The Chronicle
By Alice Loyd (through February 12, 2014) with additions by Herman Greene (through February 28, 2014)

INEQUALITY

CES shares a growing concern about the increasing economic inequality in the US and the world. We included The Earth Charter among the foundational statements of our organization when we first began our work—at about the same date as the publication of the Charter in June 2000. The Charter was created in a decade long, worldwide, cross-cultural conversation about common goals and values. Because the gap between rich and poor continues to grow and is such an important issue in any attempt to reverse environmental degradation, with this issue of The Chronicle we will begin regular coverage of this topic. This issue primarily concerns inequality in the United States. Subsequent issues will cover global inequality and poverty.

Story 1: World Economic Forum’s “Global Risks 2014 Report” Prioritizes Income Inequality and Environmental Issues

Each year in January, Davos, Switzerland, is host to some of the planet’s wealthiest people, who gather for the World Economic Forum (WEF), an annual meeting of global political and business elites often referred to simply as “Davos.” This year wealth inequality was the focus of the five-day event featuring closed-door seminars and public keynote speeches. Outside the forum, participants seemed to agree that the need of the hour is to reshape the world to ensure that every individual has equal access to an acceptable standard of living. A Reuters blogger reported the consensus: “The world of extremes in which we live today is not a sustainable one. The ever-increasing gap between the haves and the have-nots is unacceptable. More importantly, it is not conducive for socio-economic progress.”

Prior to the meeting WEF published the ninth edition of its Global Risks report. The report features an analysis of a survey of over 700 leaders and decision-makers from the WEF’s global multi-stakeholder community on 31 selected global risks in five categories: economic, environmental, geopolitical, technological, and societal. For the first time, survey respondents were asked directly to nominate their risks of highest concern.

Here are the top ten:

1. Fiscal crises in key economies
2. Structurally high unemployment/underemployment
3. Water crises
4. Severe income disparity
5. Failure of climate change mitigation and adaptation
6. Greater incidence of extreme weather events (e.g. floods, storms, fires)
7. Global governance failure
8. Food crises
9. Failure of a major financial institution mechanisms
10. Profound political and social instability

Respondents were also asked to classify risks in terms of both likelihood of occurrence in 2014 and in terms of impact.

Five greatest risks in terms of likelihood 2014:

1. Income disparity
2. Severe weather events
3. Unemployment and underemployment
4. Climate change
5. Cyber attacks

Five greatest risks in terms of impact:

1. Fiscal crisis
2. Climate change
3. Water crisis
4. Unemployment and underemployment
5. Critical information infrastructure breakdown

It was encouraging to see climate change among the five most likely and most impactful risks. Among other environmental risks, extreme weather events are considered the second most likely, and water crises also appear high on the list. These rankings suggest a growing understanding of the physical state of the planet.

The report stated that environmental and economic issues were “high impact” and “high likelihood”:

The risks considered high impact and high likelihood are mostly environmental and economic in nature: greater incidence of extreme weather events, failure of climate change mitigation and adaptation, water crises, severe income disparity, structurally high unemployment and underemployment and fiscal crises in key economies.

Female respondents perceived almost all global risks as both more likely and more impactful than did males, especially in the environmental category. Younger individuals gave higher scores for the impact of almost all of the risks, particularly environmental risks, such as water crises, greater incidence of natural catastrophes, the loss of biodiversity and greater incidence of extreme weather events.

On January 20, 2014, the Oxfam issued a briefing paper, “Working for the Few,” and a briefing paper summary aimed at the Davos gathering. The press release for the report contains these quotations:

The world’s elite have rigged laws in their own favour undermining democracy and creating a chasm of inequality across the globe. Inequality has run so out of control, that the 85 richest people on the planet own the wealth of half the world’s population.

[The report] details the pernicious impact that widening inequality is having in both developed and developing countries, helping the richest undermine democratic processes and drive policies that promote their interests at the expense of everyone else.

Policies successfully imposed by the rich in recent decades include financial deregulation, tax havens and secrecy, anti-competitive business practice, lower tax rates on high incomes and investments, and cuts or underinvestment in public services for the majority.

Oxfam is calling on governments to tackle inequality by cracking down on financial secrecy and tax dodging, including through the G20; investing in universal education and healthcare; and agreeing on a global goal to end extreme inequality in every country as part of the post-2015 negotiations.

Story 3: A Global Wealth Tax?

As the focus at Davos and Oxfam have shown, inequality is indeed a big issue, with pain now being felt at both ends of the wealth spectrum. On December 3, 2013, Romain Hatchuel warned in his Wall Street Journal (WSJ) op-ed “The Coming Global Wealth Tax,” “From New York to London, Paris and beyond, powerful economic players are deciding that with an ever-deteriorating global fiscal outlook, conventional levels and methods of taxation will no longer suffice. That makes weapons of mass wealth destruction—such as the “one-off capital levy” described in International Money Fund’s October 2013 Fiscal Monitor: Taxing Times publication (p. 49), Cyprus’s bank deposit confiscation, or outright sovereign defaults—likelier by the day.”

The context for the IMF’s discussion of the wealth tax is, according to Hatchuel, “the IMF’s expectation that in advanced economies the ratio of public debt to gross domestic product will reach a historic peak of 110% next year, 35 percentage points above its 2007 level.” A wealth tax was listed by the IMF as one alternative among others to raise government revenue. Indirectly the tax would address inequality because the tax would be paid by the wealthy.
Story 4: “The Conservative Case for a Wealth Tax”

Not all conservatives reject a wealth tax. Ronald McKinnon, economist at Stanford University, made “The Conservative Case for a Wealth Tax,” in his WSJ op-ed published on January 16, 2012. He argued that using highly progressive income tax rates had the effect of distorting work incentives and that a modest levy on the overall wealth of the very rich would be a more efficient way to tax the wealthy.

Reforming the income tax system is commonly seen as the principal way to reduce inequality. But any attempt to impose higher marginal tax rates on even moderately high income earners—as President Obama wants for families earning more than $200,000 per year—can lead to losses in economic efficiency, and even to losses in sorely needed government revenue if high earners work less or reveal less of their income. Still there is a strong case for reforming income taxes—both the personal and corporate—to increase efficiency and generate more revenue.

The basic problem is that defining “income” becomes progressively more difficult as income and wealth rise. Straight wage income is relatively easy to define and tax for middle-income earners—either through payroll taxes for Social Security or through the personal income tax. However, wealthy people live much more off returns from their asset holdings—both pecuniary and implicit (non-pecuniary). On the pecuniary side, they receive stock options, interest and dividends, and carried interest for owners of hedge and private equity funds, and realized capital gains. To avoid double taxation, all of these are taxed at lower rates than wage income. On the non-pecuniary side, asset holders receive imputed rental income from the houses (mansions) they own and major consumer durables such as automobiles, art collections, and yachts. And these non-pecuniary returns are not covered at all by the federal income tax. Unrealized capital gains on any asset, including stocks and bonds, are missed by the income tax.

McKinnon’s proposal?

We should implement a new federal wealth tax in addition to the federal income tax. A wealth tax does not rely on how “income” is defined. However, it does require that households list all their domestic and foreign assets at some designated point in time—say December 31 in the relevant tax year. Financial assets are more easily marked to market and can be netted out: assets minus liabilities, such as mortgages and other borrowing. The current prices of physical assets—houses, cars, yachts, and so forth—would be somewhat more difficult to establish. But county tax records of the assessed value of houses are available, and real estate agents have current records of home selling prices. For one-of-a-kind assets such as yachts and art collections, historical costs would become more important as would owner self-assessment.”
McKinnon advises that wealth taxes should be kept low.

Because wealth will generally present a much larger tax base than income, tax rates can be kept very low and still raise substantial revenue. Moreover, because the wealth tax rate is modest, the incentive for tax avoidance schemes is minimal—unlike a high marginal income tax rate of 40 percent or more for high income earners under current federal plus state income tax rates.”

He adds,

Another advantage of modest wealth tax rates, in contrast to high marginal rates for the income tax, is that it hits ‘old’ wealth along with ‘new’ wealth. Wealthy people living off their inheritances, and who don’t work so they are not touched much by the income tax, would be hit relatively harder; whereas ‘strivers’, with higher wage and salary income, would be hit less hard if marginal income taxes could be reduced because of revenue generated from a new wealth tax.

**Story 5: Joseph Stiglitz on The Price of Inequality**

Probably no economist has taken up the issue of inequality more than Nobel-Prize-winning, Columbia University economist Joseph Stiglitz. His magisterial book on the subject, published April 8, 2013, is entitled, *The Price of Inequality: How Today’s Divided society Endangers Our Future.* Stiglitz focus is on the US economy and he says the United States has the most inequality and the least equality of opportunity of the advanced industrial countries. He forcefully makes the argument that there are policy reasons behind the growth in inequality and that an elite has promoted these policies to the detriment of the economy, democracy, and society generally. He says that the growing inequality will not end without changes in government policy and he proposes needed policy reforms.

His book was a greatly expanded version of his well-known 2011 article published in *Vanity Fair,* “*Of the 1%, by the 1%, for the 1%.*” His lead paragraph is: “Americans have been watching protests against oppressive regimes that concentrate massive wealth in the hands of an elite few. Yet in our own democracy, 1 percent of the people take nearly a quarter of the nation’s income—an inequality even the wealthy will come to regret.” He ends this gripping article by writing, “The top 1 percent have the best houses, the best educations, the best doctors, and the best lifestyles, but there is one thing that money doesn’t seem to have bought: an understanding that their fate is bound up with how the other 99 percent live. Throughout history, this is something that the top 1 percent eventually do learn. Too late.”

His ideas have been advanced in numerous op-eds and articles which are easily accessible. In “*Inequality Is a Choice,*” published by The *New York Times* on October 13, 2013, he emphasizes how unequal the United States has become:
Last year, the top 1 percent of Americans took home 22 percent of the nation’s income; the top 0.1 percent, 11 percent. Ninety-five percent of all income gains since 2009 have gone to the top 1 percent. Recently released census figures show that median income in America hasn’t budged in almost a quarter-century. The typical American man makes less than he did 45 years ago (after adjusting for inflation); men who graduated from high school but don’t have four-year college degrees make almost 40 percent less than they did four decades ago.

American inequality began its upswing 30 years ago, along with tax decreases for the rich and the easing of regulations on the financial sector. That’s no coincidence. It has worsened as we have under-invested in our infrastructure, education and health care systems, and social safety nets. Rising inequality reinforces itself by corroding our political system and our democratic governance.

And he extended his analysis to growing inequality globally:

From 1988 to 2008, Mr. Milanovic found, people in the world’s top 1 percent saw their incomes increase by 60 percent, while those in the bottom 5 percent had no change in their income. And while median incomes have greatly improved in recent decades, there are still enormous imbalances: 8 percent of humanity takes home 50 percent of global income; the top 1 percent alone takes home 15 percent.

Story 6: Piketty’s Capital in the Twenty-First Century Places Distribution at the Economic Center


Capitalism, according to Piketty, confronts both modern and modernizing countries with a dilemma: entrepreneurs become increasingly dominant over those who own only their own labor. In Piketty’s view, while emerging economies can defeat this logic in the near term, in the long run, “when pay setters set their own pay, there’s no limit,” unless “confiscatory tax rates” are imposed.

Piketty’s book—published four months ago in France and due out in English this March—suggests that traditional liberal government policies on spending, taxation and regulation will fail to diminish inequality. . . .

Conservative readers will find that Piketty’s book disputes the view that the free market, liberated from the distorting effects of government intervention, “distributes,” as Milton Friedman famously put it, “the fruits of economic progress among all people. That’s the secret of the enormous improvements in the conditions of the working person over the past two centuries.”
Piketty believes the rise in inequality reflects markets working precisely as they should. “This has nothing to do with a market imperfection: the more perfect the capital market, the higher the rate of return on capital is in comparison to the rate of growth of the economy. The higher this ratio is, the greater inequality is.”

In particular, Piketty’s research refutes the Kuznets curve presented by Simon Kuznets in 1954 which showed that there was a widening of inequality in the first phases of economic growth in the transition from preindustrial to industrial economies and then narrowed in later phases. Emerging economies, such as India and China, justify their present wide inequality in part on this basis and even in industrial economies, such as the United States, this theory supports the view that rapidly growing inequality is a temporary phase. Given this economists lost interest in inequality and concentrated on economic growth and business cycles.

Piketty foresees a world in which inequality through capital accumulation will continue to grow in the 21st century and reportedly does not offer a scenario where this will change. His book places distribution back in the center of the economic debate.

Story 7: In North Carolina 80,000 Protest Inequality

On February 8, 2014, North Carolina was the setting for one of the strongest statements we’ve heard regarding economic inequality. It was sent forth by an estimated 80,000 people gathered in front of the state capitol building for what the Rev. William A. Barber, Chair of NC NAACP, called “The Moral March of the Forward Together Movement.” Common Dreams published this appraisal by Isaiah Poole: “The scene was Raleigh, N.C., but for many of the people who were there the message and its impact was intended to be national: There is a growing populist resistance to the conservative extremist agenda, and the tens of thousands of people from 43 states who converged on the North Carolina state capitol on Saturday is just the beginning.”

Jaime Fuller wrote in a Washington Post blog, “Here is a list of the main reasons those tens of thousands of people were mad and marching—and why Barber’s breed of activism—using the Christian right’s favorite political ammunition for progressive ends—is starting to pop up in state capitals all across the South.” Fuller’s list includes “Outside spending” in the state to influence policy; “Redistricting” to assure Republicans are elected; “Voting rights” that were quickly curtailed by the recent legislature, which produced what has been called the most sweeping anti-voter law in the nation in decades; “Education,” pushing North Carolina almost to the bottom in pay for teachers and spending per student; and “Income Inequality” made worse in July 2013 when the state cut unemployment benefits and in January 2014 when North Carolina became the only state to completely eliminate the Earned Income Tax Credit.

The Forward Together Movement leadership is firm in saying this is not a Democratic vs. Republican movement. The Fuller blog quotes Barber as saying, “This is a moral versus immoral battle.” Fuller continues: He finished a 16-city tour in North Carolina shortly before the Moral March, and there were more than a few Republicans and Republican groups who were willing to join him. The reason? “We found common ground,” said Barber. “The Republicans who have
joined us, they’ve said ‘we’re not extremists, we’re Republicans.’ They know you can’t kick people when they’re down.”

Here is the Moral March “5-M” Plan for 2014 as presented at the rally:

- Motivate every citizen to fight against these extremist policies.
- Meet every challenge to suppress the right to vote.
- Mobilize all North Carolinians to the polls regardless of party affiliation.
- Make every effort to fight in the courts against voter suppression and for the restoration of the Voting Rights Act.
- Move every obstacle that could keep people from voting.

CLIMATE CHANGE

Story 8: Industry Awakens to Climate Change

Increasing attention to climate change in the business community is shown in a January 23, 2014 NYT story, “Industry Awakens to the Threat of Climate Change,” which reports there is “a growing view among American business leaders and mainstream economists who see global warming as a force that contributes to lower gross domestic products, higher food and commodity costs, broken supply chains and increased financial risk. Their position is at striking odds with the longstanding argument, advanced by the coal industry and others, that policies to curb carbon emissions are more economically harmful than the impact of climate change.”

The coal industry position is expressed in a report, The Social Costs of Carbon? No, The Social Benefits of Carbon, released by the American Coalition for Clean Coal Electricity that was released the same week as the NYT’s article. The report states: “The bottom line is that the policies will increase the cost of carbon and electricity,” said Roger Bezdek, an economist. “Even the most conservative estimates peg the social benefit of carbon-based fuels as 50 times greater than it’s supposed social cost.”

The NYT’s article continues, “At the Swiss resort of Davos, corporate leaders and politicians gathered for the annual four-day World Economic Forum will devote all of Friday to panels and talks on the threat of climate change. The emphasis will be less about saving polar bears and more about promoting economic self-interest.” See Story 1 above.

Companies mentioned as climate-concerned include Coke and athletic clothing manufacturer Nike. Coke “has embraced the idea of climate change as an economically disruptive force,” the story continues, and then cites comments by Jeffrey Seabright, Coke’s vice president for environment and water resources: “Increased droughts, more unpredictable variability, 100-year floods every two years. When we look at our most essential ingredients, we see those events as threats.”
Nike “which has more than 700 factories in 49 countries, many in Southeast Asia, is also speaking out because of extreme weather that is disrupting its supply chain. In 2008, floods temporarily shut down four Nike factories in Thailand, and the company remains concerned about rising droughts in regions that produce cotton, which the company uses in its athletic clothes.”

World Bank president, Jim Yong Kim, is reported as putting climate change at the center of the bank’s mission and cites global warming as the chief contributor to rising global poverty rates and falling GDP’s in developing nations. “In Europe, the Organization for Economic Cooperation and Development, the Paris-based club of 34 industrialized nations, has begun to warn of the steep costs of increased carbon pollution.”

Story 9: America Sleeps on Climate Change, or Is There a “Pause”?

While the report of greater awareness in industry on climate change is encouraging, the results of a survey released on January 16, 2014, by the Yale Project on Climate Change Communication, “Climate Change in the American Mind: Americans’ Global Warming Beliefs and Attitudes, in November 2013,” are discouraging. According to the survey “the number of Americans who believe global warming isn’t happening has risen to 23 percent, up 7 percentage points since April 2013.”

A report published on January 16, 2014, on Yahoo’s LiveScience website, “Climate Change Disbelief Rises in America” gives these additional results of the survey:

- The majority of Americans—63 percent—do believe in climate change, and 53 percent are “somewhat” or “very” worried about the consequences.
- The proportion of people who do believe in climate change has been steady since April 2013, but the proportion of those who say they “don’t know” whether climate change is happening dropped 6 percentage points between April and November 2013, suggesting that many “don’t knows” moved into the “not happening” category.
- “People who [previously] said don’t know are increasingly saying they don’t believe it,” said Anthony Leiserowitz, the director of the Yale Project.

Leiserowitz gave one explanation for the increasing disbelief: “Media coverage surrounding the release of the IPCC report in September may be the explanation for the shift of more previously uncertain people into disbelieving climate change. While the report made a strong case for human-caused climate change, most media coverage focused on the question of whether there has been a ‘pause’ in global warming.”

Matt McGrath has an article in BBC News: Science and Environment discussing the “pause” issue, “Global Warming Pause “Central” to IPCC Climate Report.”

A study in the November 2013 Quarterly Journal of the Royal Meteorological society suggests that the “pause” may be an illusion, “Slowdown in Global Warming Is Apparently a Mirage.”
Story 10: After Falling, US Carbon Emissions Increase

CO2 is only one of the greenhouse gases, but it is the most important because of the magnitude of CO2 emissions. From 1990 to 2005 US CO2 emissions increased. Then, according to the 2011 report from the US Energy Information Administration (EIA), beginning in 2005 US energy-related CO2 emissions declined each year, with a very large 7.1% decline from 2008 to 2009. The report states, “The decrease in US CO2 emissions in 2009 resulted primarily from three factors: an economy in recession, a particularly hard-hit energy-intensive industries sector, and a large drop in the price of natural gas that caused fuel switching away from coal to natural gas in the electric power sector.” Another factor was the continuing decline in energy intensity of the economy, which has been declining, according to the report, at an average rate of 1.9% per year since 1990.

From 2009 to 2010 US energy-related CO2 emissions increased and then declined again from 2010 through 2012. A preliminary report by the EIA on January 13 forecast that from 2012 to 2013 US energy-related CO2 emissions rose by 2%.

Once all data are in, energy-related carbon dioxide (CO2) emissions in 2013 are expected to be roughly 2% above the 2012 level, largely because of a small increase in coal consumption in the electric power sector. Coal has regained some market share from natural gas since a low in April 2012; however the impact on overall emissions trends remains fairly small.

Emissions in 2013 are slightly more than 10% below 2005 levels, a significant contribution towards the goal of a 17% reduction in emissions from the 2005 level by 2020 that was adopted by the current Administration. This level of reduction is expected to continue through 2015, according to EIA’s most recent Short-Term Energy Outlook.”

Story 11: China Very Nearly Laps the United States in CO2 Emissions

China surpassed the United States in 2006 to claim the dubious title of the world’s largest CO2 emitter, and in just seven additional years has almost lapped the United States (which still holds the title of being number 2). According to Trends in Global CO2 Emissions: 2013 Report, “The largest CO2 emitting country by far was China, which share of 29% in 2012 was much larger than the second largest, the United States, with 16% and the European Union with 11%. (Figure 2.2)
C02 emissions in developed countries are declining, but are still substantial, while CO2 emissions in developing economies are rapidly increasing. (Figure 2.1)

**Figure 2.1**
Global CO₂ emissions per region from fossil-fuel use and cement production

![Graph showing CO2 emissions per region](image)


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**Story 12: Status of Keystone XL Pipeline**

On January 31, 2014, the long-awaited environmental impacts review regarding the Keystone XL pipeline was released by the State Department: no significant effect on greenhouse gas emissions. Brad Palmer’s analysis in the Washington Post, “Five Takeaways from State Department’s Review of the Keystone XL Pipeline,” states: “Bottom line: The report concludes that blocking or approving the northern leg of the Keystone XL pipeline would not have a ‘significant’ impact on overall greenhouse-gas emissions and future tar-sands expansion. That’s because, it argues, most of Alberta’s oil will likely find a way to get to the market anyway—if not by pipeline, then by rail.”

The analysis continues: “More specifically: The 830,000 barrels of oil that the pipeline would transport each day would add an extra 1.3 million to 27.4 million metric tons of carbon dioxide to the atmosphere each year. That’s a whole lot of carbon—it’s like putting an extra 250,000 to 5.5 million cars on the road. But the key question is how much of that oil would get burned anyway, even if the pipeline is blocked. And the State Department believes most of it will get produced regardless.”

The State Department will allow a 30-day comment period, and other federal agencies have 90 days to weigh in with their own considerations. Because the pipeline crosses international
borders, President Obama has the final word, and he says he will determine whether the pipeline is in America’s national interest.

The pipeline is clearly in the interest of Congressional Republicans, the US Chamber of Commerce and labor groups, according to an article published in USA Today, “With Report, Keystone XL Pipeline Clears Big Hurdle.” That article quotes Senate Minority Leader Mitch McConnell as saying, “The Keystone XL Pipeline is the single largest shovel-ready project in America, ready to go, but for years President Obama and his hard-left allies have stalled these jobs in a maze of red tape. But if the president meant what he said this week about ‘a year of action,’ he’ll act now on this important project that won’t cost taxpayers a dime to build but will bring thousands of private-sector jobs to Americans who desperately need them.”

For additional analysis following the announcement, see “Report Opens Way to Approval for Keystone Pipeline” in the New York Times.

**Story 13: Leaked Draft of the Third Segment, “Mitigation of Climate Change,” of the IPCC Fifth Assessment Report**

“Nations have so dragged their feet in battling climate change that the situation has grown critical and the risk of severe economic disruption is rising,” according to a leaked draft of the third and final segment, “Mitigation of Climate Change” of the Fifth Assessment Report of the Intergovernmental Panel on Climate Change, the UN panel of climate experts that won the Nobel Peace Prize in 2007 for its efforts to analyze and communicate the risks of climate change. The paragraphs shown here come from a January 16, 2014, NYT article, “U.N. Says Lag in Confronting Climate Woes Will Be Costly,” on the leaked draft.

Another 15 years of failure to limit carbon emissions could make the problem virtually impossible to solve with current technologies, experts found.

A delay would most likely force future generations to develop the ability to suck greenhouse gases out of the atmosphere and store them underground to preserve the livability of the planet, the report found. But it is not clear whether such technologies will ever exist at the necessary scale, and even if they do, the approach would probably be wildly expensive compared with taking steps now to slow emissions.

The report said that governments of the world were still spending far more money to subsidize fossil fuels than to accelerate the shift to cleaner energy, thus encouraging continued investment in projects like coal-burning power plants that pose a long-term climate risk.

**Story 14: Die-Off of Penguins in Punta Tombo, Argentina**

Let’s let wildlife have the last word on climate in this issue. On January 30, 2014, National Public Radio carried a story about penguins located on the coast of Argentina that conservation
biologist Dee Boersma has been studying for 30 years. NPR first interviewed her ten years ago, when she had lived among the penguins of Punta Tombo for 20 years. At that time, Boersma said, “One of the things that I certainly didn’t anticipate when I started this is that these penguins could tell us as much as I think they are . . . about the environment.”

According to the program’s transcript, what they were saying was: Things weren’t going well. The colony had shrunk and Boersma didn’t know why, though electronic tags she’d put on some of the penguins told her they were swimming farther than normal to find food.”

In the 2014 broadcast, Boersma traced her progress in understanding the causes. Sea surface temperature of the Atlantic had gone up over the past few decades, with the potential to change weather patterns. In 2010 Boersma figured out that Punta Tombo was experiencing bigger, stronger and wetter rainstorms, causing chicks to die of hypothermia.

But, the broadcast asked, “Why would water and cold temperatures be a problem to penguins?” Penguins swim. They love the water. They live in cold places, like the Antarctic. And now they’re after a heavy rain? How can that be?

“You have to really know penguins to understand why,” said Boersma. “Chicks are covered in down. Their juvenile plumage doesn’t even really come in to protect them at all until they are older than 40 days. So until they get some of their juvenile plumage, they’re not waterproof—at all.”

In addition, for reasons Boersma doesn’t yet understand, the birds are hatching over a six-week period. So the period of time when chicks are vulnerable to storms has stretched out. Moreover, the hatch is now taking place later in the year—at a time when there are more storms in Patagonia.

“The penguins are struggling with this new climate. In one year, half the hatchlings died in storms. On a few occasions, chicks have also died from heat waves.” And Boersma pointed out that even as storms are getting bigger and more frequent, summertime heat waves are more common too. She noted that “these effects are predicted by climate scientists. Warmer air temperatures mean not only hotter weather but more evaporation from the Atlantic, which puts more moisture in the air and thus creates wetter storms.”

“It’s these climate change events that penguins didn’t have in the past,” said Boersma, with an urgency born of living with these creatures for almost half her life. “And it’s not like penguins can adapt.”
In *The Chronicle* of November-December 2013, we mentioned the increasingly serious problem of pollution in China. (See image) A NYT blog of January 27 offers additional information, publicizing a NASA Earth Observatory map created to show rates of premature deaths from air pollution around the world. The map is based on data collected by a research team led by Jason West, an earth scientist at the University of North Carolina at Chapel Hill. It indicates that northern China has one of the worst rates, which is attributed to the density of a deadly fine particulate matter known as PM 2.5 that often results from coal burning.

The blog continues,

The map also showed that the rate in northern China—what appears to be about 1,000 or more deaths each year per 1,000 square kilometers, or 386 square miles—is matched by that of northern India (see image), in a diagonal belt stretching from New Delhi southeast to Calcutta. Those acutely polluted areas are colored dark brown on the NASA map. (Europe was perhaps surprisingly colored a deep brown too, though the rate was not as bad as that of the two Asian nations.)

Various recent studies and data suggest that air quality in Delhi is worse than in Beijing, though India’s air pollution problems do not get nearly as much attention on the world stage as those of Beijing. One study shows that Indians have the world’s weakest lungs. The World Health Organization says India has the world’s highest rate of death caused by chronic respiratory diseases, and it has more deaths from asthma than any other nation.

Dark brown coloring marks the most polluted areas, but viewers will also see on the map a very small number of blue areas. The Southeast US is perhaps the largest.
Story 16: Smog from China Affects the United States

Some US cities are getting an extra day of smog per year due to pollution from China, according to a January 21, 2014, Reuter's article, “China Pollution Wafting across Pacific to Blanket US: Study.” According to the article:

Pollution from China travels in large quantities across the Pacific Ocean to the United States, a study [by the US National Academy of Sciences] has found, making environmental and health problems unexpected side effects of US demand for cheap China-manufactured goods.

On some days, acid rain-inducing sulphate from burning of fossil fuels in China can account for as much as a quarter of sulphate pollution in the western United States.”

The report continues, “Trans-boundary pollution has for several years been an issue in international climate change negotiations, where China has argued that developed nations should take responsibility for a share of China’s greenhouse gas emissions, because they originate from production of goods demanded by the West.”

The report says its findings showed that trade issues must play a role in global talks to cut pollution.

Story 17: Elk River Chemical Spill, Charleston, West Virginia

On January 9, 2014, a chemical leak in Charleston in the US state of West Virginia at a facility maintained by Freedom Industries dumped an estimated 7,500 gallons of a dangerous coal-washing chemical called 4-methylcyclohexane methanol into the Elk River less than two miles from a water-intake facility that provides drinking water to 300,000 West Virginians. The poison is used by the state’s coal miners. Little is known about the precise hazards that it poses, but it has sickened hundreds of people. See Wikipedia, “2014 Elk River Chemical Spill.”

An Associated Press article of January 24, 20914, W.Va. Official: Spill Company Knew of 2nd Chemical,” the drum also contained something that they call stripped PPH. Stripped PPH was mixed in with the other chemicals in the drum at a concentration of about 6 percent. A material safety data sheet (MSDS) provided to state officials says stripped PPH contains a complex mixture of polyglycol ethers. “The specific chemical identity is being withheld as ‘trade secret,”’ the company wrote in the safety document, which was dated Oct. 15, 2013.

Freedom Industries filed for bankruptcy after the spill. The Associate Press article states, “On Jan. 21, Freedom Industries reached a bankruptcy court deal for up to $4 million in credit from a lender to help continue operations. The bankruptcy filing freezes dozens of lawsuits against Freedom Industries. Many are by local businesses owners who say they lost money during a water-use ban that lasted several days. Under state orders, the company still needs to relocate almost 1 million gallons of other chemicals at its Charleston plant.”
The West Virginia Gazette reported on January 23, 2014, “Chemical-Related Hospital Visits Still Rising,” “Days after all water service has been restored, and with the immediate water crisis beginning to fade, the number of West Virginians seeking treatment in relation to the Elk River chemical leak continues to rise. As of [January 16], 533 West Virginians had been evaluated at hospitals with symptoms they report as being associated with the chemical spill, according to the Department of Health and Human Resources.”

The New York Times ran a story on February 9, 2014, “One Month After Toxic Spill, West Virginians Face ‘Crisis of Confidence’” that said,

Weeks after health authorities had told West Virginians that their water was safe to drink again following a toxic spill, schools in Charleston sent students home abruptly last week when students and staff members detected the telltale licorice odor of the leaked chemical. Officials have repeatedly backtracked since lifting a tap-water ban about a week after the Jan. 9 spill, first advising pregnant women not to drink the water and then resuming the distribution of bottled water. Around Charleston, the capital, restaurants advertise that they cook only with bottled water.

What began as a public health emergency after chemicals contaminated the drinking water of 300,000 people has spiraled into a crisis of confidence in state and federal authorities, as residents complain of confusing messages and say they do not trust experts. The spill continues to arouse fear and outrage, and it threatens a political crisis in a state where lawmakers have long supported the coal and chemical industries.”

Story 18: US’s Third Largest Coal Ash Spill in Dan River, North Carolina

On February 2, 2014, another serious toxic spill took place. A coal ash pond owned by Duke Energy failed in Eden, North Carolina, and sent contaminated water into the Dan River, which provides the water supply for people in the region, including the town of Danville, Virginia. Duke Energy, located in Charlotte, North Carolina, claims to be the world’s largest electricity provider. The following information is from an Associated Press story of February 10, 2014, “NC Dumps Coal Ash Deal with Duke,”

On the afternoon of February 2. The company reports that up to 82,000 tons of coal ash mixed with 27 million gallons of contaminated water drained out, turning the river gray and cloudy for miles. The accident ranks as the third largest such coal ash spill in the nation’s history.

The public was not told about the breach until the following day. The Post says, “Initial reports provided by Duke and the North Carolina Department of Natural Resources (DENR) did not make clear the massive scale of the disaster. McCrory made no public comments on the issue for five days, after the spill had grabbed national attention.”

Over the last year, environmental groups have tried three times to use the federal Clean Water Act to force Duke Energy to clear out leaky coal ash dumps like the one that ruptured last week, spewing enough toxic sludge into a North Carolina river to fill 73 Olympic-sized pools.

Each time, they say, their efforts have been stymied—by the N.C. Department of Environment and Natural Resources. The state agency has blocked the citizen lawsuits by intervening at the last minute to assert its own authority under the federal act to take enforcement action. The state proposed settlements where the nation’s largest electricity provider pays modest fines but is under no requirement to actually clean up its coal ash ponds.

The February 10 Associated Press story further reported,

Lawyers for the state Department of Environment and Natural Resources asked a judge to disregard their proposed settlement with the nation’s largest electricity provider. Under the deal, Duke would have paid fines of $99,111 over groundwater pollution leaking from two coal dumps like the one that ruptured February 2nd.

The state’s letter came one day after a story by The Associated Press in which environmentalists criticized the arrangement as a sweetheart deal aimed at shielding Duke from far more expensive penalties the $50 billion company might face under the federal Clean Water Act.

The federal government has now taken an interest in the case. According to a February 13, 2014 story in The Raleigh News & Observer, “Feds Launch Criminal Probe of NC Agency After Coal Ash Spill,” “The US Justice Department has opened a criminal investigation into the state environmental agency tasked with regulating Duke Energy after a coal ash spill left the Dan River so polluted that people were advised to avoid contact with the water. The probe, environmentalists say, might also open a window into the relationship that state regulators have with the country’s largest electricity provider, a company that also was a 28-year employer of Gov. Pat McCrory.”

FOOD

Story 19 – Food Cultivated in Toxic Soil in China

It is hard to know where to place a report about growing food crops in polluted soil. We will classify the problem as a food issue, because in this case the situation pertains to a large area
and involves many people who have little choice about what they eat. The subject is toxic soil in China. There is rising concern that the rapid industrialization of the countryside is creating an agriculture that creates disease.

A NYT story, “Pollution Rising, Chinese Fear for Soil and Food,” states, “In recent years, the government has conducted widespread testing of soil across China, but it has not released the results, adding to the fear and making it more difficult for most Chinese to judge what they eat and pinpoint the offending factories.”

What the story calls “an alarming glimpse of official findings” happened at the end of December, 2013, when a vice minister of land and resources announced that eight million acres of China’s farmland had become so polluted that food should not be raised on it. Earlier, officials in Guangdong Province, a major rice producing region, reported discovery of excessive levels of cadmium in batches of rice they had collected from various retail and wholesale outlets.

The NYT article continues, “One-sixth of China’s arable land—nearly 50 million acres—suffers from soil pollution, according to a book published in 2013 by the Ministry of Environmental Protection. The book, Soil Pollution and Physical Health, said that more than 13 million tons of crops harvested each year were contaminated with heavy metals, and that 22 million acres of farmland were affected by pesticides. But the government has refused to divulge details of the pollution, leaving farmers and consumers in the dark about the levels of contaminants in the food chain. The soil survey, completed in 2010, has been locked away as a state secret.”

**Story 20: New US Farm Bill Approved**

After almost three years of debate, a Farm Bill passed both houses of the US Congress on February 4, 2014. This legislation, which is due to be revised every five years, runs nearly 1,000 pages long and will cost taxpayers over $500 billion dollars. The new bill features the following changes:

- Cuts $8 billion from the food stamps program over ten years. The reductions trim $90 a month from food stamps for 850,000 recipients. The cuts are made through changes to a heating assistance program used by some states to determine whether an individual qualifies to receive food assistance.
- Eliminates a $5 billion-a-year crop subsidy to farmers who received the payments whether they grew crops or not. It ends direct payments to farmers for planting crops and replaces them with a beefed-up crop insurance program that will cost $7 billion over a decade. Farmers will now be able to choose between subsidies that pay out when revenue drops or when prices drop.
- Creates new subsidies for rice and peanut growers that will kick in when prices drop.
- Establishes new soil conservation measures and saves $6 billion by reducing the number of conservation programs to 13 from 23.
• Moves catfish inspections out of the Food and Drug Administration and into the Agriculture Department.
• Continues to require beef, lamb and poultry producers, among others, to stamp their products with the country of origin.
• Places a stricter cap on the overall amount of money an individual farmer can receive—$125,000 in one year.
• Attaches a new 15-cent tax to the purchase of live cut Christmas trees, in order to create a board that will promote Christmas trees.
• Ensures that the federal government will avoid re-implementing a 1940’s era subsidy program that could have caused the price of milk to double to $7 a gallon from the current national average of $3.50.

For more information see USDA-2014FarmBillHighlights, rafiusa.org-2014FarmBill, nytimes2014FarmBill and reuters2014FarmBill.

Story 21 – Organic Farmers Lose Protection from Suits If They Inadvertently use GMOs

On January 13, 2014, the US Supreme Court declined to hear an appeal by organic farmers and others seeking to require Monsanto not to sue farmers if their fields inadvertently have plants containing the company’s patented genetically modified traits. The Organic Seed Growers and Trade Association and a group of dozens of organic and conventional family farmers, seed companies and public advocacy interests brought the suit in March 2011. A company lawyer said Monsanto had not sued for inadvertent use of its biotech seeds and did not plan to do so, but that it would not make a blanket promise to that effect. Lower courts had held that none of those who sued had been injured and therefore they failed to present a sufficient controversy to warrant adjudication by the courts.

Monsanto has genetically engineered its specialty seeds to withstand glyphosate, the main ingredient of the company’s Roundup herbicide. The company charges a premium to farmers for use of its seeds and prohibits unauthorized plantings.

For additional information, see OSGATA et al. v. Monsanto

ENERGY

Story 22: The NAACP Takes on Just Energy Policies as a Civil Rights Issue

Jacqueline Patterson, NAACP Environmental and Climate Justice Director, said, “[The report] lays out a vision, supported by practical data, of the path to transitioning from energy production processes that are harmful to our communities, to energy efficiency and clean energy policy landscape that reduces pollution and creates new jobs.

An article in Grist, “Rebel Smell: In the Deep South, Dirty Energy and Disenfranchisement Go Hand in Hand,” supports the assertion that energy is a civil rights issue: “Most states (29) have renewable portfolio standards that guarantee that they will draw a significant percentage of their energy from renewable sources, and even more (43) carry a ‘net metering’ policy allowing households to privately produce wind, solar, or geothermal energy, and then sell part of that energy to utility companies. Twenty-eight states have mandatory or voluntary energy efficiency standards, most of those mandatory. And then you have states that have little to none of the above: Mississippi, Louisiana, Tennessee, Arkansas, Georgia, South Carolina, and Alabama. Two of them, Georgia and Louisiana, have net metering policies, though with paltry limits, and Arkansas calls for a 0.75 percent reduction in energy use this year. All of them register among the top 10 states whose populations have the largest shares of African Americans.”

**Story 23: Incremental Advance in Controlled Fusion Energy**


Scientists are creeping closer to their goal of creating a controlled fusion-energy reaction, by mimicking the interior of the sun inside the hardware of a laboratory. In the latest incremental advance, reported in the online journal Nature, scientists in California used 192 lasers to compress a pellet of fuel and generate a reaction in which more energy came out of the fuel core than went into it.

There’s still a long way to go before anyone has a functioning fusion reactor, something physicists have dreamed of since Albert Einstein was alive. A fusion reactor would run on a common form of hydrogen found in seawater, would emit minimal nuclear waste and couldn’t have the kind of meltdown that can occur in a traditional nuclear-fission reactor.

**LANGUAGE OF CHANGE**

**Story 24: Liberals Need to Communicate Values**

In an interview with Zoe Williams of The Guardian on January 31, 2014, “George Lakoff: ‘Conservatives don’t follow the polls, they want to change them . . . Liberals do everything wrong,’” George Lakoff, professor of cognitive science at the University of California, Berkeley, gave a lively kick in the pants to the usual detached arguments of liberals trying to protect the planet.
Williams quotes Lakoff’s well-known explanation of the difference between liberals and conservatives: “This goes back to the Bible. You have two views of God: You have the strict father God and the nurturing God. You have Christ the warrior and Christ the saviour.”

She summarizes his view on what it would take to

refashion the progressive mindset: the abandonment of argument by evidence in favor of argument by moral cause; the unswerving and unembarrassed articulation of what those morals are; the acceptance that there is no ‘middle’ or third way, no such thing as a moderate (people can hold divergent views, conservative on some things, progressive on others—but they are not moderates, they are ‘biconceptual’); and the understanding that conservatives are not evil, unintelligent, cynical or grasping. Rather, they act according to the moral case as they see it.

When Williams gave Lakoff the example of a politician opposing abortion rights even for rape victims and asked him to counter that stance, he responded: “You have to go up a level, to the moral level. You have to say, this is somebody who’s interested in male domination. That’s what liberals are afraid to do.”

Williams concludes the interview report by writing,

The urgency of his speech ramps up as he talks about monetising nature. ‘What we get from nature is remarkable. And then you get the people who want to monetise that. If it’s valuable, what’s the value? What’s it worth? Which is the wrong question to ask, because, first of all, much of its value has to do with what is visceral to you. What does it mean to you if you hear the birds singing, or the birds all die? Second, as soon as you monetise something in nature, a cost-benefit analysis will come in. Nature always loses, because nature goes on forever.’

It is, plainly, the longstanding failure to protect nature that powers Lakoff’s exasperation with liberals. “They don’t understand their own moral system or the other guy’s, they don’t know what’s at stake, they don’t know about framing, they don’t know about metaphors, they don’t understand the extent to which emotion is rational, they don’t understand how vital emotion is, they try to hide their emotion. They do everything wrong because they’re miseducated. And they’re proud of that miseducation. Oxford philosophy reigns supreme, right? Oxford philosophy is killing the world.”