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Kim Diana Connolly

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THE ECOLOGY OF BREASTFEEDING

Kim Diana Connolly*

“The time is finally ripe for the ecological and economic arguments for promoting breastfeeding to make an impact on policy makers.”

James P Grant, Past Executive Director, UNICEF¹

The well-known saying “breast is best”² is accurate in more ways than one. Breastfeeding our youngest humans is best not only for baby and mother,³ but also for the environment. Accordingly, laws that support breastfeeding should be considered environmental laws.⁴

The myriad health benefits of breastfeeding are well-known: breastfed babies receive immune protection; undergo superior neurological development; have higher IQs; experience better jaw, tooth and speech development; and are subject to a decreased incidence of Sudden Infant

* Associate Professor of Law, University of South Carolina School of Law; Director, Environmental Law Clinic; Associate Faculty, University of South Carolina School of the Environment; Affiliate Faculty, University of South Carolina Women's Studies Program. J.D. 1993, Georgetown University Law Center. The author can be reached at connolly@law.sc.edu. Thanks are extended to Khyle Eaton for his top-notch research assistance, to Rebekah Maxwell, Tammy Brock, and Serenity Dixon for additional research help, and to F. James Cumberland, Jr., David K. Linnan, and Josh Eagle for reviewing and commenting on earlier drafts. This essay is dedicated to newborn Louis Simon Cumberland Connolly, who breastfed during its drafting, and to his big sister Tayte Connolly Cumberland, a happy, healthy extended nurser.

¹ Andrew Radford, *Breastfeeding: A World Resource*, PARENTINGWEB.COM, http://www.parentingweb.com/lounge/WABA_enviro.htm (last visited Oct. 25, 2005).

² See generally Rebecca D. Williams, *Breast-Feeding Best Bet for Babies*, U.S. FOOD AND DRUG ADMIN., Oct. 1995, http://www.fda.gov/fdac/features/895_brstfeed.html; Dr. Judith Reichman, *Today Show: Doctors say breast is best for babies and moms* (NBC television broadcast Aug. 8, 2005), available at <http://msnbc.msn.com/id/8863856/>; *Breast is Best*, SCOTTISH EXECUTIVE NEWS, Sept. 5, 2005, <http://www.scotland.gov.uk/News/Releases/2005/05/09114219>. Some formula manufacturers even include this thought in their ads. See, e.g., “Don’t be fooled, not all formulas are alike” [*Advertisement for Nestle Good Start*], BABYTALK 55 (Nov. 2005) and AMERICAN BABY 23 (Oct. 2005) (“While breastmilk is best, no other formula takes these extra steps”).

³ See *infra* notes 6-7 and accompanying text.

⁴ Admittedly, such an assertion requires acknowledgement that, conceptually, the term “environmental law” must be construed a bit more broadly than it is in normal parlance. For reflections on such a construction, see notes 88-95 and accompanying text.

Death Syndrome,⁵ intestinal disorders (pediatric and adult), juvenile diabetes, childhood cancers, and allergies.⁶ Breastfeeding mothers' health also benefits from breastfeeding in that it facilitates contraction of the uterus immediately postpartum and is associated with a delayed return to fertility, as well as a reduced incidence of breast cancer, osteoporosis, and diabetes.⁷ Expert health organizations such as the American Academy of Pediatrics⁸ (AAP) and the World Health Organization⁹ (WHO) strongly support breastfeeding.¹⁰ While there are some barriers to breastfeeding (such as embarrassment,¹¹ time and social constraints,¹² lack of social support from family and friends,¹³ and lack of confidence¹⁴), nearly all can be overcome with sufficient information and support.¹⁵

⁵ Sudden Infant Death Syndrome, or SIDS, is defined as "the sudden death of an infant under one year of age which remains unexplained after thorough case investigation, including performance of a complete autopsy, examination of the death scene, and review of the clinical history." M. Willinger, LS James, & C. Catz, *Defining the sudden infant death syndrome (SIDS): deliberations of an expert panel convened by the National Institute of Child Health and Development*, 11 PEDIATRIC PATHOLOGY 677-84 (1991).

⁶ See generally UNICEF UK Baby Friendly Initiative, Health Benefits of Breastfeeding, <http://www.babyfriendly.org.uk/health.asp> (last visited Oct. 25, 2005) (including references); Medela, Benefits of Breastfeeding, <http://www.medela.com/NewFiles/faq/benefitsbfdg.html> (last visited Oct. 25, 2005) (listing extensive references). See also Gordon G. Waggett & Rega Richardson Waggett, *Breast Is Best: Legislation Supporting Breastfeeding Is An Absolute Bare Necessity—A Model Approach*, 6 MD. J. CONTEMP. LEGAL ISSUES 71, 73-74 (1995); Kristen D. Hofheimer, *Breastfeeding as a Factor in Child Custody and Visitation Decisions*, 5 VA. J. SOC. POL'Y & L. 433, nn.15-44 and accompanying text (1999).

⁷ See various sources *supra* note 6.

⁸ The AAP Web site can be found at <http://www.aap.org/>.

⁹ The WHO Web site can be found at <http://www.who.int/en/>.

¹⁰ See Am. Acad. of Pediatrics, *POLICY STATEMENT: Breastfeeding and the Use of Human Milk*, 115 PEDIATRICS 496-506 (Feb. 2 2005), available at <http://aappolicy.aappublications.org/cgi/content/full/pediatrics;115/2/496>; THE OPTIMAL DURATION OF EXCLUSIVE BREASTFEEDING: REPORT OF AN EXPERT CONSULTATION GENEVA, SWITZERLAND (World Health Org. Mar. 28-30, 2001), available at http://www.who.int/child-adolescent-health/New_Publications/NUTRITION/WHO_CAH_01_24.pdf; GLOBAL STRATEGY FOR INFANT AND YOUNG CHILD FEEDING (World Health Org. 2003), available at http://www.who.int/nut/documents/gf_infant_feeding_text_eng.pdf.

¹¹ Amal J. Khoury, Agnes Hinton, & Amal Mitra, Abstract, *Prioritizing Barriers to Breastfeeding Among Low-Income Women*, 128TH ANNUAL MEETING OF APHA (Nov. 15, 2000), available at http://apha.confex.com/apha/128am/techprogram/paper_15128.htm.

¹² *Id.*

¹³ *Id.*

Other positive aspects of breastfeeding have received increased attention in recent years, including significant economic benefits such as reduced health care costs and decreased absentee rates for working parents.¹⁶ One scholar suggests that “[a] minimum of \$3.6 billion would be saved if breastfeeding were increased from current levels (64 percent in-hospital, 29 percent at six months) to those recommended by the U.S. Surgeon General (75 and 50 percent).”¹⁷ Economic downsides to not breastfeeding have been publicized as well: for example, government benefit programs expend significant money on artificial human milk that might better be spent elsewhere.¹⁸

The environmental benefits of breastfeeding, however, have been acknowledged less widely.¹⁹ It is true that, buried in the litany of why

¹⁴ Breastfeeding Basics, Breastfeeding Benefits & Barriers: Lack of Confidence, http://www.breastfeedingbasics.org/cgi-bin/deliver.cgi/content/Introduction/bar_confidence.html (last visited Oct. 25, 2005).

¹⁵ There are many good basic sources of information about breastfeeding. See, e.g., Janet Tamaro, *SO THAT'S WHAT THEY'RE FOR!* (2d ed. 1998); Catalog, La Leche League International, http://www.lalecheleague.org/Web_store/web_store.cgi?product=Breastfeeding&cart_id=2707725_4621 (last visited Oct. 31, 2005) (showing various publications); AskDrSears.Com, Breastfeeding Index, <http://www.askdrsears.com/html/2/T020100.asp> (last visited Oct. 25, 2005); KellyMom Home Page, <http://www.kellymom.com/> (last visited Oct. 25, 2005); Breastfeeding Task Force of Greater Los Angeles, References of Fact Sheets, <http://www.breastfeedingtaskforla.org/references.htm> (last visited Oct. 25, 2005).

¹⁶ *Economic Benefits of Breastfeeding*, U.S. BREASTFEEDING COMM., 2002, <http://www.usbreastfeeding.org/Issue-Papers/Economics.pdf>. See also KellyMom, *The Many Benefits of Breastfeeding* (links), <http://www.kellymom.com/bf/start/prepare/bf-benefits.html#lists> (last visited Oct. 25, 2005); QUANTIFYING THE BENEFITS OF BREASTFEEDING: A SUMMARY OF THE EVIDENCE (World Health Org. June 2002), available at <http://www.paho.org/english/ad/fch/bob-main.htm>; Shana M. Christrup, *Breastfeeding in the American Workplace*, 9 AM. U. J. GENDER SOC. POL'Y & L. 471, 477-478 (2001).

¹⁷ See generally Jon Weimer, *The Economic Benefits of Breastfeeding: A Review and Analysis*, Food Assistance and Nutrition Research Rpt. No. (FANRR13) (Mar. 2001), <http://www.ers.usda.gov/Publications/fanrr13/>.

¹⁸ *Id.* See also N. BAUMSLAG & D. MICHELS, *MILK, MONEY, AND MADNESS: THE CULTURE AND POLITICS OF BREASTFEEDING* 141 (1995).

¹⁹ There has been widespread discussion in literature and the press of the exposure to environmental toxins through breastmilk. See, e.g., Natural Res. Def. Council, *Healthy Milk, Healthy Baby: Chemical Pollution and Mother's Milk*, <http://www.nrdc.org/breastmilk/> (last visited Oct. 25, 2005); Sandra Steingraber, *To Breastfeed or Not to Breastfeed is Not the Question: Why Risk-Benefit Analysis is the Wrong Way to Look at the Problem of Breast Milk Contamination*, 8 THE RIBBON 2 (Summer 2003), available at http://www.northwestwatch.org/toxics/steingraber_essay.asp; *Breast-feeding Still Best Despite Environmental Chemicals in Human Milk*, SCIENCE DAILY (Sept. 23, 2005),

children should be provided human milk as their exclusive or primary food for the early years of their life, there is an occasional passing reference to environmental benefits. For example, the American Academy of Pediatrics notes as one of numerous reasons why breastfeeding is important that “[i]n addition to specific health advantages for infants and mothers . . . environmental benefits . . . include . . . decreased environmental burden for disposal of formula cans and bottles; and decreased energy demands for production and transport of artificial feeding products.”²⁰

Likewise, a few internet sources²¹ and one excellent magazine article²² have emphasized the benefits to the environment that flow from breastfeeding. In the course of discussion about the merits of nursing, however, ecological advantages are not broadly publicized. Perhaps a wider audience would advocate breastfeeding if more attention were paid to the significant benefits to mother earth that could take place from laws that support and promote the use of mother’s milk.

<http://www.sciencedaily.com/releases/2005/09/050923075350.htm>; Kelly Bonyata, *Breastfeeding and environmental contaminants*, KELLYMOM.COM, <http://www.kellymom.com/health/chemical/env-contaminants.html> (providing numerous links to scientific sources). As some experts have concluded, “the media and some environmental groups tend to play up issues of environmental contaminants in mother’s milk. In fact, except in situations of toxic spills or occupational exposure to hazardous levels, breastfeeding has caused no ill effects in babies. To the contrary, studies comparing breastfed and bottle-fed babies in the same environment have shown better development and less cancer in the breastfed babies.” Alicia Dermer & Anne Montgomery, *Breastfeeding: Good for Babies, Mothers, and the Planet*, THE MED. REP. (1997), <http://medicalreporter.health.org/tmr0297/breastfeed0297.html>. Though important, a discussion of the issues surrounding the high levels of toxins in mother’s milk and what that reflects as to the success of environmental protection laws is beyond the scope of this particular essay.

²⁰ Am. Acad. of Pediatrics, *supra* note 10, at 496-506. See also Nat’l Women’s Health Info. Ctr., Benefits of Breastfeeding, <http://www.4woman.gov/Breastfeeding/print-bf.cfm?page=227> (last visited Oct. 25, 2005) (mentioning as the last of fifteen listed benefits that “[b]reastfeeding is better for our environment because there is less trash and plastic waste compared to that produced by formula cans and bottle supplies”).

²¹ See World Alliance for Breastfeeding Action, Breastfeeding and the Environment, <http://www.waba.org.my/environment/> (last visited Oct. 25, 2005); Dermer & Montgomery, *supra* note 19; Dia L. Michels, *Mother Nature Loves Breastmilk*, BREASTFEEDING.COM (1998), <http://members.aol.com/diamichels/greenbm.htm>; Parenting Web, Why Breastfeed?, <http://www.parentingweb.com/lounge/whybf.htm> (last visited Oct. 25, 2005).

²² Wendy Correa, *Eco-Mama: Why Breastfeeding Is Best for Babies and the Environment*, 95 MOTHERING 67 (July/Aug. 1999), available at http://www.mothering.com/articles/new_baby/breastfeeding/ecomama.html.

The ecological advantages of breastfeeding versus use of artificial human milk (also called formula)²³ include decreased water and air pollution, better land use practices, decreased energy use, and fewer adverse impacts from manufacturing and transportation.²⁴ These environmental gains are discussed in more detail below.

Water pollution flows from production of artificial human milk. Cows used to produce the primary ingredients for most artificial human milk also produce waste products.²⁵ The fertilizers and pesticides used to grow feed for those cows likewise pollute rivers and groundwater sources.²⁶

Artificial human milk production also pollutes the air. Cows used to produce most artificial human milk excrete 20 percent (100 million tons) of methane gas.²⁷ Methane is second behind carbon dioxide in contributing to the greenhouse effect and global warming.²⁸ Likewise, production processes associated with packaging for artificial human milk involve polluting air emissions.²⁹ Finally, to the extent that incineration is associated with disposal of packaging, air emissions will increase.³⁰

Production of artificial human milk also contributes to inefficient land use, as well as deforestation and soil erosion. Each grazing cow that generates cow milk used in artificial human milk production uses about 10,000 square meters of land.³¹ To support the cows, wooded land often is cleared for pasture, leading to deforestation as well as depletion and erosion of the soil. Land used to grow cattle feed in Third World countries is often land that was forested or formerly used for family food production.³² Brazilian forests, for example, are cleared and burned to make way for soy plantations.³³ Soy is used to feed cattle and as a base for

²³ See Isadora B. Stehlin, U.S. Food and Drug Administration, *Infant Formula: Second Best but Good Enough*, http://www.fda.gov/fdac/features/596_baby.html (last visited Oct. 25, 2005).

²⁴ See generally Correa, *supra* note 22.

²⁵ *Id.* at 67.

²⁶ *Id.* at 75.

²⁷ A. Radford, *The Ecological Impact of Bottle Feeding*, BREASTFEEDING REVIEW 204-208 (1992).

²⁸ *Id.*

²⁹ *Bottle Feeding Is an Environmental Hazard*, NURSING MOTHERS 23 (1995).

³⁰ See Greenpeace, *Problems with Incineration*, http://www.greenpeace.org.au/frontpage/pdf/incinerator_brief2.pdf. Non-incinerated solid waste will have to be otherwise disposed of, most often in landfills, as discussed *infra* notes 40-41.

³¹ Radford, *supra* note 27.

³² Correa, *supra* note 22.

³³ *Id.*

some artificial baby milk. Growing soy also requires a high amount of fertilizers and irrigation.³⁴ Likewise, the potential use of genetically engineered ingredients in soy-based infant formulas poses new and as yet unknown risks.³⁵

Significant energy costs are associated with producing artificial human milk on a large scale, as well as increased energy requirements due to individual purchase and preparation. Artificial human milk typically is processed and converted into powder at high temperatures, requiring a considerable amount of energy.³⁶ Manufacturing of the bottles, nipples, and other paraphernalia of bottle-feeding also uses energy.³⁷ Likewise, individual purchase requires travel or delivery of the artificial human milk and paraphernalia, as well as heating in some cases.³⁸

Manufacture of packaging for artificial human milk has toxic byproducts and uses paper, plastic, and metals. One source notes that for every three million babies fed artificial human milk, 450 million containers are consumed.³⁹ The resulting 70,000 tons of metal in the form of discarded tins is not recycled but is sent to landfills or otherwise disposed of.⁴⁰ The 550 million tins of artificial baby milk sold each year to bottle feed US babies alone stacked end to end would circle the earth one and a half times; 550 million tins equals 86,000 tons of tin and 1,230 tons of paper labels.⁴¹

Significant transportation impacts are associated with raw materials for the production of artificial human milk, packaging, and all of the components of bottle-feeding. Once processed, artificial human milk then has to be transported to the consumer.⁴²

Manufacture of the paraphernalia (bottles, nipples, and other feeding equipment) needed to provide babies with artificial human milk uses large

³⁴ *Id.*

³⁵ World Alliance for Breastfeeding Action, Towards Healthy Environments for Children 3 (Oct. 22, 2003), http://www.env-health.org/IMG/pdf/FAQ_Oct2003-10.pdf.

³⁶ Correa, *supra* note 22.

³⁷ *Id.*

³⁸ *Id.*

³⁹ LA LECHE LEAGUE INTERNATIONAL, THE WOMANLY ART OF BREASTFEEDING 384 (1995).

⁴⁰ *Id.*

⁴¹ Radford, *supra* note 27, at 205.

⁴² See generally Jean-Paul Rodrigue, Transportation, Land Use and the Environment, <http://people.hofstra.edu/geotrans/eng/ch8en/conc8en/ch8c4en.html> (last visited Oct. 25, 2005).

amounts of plastic, rubber, silicon, and glass.⁴³ These bottles, nipples, and pacifiers also must be disposed of, either in landfill sites or through other means.⁴⁴ Furthermore, the manufacture of plastic bottles, etc. draws on dwindling petroleum resources.⁴⁵

Sanitary product use also is reduced by breastfeeding. The return of menstruation post-partum is delayed for an average of 14 months for mothers who breastfeed exclusively,⁴⁶ saving significant amounts of paper used in sanitary hygiene products.⁴⁷ Likewise, because it is intended to be digested by human babies, human milk is absorbed very efficiently,⁴⁸ meaning breastfed babies generally excrete less and require fewer diaper changes than babies who are fed artificial human milk.⁴⁹ Users of artificial human milk trigger increased production of paper diapers, menstrual pads, and tampons, which requires fibers, bleaches, packaging materials, and fuels used in manufacturing and product distribution, and which also sends more items to landfills.⁵⁰ Users of cloth diapers who breastfeed their babies require fewer resources (water, electricity, soap) to keep the diapers clean.

Mothers in developing nations are subject to significant pressure to use artificial human milk, which given the economic realities in those countries puts them and their babies at even greater risk than those in

⁴³ *Breastfeeding Nature's Way*, WORLD ALLIANCE FOR BREASTFEEDING ACTION (Publ'n of 6th Annual World Breastfeeding Week), Aug. 1-7, 1997.

⁴⁴ Admittedly, breastfeeding mothers who are separated from their babies for work or other reasons often pump their milk for feeding in a bottle. Such a choice does require the use of some bottle-feeding paraphernalia, but in almost all cases at least half of the feeding done by pumping mothers is direct breastfeeding, so fewer resources are used.

⁴⁵ AIG Environmental, Plastics and Polymer Manufacturers, <http://www.aigenvironmental.com/environmental/public/envindustries/0,1340,63-11-330,00.html> (last visited Oct. 25, 2005).

⁴⁶ BAUMSLAG & MICHELS, *supra* note 18, at 93.

⁴⁷ A small percentage of women use non-paper based sanitary products. *See, e.g.*, Rawganic.org, Certified Organic Cotton Washable Menstrual Pads, <http://www.rawganique.com/lunapads.htm> (last visited Oct. 25, 2005). However, such pads must be washed, which uses other resources such as soap, water, and often electricity.

⁴⁸ Correa, *supra* note 22.

⁴⁹ *Id.*

⁵⁰ *See, e.g.*, Pamela Lundquist, Children's Health Environmental Coalition, First Steps: The Diaper Debate (Mar. 3, 2003), http://www.chechnet.org/healthhouse/education/articles-detail.asp?Main_ID=554.

developed nations.⁵¹ Moreover, environmental issues may be even further pronounced in developing countries. For example, water used to mix artificial human milk in such countries often is contaminated, jeopardizing the health of the infants.⁵² Likewise, wood often is used in non-industrialized countries to heat artificial milk, which requires a minimum of 73 kilos of valuable wood each year per bottle-fed baby.⁵³ One study determined that producing one kilogram of formula in Mexico costs 12.5 square meters of rain forest.⁵⁴ Gabrielle Palmer, a nutritionist and breastfeeding counselor, states:

Human milk is a commodity which is ignored in national inventories and disregarded in food consumption surveys, yet it does actually save a country millions of dollars in imports and health costs. The Mozambican Ministry of Health calculated in 1982 that if there were a mere twenty percent rise in bottle-feeding, in just two years this would cost the country (the equivalent of) 10 million US dollars, and this did not include fuel, distribution, or health costs. They also calculated the fuel required for boiling the water would use the entire resources from one of the major forestry projects.⁵⁵

In Third World countries, the wood that is burned for fuel to heat the artificial milk creates further air pollution.

As demonstrated above, the environment wins if more babies are breastfed for longer periods of time. Unfortunately, the latest statistics suggest that significantly less than half of babies born in the United States are exclusively breastfed by three months of age—and that number drops to 14 percent at six months of age.⁵⁶ Though there have been some increases in breastfeeding rates in recent decades,⁵⁷ more must be done if we are to reach the 75 percent in-hospital breastfeeding initiation rate

⁵¹ Katie Allison Granju, *What Every Parent Should Know About Infant Formula*, 1997, http://www.breastfeeding.com/reading_room/what_should_know_formula.html (last visited Oct. 25, 2005).

⁵² BAUMSLAG & MICHELS, *supra* note 18.

⁵³ *Id.*

⁵⁴ *Id.*

⁵⁵ LA LECHE LEAGUE INTERNATIONAL, *supra* note 39.

⁵⁶ Ctrs. for Disease Control, *Breastfeeding: Data and Statistics: Breastfeeding Practices—Results from the National Immunization Survey*, http://www.cdc.gov/breastfeeding/data/NIS_data/index.htm (last visited Oct. 25, 2005). For data on international breastfeeding rates, see UNICEF, *Breastfeeding and complementary feeding, Exclusive Breastfeeding*, <http://www.childinfo.org/eddb/brfeed/probl3.htm> (last visited Oct. 25, 2005).

⁵⁷ *Id.*

called for in the United States Department of Health and Human Services initiative *Healthy People 2010*.⁵⁸ Some experts suggest that nine out of ten women who discontinue breastfeeding in the first six weeks of a child's life have stopped before they want to.⁵⁹ Laws that can increase current numbers will decrease correspondingly the negative environmental impacts of production and distribution of artificial baby milk.

There is, however, no federal statute dedicated to the promotion and support of breastfeeding.⁶⁰ In 1992, Congress did acknowledge the importance of encouraging breastfeeding by amending the Child Nutrition Act⁶¹ to include a national breastfeeding promotion program.⁶² Thereafter, a number of laws were tested to see whether they would adequately cover breastfeeding, including the Pregnancy Discrimination Act (PDA) of 1978,⁶³ Title VII of the Civil Rights Act of 1964,⁶⁴ the Americans with Disabilities Act (ADA) of 1990,⁶⁵ and the Family and Medical Leave Act (FMLA) of 1993.⁶⁶ They would not.⁶⁷ Thus, as one scholar noted in her

⁵⁸ Ctrs. for Disease Control and Prevention & Health Res. and Servs. Admin., *Maternal, Infant, and Child Health*, in U.S. DEP'T OF HEALTH AND HUMAN SERVS., *HEALTHY PEOPLE 2010: UNDERSTANDING AND IMPROVING HEALTH* (2d. ed. 2000), available at <http://www.healthypeople.gov/document/html/volume2/16mich.htm>. See generally *Healthy People 2010*, <http://www.healthypeople.gov/> (last visited Oct. 25, 2005).

⁵⁹ Nat'l Childbirth Trust, *Breastfeeding Awareness Week 2005, Breastfeeding: Some Statistics*, <http://www.nct.org.uk/breastfeeding/statistics.html> (last visited Oct. 25, 2005).

⁶⁰ There is some scholarship, however, suggesting the need for such federal laws. See, e.g., Jendi B. Reiter, *Accommodating Pregnancy and Breastfeeding in the Workplace: Beyond the Civil Rights Paradigm*, 9 TEX. J. WOMEN & L. 1 (1999); Diana Kasdan, *Reclaiming Title VII and the PDA: Prohibiting Workplace Discrimination Against Breastfeeding Women*, 76 N.Y.U. L. REV. 309 (2001); Elissa Aaronson Goodman, *Breastfeeding or Bust: The Need for Legislation to Protect a Mother's Right to Express Milk at Work*, 10 CARDOZO WOMEN'S L.J. 146 (2003); Christrup, *supra* note 16, at 477–78. Professor Waldeck of Seton Hall University School of Law wrote an interesting piece in 2002 that argues for the development of a market in human milk (with Food and Drug Administration oversight) as a way of increasing breastfeeding rates. See Sarah E. Waldeck, *Encouraging a Market in Human Milk*, 11 COLUM. J. GENDER & L. 361, 376–377 (2002).

⁶¹ 42 U.S.C. §§ 1771–91 (2000).

⁶² See Child Nutrition Amendments of 1992, Pub. L. No. 102-342, 106 Stat. 911 (1992) (recognizing that breastfeeding is the best method for healthy infant nutrition); see also H.R. REP. NO. 102-645, at 4 (1992), reprinted in 1992 U.S.C.C.A.N. 755, 757 (acknowledging lack of support for breastfeeding as a major barrier to promoting the practice).

⁶³ 42 U.S.C. § 2000e.

⁶⁴ 42 U.S.C. §§ 2000e–2000e-17.

⁶⁵ 42 U.S.C. §§ 1201a–1222(13).

⁶⁶ 29 U.S.C. §§ 2601–54 (2000).

examination of these acts, “[u]nfortunately, unless legislation changes to fully protect the women who breastfeed, breastfeeding rates within the United States will remain at discouraging rates or even continue to decline.”⁶⁸ Although the past few Congressional sessions have seen proposals to amend the federal Pregnancy Discrimination Act to include breastfeeding under the definition of discrimination based on sex,⁶⁹ as well as other legislative efforts to promote breastfeeding,⁷⁰ a federal law has yet to emerge. In short, exploring an even broader approach to protect and promote breastfeeding on a federal level—though worthwhile in theory—is likely to be ultimately unworkable in the current political climate.⁷¹

Although there is no existing federal law and no federal fix on the immediate horizon, more than half of the states in the United States have some sort of state legislation that provides support or protection for breastfeeding.⁷² In fact, only 12 states lack any law addressing

⁶⁷ For a detailed discussion of these laws and how they were tested, see Christrup, *supra* note 16, at 483-494.

⁶⁸ See *id.* at 494.

⁶⁹ See Pregnancy Discrimination Act Amendments of 2005, H.R. 2122, 109th Cong. (2005); Pregnancy Discrimination Act Amendments of 2003, S. 418, 108th Cong. (2003). The 2005 bill indicated that its purpose was “[t]o amend the Civil Rights Act of 1964 to protect breastfeeding by new mothers; to provide for a performance standard for breast pumps; and to provide tax incentives to encourage breastfeeding,” and the 2003 bill indicated that its purposes was “[t]o amend the Civil Rights Act of 1964 to protect breastfeeding by new mothers.” Both proposed bills would have inserted the term “breastfeeding” after the term “childbirth” in the Pregnancy Discrimination Act, *see* 42 U.S.C. § 2000e(k), and the 2005 bill proposed appropriate changes to tax and other laws, *see generally* H.R. 2122, 109th Cong.. The bills never made it out of committee. See <http://thomas.loc.gov> (last visited Oct. 25, 2005).

⁷⁰ See *generally* Congresswoman Carolyn B. Maloney, Rep. Carolyn Maloney Supports a Woman’s Decision to Breastfeed, <http://www.house.gov/maloney/issues/breastfeeding/> (last visited Oct. 25, 2005) (discussing multiple bills “promoting breastfeeding and protecting women who choose to breastfeed” that Representative Maloney has introduced since 1998).

⁷¹ For discussions of the difficulties involved in passing significant environmental legislation in recent years, *see, e.g.*, Michael C. Blumm, *Twenty Years of Environmental Law: Role Reversals Between Congress and The Executive, Judicial Activism Undermining the Environment, and the Proliferation of Environmental (and Anti-Environmental) Groups*, 20 VA. ENVTL. L.J. 5, 6-7 (2001); Michael B. Gerrard, *Trends in the Supply and Demand for Environmental Lawyers*, 25 COLUM. J. ENVTL. L. 1, 3-4 (2000).

⁷² See *generally* Elizabeth N. Baldwin, Kenneth A. Friedman, & Melissa R. Vance, A Current Summary of Breastfeeding Legislation in the U.S., LA LECHE LEAGUE INTERNATIONAL, <http://www.lalecheleague.org/LawBills.html> (last visited Oct. 25, 2005) (including links to breastfeeding laws in various states). See also Nat’l Conference of State Legislatures, 50 States Summary of Breastfeeding Laws, <http://www.ncsl.org/>

breastfeeding: Alabama, Arizona, Arkansas, Kansas, Kentucky, Massachusetts, Mississippi, North Dakota, Ohio, Pennsylvania, South Carolina, and West Virginia.⁷³

Most existing state laws address the right of a mother and child to engage in breastfeeding anywhere that the mother and child have a legal right to be present.⁷⁴ New York passed a very strong law in 1984,⁷⁵ making it one of the first states to exempt breastfeeding from its criminal statutes.⁷⁶ New York's law contains an enforceable right to breastfeed, which applies to mothers in public or private settings, even if there is exposure of the breast during or incidental to breastfeeding.⁷⁷ Other states are not as explicit with their legislative language—a more typical statutory statement would be that found in Georgia's law, which states: “[a] mother may breast-feed her baby in any location where the mother and baby are otherwise authorized to be.”⁷⁸

Certain states also include in their legislation a statement recognizing breastfeeding as the best source of infant nutrition.⁷⁹ Such statements may be in a preamble that provides information about the importance of breastfeeding for women and children along with recommendations

programs/health/breast50.htm (last visited Oct. 25, 2005) (including links to relevant laws in various states); *State Breastfeeding Legislation*, U.S. BREASTFEEDING COMM., 2003, at 6-7, <http://www.usbreastfeeding.org/Issue-Papers/Legislation.pdf>.

⁷³ See South Carolina Breastfeeding Action Comm. Home Page, <http://www.scbac.org/> (last visited Oct. 25, 2005). The District of Columbia also lacks legislation. *Id.*

⁷⁴ See Elizabeth N. Baldwin & Kenneth A. Friedman, A Current Summary of Breastfeeding Legislation in the U.S., *Breastfeeding Legislation: In General*, LA LECHE LEAGUE INTERNATIONAL, <http://www.lalecheleague.org/Law/Bills2.html> (last visited Oct. 25, 2005). For example, the Georgia Code affirms that, “The breast-feeding of a baby is an important and basic act of nurture which should be encouraged in the interests of maternal and child health. A mother may breast-feed her baby in any location where the mother and baby are otherwise authorized to be.” GA. CODE ANN. § 31-1-9 (2005). See also ALASKA STAT. § 01.10.060(b) (2005) (excluding breastfeeding from the definitions of “lewd conduct,” “lewd touching,” “immoral conduct,” and “indecent conduct”); FLA. STAT. ANN. § 800.03 (West 2005) (exempting a breastfeeding mother from an indecent exposure statute); 720 ILL. COMP. STAT. ANN. 5/11-9(a)(2) (West 2005) (stating that breastfeeding does not constitute public indecency).

⁷⁵ N.Y. CLS § 245.012 245.02 (2005).

⁷⁶ *Id.*

⁷⁷ *Id.*

⁷⁸ GA. CODE ANN. § 31-1-9.

⁷⁹ See Darleen Chien, STATE LEGISLATION THAT PROTECTS, PROMOTES, AND SUPPORTS BREASTFEEDING 3 (U.S. Breastfeeding Comm. 2005), available at <http://www.usbreastfeeding.org/Issue-Papers/State-Legislation-2004.pdf> (citing statutes in Georgia, Montana, Oklahoma, and Texas).

regarding breastfeeding duration.⁸⁰ Other states include such information directly in the language to be codified rather than only in the bill.⁸¹

As far as regulating breastfeeding as it relates to the workplace, for those states that include such protection initial legislation only encouraged employers to provide breastfeeding support (such as allowing businesses to advertise themselves as “mother-friendly” or “infant-friendly” if they set up lactation support).⁸² A more recent trend has seen legislation that requires employers to take specific actions to provide this support for breastfeeding employees.⁸³ Connecticut, for example, provides broad protection through its law labeling it discrimination to not allow a breastfeeding mother to express milk or breastfeed on her regular breaks, and requiring employers to provide mothers with a private, sanitary place to express breastmilk on the job.⁸⁴

Other issues that are addressed in various state’s breastfeeding legislation include: exempting breastfeeding mothers from jury duty; consideration of breastfeeding in custody and visitation decisions; making various accommodations for breastfeeding mothers who are sent to prison; requiring hospitals and providers of care to women and families to offer the services of a lactation consultant and/or information on breastfeeding and its benefits; and support for payment or reimbursement of breastfeeding equipment and supplies.⁸⁵ For an excellent account of the passage of Ohio’s recent law, which became effective in September 2005,⁸⁶ see Brianne Whelan’s *For Crying Out Loud: Ohio’s Legal Battle With Public Breastfeeding And Hope For The Future* in the American University Journal of Gender, Social Policy and the Law.⁸⁷

At least one state statute (Colorado’s) mentions the environment in the litany of benefits of breastfeeding as part of the introduction to the legislation,⁸⁸ but this is not a common part of state legislation. Perhaps

⁸⁰ See generally *State Breastfeeding Legislation*, *supra* note 72.

⁸¹ *Id.* at 1.

⁸² *Id.* at 2-3.

⁸³ *Id.*

⁸⁴ CONN. GEN. STAT. §§ 46a-64, 53-34b, & 31-40w (2005).

⁸⁵ *State Breastfeeding Legislation*, *supra* note 72, at 1-5.

⁸⁶ OHIO REV. CODE ANN. § 3781.55 (West 2005).

⁸⁷ Brianne Whelan, *For Crying Out Loud: Ohio’s Legal Battle With Public Breastfeeding And Hope For The Future*, 13 AM. U. J. GENDER SOC. POL’ & L. 669 (2005).

⁸⁸ See, e.g., COLO. REV. STAT. § 25-6-301 (“(h) In addition to individual health benefits, breastfeeding results in substantial benefits to society, including reduced health care costs, *reduced environmental damage*, reduced governmental spending on the women,

attention to the environmental benefits of breastfeeding would help encourage enactment of such laws in states where none exist, or initiate enactment of stronger laws in states with only basic protections.

The first paragraph of this essay made the assertion that laws promoting and supporting breastfeeding should be included among laws labeled as “environmental.” While such construction of that word may be too broad for some,⁸⁹ it is in keeping with the perception of the broad extent of the environmental field by a number of scholars.⁹⁰ Professor Lazarus, for example, believes environmental law is defined by the very problem it seeks to address—where, when, how fast, and whether ecosystems should be transformed—and thus is necessarily complex, dynamic, and interdependent.⁹¹ Likewise, top environmental law programs have a huge variety of courses that demonstrate the extensiveness of the field as it has developed.⁹²

While it would be possible to narrow the description in the opening paragraph to “laws with environmentally beneficial outcomes,” in my view “environmental” law can include all laws that impact (directly or

infants, and children supplementary feeding programs, and reduced employee absenteeism for care attributable to infant illness.” (emphasis added)).

⁸⁹ There is no agreement as to what environmental law “includes”; the Environmental Protection Agency (EPA) lists the “major” environmental laws as including eighteen. EPA, Laws & Regulations, Major Environmental Laws, <http://www.epa.gov/epahome/laws.htm> (last visited Oct. 25, 2005). See also Legal Information Institute, Environmental Law: An Overview, <http://www.law.cornell.edu/topics/environmental.html> (last visited Oct. 25, 2005).

⁹⁰ See, e.g., J.B. Ruhl, *A Manifesto for the Radical Middle*, 38 IDAHO L. REV. 385 (2002) (“the emergence of sustainable development in the 1990s as part of the “next generation” of environmental policy fused environment, economy, and equity into one policy triad.” *Id.* at 391-392); Victoria Jenkins, *Communication From The Commission: A Sustainable Europe For A Betterworld: A European Union Strategy For “Sustainable Development” [Commission’s Proposal To The Göteborg European Council] Com (2001) Final*, 14 J. ENVTL. L. 261 (2002) (“[e]nvironmental sustainability can be distinguished from the traditional concept of environmental protection by the shift in focus from the effects of the use of natural resources in the development process which are environmentally damaging to the sustainable use of natural resources as a whole.” *Id.* at 262).

⁹¹ RICHARD LAZARUS, *THE MAKING OF ENVIRONMENTAL LAW* (Univ. of Chi. 2004). See also Resources for the Future, *Environmental Law: The Little Movement that Could*, <http://www.rff.org/rff/Events/The-Making-of-Environmental-Law.cfm> (last visited Oct. 25, 2005).

⁹² See, e.g., Vt. Law School, Environmental Law Center Home Page, http://www.vermontlaw.edu/elc/index.cfm?doc_id=109 (last visited Oct. 25, 2005); Lewis & Clark Law School, Environmental and Natural Resources Law Program Home Page, <http://law.lclark.edu/dept/elaw/> (last visited Oct. 25, 2005).

indirectly) the environment.⁹³ I acknowledge the slippery slope upon which this puts me, but think that including breastfeeding laws in a definition of “environmental” laws is worth the risk.

After all, environmental law has a recognized focus on the future.⁹⁴ What is more central to the future than healthy children? Breastfeeding, as discussed above,⁹⁵ promotes childhood health and wellbeing. Likewise, environmental justice concerns call upon us to encourage the use of human milk for human babies.⁹⁶ For these reasons, as well as those discussed in detail previously, environmental activists should include legislation that supports breastfeeding among the issues that they enthusiastically promote. Breastfeeding is an ecological good, and the federal as well as state government law should support it.

⁹³ One of my colleagues probed my perspective on this by noting that, under this definition, a law that prohibited weapons of mass destruction could be considered an “environmental law.” I concur, and think this would be a desirable expansion of the field.

⁹⁴ See Lisa Heinzerling, *Environmental Law and the Present Future*, 87 GEORGETOWN L.J. 2025 (1999).

⁹⁵ See *supra* notes 6-7 and accompanying text.

⁹⁶ Robert R.M. Verchick, *In A Greener Voice: Feminist Theory And Environmental Justice*, 19 HARV. WOMEN’S L.J. 23 (1996). See also Press Release, Citizens’ Env’tl. Coal., City of Buffalo Passes Resolution to Reduce the Purchase of Toxic Products (Dec. 29, 2004), available at <http://www.besafenet.com/BuffaloPolicy.htm> (discussing how limits on productions of toxic products could help “remedy environmental justice problems, as many products that contain or release PBT chemicals are produced in low-income and/or communities of color” and make their way into the breastmilk of the women who live there). For further discussion about some environmental justice implications of breastmilk, see generally World Alliance for Breastfeeding Action, *supra* note 35.