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From: Rachel's Democracy &amp; Health News, Jan. 5, 2006

**2005 WAS A VERY GOOD YEAR  
FOR THE BIOTECH FOOD INDUSTRY**

[Rachel's summary: Many people around the world resist eating genetically modified foods (GMOs), and they still have a choice. But pollen carried on the wind is slowly contaminating much of the world's cropland with GMOs. One of these days, there won't much left to call "organically grown" or non-GMO crops. Then most of us will be eating food grown from seeds patented by Monsanto and Dow.]

By Peter Montague

Felix Ballarin spent 15 years of his life developing a special organically-grown variety of red corn. It would bring a high price on the market because local chicken farmers said the red color lent a rosy hue to the meat and eggs from their corn-fed chickens. But when the corn emerged from the ground last year, yellow kernels were mixed with the red. Government officials later confirmed with DNA tests that Mr. Ballarin's crop had become contaminated with a genetically modified (GMO) strain of corn.

Because Mr. Ballarin's crop was genetically contaminated, it no longer qualified as "organically grown," so it no longer brought a premium price. Mr. Ballarin's 15-year investment was destroyed overnight by what is now commonly known as "genetic contamination." This is a new phenomenon, less than 10 years old -- but destined to be a permanent part of the brave new world that is being cobbled together as we speak by a handful of corporations whose goal is global domination of food.

Mr. Ballarin lives in Spain, but the story is the same all over the world: genetically modified crops are invading fields

close by (and some that are not so close by), contaminating both the organic food industry and the "conventional" (non-GMO and non-organic) food industry.

As a result of genetically contamination of non-GMO crops in Europe, the U.S., Mexico, Australia and South America, the biotech food industry had an upbeat year in 2005 and things are definitely looking good for the future. As genetically modified pollen from their crops blows around, contaminating nearby fields, objections to genetically modified crops diminish because non-GMO alternatives become harder and harder to find. A few more years of this and there may not be many truly non-GMO crops left anywhere. At that point there won't be any debate about whether to allow GMO-crops to be grown here or there -- no one will have any choice. Most of the crops in the world will be genetically modified (except perhaps for a few grown in greenhouses on a tiny scale). At that point, GMO will have contaminated essentially the entire planet, and the companies that own the patents on the GMO seeds will be sitting in the catbird seat.

It is now widely acknowledged that GMO crops are a "leaky technology" -- that it to say, genetically modified pollen is spread naturally on the wind, by insects, and by humans. No one except perhaps some officials of the U.S. Department of Agriculture were actually surprised to learn this. GMO proponents have insisted for a decade that genetic contamination could never happen (wink, wink) and U.S. Department of Agriculture officials want along with the gag. And so of course GMO crops are now spreading everywhere by natural means, just as you would expect.

It couldn't have turned out better for the GMO crop companies if they had planned it this way.

Growers of organically-grown and conventional crops are naturally concerned that genetic contamination is hurting acceptance of their products. Three California counties have banned GM crops. Anheuser-Busch Co., the beer giant, has demanded that its home state (Missouri) keep GMO rice fields 120 miles away from rice it buys to make beer. The European Union is now trying to establish buffer zones meant to halt the unwanted spread of GM crops. However, the Wall Street Journal reported November 8{1} that, "Such moves to restrict the spread of GM crops often are ineffective. Last month in Australia, government experts discovered biotech canola genes in two non-GM varieties despite a ban covering half the country. 'Regretfully, the GM companies appear unable to contain their product,'" said Kim Chance, agriculture minister for the state of Western Australia, on the agency's Web site.

For some, this seems to come as a shocking revelation -- genetically modified pollen released into the natural

environment spreads long distances on the wind. Who would have thought? Actually, almost anyone could have figured this out. Dust from wind storms in China contaminates the air in the U.S. Smoke from fires in Indonesia can be measured in the air half-way around the world. Pollen is measurable in the deep ice of Antarctica. No one should ever have harbored any doubt that genetically modified pollen would spread everywhere on the Earth sooner or later. (We are now exactly 10 years into the global experiment with GMO seeds. The first crops were planted in open fields in the U.S. in 1995. From this meager beginning, global genetic contamination is now well along.)

Who benefits from all this? Think of it this way: when most crops on earth are genetically contaminated, then the seed companies that own the patented seeds will be in a good position to begin enforcing their patent rights. They have already taken a test case to court and won. In 2004, Monsanto (the St. Louis, Mo. chemical giant) won a seven-year court battle against a 73-year-old Saskatchewan farmer whose canola fields had been contaminated by Monsanto's genetically modified plants. The Supreme Court of Canada court ruled{2} that the farmer -- a fellow named Percy Schmeiser -- no longer owns his crops. Monsanto now owns his crops because Monsanto's patented genes made their way into his fields.

Armed with this legal precedent, after genetically modified crops have drifted far and wide, Monsanto, Dow and the other GMO seed producers will be in a position to muscle most of the world's farmers. It is for cases exactly like this that the U.S. has spent 30 years creating the WTO (world trade organization) -- to settle disputes over "intellectual property rights" (such as patents) in secret tribunals held in Geneva, Switzerland behind closed doors without any impartial observers allowed to attend. Even the results of WTO tribunals are secret, unless the parties involved choose to reveal them. Let me see -- a dirt farmer from India versus Monsanto and Dow backed by the U.S. State Department and the U.S. Treasury (with the shadow of the Pentagon always in the background). I'm struggling to predict who might win such a politico-legal dispute conducted by a secret tribunal in Geneva, Switzerland.

During 2005, it was discovered that GMO crops have not lived up to their initial promise{3} of huge profits for farmers and huge benefits for consumers. It was also discovered that the U.S. Department of Agriculture has not enforced its own strict regulations{4} that were intended to prevent experimental GMO seeds from accidentally contaminating nearby fields. GMO crops were supposed to produce important human health benefits - and then be developed under super- strict government control - but all these promises have turned out to be just so much eye wash.. GMOs were supposed to reduce reliance on dangerous pesticides -- but in fact they have had the opposite effect. Monsanto's first GMO crops were designed to withstand drenching in Monsanto's most profitable product, the weed killer Round-Up -- so farmers who buy Monsanto's patented "Round-up ready" seeds apply more, not less, weed killer.

But so what? Who cares if GMO seeds don't provide any of the benefits that were promised? Certainly not the seed companies. Perhaps benefits to the people of the world were never the point. Perhaps the point was to get those first GMO crops in the ground -- promise them the moon! -- and then allow nature to take its course and contaminate the rest of the planet with patented pollen. The intellectual property lawsuits will come along in good time. Patience, dear reader, patience. Unlike people, corporations cannot die, so our children or our grandchildren may find themselves held in thrall by two or three corporations that have seized legal control of much of the world's food supply by getting courts (backed by the threat of force, as all courts ultimately are) to enforce their intellectual property rights.

The Danish government has passed a law intended to slow the pace{5} of genetic contamination. The Danes will compensate farmers whose fields have become contaminated, then the Danish government will seek recompense from the farmer whose field originated the genetic contamination, assuming the culprit can be pinpointed. This may slow the spread of genetic contamination, but the law is clearly not designed to end the problem.

Yes, it has been a good year for the GMO industry. None of the stated benefits of their products have materialized -- and the U.S. government regulatory system has been revealed as a sham -- but enormous benefits to the few GMO corporations are right on track to begin blossoming. For Monsanto, Dow and Novartis, a decent shot at gaining control over much of the world's food supply is now blowing on the wind and there's no turning back. As the Vice-President of plant genetics for Dow Agrosiences said recently{6}, "There will be come continuing bumps in the road, but we are starting to see a balance of very good news and growth. The genie is way out of the bottle."

- {1} [http://www.precaution.org/lib/06/biotech--a\\_leaky\\_technology.051108.htm](http://www.precaution.org/lib/06/biotech--a_leaky_technology.051108.htm)
- {2} [http://www.precaution.org/lib/06/monsanto\\_beats\\_percy\\_schmeiser.20040522.htm](http://www.precaution.org/lib/06/monsanto_beats_percy_schmeiser.20040522.htm)
- {3} [http://www.precaution.org/lib/06/promise\\_of\\_biotech\\_unrealized.060103.htm](http://www.precaution.org/lib/06/promise_of_biotech_unrealized.060103.htm)
- {4} [http://www.precaution.org/lib/06/lax\\_gmo\\_oversight\\_by\\_usda.060103.htm](http://www.precaution.org/lib/06/lax_gmo_oversight_by_usda.060103.htm)
- {5} [http://www.precaution.org/lib/06/denmark\\_may\\_compensate\\_for\\_gm\\_contamination.051123.htm](http://www.precaution.org/lib/06/denmark_may_compensate_for_gm_contamination.051123.htm)
- {6} [http://www.precaution.org/lib/06/promise\\_of\\_biotech\\_unrealized.060103.htm](http://www.precaution.org/lib/06/promise_of_biotech_unrealized.060103.htm)

URL: <http://www.alternet.org/story/23607/>  
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## INTERVIEW WITH GREG LEROY, AUTHOR OF THE GREAT AMERICAN JOBS SCAM

By Lakshmi Chaudhry

[Rachel's summary: Today, states, counties, and cities cannibalize their own communities in the name of "attracting business," which entails competing with one another to waste vast amounts of precious taxpayer dollars in the form of corporate subsidies. As {The Great American} {Jobs Scam} reveals, these subsidies are not just "unfair" but also entirely useless. Companies routinely pocket the money -- all \$50 billion of it each year -- without delivering either the promised jobs or tax revenues.]

We increasingly live in a Wal-Mart America, where the hours are long, wages low, and benefits non-existent. Where have all the good jobs gone? The debate over jobs has for the most part been obscured by partisan rhetoric, corporate spin and media hype. Screaming headlines about outsourcing jostle those of corporate fraud. But in the end we're none the wiser about how to create a better future for ourselves and our children.

Greg LeRoy's new book, "The Great American Jobs Scam{1}: Corporate Tax Dodging and the Myth of Job Creation offers at least part of the answer in exposing a system that subsidizes corporate greed at the expense of the taxpayer. Today, states, counties, and cities cannibalize their own communities in the name of "attracting business," which entails competing with one another to waste vast amounts of precious taxpayer dollars in the form of corporate subsidies. As LeRoy demonstrates in his book, these subsidies are not just "unfair" but also entirely useless. Companies routinely pocket the money -- all \$50 billion of it each year -- without delivering either the promised jobs or tax revenues.

LeRoy spoke to AlterNet from his office in Washington DC.

Lakshmi: So what is the "great American job scam"?

Greg LeRoy: It's an intentionally rigged system that enables companies to get huge tax breaks and other taxpayer subsidies by promising good jobs and higher tax revenues -- and then allowing them to fail to deliver and suffer no meaningful consequences.

LC And this is a system that costs the American tax payers \$50 billion a year?

GL Right, that's the estimated total spending by states and cities.

LC One of the points you make in the book is that it is very hard to get this data, right? There is no disclosure, with these corporate deals being negotiated behind closed doors. So the very heart of your argument -- that corporations don't deliver on the increased tax revenues, increased jobs, etc that they promise in return for these tax breaks -- is obscured by this lack of disclosure.

GL People who develop these estimates at the state level are dealing with broad aggregate numbers. It would tell you nothing about any specific company, whether it did or did not create jobs, did or did not generate tax revenue. In most states, we are completely in the dark.

Having said that, 12 states now have some form of annual company-specific disclosure. We're very excited because just recently Illinois, just began reporting data. There are four states now that disclose some of their data on the web and we think Illinois is the best.

LC Whose interest does this secrecy serve? It obviously serves the interest of the corporations, but it's surprising that state governments have not pushed for more disclosure.

GL It obviously serves lots of peoples' self-interest to hide what's going on: the companies who get the big tax breaks and don't want people to look carefully at the outcomes; the politicians who often frankly know this is bad public policy and don't want to own up to it. Often the effects of these tax breaks play out over many years. So you have one governor hand off budget potholes to the next governor and so on. So there's lots of buck-passing going on. There's lots of self-interest in these things being hidden.

LC One of the most striking things in your book is this ridiculously lopsided power relationship between public officials and corporations. The politicians are almost like members of a harem vying for the king's attention, or in this case, a company's favor.

A lot of the scams that you describe -- as in extorting these huge subsidies without delivering any kind of return -- comes from the fact that different states are competing with each other to land a corporate deal. Have we always had this war among the states, almost a kind of mutual and assured destruction?

GL That's really the nub issue. It's the power dynamic both among states and companies and among suburbs and companies -- because this harem/king dynamic, as you put it, plays out at the regional level as well as at the multi-state level.

No, it was not always like this, and I tried to sketch the major kind of milestones along the way where I think the dams really broke. There's the birth of a site location consulting industry we got with Fantus, and its growth in the '50s and '60s is part of the story. The secretive consulting industry hides in the shadows and specializes in playing states and cities against each other on behalf of the companies it represents. By the '70s, we had done this thousands of times.

Then there's the rise of the whole business climatology industry as exemplified by the studies -- especially in the '70s and early '80s by the Grant Thornton Firm for the state manufacturers associations -- which offered this highly politicized interpretation of jobs and tax data. These studies

basically said to the North and to the Midwest: "You've got to be more like the South. We will judge you based on how willing you are to give up your tax base and help us suppress wages."

Another big watershed moment was the arrival of the Japanese transplants -- the auto assembly plants that started arriving early- and mid-'80s. Despite the fact that the Japanese automakers had to set up these plants because they were fighting off protectionist legislation in the U.S. Congress, they still got eight- and nine- figure subsidy packages by playing states against each other -- and all with the assistance, frankly, of the American site location consulting industry.

So I think all those are big watershed moments that kept upping the ante. So today the average state has 30 different ways it gives away money in the name of jobs. It does a very bad job of accounting for outcomes and monitoring cost effectiveness. And the debate in most state legislatures is not about fixing this problem or reducing subsidies but over enacting even more handouts.

LC Along the way though there's also been a huge ideological transformation of American culture, beginning with the Reagan era. And according to this rightwing, pro-corporate worldview, attracting business is an unadulterated good. As in anything you do bring a corporation into your city, district, state, or your country, is an absolute good. How much has the broader political transformation been a part of making this kind of corporate extortion easier and more legitimate?

GL I think you are exactly right. The broader rise of conservatism goes hand-in-glove with this give-away subsidy problem. Frankly, I've seen very little scholarship looking at the sort of political economy of job subsidies. It's a woefully understudied subject. Anecdotally, I've heard people many times suggest that the way governors allocate their economic development dollars amounts to political engineering.

They use these dollars to cut ribbons with mayors and county executives of their own party; use the programs for partisan benefit; grow new jobs in areas that are more favorable to them politically. I've never seen that studied systematically -- so there are a couple of great dissertations waiting for somebody to write here.

LC Right at the outset, in the introduction, you write: "At the core of this scandal are corrupted definitions of 'competition' that obscure cause and effect." What do you mean by that?

GL The corporations have transformed the definition of competing for economic development -- so it's now defined as which state or which suburb will give away the most money to a company.

But here's the reality: because state and local taxes are such a small, small cost factor to the average company -- less than 1 percent for the average company after they deduct them on

their federal income taxes -- these taxes don't determine where companies expand or locate. If a company were to pay attention to 0.8 percent of its cost structure and ignore the other 99.2 percent, that company would not be around very long.

So what's really going on in this rigged system is that companies are getting paid to do exactly what they would have otherwise done. All the while that governments are posing as competitors, it's really a false competition, a rigged competition.

LC Let me clarify that. So what you're saying that a company's decision on where to locate its operations actually has nothing to do with these tax subsidies. And therefore, if they decided to set up shop in Location A, they would have done it anyway, irrespective of whether they received handouts or not.

GL Exactly right. It's why believe that we need a different form of competition that doesn't have to do with how much of your tax base you'll give away. It should be about how good your public systems are -- public systems that are available to all employers. That is, how good is your infrastructure? How good is your workforce development system? How good are your public schools? How good is your quality of life, your cultural amenities and your open spaces? It's not just about being "fair." Quite frankly, that's the way a lot of employers, including the best employers, determine where they want to invest.

So it's a really twisted dance that local officials often have to dance. In one breath, they're talking about all these giveaways which allow companies to dodge paying their fair share for these public goods that I just talked about. On the other hand, they have to brag about how good their public goods are because they know that's what really matters to a lot of good employers.

LC And most of these companies are basically being rewarded for doing what they are supposed to do anyway, which is, do business.

GL Exactly right. And they are getting rewarded in ways that don't really affect their bottom line -- actually, I'd argue, in ways that could hurt their bottom line because it's going to undermine the quality of life, the quality of the skills base, and the quality of the infrastructure.

LC One of the most interesting connections you make in the book is between this kind of economic competition and sprawl. So when local governments give huge incentives to retail stores like Wal-Mart, they're actually creating unsustainable development.

Yes, absolutely. It's not just the terrible things Wal-Mart does to wages and competition or the trade deficit. It's about cities being treated like they are disposable; and open space being treated like its disposable; and malls being treated like they are disposable.

Because many states allow job subsidies to go to retail companies like Wal-Mart, etc., we've got suburbs that are cutting each other's throats. They're robbing each other of shoppers in order to collect the incremental payment on sales tax. So we have this gross over-building of retail space in this country, far more than any of our major trading partners, far more than we had twenty, thirty years ago. Wal-Mart, as the biggest retail player, is the poster child for that trend.

It's terrible public policy because it moves lots of economic activity away from places that need it, that are already developed, and that have the infrastructure. It's an extremely inefficient and, as you put it, unsustainable, both ecologically and from a tax point of view. We can't keep thinning out and expecting the taxpayer to support ever more miles of roads, ever more miles of sewer and water lines, ever more underutilized public schools.

It just doesn't work, and at some point things snap. So you see a number of big cities -- Detroit is a pretty good example, or Philadelphia -- struggling with their tax base. These regions are so gutted that they're really struggling.

LC When it comes to jobs, a lot of the conversation in the media is centered around outsourcing. You don't focus on that very much at all. Why is that?

We have one: the case of Sykes Enterprise, the call center company that is included in Chapter One. That story has not been pieced together elsewhere, and we think it's one of the breaking news hooks of the book.

But you're right. We didn't focus a lot on outsourcing. Here's the reason. It goes back to the disclosure problem. Certainly there are lists of companies out there that outsource -- some of them are the biggest IT, engineering and manufacturing companies that we know about. The Fortune 100 so to speak. But because those companies are so huge, the quality of disclosure about economic development subsidies that the companies have gotten is fragmentary. It would be almost as bad as finding a needle in a haystack to try and knit together the story of a particular job that used to be in upstate New York and got a tax break and is now off-shore. Linking those specific stories is virtually impossible in those cases because of the poor quality of disclosure of subsidies.

And there are so many things going on with jobs that aren't moving overseas. We wanted to focus on the fact that taxpayers are subsidizing fast-food joint and poverty-wage big-box retail jobs and other kind of low-end, dead-end service sector jobs -- and all this at a time when some of the best jobs in the country, like manufacturing jobs, are either being automated out of existence, or going offshore or being lost because of bad trade policies.

In manufacturing, for instance, we focus on this one particular kind of tax break called "single sales factor" that a lot of state manufacturers associations have been touting as kind of a panacea. But if you look at the track record of the

states that have adopted this huge tax break, they're doing no better than the country as a whole.

The issue affecting manufacturing jobs generally is globalization. There are a certain number of manufacturing jobs that are very unlikely to go offshore because they are tied to markets here -- printing things that are time sensitive, business-sector related things and so on. Other things are very likely to go offshore -- things that are labor intensive, more commoditized, and technologically less complicated. And we need to grapple with those realities. We have to save what we can, acknowledge what we can't save, and try to find good ways to employ people that are affected by those events. But subsidizing Wal-Mart or fast food joints isn't the answer to dislocated manufacturing workers.

LC Another interesting thing about the Sykes story is that these call center jobs that the politicians paid so much to attract weren't even worth having.

GL Yes, the call center jobs often do not pay very well, and often suffer lots of erratic ups and downs in terms of layoffs and rehiring. So it's really testimony to what a company can do when it tries to be a big fish in a little pond. These call centers had impressive numbers of jobs. Some of them had five hundred or more people working in them, and in pretty small labor markets in rural areas where they were drawing a lot of people. To me, it makes those stories all the more tragic because the amount of subsidies that the localities gave was, for them a very huge sum in many cases. And I'm sure it left a bitter taste in a lot of people's mouths.

LC So what is the solution? You list a series of prescriptions at the end of the book. But what is the broader philosophy -- paradigm change, if you will -- that is required here?

GL One theme we come back to a lot -- especially when I train public officials -- is the idea of your own civic self-esteem or your own civic self-image. If you internalize the demeaning, degrading stereotypes that are peddled by the business climatologists and by the site location consultants -- if you think your community really is worthless -- then you've set yourself up to give away the store for a bad deal.

The idea is not to internalize those demeaning stereotypes. To believe that your community has real assets -- a good school system, a skilled labor force, valuable business linkages that other companies would like to link up to. When you've got some fundamentals that have real value for companies, then you can drive a smarter bargain. Then you can ask for job quality standards, for better wages and healthcare. You can put a clause back in the contracts so that if the company fails to deliver, taxpayers get their money back. And at the state level you can even demand disclosure -- as we now have in twelve states -- so that taxpayers can see every deal, every year, to measure the cost against the benefits.

I like to think that we're close to a tipping point on the disclosure debate. With twelve states now on line and some of them putting their information on the web, we think that

disclosure of subsidies is going to become as mainstream as things like the disclosure of toxic emissions which has been federal law for a very long time as well under the Toxic Right to Know Law. We think it's approaching that level of acceptance and legitimacy.

None of the states that have adopted these rules have hurt their business climate. None of them are losing deals or losing businesses as a result of putting some sunshine on the process. I think they are making it easier for local officials to keep the bottom-feeders out of the public trough, so to speak. And I think they are making it easier for public officials to save their money for skills and infrastructure and things that really work.

LC And that actually creates better paying jobs in the future, right?

GL Skills and infrastructure have always been proven winners for creating good jobs. But now more than ever, it's an acute issue because of the looming baby boom generation retirements that will begin en masse -- as early as 2008 -- and because of the decrepit condition of many parts of the American infrastructure system, which have suffered because states and cities have had such budget crunches for so many years.

So either we are going to let our infrastructure fall apart and hurt everybody's productivity and we're going to ignore the massive loss of skilled labor resulting when the baby boom hits the exit doors. Or, we're going to massively redirect our money away from company giveaways into things that benefit all employers. It's the only way to cope with this very predictable train wreck.

Lakshmi Chaudhry is the former senior editor of AlterNet.

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- {1} <http://www.powells.com/biblio/61-1576753158-0>
- {2} <http://www.powells.com/biblio/61-1576753158-0>
- {3} <http://www.powells.com/biblio/61-1576753158-0>

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From: Rachel's Democracy & Health News, Jan. 5, 2006

**THE ECONOMIC COSTS OF ENVIRONMENTAL DISEASES AND DISABILITIES**

[Rachel's summary: "What it comes down is this: The economic costs of environmental diseases and disabilities are very significant and they are largely preventable. By taking action to reduce or eliminate exposures to toxic chemicals, the US could save billions of dollars a year in health and related costs and significantly improve public health."]

By Kate Davies

[DHN introduction. In two other studies, found here{1} and here{2}, Kate Davies has estimated that environment-related diseases in Washington state cost somewhere between \$2.8 and \$3.5 billion per year. If these costs were generalized to the entire U.S. population, the total cost of environment-related diseases would be \$132 to \$165 billion each year. However, as this article makes clear, there are large uncertainties in these estimates. And of course such estimates completely ignore the psychological and emotional costs of the human suffering involved for the victims, their families, and their communities.--DHN Editors]

Introduction

It has been said that economics is the only subject in which two people can get a Nobel Prize for apparently contradictory research. Joking aside, economics is quite literally a deadly serious business. Especially when it comes to the health effects of toxic chemicals.

Environmental health advocates have long claimed that economics, and more specifically the high costs of implementing environmental protection measures, have been used to justify the continued use of many toxic chemicals. They assert that government and industry are reluctant to protect public health from exposure to toxic chemicals, if it means implementing measures that would cost too much money and reduce profitability. For example, lead based paint was banned in some European countries as early as 1921 because of health concerns, but it was not outlawed in the US until the 1970s. Similarly, information on the risks of leaded gasoline was available for many years before regulatory action was taken. Today, the health risks of asbestos, mercury and many other toxic chemicals are generally acknowledged by the scientific community, but these substances continue to be used and released into the environment.

Environmental health policy decisions focus on the costs of taking action to protect public health, while often ignoring the costs associated with inaction. In particular, the continued use of toxic chemicals has been associated with many chronic diseases and disabilities, including cancer, birth defects, and learning and developmental disabilities. These and other chronic diseases now cause major limitations in daily living for more than one in every ten Americans and account for more than 70 percent of the \$1 trillion spent each year on health care in the US . Although exposure to toxic chemicals is only one factor in chronic disease causation, environmental health policy decisions should take account of both sides of the metaphorical coin -- both the costs of taking action to protect public health, and the costs of inaction and continued exposures to environmental hazards.

The idea that the health costs of environmental hazards should be considered in policy decisions is not new. About 150 years ago, Charles Dickens argued that the high cost of typhus in London (440,000 pounds in 1848 alone) should be considered in decisions about whether to implement new

public health measures. He commented: "This cold-blooded way of putting the really appalling state of the case is, alas, the only successful mode of appealing.... His heart is only reached by his pocket." Placing an economic value on people's suffering may be "cold-blooded", but it is necessary because environmental health policy decisions are based primarily on an economic metric. Nevertheless, monetary valuations can never take account of the psychological and emotional costs of disease to patients or to their families, friends and communities.

## THE ECONOMIC COSTS OF ENVIRONMENTAL DISEASES & DISABILITIES

So what are the economic costs of environmental diseases and disabilities today? This is a tricky question because it is difficult to be precise about the proportions of different diseases and disabilities attributable to environmental exposures, and because of the challenges of estimating the economic costs of health conditions.

But in the past few years, a growing consensus has emerged on the fractional amounts or percentages of some common diseases and disabilities generally linked to exposure to environmental contaminants. This is a result of increasing knowledge about gene-environment interactions in disease causation, the determinants of health, and the health effects of toxic chemicals. At the same time, health economists have made significant improvements in "cost of illness" models for most common health conditions. These models now include direct healthcare costs, such as hospitalization, physician and nursing services, prescription medications and home care, and indirect costs, such as lost productivity and costs associated with special educational and social services.

These advances are paving the way for the development of sophisticated estimates of the costs of diseases and disabilities attributable to environmental contaminants. Using cautious assumptions about health and related costs, the environmentally attributable fractions of a limited number of health conditions, and disease rates in populations, researchers are beginning to generate conservative estimates of the costs of diseases and disabilities attributable to environmental contaminants.

The studies on the health and related costs of environmental pollutants fall into three general categories. Early studies focused on the costs of lead exposure. Key among these are Schwartz's and Salkever's estimates of the earnings benefits from reduced childhood exposure to lead. More recently in 2002, Grosse et al. were the first to estimate the national economic gains resulting from increased worker productivity associated with reduced lead exposure since the 1970s. Subsequent studies on the costs of lead exposure have gone beyond looking at productivity and earnings, and have estimated costs for special education and juvenile justice. Most recently, Trasande et al. have calculated the costs of mental retardation attributable to exposure to another heavy metal, methyl mercury.

The second type of study to estimate the health costs of environmental pollution has focused on the costs of air pollution. An early study in Pennsylvania estimated the hospitalization costs resulting from air pollution and a major study conducted by the Ontario Medical Association used a software model to estimate that air pollution costs in the Province amounted to more than \$1 billion a year in hospital admissions, emergency room visits, and absenteeism.

The third type of study has focused on multiple disease outcomes, especially in children. The first major national study considered childhood asthma, cancer, neurobehavioral disorders, and lead poisoning, and it estimated that the environmentally attributable costs of these diseases and disabilities were \$55 billion. This study was followed by similar studies in Massachusetts, Washington, and Montana.

These studies are important because they provide estimates of economic costs that have been traditionally externalized from environmental health policy decisions. Classic examples of costs usually externalized from decision making include the costs of the raw goods and services provided "free" by nature, such as: trees for lumber; fish and agricultural crops for food; oil, coal and hydro-electric power for energy; and air and water for industrial processing. Then there are free waste disposal services provided by nature, also usually externalized from decision making. These costs include water purification functions provided by wetlands and other aquatic ecosystems, and the ability of micro-organisms to break down some environmental pollutants into less harmful substances. The emerging discipline of ecological economics is beginning to estimate the costs of these "free" goods and services provided by nature. This is a useful way of pointing out the need to take account of all costs in environmental policy decisions. The recent estimates of the health and related costs of environmental diseases and disabilities add to this emerging body of knowledge.

## COST BENEFIT ANALYSIS

So how can information on the health and related costs of environmental diseases and disabilities be internalized into environmental health decision-making? One way is to incorporate it into cost-benefit analyses. This can be done by seeing these costs as economic benefits that would accrue if exposures were eliminated or reduced. Indeed, one recent study has estimated the economic benefits of public health improvements attributable to air pollution regulations in the US. Cost-benefit analysis can be most useful to policy-makers if it includes both types of information -- the costs of protecting environmental health, and the health and related benefits of doing so. To be comprehensive cost-benefit analyses should include all costs and benefits to public health and to industry, not just some.

A related issue is that the health and related costs of the continued use of toxic chemicals are borne mostly by individuals, communities and ultimately by society as a whole, rather than by those who are responsible for producing, using, disposing of, and releasing toxic chemicals

into the environment. In contrast, the economic benefits of the continued use of toxic chemicals go mostly to individual companies. Hence, there is a disparity between who benefits and who pays. This is a common problem with externalized costs: those who pay the price are usually different from those who reap the benefits.

#### THE BOTTOM LINE

Incorporating health costs into environmental health cost benefit analyses and other policy processes would provide decision makers with more complete, balanced and accurate information. This would strengthen decision making processes considerably. Indeed, a recent study found that environmental health policy makers identified information on the links between environmental health and the economy as one of their key needs. Some may argue that we can never know the exact costs of environmental diseases. This is a valid point, but even if the recent conservative estimates are inaccurate by a significant margin, the estimates show that the costs of environmental diseases and disabilities run into tens of billions of dollars a year in the US, possibly outweighing the costs of environmental protection. Moreover, the estimated costs of environmental protection measures are themselves based on many assumptions that are unlikely to be completely precise or accurate.

What it comes down is this: The economic costs of environmental diseases and disabilities are very significant and they are largely preventable. By taking action to reduce or eliminate exposures to toxic chemicals, the US could save billions of dollars a year in health and related costs and significantly improve public health.

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URL:<http://www.precaution.org/lib/06/correction.060105.htm>

From: Rachel's Democracy & Health News #836, Jan. 5, 2005

**CORRECTION: SERIOUS ERROR IN RACHEL'S NEWS #835**

[Rachel's summary: Last week, I wrote, "But decade after decade since World War II, economic growth rates have been stagnant or declining, not just in the U.S. but throughout the "developed" world." I should have written, "But decade after decade since 1970, economic growth rates have been stagnant or declining, not just in the U.S. but throughout the 'developed' world."--P.M.]

Last week, in Rachel's #835 I misstated the history of economic growth in the U.S. since WW II. I wrote, "But decade after decade since World War II, economic growth rates have been stagnant or declining, not just in the U.S. but throughout the "developed" world."

*Rachel's Democracy & Health News (formerly Rachel's Environment & Health News) highlights the connections between issues that are often considered separately or not at all. The natural world is deteriorating and human health is declining because those who make the important decisions aren't the ones who bear the brunt. Our purpose is to connect the dots between human health, the destruction of nature, the decline of community, the rise of economic insecurity and inequalities, growing stress among workers and families, and the crippling legacies of patriarchy, intolerance, and racial injustice that allow us to be divided and therefore ruled by the few. In a democracy, there are no more fundamental questions than, "Who gets to decide?" And, "How do the few control the many, and what might be done about it?"*

*As you come across stories that might help people connect the dots please Email them to us at [dhn@rachel.org](mailto:dhn@rachel.org). Rachel's Democracy & Health News is published as often as necessary to provide readers with up-to-date coverage of the subject. Editors: Peter Montague - [peter@rachel.org](mailto:peter@rachel.org); Tim Montague - [tim@rachel.org](mailto:tim@rachel.org)*

I should have written, "But decade after decade since 1970, economic growth rates have been stagnant or declining, not just in the U.S. but throughout the 'developed' world."

A corrected version of Rachel's #835 can be found here{1} and a corrected version of that particular essay can be found here{2}.

The slowdown in economic growth has occurred during the past 35 years. It is particularly obvious when compared to the decade of the 1960s.

My thanks to Mike Hollinshead for pointing out the error.

Anyone who wants data on growth rates of the "developed" economies of the world during the past 50 years can find it in these five books:

Bernstein, Michael A., and David E. Adler. Understanding American Economic Decline. Cambridge: Cambridge University Press, 1994. ISBN 0-521-45679-7.

Bjork, Gordon C. The Way It Worked and Why It Won't; Structural Change and the Slowdown of U.S. Economic Growth. Westport, Conn.: Praeger, 1999. ISBN 0-275-96532-5.

Cohen, Richard and Peter A. Wilson. Superpowers in Economic Decline; U.S. Strategy in the Transcentury Era. N.Y.: Taylor and Francis, 1990. ISBN 0-8448-1625-6.

Mardick, Jeffrey. The End of Affluence; The Causes and Consequences of America's Economic Dilemma. N.Y.: Random House, 1995. ISBN 0-679-43623-5.

Shutt, Harry. The Trouble with Capitalism; An Enquiry into the Causes of Global Economic Failure. London: Zed Books, 1998. ISBN 1-85649-566-3.

--Peter Montague

{1} <http://www.rachel.org/library/getfile.cfm?ID=551>

{2} [http://www.precaution.org/lib/05/synthetic\\_biology.051229.htm](http://www.precaution.org/lib/05/synthetic_biology.051229.htm)