their pollution, ensure that people supporting polluters were required to pay more to support them. *Id.*

96. For more information, see EEA Report, *supra* note 80, at 13 and BERNSTEIN, *supra* note 91, at 51, both citing OECD, *Guiding Principles*, *supra* note 93.

97. EEA Report, *supra* note 80, at 13.

98. BERNSTEIN, *supra* note 91, at 51.

99. *Id.* at 52.

100. EEA Report, *supra* note 80, at 13.

101. Jennifer Clapp is a member of the Faculty of Environment at the University of Waterloo and at the Center for International Governance Innovation,

international norms,¹⁰² the development of plastic bag legislation worldwide is an anomaly in comparison to other international trends.¹⁰³ This is because the Southern Hemisphere latched onto the concept of eliminating plastic bags earlier than the Northern Hemisphere, and legislation appeared at various jurisdictional levels around the same time without any international efforts.¹⁰⁴

The theory behind this anomaly is that in southern countries, the link between the bags and their harmful effects is clear.¹⁰⁵ In India, citizens became concerned for “free-roaming sacred cows” which would eat the discarded bags, so jurisdictions enacted local regulations.¹⁰⁶ In Taiwan, fewer citizens were separating recyclables, and the increased incineration rate of the plastic bags with other garbage released toxic chemicals, leading to a ban.¹⁰⁷ In Sub-Saharan

also in Waterloo, Canada. Linda Swanston works at the Center for International Governance Innovation, as well. Jennifer Clapp & Linda Swanston, *Doing Away with Plastic Shopping Bags: International Patterns of Norm Emergence and Policy Implementation*, 18 ENV'T POL. 315 (2009).

102. Norms is a shorthand term for what people consider to be appropriate behavior. *Id.* at 316 (citing BERNSTEIN, *supra* note 91, at 29). Norm trends tend to become international through treaties, agreements, resolutions, and international organization's rules and standards. BERNSTEIN, *supra* note 91, at 30.

103. Clapp & Swanson, *supra* note 101, at 316.

104. *Id.*

105. *Id.* at 319; *see also* Ritch, Brennan & MacLeod, *supra* note 12, at 173.

106. Clapp & Swanston, *supra* note 101, at 319. In response, Maharashtra, a state on the western coast of India, amended section 5 of their Environment Protection Act of 1986, banning thin plastic bags, even thin recycled-plastic bags, and bags using dyes. *Plastics Unwrapped*, 33 ECON. & POL. WKLY. 3289, 3289, 1998-99, available at www.jstor.org/stable/4407504. All thick bags in Maharashtra must be stamped with the manufacturer's name and whether their product used recycled plastic. *Id.* Mumbai banned thin bags in 2000. *Plastic Bag Bans Around the World*, BBC NEWS SPECIAL REP., Feb. 28, 2008, http://news.bbc.co.uk/2/hi/in_depth/7268960.stm. Himachal Pradesh's Non-biodegradables Act of 1995 prohibits dispensing plastic bags. *Plastics Unwrapped*, *supra*. Bombay banned all plastic bag use and manufacturing. NOLAN-ITU, *supra* note 12, at 13.

107. Clapp & Swanston, *supra* note 101, at 320. Taiwan first banned the bags in government shops then expanded the ban in January 2003, with a number of exceptions, to other stores and supermarkets. News Alert, by Jean-Francois Tremblay, Taiwan Ban Opens New Market for Biodegradable Films, Cortec Corporation, available at http://www.cortecvci.com/whats_new/announcements/Taiwan%20Eco.pdf. This ban was removed by the Taiwan Environmental

Africa, the bags were used as toilets, and then left outdoors.¹⁰⁸ Once these "flying toilets" collect water, they created a potential breeding ground for mosquitoes,¹⁰⁹ so the country introduced a ban on thin bags and a levy on thick plastic bags.¹¹⁰

This combination ban on thin plastic bags and charge for thick plastic bags is popular for nations that consider waterproof bags a necessity. Following South Africa's example, Kenya and Uganda instituted a ban on thin plastic bags and levies on thicker bags in 2007.¹¹¹ In response to estimates that retailers use 1.75 billion plastic bags each year in some areas,¹¹² China banned the production, sale, and use of thin plastic bags in June 2008, and all thick bags are charged.¹¹³

Other nations preferred complete bans to eliminate plastic bags from the waste system. Bangladesh executed a complete ban on plastic bags in 2002, described in detail below.¹¹⁴ Realizing the severity of their problem, Eritrea, Rwanda, and Somalia banned plastic bags in 2005.¹¹⁵ In 2006, Tanzania did as well.¹¹⁶

Lagging behind are the northern nations. Ireland took charge in 2002 by executing a successful tax on the bags.¹¹⁷ While Switzerland

Protection Agency in March 2006 because they believed the policy to be ineffective. Ritch, Brennan & MacLeod, *supra* note 12, at 170; Carrier Bag Consortium, Taiwan Rescinds Plastics Bag Ban, www.carrierbagtax.com/taiwan.html (last visited Jan. 15, 2010).

108. Clapp & Swanston, *supra* note 101, at 321.

109. *Id.* (noting that mosquitoes in Africa frequently carry malaria and other diseases).

110. *See Plastic Bag Bans Around the World*, *supra* note 106.

111. *Id.*

112. These estimates were only for Shenzhen, a city in the province of Guangdong in southern China. Yuan Yuan, *Plastic, Not So Fantastic*, BEIJING REV., Apr. 11, 2008, http://www.bjreview.com/quotes/txt/2008-04/11/content_109760_2.htm. The province only began to offer the bags free in the 1980s. Ed. Yao Bin, Forum, *Will Banning Free Plastic Bags Reduce Pollution?*, BEIJING REV., Apr. 28, 2008, http://www.bjreview.com/print/txt/2008-04/28/content_113288.htm.

113. Yao Bin, *supra* note 112.

114. *Plastic Bag Bans Around the World*, *supra* note 106.

115. *Id.*

116. *Id.*

117. *Id.*; discussed *infra* Part IV.A.

requires a charge for the bags, most large grocers in Germany and Holland charge without legislation to do so.¹¹⁸ Belgium began taxing the bags in July 2007, and while France has a ban planned, many of the supermarkets decided to stop handing out the bags on their own accord.¹¹⁹ San Francisco was the first American city to ban the bags, which they did in March 2007.¹²⁰ Seattle's proposed tax was voted down after a rigorous campaign by the Coalition to Stop the Seattle Bag Tax,¹²¹ supported by nearly \$1.4 million in donations from the American Chemistry Council.¹²² Australia has implemented a voluntary program, while individual states and municipalities attempt to ban the bags on their own.¹²³ Toronto requires retailers to charge for each bag, while other towns have banned the bags completely; Ontario implemented a voluntary program in 2007.¹²⁴

Northern European countries, and possibly the United States, may be monetarily benefited by waiting to impose taxes on plastic bags.¹²⁵ Unlike developing countries, Europe has refined its taxing system over years of imposing environmental taxes.¹²⁶ The tax rates can thus be increased, and exemptions eliminated, to actually see results in decreasing pollution and natural resource consumption.¹²⁷ The United States, however, has focused on tax incentives, such as credits and deductions, and U.S. revenues from environmentally related taxes are

118. *Id.*

119. *Id.*

120. *Id.*; see also Jennie Reilly Romer, *The Evolution of San Francisco's Plastic Bag Ban*, 1 GOLDEN GATE U. ENVTL. L.J. 439, 463 (2007).

121. William Yardley, *Seattle Votes Down Fee on Bags*, N.Y. TIMES, Aug. 19, 2009, at A15.

122. American Chemistry Council donated an aggregate amount of \$1,356,388.69 to the Coalition to Stop the Seattle Bag Tax. Report of Bank Deposit, *The Coalition to Stop the Seattle Bag Tax*, July 27, 2009, available at www2.seattle.gov/ethics/eldata/filings/popfiling.asp?prguid=27ABBECC-0933-46BE-A83C-383B5E56F8D3.

123. Clapp & Swanson, *supra* note 101, at 320-21.

124. *Id.* at 322.

125. Janet Milne, Nancy Golubiewski & Cutler J. Cleveland, *Environmental Taxation in Europe and the United States*, ENCYCLOPEDIA OF EARTH, http://www.eoearth.org/article/Environmental_taxation_in_Europe_and_the_United_States (last visited Nov. 27, 2009).

126. *Id.*

127. *Id.*

thus significantly less than European countries.¹²⁸ This is still subject to change.

Delayed implementation is likely due in large part to industry actors.¹²⁹ The plastic manufacturing industry is the third largest manufacturing industry in the United States.¹³⁰ The industry provides jobs, can back up legal threats against legislation, and can afford to compete for consumers' hearts.¹³¹ The industry's strength may be why legislation is emerging mainly at a local level,¹³² and why it is not succeeding.

IV. FOCUS ON FOREIGN LEGISLATION AND PROPOSED U.S. LEGISLATION

A. Ireland

Pictures of the Irish countryside often depict beautiful fields, winding roads, and a sense of wonder. However, when the wind carries plastic bags down the winding roads to land in trees, shrubs, and other roadside foliage,¹³³ the picture no longer evokes that same wonder. Ireland wanted to eliminate the problem of plastic pollution, so the levy's focus was to be on minimizing waste instead of recovering plastic for recycling¹³⁴ or determining the optimal amount to tax.¹³⁵ With the strong commitment of the Ministry of Finance, and support from stakeholders, the Minister for the Environment was able

128. *Id.*

129. Clapp & Swanson, *supra* note 101, at 316.

130. Society of the Plastics Industry, Inc., A Few Fast Facts on . . . Plastics and the Economy, <http://www.plasticsindustry.org/AboutPlastics/content.cfm?ItemNumber=787&navItemNumber=1280> (last visited Jan. 15, 2010).

131. Clapp & Swanson, *supra* note 101, at 326-27.

132. *Id.* at 328; *see also supra* notes 156, 165-69, 178-79 and accompanying text.

133. Frank Convery, Simon McDonnell & Susan Ferreira, *The Most Popular Tax in Europe? Lessons from the Irish Plastic Bag Levy*, 38 ENVTL. & RESOURCE ECON. 1, 3 (2007); *see also* Killian, *supra* note 70, at 496 (stating that wind dispersal was not Ireland's only problem: the country was also overly dependent on landfills, which caused, for example, water contamination).

134. NOLAN-ITU, *supra* note 12, at 21.

135. Convery, McDonnell & Ferreira, *supra* note 133, at 3.

to propose a bill for implementing this levy.¹³⁶ To assist in eliminating plastic pollution, consumers were informed of the levy through television, posters, and billboard advertising before any legislation took effect.¹³⁷ The ads highlighted environmental problems, such as the bags' impact on the environment, to help consumers understand both how and why the levy will come into effect.¹³⁸ This combination of support and information was a major factor in the levy's success; the United States should attempt to emulate this combination.

The Irish levy on plastic bags took effect on March 4, 2002.¹³⁹ There are a number of exemptions from the tax,¹⁴⁰ which could have caused problems if the legislation was not specific about the scope of the levy. Retailers are charged €0.15 for each bag they purchase that is not exempt from the tax.¹⁴¹ The charge is then passed on to customers at the checkout when they take and use the plastic bags for their purchases.¹⁴² As a result, there is no concern about the levy causing competitiveness between retailers.¹⁴³ Retailers simply itemize the charge on their business records, which are inspected by the Revenue Commission.¹⁴⁴

The cost of implementing the tax was reasonable, which bodes well for the United States. Administration, advertising, and set-up costs totaled less than two million euro.¹⁴⁵ Retailers imposing the tax simply added the report into the tax collection system already in place,

136. *Id.* at 5.

137. NOLAN-ITU, *supra* note 12, at 22.

138. *Id.* at 22-23. For a glimpse at bags' impact on the environment, see Convery, McDonnell & Ferreira, *supra* note 133, at 4.

139. Waste Management (Environmental Levy) (Plastic Bag) Regulations 2001 (S.I. No. 605 of 2001) (Ir.) available at <http://www.irishstatutebook.ie/2001/en/si/0605.html> (last visited July 17, 2009) [hereinafter S.I. No. 605/2001].

140. *Id.* The exemptions include bags used for fresh fish, meat, or poultry, as long as these bags are limited in size, as well as bags used for produce, dairy products, cooked foods, confectionary, or ice. *Id.* Also exempt are bags for goods sold on ships or planes. *Id.*

141. *Id.* Note that the conversion is \$0.22 U.S. Coinmill.com, www.coinmill.com.

142. S.I. No. 605/2001, *supra* note 139.

143. Convery, McDonnell & Ferreira, *supra* note 133, at 4.

144. S.I. No. 605/2001, *supra* note 139.

145. Convery, McDonnell & Ferreira, *supra* note 133, at 6.

lowering the amount of potential paperwork.¹⁴⁶ After implementation, retailers continued to report significant savings due to the decrease in purchasing plastic bags.¹⁴⁷ This benefit to retailers is accompanied by a benefit to the country itself because the revenue collected supports a number of environmental programs.¹⁴⁸ Yet, as the United States is currently concerned with an economic recession, this may not be the ideal benefit for an American tax.

The levy exceeded Ireland's environmental goals by decreasing plastic bag consumption while avoiding some concerns raised by skeptics.¹⁴⁹ While theft might have been an issue in implementing the tax, it has not proved to be one yet for Ireland.¹⁵⁰ The only theft increase encountered was the theft of baskets provided by the store.¹⁵¹ Also, unlike some may have anticipated before the levy was in effect, paper bags did not replace plastic at grocery stores.¹⁵² By the end of August 2002, demand was down ninety percent overall, and the sale of reusable bags was up.¹⁵³ Retailers have even become promoters of the tax, despite their initial misgivings.¹⁵⁴ The focus now is on continuing to change the "crazed environmentalist" image associated with cloth bags to one of a "smart, progressive person,"¹⁵⁵ as the United States should strive to do.

Even with these results, Ireland increased the tax by fifty percent when use of plastic bags began to increase again.¹⁵⁶ Aside from this necessary increase, one downside of the tax seems to be that the amount of revenue collected from the levy is much lower than expected due to the levy's marketing success.¹⁵⁷ Another downside is

146. *Id.* at 7.

147. *Id.*

148. *Id.* at 4.

149. NOLAN-ITU, *supra* note 12, at 23, 24.

150. *Id.* at 24.

151. *Id.*

152. *Id.* at 13.

153. *Id.* at 23.

154. Elisabeth Rosenthal, *With Irish Tax, Plastic Bags Go the Way of the Snakes*, N.Y. TIMES, Feb. 2, 2008, at A3.

155. *Id.*

156. *Id.*

157. NOLAN-ITU, *supra* note 12, at 25.

that eliminating the tax would be politically damaging due to its popularity with the Irish citizens.¹⁵⁸ This public support seems to be the leg on which the legislation stands, and on which the United States needs to focus.

B. South Africa

South Africa was using eight billion plastic bags a year¹⁵⁹ when, on a whim, the Environmental Affairs minister called the bag South Africa's "national flower" and mentioned thoughts of a ban.¹⁶⁰ After garnering public support, he proposed a ban that would allow only bags thicker than thirty microns, with a quickly rising threshold to eighty microns.¹⁶¹ The R440-million a year plastics industry, which employed over 4000 people in fifty companies, was not happy because many companies could not afford to comply with the new threshold.¹⁶² Retailers and trade unions vocally objected, citing increasing costs and job loss as major concerns.¹⁶³ None of the above parties were consulted to help create the regulations, and their objections made the ban impossible to implement.¹⁶⁴

In order to make the combination tax and ban a reality, retailers, trade unionists, plastic industry stakeholders, and government officials met to agree on implementing a levy.¹⁶⁵ They recognized nine areas¹⁶⁶ which needed to be agreed upon and continued to compromise on

158. Convery, McDonnell & Ferreira, *supra* note 133, at 2.

159. NOLAN-ITU, *supra* note 12, at 25.

160. Colleen Dardagan, *Plastic Bag Levy Millions Go Missing*, CAPE TIMES (South Africa), Jul. 22, 2009, at 1.

161. Killian, *supra* note 70, at 503.

162. *Id.* R440 million is equal to about \$58,124,151.17 U.S. Conversion done by Coinmill.com, www.coinmill.com.

163. *Id.*

164. *Id.* at 504.

165. *Id.*

166. The first eight areas considered were: 1) the thickness of the bags, 2) disclosure to customers, 3) using ink printing on the bags, 4) imposing levies, 5) preventing illegal bag importation, 6) creating a market for recycled material, 7) creating jobs, and 8) creating an organization dedicated to education programs. The ninth area was promoting the campaign itself. *An Overview of the Plastic Bag Agreement*, STAR, Apr. 29, 2003, www.environment.gov.za/hotissues/2003apr30/overview_plastic_bag_29042003.html.

these areas. Industry stakeholders thus agreed to work to avoid job loss over the five years during which the thin bags would be phased out.¹⁶⁷ In addition to a time limit for phasing out thin bags, customers were to be informed of the extra charge, ink was limited based on ecological harm, and levies were set up.¹⁶⁸ A company was also developed to assist in educating consumers about recycling and environmental issues.¹⁶⁹ This meeting was a critical first step.

The finalized tax was implemented on May 9, 2003.¹⁷⁰ Creators of the tax intended to influence and change taxpayers' behavior, as well as raise revenue.¹⁷¹ The newly created levy varied with the size of the bag, with a twenty-four liter bag costing 46c,¹⁷² and met the eighty micron threshold over a five year period.¹⁷³ This meant that neither retailers nor manufacturers were immediately inconvenienced by the need to comply with the regulation.¹⁷⁴ Once the allotted time passed, the regulation imposed a criminal penalty of a large fine and/or imprisonment for manufacturing, trading, or commercially distributing thin plastic bags.¹⁷⁵ Specific criminal penalties should be avoided by the United States, however, as penalties are geared more towards imposing a ban than a tax.

In the first three months, use of the thin plastic bags fell around eighty percent, and fewer animals, such as cattle, were affected by the litter.¹⁷⁶ Waste managers received significantly less plastic bag waste,

167. *Id.*

168. *Id.*

169. *Id.*

170. Killian, *supra* note 70, at 504.

171. *Id.* at 491.

172. Reviva Hasson, Anthony Leiman & Martin Visser, *The Economics of Plastic Bag Legislation in South Africa*, 75 S. AFR. J. OF ECON. 66, 67 (2007); Killian, *supra* note 70, at 504.

173. Killian, *supra* note 70, at 504.

174. *Cosatu Welcomes Plastic Bag Agreement as a Victory for Consultation*, STAR, Apr. 29, 2003, http://www.environment.gov.za/NewsMedia/Articles/2003Apr29_2/plastic_bag_thestar_29042003.html. COSATU stands for the Congress of South African Trade Unions, a major player in the creation of the levy. Killian, *supra* note 70, at 504.

175. Government Notice (GN) R625/2003.

176. Dr. Crispian Oliver, *Plastic Bag Deal is Going Well, With Rapid Fall in Waste*, CAPE TIMES (South Africa), July 3, 2003, available at http://www.environment.gov.za/newsmedia/articles/2003jul3/plastic_bags_chippy_0

314 CALIFORNIA WESTERN INTERNATIONAL LAW JOURNAL [Vol. 40

and retailers monitored how the savings from eliminating the bags were being passed on to customers.¹⁷⁷ Within months, plastic bag producers lowered their prices.¹⁷⁸ Unfortunately, the lower price led to consumers being taxed 17c per bag, as opposed to the earlier 46c, so consumers started using more bags again.¹⁷⁹

There were other problems with long-term implementation. The statute was not specific enough concerning who was subject to the tax, and parties took advantage of this by refusing to remain part of the agreement¹⁸⁰ or by taxing only grocery bags.¹⁸¹ In addition, the drastic drop in bag usage led to a number of industry workers being let go in April 2004.¹⁸² The industry could have quickly determined how to take advantage of the new situation¹⁸³ or anticipated the problem and developed potential solutions beforehand, as the United States should do.

For South Africa, the main problem to date is the inefficient collection and use of the revenue from the tax,¹⁸⁴ which the United States will likely be able to avoid because of its developed tax collection system. If there is no organization to collection of the levy, there is less incentive for retailers to enforce it consistently. This could lead to increased usage of plastic bags, which would again become litter without a proper recycling program.

There were two other lessons learned. Studies noted that the initial “price shock” created by the levy had the most impact on South African consumer behavior, causing consumers to reduce their plastic

3072003.html.

177. *Id.*

178. Hasson et al., *supra* note 172, at 68.

179. *Id.*

180. *See id.* at 67 n.5 (noting that this change was mainly due to stores reporting an increase in shoplifting).

181. Killian, *supra* note 70, at 505.

182. *Id.*

183. Oliver, *Plastic Bag Deal is Going Well*, *supra* note 176.

184. The National Treasury is allegedly having trouble locating R270 million in levies, a significant portion of the R360 million collected over the past five years or so. Dardagan, *supra* note 160. Eight buy-back centers were also going to be paid for with the revenue gathered, only two of which are currently operating. *Id.*; *see also* Consumer Watch, *Time for Consumers to Resume Bag Habits*, CAPE TIMES (South Africa), Apr. 7, 2008, at 10.

bag use.¹⁸⁵ Therefore, the United States should focus on the initial impression of the tax. Once the public became familiar with the charge and the price on the bags decreased, consumption began to increase¹⁸⁶ but was still "significantly lower" than before the tax was implemented.¹⁸⁷ Additionally, fears that the levy would have a disproportionate impact on the poor were determined to be essentially unfounded.¹⁸⁸ The options offered with thicker bags and reusable bags, which could be used for many different activities, provided enough of a cushion to avoid problems.¹⁸⁹ While the tax is not yet ideal, it provides a strong starting point for other nations.

C. Bangladesh

Before plastic bags showed up in the early 1980s, Bangladesh was home to a thriving jute industry.¹⁹⁰ In the years between 1984 and 1990, the number of plastic manufacturing factories in the country rose from 16 to 300,¹⁹¹ and the jute factories began closing.¹⁹² The plastic industry had a strong and growing presence in Bangladesh,¹⁹³

185. Hasson et al., *supra* note 172, at 79.

186. *Id.*

187. Consumer Watch, *supra* note 184.

188. Hasson et al., *supra* note 172, at 79.

189. *Id.*

190. REAZUDDIN ET AL., BANNING POLYETHYLENE SHOPPING BAGS: A STEP FORWARD TO PROMOTING ENVIRONMENTALLY SUSTAINABLE DEVELOPMENT IN BANGLADESH 2 (Bangl. Ctr. for Advanced Studies 2006), *available at* <http://ekh.unep.org/files/Paper%20on%20Polythene.doc>. See ENCYCLOPEDIA BRITANNICA: SCIENCE AND TECHNOLOGY, *available at* <http://www.britannica.com/EBchecked/topic/308941/jute> (last visited Nov. 13, 2009) (defining *jute* as fiber obtained from one of two species of jute plant: white jute or hibiscus). The jute plants grow up to twelve feet, and the fiber is found within the finger-width stem. *Id.* After the surrounding gummy material is dissolved and washed away, the fibers are softened and made into yarn. *Id.* The yarn is used to make mats, back Oriental rugs, and to create the material for burlap sacks. *Id.*

191. Arshad Mahmud, *Cash and Carry On: Battle Rages over Bangladeshi Government's Ban on 'Killer' Plastic Bags*, GUARDIAN, March 27, 2002, at 9.

192. See REAZUDDIN ET AL., *supra* note 190, at 2.

193. *Id.* at 4. The industry employs approximately 25,000 people in the manufacturing and recycling stages. *Id.* Their over-eight-hour workday produced 130 million bags per day, and eighty percent of the bags were thick plastic. *Id.* Tk 2.25 billion, or over \$32 million, was estimated as the fixed capita invested. *Id.* A

and surveys reported ten million plastic bags were used every day.¹⁹⁴ Only ten to twenty percent of these bags were thrown into bins, while the rest were discarded haphazardly.¹⁹⁵ This popularity led to dangerous side effects.¹⁹⁶

In 1998, Bangladesh experienced a severe flood where two-thirds of the country was knee deep in water for two months.¹⁹⁷ In Dhaka City, recession of the flood was delayed by plastic bags clogging the sewers.¹⁹⁸ After this tragedy, a detailed study linked many crises in Dhaka City, such as epidemics and soil damage, to the bags and broken down plastic.¹⁹⁹ Even more critical, one of Bangladesh's recycling options consists of burning plastic bags, and burning the bags releases poisonous gas into the air.²⁰⁰ Having such a pronounced connection between the bags and their negative effects served to unite the country in eliminating the problem.²⁰¹ American consumers would benefit from learning of this connection, which often is not felt by everyday consumers.

Campaigns began against plastic bag production in Bangladesh as early as 1992.²⁰² Both the Environment and Social Development Organization ("ESDO") and the Ministry of Environment and Forest ("MEF") were behind plastic bag banning initiatives,²⁰³ demonstrating how strong government support can assist in creating legislation. After the 2001 elections, the new government implemented a 100-day "crash programme" where the MEF made bag banning their main campaign.²⁰⁴ A meeting was organized involving anyone with a stake

majority of the production and recycling factories were located in old Dhaka, where many citizens experienced symptoms from dizziness to sores to skin cancers. Mahmud, *supra* note 191, at 9. Experts traced the illnesses back to dioxin and hydrogen cyanide, which are released into the air when polyethylene is burned. *Id.*

194. REAZUDDIN ET AL., *supra* note 190, at 2-3.

195. Mahmud, *supra* note 191.

196. REAZUDDIN ET AL., *supra* note 190, at 3.

197. *Id.*

198. *Id.*

199. *Id.* at 4.

200. *Id.* at 3.

201. *Id.* at 5.

202. *Id.*

203. *Id.*

204. *Id.* at 5.

in the industry, from the raw importers to the jute producers to the press,²⁰⁵ as in South Africa.²⁰⁶ The public rallied behind the campaign, spontaneously joining pro-ban processions.²⁰⁷

With this support, Dhaka City imposed a ban on thin bags.²⁰⁸ Its success raised the public's awareness, and television ads and documentaries were aired free of cost to help plan for the nationwide ban.²⁰⁹ Again, the combination of government support and marketing led to the legislation's enactment.

On March 1, 2002, the Environment Conservation Act of 1995 was revised.²¹⁰ The amendment was passed with no opposition, and finally allowed a national ban.²¹¹ To assist in collection, the government also created a taskforce comprised of multiple law enforcement agencies to ensure compliance.²¹² Lastly, a bill was introduced to impose a severe fine and/or imprisonment to those producing bags and a mandatory fine on citizens found using them.²¹³ As the United States does not have the same serious health concerns arising from use of plastic bags, criminal penalties and bans are for the moment unnecessary. The process of obtaining the ban, however, is significant.

While the ban has received much support, not everyone is happy. Shajahan Siraj, the Minister of MEF, has been offered hundreds of thousands in bribes to abolish the ban.²¹⁴ Hossain Shahriar,²¹⁵

205. *Id.*

206. *See* discussion *supra* Part IV.B.

207. *Id.*

208. *Id.* at 6.

209. *Id.* at 7.

210. *Id.* at 8.

211. *Id.* The ban allows the government to impose an "absolute ban on the manufacture, import, marketing, sale, demonstration for sale, stock, distribution, commercial carriage or commercial use, or allow the operation or management of such activities" if the government finds that the polyethylene products are environmentally harmful. *Id.* There is a waiver for certain products, especially those "related to life saving drugs," which are exempt from the ban until there are available alternatives. *Id.*

212. *Id.* at 9.

213. Mahmud, *supra* note 191.

214. *Id.*

215. Shahriar spent thirteen years fighting against the use of plastic bags in Bangladesh and was crucial in the creation of the ban itself. *Id.* He works as an

318 CALIFORNIA WESTERN INTERNATIONAL LAW JOURNAL [Vol. 40

executive director of the ESDO, received an e-mail threatening his life.²¹⁶ This backlash has contributed to the confusion felt since the implementation of the ban.²¹⁷ Officials are uncertain what types of plastic bags have actually been banned, and the lack of manpower to enforce the ban makes the legislation something of an empty threat.²¹⁸

By 2006, thin plastic bags were again readily available, with some factories displaying fraudulent Department of Environment certificates “approving” the manufacturing of the bags.²¹⁹ While the Bangladesh Centre for Advanced Studies encourages the government’s closing of these factories, closures have not been easy.²²⁰ Plastic bags are still cheaper to make and buy than the alternatives, and this makes the business lucrative.²²¹ The United States hopefully can avoid this deception by ensuring collection through the Internal Revenue Service.

Now, the Bangladesh government hopes the mobile courts will begin taking stronger measures in ensuring the ban is understood and followed.²²² Yet, one question remains on the mind of the President of the Bangladesh Plastic Goods Manufacturers’ Association: “[I]f [the plastic bags] were that serious, why is the developed world still using them[?]”²²³

D. House Bill 2091

On April 23, 2009, Representative Moran of Virginia proposed the “Plastic Bag Reduction Act of 2009.”²²⁴ The Act would have amended the Internal Revenue Code of 1986 to add a \$0.05 tax at the

environmental journalist in addition to running the ESDO. *Id.*

216. *Id.*

217. Golam Mortuza Antu, *Govt to Tighten Screws on Polybag Makers*, BDNEWS24.COM, Aug. 12, 2009, <http://bdnews24.com/details.php?id=140057&cid=2>.

218. *Id.*

219. *Id.*

220. Vidal & Stanway, *supra* note 61.

221. Antu, *supra* note 217; *see also* Mahmud, *supra* note 191.

222. *Id.*

223. Mahmud, *supra* note 191.

224. H.R. 2091, 111th Cong. (1st Sess. 2009).

point of sale, imposed by retailers.²²⁵ The tax, if passed, would have been effective as of January 1, 2010, increasing the tax to \$0.25 on January 1, 2015.²²⁶ A higher initial tax, similar to the tax in both Ireland and South Africa, would be more likely to have an impact on bag consumption, due to the generated "price shock,"²²⁷ and would create a sense of consistency by avoiding a drastic increase in the tax rate.²²⁸ Furthermore, it is questionable whether the initial five-cent tax is large enough to significantly impact consumer behavior and address environmental problems.

The tax would be imposed on the customer as a sale, and records must be kept to determine the amount of bags bought and costs passed on to the customer, as with any other sale.²²⁹ These records will fit in with the American tax system already in place, as did Ireland's levy.²³⁰ The term "single-use bag" as applied by the statute covers not only grocery bags, but dry-cleaning bags, take-out food bags, retail bags, and gas station bags.²³¹ The bill also specifies exceptions.²³² As the bill is developed, one problem, which arose in Bangladesh and South Africa and may occur here if the bill does not remain specific, is confusion as to what products and which businesses fall under the exceptions.²³³

The revenue earned will be placed into a trust fund, which is to be established by the Treasury, to help states and localities establish bag taxes and to make payments to the retailer.²³⁴ If retailers impose the tax, provide the bags, and have a qualified bag recycling program, \$0.01 may be returned to them by the Secretary for each bag used.²³⁵

225. H.R. 2091 § 4056(b).

226. *Id.* To date, the bill has not been enacted. However, the details of the bill will be discussed to assess the bill's potential success if it is passed in the future.

227. *See supra* text accompanying notes 187-89.

228. *See infra* note 268, 314 and accompanying text.

229. H.R. 2091 § 4056.

230. *See supra* note 146 and accompanying text.

231. H.R. 2091 § 4056(d)(1)(A).

232. H.R. 2091 § 4056(d)(1)(B). Specifically, reusable bags, bags used within the store to separate bulk items, those used for prescription drugs, and those intended as garbage, yard, or pet waste bags. *Id.*

233. *See supra* notes 180-81, 214-15, and accompanying text.

234. H.R. 2091 § 9511.

235. H.R. 2091 § 6433.

320 CALIFORNIA WESTERN INTERNATIONAL LAW JOURNAL [Vol. 40]

Periodically, payments will be made into the Land and Water Conservation Fund, totaling one penny for every five collected.²³⁶ Both Ireland and South Africa took a similar route,²³⁷ but the United States should look elsewhere, as discussed below.

There are requirements within the bill for a program to be a qualified bag recycling program.²³⁸ Each bag should have printed on it, "Please Return to a Participating Store for Recycling," and the bins for recycling must be visible, accessible, and clearly marked for recycling of plastic bags.²³⁹ The retailer must offer reusable bags for sale, and, lastly, must keep records for three or more years concerning the "collection, transport, and recycling" of the bags collected by the store.²⁴⁰ This program allows for a limited marketing and advertising program, but is not nearly as informative as Bangladesh's national campaign.²⁴¹

Lastly, the Comptroller General is required to determine the effectiveness of the tax after two years.²⁴² This will allow Congress to make any necessary adjustments after it is instituted. This ability to change the tax to fit industry and environmental requirements was necessary for successful implementation in both South Africa and Ireland.²⁴³ Yet, Ireland, South Africa, and Bangladesh began their levies and bans with strong government support and influential marketing campaigns.²⁴⁴ With the Plastic Bag Reduction Act, there is the possibility of success, but with only one sponsor and no public or industry support, the bill will remain a "thought piece."²⁴⁵

236. H.R. 2091 § 9511(d).

237. *See supra* notes 148, 171 and accompanying text.

238. H.R. 2091 § 6433(c).

239. *Id.*

240. *Id.*

241. *See supra* notes 202-06 and accompanying text.

242. H.R. 2091 § 9511(d).

243. *See supra* notes 156, 165-69, 178-79 and accompanying text.

244. *See supra* notes 135-38, 160, 201-06 and accompanying text.

245. Telephone Interview with Tim Aiken, Legislative Dir., Capitol Hill Office of Representative Moran (Aug. 27, 2009).

V. ONE STEP FORWARD: PROPOSED REVISIONS TO HOUSE BILL 2091

A. *Constitutionality of a Plastic Bag Tax*

More and more local legislation is being proposed to ban or tax plastic bags on a local level.²⁴⁶ This proliferation of plastic bag legislation shows that it is a vital matter that needs to be considered. However, monetary and legal roadblocks are effectively stopping the legislation from being implemented, either directly or indirectly.

For example, Manhattan Beach, a town in California of less than 34,000, banned the use of plastic bags.²⁴⁷ The ban was challenged by the Save the Plastic Bag Coalition ("SPBC") under the California Environmental Quality Act ("CEQA"),²⁴⁸ which requires environmental impact reports ("EIR") to be made when public agency

246. For example, Seattle considered a twenty-cent fee on plastic bags which was voted down. Yardley, *supra* note 121. Philadelphia also recently voted down its proposals on plastic bag twenty-five cent fees and plastic bag bans. Sandy Bauers, *Philadelphia Council Rejects Plastic-Bag Ban*, PHILA. INQUIRER, June 19, 2009, at A01. The state of Connecticut's legislature is considering a five-cent tax, which it estimates could raise nearly \$20 million per year. Gregory B. Hladky, *Lawmakers Consider Statewide Tax on Disposable Shopping Bags*, N.Y. TIMES, May 13, 2009, at CT5. New York came up with the similar figure of \$16 million which could be raised by a six-cent fee imposed on plastic bags by Mayor Bloomberg. David W. Chen, *In Mayor's Plan, the Plastic Bag Will Carry a Fee*, N.Y. TIMES, Nov. 6, 2008, at A1; *see also* Hladky, *supra*. Some green supporters suggest that if transactions using plastic bags take longer, it will be as significant a deterrence as a tax, or when used in addition to a tax. Susan Dominus, *6 Cents is 6 Cents, but Time? Now That's Really Worth Something*, N.Y. TIMES, Nov. 9, 2008, at A25. Baltimore is considering the slightly higher fee of twenty-five cents, though some believe that after Ireland's example, a lower tax may still work, and is more likely to pass legislative scrutiny. Karen Hosler, *Bag This Bad Habit: To Alter Behavior, Charge a Fee and Say Why it's Needed*, BALT. SUN, July 10, 2009, at 25A. Washington has successfully passed a combination tax and ban, which bans non-recyclable bags and imposes a five cent fee on recyclable plastic bags and on paper bags. Gary Emerling & Stephanie Kassab, *D.C. Tax Would Sack Free Use of Plastic Bags; Council Votes to Go More Green*, WASH. TIMES, June 3, 2009, at A01. Proceeds would focus on cleaning up the Anacostia River. *Id.* Unfortunately, many disagree with the concept of imposing legislation which is intended to benefit the environment, claiming that efforts such as a plastic bag tax are ineffective. Gleason, *supra* note 12.

247. *Save the Plastic Bag Coal. v. City of Manhattan Beach*, No. BS116362, at 3 (L.A. Sup. Ct., Feb. 2, 2009) (order granting Petition for Writ of Mandate).

248. *Id.* at 1.

action would have a significant impact on the environment.²⁴⁹ The court agreed that Manhattan Beach violated the act by not creating an EIR comparing paper and plastic bags.²⁵⁰

This is not the only case arguing for an EIR to be created before legislation is imposed. SPBC filed suit in 2008 against Los Angeles County, and the Coalition to Support Plastic Bag Recycling sued the city of Oakland.²⁵¹ Numerous other cities have been threatened with suit after considering legislation to reduce the use of plastic bags.²⁵²

Under the proposed federal tax, some may argue that a burden falls upon the Internal Revenue Service (“IRS”) to prepare a similar environmental impact statement (“EIS”) under the National Environmental Policy Act (“NEPA”).²⁵³ While this may seem like a valid argument, this EIS requirement will most likely not be an issue for national legislation. Though the act targets agencies, it does not apply to proposed actions of Congress.²⁵⁴ The tax in question would be proposed and implemented by Congress; it is not an agency action

249. CAL. PUB. RES. CODE §§ 21000-21177 (West 2009); CAL. CODE REGS. tit. 14, ch. 3, §§ 15000-15387 (2009).

250. *Save the Plastic Bag Coal.*, No. BS116362 at 1.

251. CARPINTERIA CITY COUNCIL, STAFF REPORT: ITEM FOR COUNCIL CONSIDERATION: UPDATE ON LITIGATION AND STATE LEGISLATION CONCERNING LOCAL REGULATIONS OF LIGHT WEIGHT PLASTIC SHOPPING BAGS (May 11, 2009), available at <http://www.carpinteria.ca.us/agendas/cc/ccit08051109.pdf> [hereinafter STAFF REPORT]. Oakland’s ordinance was invalidated because the city had not also considered the environmental impact of increased use of paper bags. *Id.*

252. Namely: Palo Alto, San Jose, San Diego, Santa Clara County, Santa Cruz, Santa Monica, Fairfax, Mountain View, and Morgan Hill. *Id.*

253. Similar to CEQA, NEPA requires all agencies to submit a “detailed statement” along with any report that proposes legislation or action that significantly affects the “quality of the human environment.” National Environmental Policy Act of 1969, 42 U.S.C. § 4332 (2006). The Act emphasizes the requirement of “all agencies of the Federal Government” to comply with the requirements of the NEPA. *Id.* Compliance is thus not limited to environmental agencies.

254. RONALD E. BASS, ALBERT I. HERSON & KENNETH M. BOGDAN, THE NEPA BOOK: A STEP-BY-STEP GUIDE ON HOW TO COMPLY WITH THE NATIONAL ENVIRONMENTAL POLICY ACT 16 (Solano Press Books 2d ed. 2001); 40 C.F.R. §§ 1500.3, 1508.12 (2009) (defining federal agencies as excluding Congress, the Judiciary, and the President); Center for Environmental Quality, Forty Questions No. 31(a), <http://ceq.hss.doe.gov/nepa/regs/40/30-40.HTM#31> (last visited Nov. 27, 2009).

which might be subject to NEPA.²⁵⁵ In addition, the IRS would not have any discretion in implementing the tax.²⁵⁶ The tax would conform to rules already in place, much like the Irish levy.²⁵⁷ An attempt here to apply NEPA would seem to be an attempt to undermine Congress' exemption from creating EISs.

Another concern which detractors may question is the absence of any express preemption clauses.²⁵⁸ This is mainly a concern with how the tax affects the California state law stating that plastic bags cannot be taxed, and the interaction with any local bans.²⁵⁹ While the prohibition on taxing seems to directly contradict the proposed national legislation, the federal government has broad power to tax, only limited by other constitutional provisions.²⁶⁰ The statute does not need to expressly preempt the state or local laws because the prohibition can remain in place as applied to local governments, leaving only the Federal Government to collect any tax revenue.

Lastly, there is a general presumption that taxes instituted by Congress are valid²⁶¹ under the power of taxation granted in the Constitution.²⁶² There is, however, an argument against this

255. Telephone Interview with Robert Hargrove, Division Dir., NEPA Compliance Division, Environmental Protection Agency (Nov. 19, 2009).

256. *Id.* When there is no independent agency discretion, it is significantly less likely that NEPA will apply. *Id.*

257. *See* discussion *supra* Part IV.A.

258. Laws passed by Congress are among the "supreme Law of the Land; . . . Laws of any State to the Contrary notwithstanding." U.S. CONST. art. VI, cl. 2. Congress can either expressly state a statute's "pre-emptive intent" or it can be implied through the construction and objectives desired from the statute. *Altria Group, Inc. v. Good*, 129 S. Ct. 538, 543 (2008). This intent, even if expressed, can be inferred as to scope of displacement. *Id.* If the language of the statute indicates that Congress intended federal law to fully occupy the field in question, or if application of both federal and state law creates an "actual conflict," then intent to preempt can be inferred. *Id.* (citing *Freightliner Corp. v. Myrick*, 514 U.S. 280, 287 (1995)).

259. A.B. 2449, § 2, 2005-2006 Gen. Assem., Reg. Sess. (Cal. 2006) (enacting CAL. PUB. RES. CODE § 42254(b) (2008)) *noted in* *Romer*, *supra* note 120, at 463.

260. ERWIN CHERMERINSKY, CONSTITUTIONAL LAW: PRINCIPLES AND POLICIES 274 (Aspen Publishers 3d ed. 2006).

261. *Id.* As long as the tax does not violate other constitutional provisions it is presumed to be valid. *Id.* *See also* *Bailey v. Drexel Furniture Co.*, 259 U.S. 20, 37-38 (1922).

262. US CONST. art. I, § 8, cl. 1 ("Congress shall have Power To lay and

324 CALIFORNIA WESTERN INTERNATIONAL LAW JOURNAL [Vol. 40]

presumption which must be addressed.²⁶³ If the federal government has the power to impose the tax, but does not have the power to regulate the environmental activity, then the tax may be a penalty, making it invalid.²⁶⁴ Most of Congress' regulatory power comes from the Commerce Clause,²⁶⁵ covering economic activities which "substantially affect . . . interstate commerce."²⁶⁶

As early as 1920, courts recognized the importance of certain environmental protections and granted Congress the authority to create laws protecting the environment under the Commerce Clause.²⁶⁷ Since then, the national government created many environmental protections using authority granted under the Commerce Clause.²⁶⁸ Unfortunately, more recent cases seem to

collect Taxes, Duties, Imposts and Excises.").

263. Arguments against the presumption of validity are important to address in light of recent arguments made concerning President Obama's health care reform. One element of the reform suggests that every citizen is required to have health insurance. David B. Rivkin, Jr. & Lee A. Casey, *Illegal Health Reform*, WASH. POST, Aug. 22, 2009, at A15. The problem with this requirement is that it cannot be regulated under Congress' limited Commerce Clause power. *Id.* The only other powers which could affect the entire nation are the powers to either tax or spend. *Id.* The power to tax, while allowed for regulatory purposes, remains limited to conduct which is not beyond regulatory powers such as the Commerce Clause. *Id.* See also Michael C. Dorf, *The Constitutionality of Health Insurance Reform, Part II: Congressional Power*, FINDLAW, Nov. 2, 2009, <http://writ.news.findlaw.com/dorf/20091102.html>.

264. *Bailey*, 259 U.S. at 38. The distinction between penalty and revenue-raising taxes seems arbitrary because there is no apparent constitutional principle saying taxes cannot be regulatory. CHEMERINSKY, *supra* note 260, at 277.

265. The clause gives Congress the authority to "regulate commerce . . . among the several states." U.S. CONST. art. I, § 8, cl. 3.

266. *U.S. v. Lopez*, 514 U.S. 549, 567 (1995).

267. Justice Oliver Wendell Holmes elucidated the necessity of national legislation where the subject in question was transitory between states, but needed regulation. *Missouri v. Holland*, 252 U.S. 416, 434 (1920). He said that in that situation, it "is not sufficient to rely upon the States" to regulate a national concern. *Id.* at 435. There, migratory birds were protected under a treaty between the United States and Great Britain, and statutes were put into place under the treaty. *Id.* at 431. These statutes were challenged as unconstitutional under the Tenth Amendment because regulation was the job of the states. *Id.* at 431. The Court disagreed, saying that this "national interest" could only be protected by "national action." *Id.* at 435.

268. SHARON BUCCINO, TIM DOWLING, DOUG KENDALL & ELAINE WEISS, *HOSTILE ENVIRONMENT: HOW ACTIVIST JUDGES THREATEN OUR AIR, WATER, AND*

indicate that courts no longer consider the environment an important national interest falling under Commerce Clause power.²⁶⁹ Yet, the bags are commercial products that flow through the stream of interstate commerce.²⁷⁰ They are purchased by the retailers to be given to customers, much like receipt paper. While the bags would be regulated in part due to their environmental impact, they are not as easily dismissed as non-economic and thus are subject to regulation by Congress under the Commerce Clause.

In today's tight economy, a tax may be the best way to impose governmental authority to prevent future harm. In addition, any legislation implemented by Congress and enforced by the IRS will avoid patchwork legislation which may occur if states and localities implement taxes or bans independently.²⁷¹ Having consistent, national legislation will aid consumers in becoming fully informed and understanding the importance of eliminating disposable bags. In Bangladesh, Dhaka City served as a 'test run' for the ban, to determine its likelihood of success.²⁷² In the United States, the strong backlash from the plastic industry essentially prohibits these 'test runs' of the tax that educate the consumers.²⁷³ Yet, the growing popularity of plastic bag legislation around the world indicates that it is in the United States' best interest to set an example for developing nations. By showing national support for the tax, America would be doing just that.

LAND 4 (2001). This use of the Commerce Clause is due to the fact that external costs of manufacturing and land use are often some form of environmental degradation affecting citizens of other states. *Id.* at 4. They are considered economic for many reasons. For example, species protection can be upheld as economic due to tourism and scientific research. *Id.* at 7.

269. *Id.* at 4-5. In 2001, the Supreme Court hinted that Congress may not have authority to regulate activities affecting migratory birds under the Commerce Clause. *Solid Waste Agency of N. Cook County v. U.S. Army Corps of Eng'rs*, 531 U.S. 159, 173 (2001), *noted in* BUCCINO ET AL., *supra* note 268.

270. *See Lopez*, 514 U.S. at 567.

271. Similar concerns are addressed in a discussion of the EPA implementing a national carbon label scheme. For any carbon label to effectively alter consumer behavior, consumers need consistency. Stacey R. O'Neill, Comment, *Consuming for the Environment: A Proposal for Carbon Labels in the United States*, 39 CAL. W. INT'L L.J. 393, 436 (2009).

272. *See* discussion *supra* Part IV.C.

273. *See supra* note 243 and text accompanying notes 127-31.

B. Suggestions for Improving House Bill 2091

In creating a more successful environmental tax, there is a “checklist of factors” which may help indicate positive changes or steps to take.²⁷⁴ One factor is to allow participation from the interest groups involved.²⁷⁵ Both Bangladesh and South Africa saw this as a requirement in actually implementing legislation.²⁷⁶ So, the United States should also consider meeting with industry stakeholders to share opinions on the tax. Legislators should also determine which issue the tax addresses and identify unacceptable trade-offs in implementation.²⁷⁷ For example, if Congress implements a tax to generate revenue more than solve environmental problems, then the tax may be lower so the use of plastic bags is not discouraged. In that case, it may be considered unacceptable for the tax to rise above a certain level.

The Legislature should also consider whether the tax rate accurately reflects its environmental purposes, whether it should be isolated or joined with other policy instruments, and the destination of the revenues raised by the tax.²⁷⁸ If the tax is combined with other policy measures, it may be easier to enforce and monitor.²⁷⁹ Other factors to consider are high implementation or enforcement costs and the tax’s potential impact on different income groups.²⁸⁰

Finally, the tax itself should be simple, easy to understand, and realistic to implement.²⁸¹ Citizens should be given advanced notice of the tax, phase-in schemes may be employed to allow the citizenry to

274. EEA Report, *supra* note 80, at 9-10.

275. *Id.* at 10. A problem that may occur here is the legislation becoming “twisted by the demands of interest groups.” *Id.* at 15.

276. *See supra* notes 165-69, 203 and accompanying text.

277. EEA Report, *supra* note 80, at 9.

278. *Id.* at 15.

279. *Id.* at 9.

280. *Id.* at 16-17. One possible concern is that the tax may be too regressive. *Id.* Regressive taxes are those where the effective tax rate decreases as the taxpayer’s income increases. BLACK’S LAW DICTIONARY 1597 (9th ed. 2009). In other words, if the taxed amount stays constant and the person’s wealth increases, a smaller percentage of their total income goes to pay the tax. This is a main concern with “sin taxes” on products such as alcohol, tobacco, gambling, junk food, and prostitution.

281. *Id.* at 9.

become used to the tax, and changes to the tax should be minimal once it is implemented.²⁸² Consequentially, a \$0.20 increase in the amount taxed should be avoided.

1. The Double Dividend and Employment

The influence of the plastic industry in the United States has grown exponentially since plastic was first introduced. Plastics manufacturing comprises the third largest U.S. manufacturing industry, with nearly 18,500 plastic facilities nationwide and a presence in every state.²⁸³ Shipments have grown 3.4% a year every year since 1980, with productivity in the industry growing faster than manufacturing productivity as a whole.²⁸⁴ The plastics industry employs approximately 1.1 million workers in specialties ranging from raw material suppliers to processors and manufacturers.²⁸⁵

When taxing a product in the hopes of altering consumer behavior, there is always the fear of success. If consumers drastically limit their consumption of plastic, single-use shopping bags, then fewer bags will be required for production from the plastic bag industry. If fewer bags are made, fewer employees will be required to make the products. The possibility of jobs being lost due to a campaign to eliminate the use of plastic bags is very real. Bangladesh avoided this fear when their ban was implemented due to the re-emergence of the pre-plastic jute industry,²⁸⁶ while South Africa fell victim to the loss.²⁸⁷

Instead of the tax being placed into a trust fund where tax contributors will never see it, as suggested in the proposed legislation, Congress needs to allow consumers and producers to benefit from the tax. This can be done by using an environmental tax reform, the double dividend.²⁸⁸ Under the double dividend, the revenue from the

282. *Id.*

283. Society of the Plastics Industry, Inc., *supra* note 130.

284. *Id.*

285. *Id.*; see also The Plastics Industry Trade Association, About SPI, <http://www.plasticsindustry.org/aboutspi/?navItemNumber=1009> (last visited Nov. 27, 2009).

286. Mahmud, *supra* note 191.

287. See *supra* note 185 and accompanying text.

288. EEA Report, *supra* note 80, at 9, 14.

tax is used to decrease existing tax burdens that can dampen economic activity, such as income and social security,²⁸⁹ instead of being used for environmental problems.²⁹⁰ This way, the negative environmental effects are eliminated through reduced bag use, and other taxes are reduced.²⁹¹ Ireland and South Africa opted instead to place their tax revenues into environmental funds.²⁹² While this was mainly a successful option, the United States is currently in an economic depression. Additional taxes may inflame the masses, but if the optional tax can benefit laborers, it is more likely to garner support.

The double dividend option may not only reduce taxes, but also successfully make labor cheaper for employers. If certain industries, such as the plastic and recycling industries, could initially be the beneficiaries of this reduction, then there would not be as heightened a fear of job loss after implementing a tax on plastic bags. An overview of studies done by the OECD shows that this option can even lead to an increase in employment, especially with unskilled jobs.²⁹³ Other methods show small or negative employment effects.²⁹⁴ Instead of allowing the tax to become a burden, it could become a benefit through the use of the double dividend.

2. The Influence of Education and Information Dispersal on Consumer Behavior

Knowledge about our environment plays a pivotal role in a person's decision to be an ecologically savvy consumer or to not be.²⁹⁵ A tax can encourage consumers to become knowledgeable by forcing them to question whether they actually want to use plastic bags.²⁹⁶

289. *Id.* at 14.

290. Milne et al., *supra* note 125.

291. Killian, *supra* note 70, at 494.

292. *See supra* Parts IV.A.-B.

293. EEA Report, *supra* note 80, at 14 (citing OECD, ENVIRONMENTALLY RELATED TAXES IN OECD COUNTRIES: ISSUES AND STRATEGIES 38 (OECD Publishing 2001)).

294. *Id.*

295. *See* James A. Roberts & Donald R. Bacon, *Exploring the Subtle Relationships Between Environmental Concern and Ecologically Conscious Consumer Behavior*, 40 J. BUS. RES. 79, 86 (1997).

296. Bradley A. Harsch, *Consumerism and Environmental Policy: Moving*

This is reflected in the successful consumer campaigns used by Ireland and Bangladesh.²⁹⁷ People do not use plastic bags because they need them, but because it is part of Western culture.²⁹⁸ Plastic bags have become one of many symbols of this throw-away culture, along with tissues and bandages, and people often do not think about the environmental effects of their use. Taxing plastic bags forces the customer to think about their actions.

Retailers can play a large part in changing consumer behavior by showing consumers that they can consume in an environmentally friendly way.²⁹⁹ In South Africa, retailers played their part by informing customers how not using plastic bags saved the store money.³⁰⁰ Whole Foods Market and Trader Joe's are examples of corporations encouraging consumers to make ecologically conscious choices. Both have eliminated the use of plastic bags at their registers, encourage purchasing locally grown foods, and sell an array of natural and organic food and cleaners.³⁰¹ Their example has created a ripple effect, slowly encouraging more people and retailers to consider this ecologically and economically beneficial route.³⁰²

In addition, plastic companies have the option of assisting with the advertisements for the tax. Advertising plays a pivotal role in the

Past Consumer Culture, 26 *ECOLOGY L.Q.* 543, 547 (1999) (“[E]nvironmental policy should aim not only at encouraging people to satisfy a given want in different ways, but also at directing people to question whether they ought to have that want at all.”).

297. See *supra* notes 137-39, 209 and accompanying text.

298. Harsch, *supra* note 296, at 556 (referring only to consumerism in general).

299. Roberts & Bacon, *supra* note 295, at 86.

300. See *supra* note 176 and accompanying text.

301. For more information on environmentally healthy living, visit Whole Foods Market, www.wholefoodsmarket.com (last visited March 15, 2010); Trader Joe's, www.traderjoes.com (last visited March 15, 2010); Green Shopper, www.greenshopper.com (providing 16,000 environmentally friendly products, information about recycling and living green, and an online community for shoppers) (last visited March 15, 2010); and Green People, www.greenpeople.org (providing links to natural health foods stores by state and a directory of eco-friendly products) (last visited March 15, 2010).

302. The availability of re-useable plastic bags for purchase at the register encourages customers to avoid taking paper or plastic bags. Once purchased, many consumers are seen using the bags at other grocery stores, retailers, libraries, or even as beach bags. The author's mother's preferred use is as her knitting bag on car trips.

public's acceptance of certain commodities,³⁰³ and anti-plastic or pro-recycling advertising could significantly affect consumer behavior. There may be a better chance of altering consumer behavior in favor of recycling and reuse if consumers are informed of the "delicate balance of nature"³⁰⁴ or the number of secondary products made with recycled plastic. If advertising and marketing can work to create more consumers who are "enlightened" and make informed decisions, more people may be encouraged to follow along.³⁰⁵ This increases the likelihood that bags will avoid the waste stream, and the industry can benefit from positive press.

Certain industry groups claim that the problems being created by littering are not the fault of plastic bags; the problems are the consumers' fault.³⁰⁶ In Bangladesh, manufacturers were making enough of a profit from this consumer desire to risk criminal penalties.³⁰⁷ A tax combined with advertising can influence consumers to consider changing their behavior, as it did in Ireland, by utilizing the PPP to allow for informed decision-making. If the problem is grounded in consumer behavior, we must take up the challenge of making the polluter realize they are paying for their lack of information.

3. *Additional Considerations*

One of the agreements made in South Africa concerned the use of ink printing on the plastic bags.³⁰⁸ Essentially, the amount of printing allowed on bags is inversely proportional to the ink's detrimental effects on the environment. The proposed bill requires printing on all plastic bags as one of the conditions for a retailer to have a qualified bag recycling program.³⁰⁹ As South Africa recognized, the printing may have a detrimental effect on the environment, on top of the effect caused by the bags themselves. The printing is also an additional

303. Harsch, *supra* note 296, at 566-69 (detailing advertising spending and social science research).

304. Roberts & Bacon, *supra* note 295, at 86.

305. *Id.* at 87.

306. Burros, *supra* note 44.

307. *See supra* notes 216-18 and accompanying text.

308. *See supra* note 168 and accompanying text.

309. *See supra* note 236 and accompanying text.

burden placed on retailers and manufacturers that, while serving as a beneficial reminder to consumers, should not be required unless the ink is environmentally friendly. The tax should also recognize that bags with an unnecessary amount of printing will be subject to a higher tax, or be prohibited.

There is an argument that the tax could have a disproportionate effect on low-income individuals because the tax would be dependent on the number of bags used.³¹⁰ This can be addressed in a number of ways. For example, before the tax is implemented, or during the first few weeks, a small budget can be used to give out free reusable bags in low-income neighborhoods. This could be funded through plastic industry donations, and the bags could bear industry symbols. A minimum thickness could also be imposed, as in South Africa,³¹¹ so that the bags being paid for could actually be used for multiple grocery trips. Additionally, combining the tax with credits may be even more beneficial to low-income consumers.³¹²

A combination of taxes and credits could also be helpful in changing consumer behavior. Credits could be given when customers use their own bags or when a bag is returned for recycling. As mentioned above, many European countries combine market-based instruments for more effect.³¹³ If retailers receive the only incentive through obtaining \$0.01 when they also have a qualified bag recycling program,³¹⁴ consumer behavior is less likely to change. If consumers receive not only a disincentive when using the bags but also an incentive to dispose of the bag wisely if used, their behavior is more likely to be modified.

As in Ireland, the United States may need to raise the tax in order to maintain its effectiveness. The bill contains a provision to do so; however, the shock of a \$0.20 raise in the tax after a five-year span³¹⁵ may be less effective than having that shock to begin with. In Ireland, the shock of the levy occurred with implementation of the original

310. See sources cited *supra* note 280. The American Chemistry Council claims that bag taxes or fees have a disproportionate effect on the poor. Hosler, *supra* note 246. See also Emerling & Kassab, *supra* note 246.

311. See *supra* Part IV.B.

312. See remaining discussion *infra* Part V.B.3.

313. EEA Report, *supra* note 80, at 7.

314. H.R. 2091 § 6433.

315. H.R. 2091 § 4056.

legislation, and it had a dramatic effect.³¹⁶ When bag usage began to increase, the tax only had to be raised by fifty percent.³¹⁷ This allowed consumers to find some consistency in the tax,³¹⁸ while the government was able to adjust it to fit their needs. If the United States also follows this model, the tax is more likely to succeed.

These are but a few suggestions as to how to improve the Plastic Bag Reduction Bill, based on the Irish, South African, and Bangladeshi models. The United States is already a step ahead in that we have an effective tax collection and enforcement system, unlike South Africa and Bangladesh. The burden rests on actually implementing a tax which effectively modifies consumer behavior to consider the negative effects of choices made on a day to day basis. Though this seems to be a daunting task, it can likely be done using all or a portion of the above modifications.

VI. CONCLUSION

The individual who conceptualized the plastic bag was probably unaware of the impact it would have on home life, the environment, and legislation around the world. In such a short time, the bag became a staple of Western culture and the preferred choice of shoppers. The ease and convenience plastic bags offered initially have, however, transformed into long-term problems that require regulation.

The abundance of plastic bags found in our ocean, our countryside, and our cities has reached potentially devastating proportions.³¹⁹ A multitude of ocean species are affected daily by plastic bags and plastic particles.³²⁰ The bags are also a challenge to recycle, and once down-cycled into products such as plastic lumber, are unlikely to be recyclable at all.³²¹ These problems affect nations across the globe, developed or developing, Northern or Southern.³²² As unfriendly as taxing often sounds, many species, companies, and countries would actually be benefitted by a tax on plastic bags.

316. *See supra* notes 141, 153 and accompanying text.

317. Rosenthal, *supra* note 154.

318. *Compare* EEA Report, *supra* note 80, at 9, *with* O'Neill, *supra* note 271.

319. *See supra* Parts I, II.A.

320. *See supra* Part II.A.

321. *See supra* Part II.B.

322. *See supra* Part III.C.

2010] THE MAIN INGREDIENT IN "MARINE SOUP" 333

A tax on plastic bags may only be the first step, with other disposable products, such as paper bags or plastic bottles, being taxed next. The United States is fully capable of using this market-based instrument to the nation's advantage, while decreasing pollution through consumer disincentive. Through this tax, the government would be sending a message to consumers nationwide that they should pay for the pollution they create. In an age where so many consumers never think twice about the impact of their choices, a monetary disincentive may be just the answer.

*Samantha Weinstein**

