***2010***

Jan 14 –**Sea Shepherd’s racing vessel, the Ady Gil, is rammed by Japanese whaling ship** the Shonan Maru 2, during an action designed to protest and interfere with whaling.

January 1 — France sets a carbon tax of 17 Euros per ton on all fossil fuels, following similar but much higher taxes in Sweden (imposed as early as 1991), Denmark, Finland, Norway and Switzerland.

March 25 — The previous decade 2000 – 2009 was the warmest on record, according to the [World Meteorological Organization](http://www.wmo.ch/pages/about/wmo50/e/world/climate_pages/global_warming_e.html). The finding corresponds with US [NASA](http://www.nasa.gov/worldbook/global_warming_worldbook.html) agency’s finding that the decade was the warmest since the 1850s when the first systematic records of temperatures were begun.

April 5 — West Virginia — A methane explosion rocks Massey Coal Company’s **Upper Big Branch mine** in West Virginia, killing 29 miners and injuring others. It is the largest loss of life in United States coal mining history in 40 years. In 1970, 38 miners were killed at Finley Coal mines in Kentucky, and in 1968, 78 miners were killed at the Farmington mine in West Virginia.

NOTE: Coal mining accidents in the US are sometimes compared with those in China, where (officially) the death rate is 5,000 per year, but unofficial estimates put the number as high 20,000 per year, according to [Time Magazine](http://www.time.com/time/magazine/article/0,9171,1595235,00.html) and other sources.

April 20 — [**Deepwater Horizon disaster,**](http://en.wikipedia.org/wiki/Deepwater_Horizon_oil_spill) Gulf of Mexico — An explosion kills 11 and badly injures 17 on this drilling rig in the Gulf of Mexico, off the Louisiana coast. About 206 million gallons of oil spill and, driven by wind and tides, devastate fragile coastal environments from Louisiana to Florida. The well is finally plugged on Sept. 19, 2010. It’s one of the largest petroleum related accidents in history, similar to the Piper Alpha disaster in the North sea on July 6, 1988, killing 167 men in a fiery explosion. It is also similar to the Ixtoc 1 blowout on June 3, 1979 in the Bay of Campeche, spilling about 138 million gallons ((450,000 metric tons) of oil. Another offshore rig incident was the Ocean Ranger, which sank in heavy seas off the Altantic coast of Canada on 15 February 1982 with a loss of 84 crew members. The dangers and costs of recovering oil at extreme depths were highlighted by these incidents. See the[Wikipedia list of oil spills.](http://en.wikipedia.org/wiki/List_of_oil_spill)A  January 2011 commission report says the blowout was a system-wide failure, not just one or two mistakes.

Context — As the Gulf coast beaches slowly recovered from the single incident oil spill, international activists point out that in other petroleum-rich areas of the world, such as[Nigeria](http://www.guardian.co.uk/world/2010/may/30/oil-spills-nigeria-niger-delta-shell), oil spills are a daily fact of life.  “[Nigeria’s agony dwarfs Gulf Oil spill](http://www.guardian.co.uk/world/2010/may/30/oil-spills-nigeria-niger-delta-shell)” is a Guardian headine.

April 22 — US EPA issues rules on automotive fuel efficiency and, for the first time, regulates greenhouse gas emissions. New regulations for coal fired power plants follow in July.

April 28 — US Secretary of Interior Ken Salizar announces approval of controversial [Cape Wind](http://en.wikipedia.org/wiki/Cape_Wind) offshore wind electric project.

May 31 –[Australia sues Japan](http://www.asil.org/insights100708.cfm) in the International Court of Justice over whaling in the Southern Ocean Whale Sanctuary.

June 24 — International Whaling Commission talks collapse. The talks would have suspended a 1986 ban on commercial whaling in exchange for commitments by Japan, Norway and Iceland to reduce whale kills. These have continued in defiance of the international ban. Greenpeace says whale populations are not recovering and[all whaling must stop.](http://www.greenpeace.org/international/en/campaigns/oceans/whaling/)

July — [Nigerian court orders Shell Oil Co. to pay N. 15.4 billion](http://www.nigerianinquirer.com/2010/07/06/1970-oil-spill-court-orders-shell-to-pay-%E2%82%A615-4bn/) in puntive and remedial damages to clean up one of thousands of oil spills that plague the country.

July 7 — A team of scientists at the East Anglia University report that the university’s Climate Research Unit did not alter data in support of the theory that man-made (anthropogenic) greenhouse gasses were major contributors to climate change. The allegations surfaced in Nov. 2009 after about 1,000 emails were leaked online. The report said that the “rigor and honesty” of the researchers was not in doubt, but that they had failed “to display the proper degree of openness.” Previous panels at Pennsylvania State University and East Anglia also concluded that there was no dishonesty in the scientific methods or approaches of the climate researchers.

July — Two environmental journalists murdered in West Papua, Indonesia. Ardiansyah Matra’is, a reporter with Merauke TV, was killed July 28 after receiving threatening text messages. Muhammad Syaifullah, was apparently poisoned the week before. Syaifullah was the head of the Borneo bureau of Kompas, Indonesia’s biggest daily newspaper. He was covering the impacts of mining in the Kalimantan region, according to the[International Press Institute.](http://www.freemedia.at/singleview/5081/) International human rights groups such as [Article 19](http://www.article19.org/publications/regions/asia/index.html) and [IFEX](http://www.ifex.org/indonesia/2010/07/27/syaifullah_found_dead/) demand an inquiry.

July 21 — Environmental activist [Amit Jethwa](http://en.wikipedia.org/wiki/Amit_Jethwa) assassinated in Gujarat, India. See [Times of India](http://timesofindia.indiatimes.com/videos/news/Two-detained-in-RTI-activist-Amit-Jethwa-murder-case/videoshow/6323057.cms)story.

August — Khimki Forest, near Moscow, cut down for a highway. A dry, hot summer with severe fires provides an excuse for Russian government to bulldoze one of the few remaining natural areas around Moscow, the Khimki Forest. Yevgenia Chirikova, a mother and environmental actist, has been repeatedly[arrested and harrassed](http://www.rferl.org/content/Moscow_Court_Arrests_Fines_Khimki_Forest_Activist/2119921.html)for her opposition to the highway and attempts to protect the forest. Others in the movement Ecodefense have been attacked and severely crippled by thugs operating on behalf of the government. See [Washington Post](http://www.washingtonpost.com/wp-dyn/content/article/2010/08/12/AR2010081205317.html?wpisrc=nl_opinions) article Aug. 13, 2010.

August — Heavy flooding kills 1,254 in China’s Zhouqu region on the Ballong River. Deforestation is a major factor in the flooding, environmental scientists say.

Oct 5 — Hungarian toxic dam break kills seven — Hungary declares state of emergency after an industrial dam breaks, killing seven people and spilling about one million cubic meters of toxic waste from an aluminum production plant near Devecser.

Oct. 13 — Canada puts bisphenol A (BPA) on the toxic substances list. BPAis a common additive in plastics.

Oct 24 — [Belize Zoo](http://picasaweb.google.com/108796233700818222649/HurricaneRichardHitsTheBelizeZooTEC?feat=email) takes a direct hit from Hurricane Richard

Nov. 2 — California[voters reject an oil industry proposal](http://latimesblogs.latimes.com/greenspace/2010/11/proposition-23-defeat-global-warming-climate-change-initiative.html) to stop regulating greenhouse gas emissions. The ballot initiative would have rolled back a 2006 law.

November — Indian environmental groups warn that a proposed diamond mine by Rio Tinto — t he Bunder diamond project in Chhatarpur — will destroy an ecologically sensitive zone close to the Panna Tiger Reserve.

Nov. 29 – Dec. 10 — United Nations [climate change talks in Cancun, Mexico](http://www.ens-newswire.com/ens/dec2010/2010-12-14-02.html)end with some agreements on funding for climate change mitigation strategies in vulnerable parts of the developing world.

Fall, 2010 — [Cornwall Alliance](http://www.resistingthegreendragon.com/) and other US right-wing groups begin promoting the idea that environmentalism is a religious cult inspired by the anti-Christ. “Dominion, not death,” is the dichotomy they present, although in fact the opposing philosophical position has long been called [“Stewardship](http://en.wikipedia.org/wiki/Stewardship_%28theology%29)” in Christian and Jewish traditions. See stories in [Change.org](http://news.change.org/stories/christian-right-rises-up-against-the-green-dragon), [ThinkProgress](http://thinkprogress.org/media/2010/10/15/124583/glennbeck-oil-evangelicals/) and others. The danger of course is that when dehumanizing rhetoric begins, inhuman action can follow.

Dec. 10 — US federal court rejects challenges to EPA greenhouse gas regulations.

Dec. 14 — [Russian police arrest leaders of an environmental protest](http://www.ens-newswire.com/ens/dec2010/2010-12-14-01.html)concerning timbering of old-growth forests in the Utrish Nature Reserve in Krasnodar Territory. Increasingly brutal tactics against environmentalists and environmental journalists have led to protests, according to the[Biodiversity Media Alliance](http://biodiversitymedia.ning.com/profiles/blogs/protest-against-attempted). Altogether, at least 52 Russian journalists have been murdered in two decades, according to the [Committee to Protect Journalists.](http://cpj.org/killed/europe/russia/)

Dec. 21 — United Nations biodiversity efforts focused through new [Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services](http://www.ipbes.net/).

***2011***

Jan. 13 –[EPA vetoes](http://water.epa.gov/lawsregs/guidance/cwa/dredgdis/404c_index.cfm) water permit for massive Spruce No. 1 mountaintop removal site in West Virginia. The veto is a major victory for environmentalists and sparks[violent rhetoric](http://www.huffingtonpost.com/brendan-demelle/coal-money-and-violent-rh_b_811648.html) from the coal industry and its supporters.

Jan. 15 — E[PA approves use of 15% ethanol blended fuels](http://www.reuters.com/article/idUSTRE70K0DJ20110121) in gasoline, sparking renewed debate over environmental benefits and drawbacks of corn ethanol.

Jan. 21 — [Canada regulates phthlates,](http://www.ens-newswire.com/ens/jan2011/2011-01-21-01.html) a type of chemical used to soften plastics.

Jan 25 – Philippine journalist Gerry Ortega is gunned down after investigating environmental issues in Palawan state. In Sept. 2011, the Philippine government said it was [investigating ties](http://www.abs-cbnnews.com/nation/regions/09/07/11/doj-orders-reinvestigation-ortega-murder-case) between killers and Governor Joel Reyes. But the case against the alleged masterminds has barely moved forward, Ortega’s [family said in February 2012](http://www.abs-cbnnews.com/nation/03/07/12/ortega-family-appeals-resolution-murder-case).

Jan. 24 — [Carol Browner steps down](http://www.google.com/hostednews/ap/article/ALeqM5jVDXk5ubvD357-fBqQhS5Z8UOzOA?docId=ad508871722c4eeabc7b2d7c5b81f9fd) as director of the office of energy and climate change policy, steps down. Passage of any climate change legislation seems impossible in the anti-science climate of the US House of Representatives, where most Republicans believe that climate change is some kind of hoax.

January — California Energy Commission [report on energy costs](http://www.grist.org/nuclear/2011-06-04-nuclear-power-is-expensive-and-uninsurable)says nuclear power is more expensive than any other conventional or renewable resource except solar photovoltaics.

Feb. 14 — A court in Ecuador levied an $8.2 billion (US) fine on Chevron Oil Co. for polluting large swaths of the Lago Agrio area of the upper Amazon. Ecuadorian plaintiffs were originially seeking $113 billion in damages. The ruling concluded a case filed in 1993. A [documentary video called “Crude”](http://www.crudethemovie.com/)was made about the case, and was itself under attack in US courts by Chevron. The oil company claimed the ruling was a “fraud” according to [The Guardian,](http://www.guardian.co.uk/business/2011/feb/14/chevron-contaminate-ecuador)An appeal to the International Court at the Hague was in progress when the ruling was handed down in Ecuador. Meanwhile, [controversy about the role of a federal judge](http://www.prnewswire.com/news-releases/ecuador-government-criticizes-us-judge-for-comments-about-countrys-court-system-124204139.html)broke out in June, 2011.

Feb. 25 — NOAA becomes latest to [clear climate scientists](http://content.usatoday.com/communities/greenhouse/post/2011/02/noaa-climate-sicentists-us-report/1)of improper research or fraud, as was originally charged by climate deniers who hacked East Anglia University scientists emails in the fall of 2010. Other organizations who held inquiries that also cleared scientists include United Kingdom’s House of Commons, the National Research Council and Pennsylvania State University. In no case were any scientists found guilty of fraud, as charged by climate deniers.



The Fukushima I Nuclear Power Plant after the 2011 Tōhoku earthquake and tsunami. (Wikimedia Commons).

March 13 — **Nuclear reactor melt-downs, explosions and spent fuel fires at the**[**Fukushima power complex**](http://en.wikipedia.org/wiki/Fukushima_I_Nuclear_Power_Plant)create a major disaster for public health and environment as well as Japan’s economy. The melt-downs were triggered by a complex chain of events, including loss of coolant and [explosions that scattered nuclear fuel rods](http://www.dcbureau.org/201103141303/Natural-Resources-News-Service/fission-criticality-in-cooling-ponds-threaten-explosion-at-fukushima.html)from cooling ponds. The melt-downs followed an earthquake and tsunami that killed tens of thousands of people. Health impacts from the Fukushima disaster are not yet estimated but for all practical purposes, the disaster ends the 60 year hope that nuclear power could create safe, cheap power worldwide and stave off accelerating climate change. A  map of worldwide nuclear power plants by type is available at the [New Scientist](http://www.newscientist.com/embedded/nuclear-reactor-map)web site.

Histories of the Fukushima accident include “[The Prometheus Trap](http://ajw.asahi.com/article/0311disaster/fukushima/AJ201301280006)” by Asahi Shimbun, Japan’s largest newspaper, in a series starting in January 2013.  By summer, 2013, [the situation had worsened considerably](http://www.theguardian.com/world/2013/aug/20/fukushima-leak-nuclear-pacific) with hundreds of tons of highly radioactive water leaking in ways that the utility said it did not understand.

April 5 – 9 — [Anna Hazare](http://en.wikipedia.org/wiki/Anna_Hazare) fasts to raise awareness of corruption in India and to promote “Right to Information” legislation. The fast is renewed in August and Hazare is arrested.

April — Nuclear power is no longer viable for future energy production. [Two thirds of Americans would protes](http://motherjones.com/blue-marble/2011/03/nuclear-power-public-opinion-poll)t a nuclear power plant built near their homes, one poll shows. In the UK, [a majority now feel that nuclear power is too dangerous](http://www.theecologist.org/News/news_round_up/505141/nuclear_power_debate_still_divides_uk_public_opinion.html), and the “vast majority” wanted more investment in renewable energy.

May — [Germany decides to phase out](http://www.spiegel.de/international/germany/0,1518,762150,00.html)nuclear power, while Switzerland said it would build [no new nuclear reactors](http://www.nytimes.com/2011/05/26/business/global/26nuclear.html).

May 9 — **Renewable energy could power 80% of the world**by 2050, according to the [UN-affiliated International Renewable Energy Agency](http://www.irena.org/News/Description.aspx?NType=NWS&PriMenuID=16&mnu=Pri&News_ID=114). The report follows other studies of the potential for renewable energy, including [a study published in Energy Policy](http://www.physorg.com/news/2011-01-percent-renewable-energy.html) in January 2011. Many regions, nations and states began setting renewable energy goals and policies, including [30% renewables for California](http://blog.greenpointpartners.com/green-energy/california-bill-will-require-a-third-of-all-energy-be-renewable-by-2020/) by 2020 and [20% renewables for Europe](http://www.euractiv.com/en/energy/eu-renewable-energy-policy/article-117536) by 2020.

May 20 — Panama begins filling the Chan-75 dam, [displacing hundreds of indiginous Ngobe people.](http://www.amnesty.org/en/news-and-updates/panama-dam-flooding-threatens-indigenous-families-2011-05-26)

May — [New geopolitcs of food](http://www.foreignpolicy.com/articles/2011/04/25/the_new_geopolitics_of_food?page=0,0%20%C2%A0%C2%A0), a Foreign Policy article by Lester Brown, points out:

*By the end of 2009, hundreds of land acquisition deals had been negotiated, some of them exceeding a million acres. A 2010 World Bank analysis of these “land grabs” reported that a total of nearly 140 million acres were involved — an area that exceeds the cropland devoted to corn and wheat combined in the United States. Such acquisitions also typically involve water rights, meaning that land grabs potentially affect all downstream countries as well. Any water extracted from the upper Nile River basin to irrigate crops in Ethiopia or Sudan, for instance, will now not reach Egypt, upending the delicate water politics of the Nile by adding new countries with which Egypt must negotiate.*

May — American [public opinion about climate change](http://environment.yale.edu/climate/) involves six prevalent beliefs about climate change, according to a Yale and George Mason university researchers: Alarmed 12% — Concerned 27% — Cautious 25% — Disengaged 10% — Doubtful 15% — Dismissive 10% — The major changes since the survey was first taken in Nov. 2008 involve slight declines in the extreme positions. [Link to full [pdf report](http://environment.yale.edu/climate/files/SixAmericasMay2011.pdf) ].

June — Extreme drought in China leads to [unprecedented critism](http://www.shanghaidaily.com/nsp/Opinion/2011/06/07/Rush%2Bto%2Bdam%2Bgreat%2Brivers%2Bsprings%2Bfrom%2Bcall%2Bto%2Bgrow/) of Three Gorges Dam and other projects.

June — Extra hot summers may be here to stay due to climate change, says a [Stanford University report](http://www.livescience.com/14458-heat-waves-increase-climate-change.html).

June 6 — US Supreme Court [declines to review](http://www.nytimes.com/gwire/2011/06/06/06greenwire-supreme-court-declines-to-take-ge-challenge-of-95071.html?scp=1&sq=greenwire&st=cse) General Electric v EPA, a challenge to the CERCLA (Superfund) law regarding responsibility for cleanup of toxic wastes. The decision leaves enforcement power with EPA.

June 9 — [Infant mortality on the US west coast rose 35% in the weeks after the Fukushima disaster,](http://sfbayview.com/2011/is-the-increase-in-baby-deaths-in-the-northwest-u-s-due-to-fukushima-fallout-how-can-we-find-out/)according to an analysis of data from the Centers for Disease Control.

June 13– American Electric Power, on the the largest electric utilities in the US, claims that Clean Air regulations passed in 2007 will force it to close two dozen coal fired power plants and lay off hundreds of workers. What AEP does not say is that these are plants with an average age of 55 years running at low capacity. It’s a [transparent scare tactic,](http://www.nytimes.com/2011/06/20/opinion/20mon1.html)says the New York Times. The [US Conference of Catholic Bishops](http://www.usccb.org/comm/archives/2011/11-130.shtml) welcomed the new EPA regulations on behalf of the most vulnerable members of society.

June 13 — Indian religious figure, Swami Nigamanand, [dies under mysterious circumstances](http://articles.timesofindia.indiatimes.com/2011-06-14/india/29656125_1_illegal-mining-land-mafia-uttarakhand) after fasting in protest of illegal mining in the River Ganges. The river, considered sacred in Hindu tradition, is heavily polluted and not likely to improve if[current circumstances](http://en.wikipedia.org/wiki/Pollution_of_the_Ganges) continue.

June 14 — Six Amazon forest activists are murdered over a three week period in Brazil, according to [Agence France Presse](http://www.google.com/hostednews/afp/article/ALeqM5gpeblqINNdOyGwLJOL2QRXInY4bA?docId=CNG.b3569aafd06fe78f58be73c5faaa97a5.71). While murders over land disputes are not uncommon, hired gunment “appear to be targeting social and human rights activists in areas of Brazil’s Amazon rainforest,” said [Amnesty international](http://www.amnestyusa.org/news/press-releases/brazilian-authorities-must-investigate-hired-gunmen-threatening-rural-communities-says-amnesty-inter).

June 16 — **Fukushima disaster may turn out to be worse than Chernobyl**, [world media are reporting.](http://english.aljazeera.net/indepth/features/2011/06/201161664828302638.html) One expert tells Al-Jazeera there are 20 nuclear cores exposed, and fuel pools have several cores each. So, that is 20 times the potential to be released than Chernobyl. Meanwhile, a nuclear waste advisor to the Japanese government reported that about 966 square kilometres near the power station is now likely uninhabitable… Hot particles of strontium, cesium and plutonium have been found as far away as Tokyo. The reports seem to confirm what Helen Caldicott said in March, 2011, that Fukushima was worse by many orders of magnitude than Chernobyl.

June 19 — **Japanese people want to scrap nuclear power** by an 82% margin, according to a survey by Tokyo Shimbun newspaper (reported by [Agence France-Presse](http://newsinfo.inquirer.net/16275/most-japanese-wish-to-scrap-reactors)) . The majority, 54%, want a phased shut down, while 28 percent wanted an immediate shutdown or decommissioning at relicensing. [An editorial in Asahi Shimbun](http://www.asahi.com/english/TKY201106150215.html) noted developments in Europe and said:

*“We, the people, must not remain silent any longer. Our country’s energy policy will decide our future. How can we ever leave such a crucial decision to the “authorities” and whichever way the political wind may blow? It is up to us to choose our energy policy and accept responsibility for it.*

June 20 — US Supreme Court rejects a nuisance suit and [rules that EPA has the authority](http://news.sciencemag.org/scienceinsider/2011/06/supreme-court-rejects-nuisance.html) to regulate greenhouse gas emissions. The suit was filed in 2004 by states and environmental groups against American Electric Power in the hope of holding utilities accountable under the common nuisance law. The court said that the litigation was superceded by the Clean Air Act.

June 30 – July 1 — [Climate denier conference](http://climateconference.heartland.org/) takes place in Washington DC. Claiming to “restore the scientific method” to climate science, this and similar efforts are in fact deliberately calculated to undermine climate science by oil and fossil fuel industries such as Exxon-Mobil, Koch Industries and Western Fuels. See articles in[The Independent](http://www.independent.co.uk/environment/climate-change/thinktanks-take-oil-money-and-use-it-to-fund-climate-deniers-1891747.html), [Mother Jones](http://motherjones.com/blue-marble/2011/06/exxonmobil-soon-climate-change-denier), also [Exxon Secrets](http://www.exxonsecrets.org/), and[SourceWatch](http://www.sourcewatch.org/index.php?title=Heartland_Institute)

Aug. 9 — On the International Day of the World’s Indigenous People, [Amnesty International notes](http://www.amnesty.org/en/news-and-updates/americas-development-must-not-trump-indigenous-rights-2011-08-04):

*Across the Americas, Indigenous Peoples are seen as standing in the way of commercial interests, and are threatened, harassed, forcibly evicted, displaced and killed in the drive to exploit natural resources in the areas where they live.*

Aug. 16 — Environmental activist Shehla Masood assassinated at her home near Bhopal, India. Both Masood and [Amit Jethwa](http://en.wikipedia.org/wiki/Amit_Jethwa) (killed July, 2010) were fighting a Rio Tinto mining project in an attempt to save the Panna Tiger Reserve. See articles in the [Times of India](http://articles.timesofindia.indiatimes.com/2011-08-16/nagpur/29892044_1_diamond-mining-mining-activity-rio-tinto), [Toxics Watch](http://toxicswatch.blogspot.com/2011/08/joint-statement-on-martyrdom-of-shehla.html)

August 2011 – Divers finally shut down Shell’s blown-out Gannet Alpha platform in the North Sea.

Aug. 25 — Peruvian Congress [unanimously passes law](http://www.amnesty.org/en/news-and-updates/peruvian-congress-unanimously-passes-indigenous-consultation-law-2011-08-25) requiring consultation with Indiginous peoples prior to project development.

Aug. 27 — Hurricane Irene hits US east coast, causing massive damage. Questions about an association between climate change and the increasing overall strength of hurricanes become more pressing. Kerry Emanuel of MIT [tells the New York Times](http://www.nytimes.com/2011/08/28/us/28climate.html?_r=1):

*“On a longer time scale, I think — but not all of my colleagues agree — that the evidence for a connection between Atlantic hurricanes and global climate change is fairly compelling.”*

Aug. 30 — Famed guitar making company Gibson is [raided by federal agents](http://artsbeat.blogs.nytimes.com/2011/08/31/famed-guitar-maker-raided-by-federal-agents/?gwh=4AC8741D1B5751CE8ED77CDFF711B4E6) searching for illegal tropical hardwoods. Some see it as [regulatory over-reaching](http://www.nytimes.com/2011/10/26/opinion/are-guitar-makers-an-endangered-species.html?_r=1&nl=opinion&emc=tya3). Others point to chronic under-reaching as the norm in US environmental enforcement.

Sept. 12 — Arctic sea ice [reaches an historic low](http://news.blogs.cnn.com/2011/09/12/arctic-ice-levels-hit-historic-low-researchers-say/), international scientists find.

September 15-18  demonstrators protest outside Zhejiang Jinko Solar Co. in a   Haining,   China. They allege that the plant is releasing toxic chemicals, and they were especially concerned after the discovery of  dead fish in a nearby river. The factory dumps waste in the river and belches heavy smoke, exposing residents to dangerous levels of pollution.  Chinese companies are producing over two thirds of the world’s solar panels at this time, and  the U.S. and the European Union began to accuse China dumping solar panels on the market.

Oct. 18 — Global malaria deaths have fallen by 20% since 2001, WHO says, and over 30 countries are on course to eradicate the mosquito-borne disease by 2020. The fall in deaths is believed to be the result of improved diagnostic technologies and wider use of malaria vaccines.

Oct 20 — [Berkeley earth project](http://www.bbc.co.uk/news/science-environment-15373071) re-confirms climate warming.

Oct. 27 —  United Nations[Declares Victory in Global Eradication of Leaded Gasoline](http://www.google.com/hostednews/ap/article/ALeqM5h2j0TzmQV86Pjh8gpDk11BQzT_Zg?docId=fa60a04afec342729f7a64020bda6325) Also see main report: United Nations [Partnership for Clean Fuels and Vehicles](http://www.unep.org/transport/PCFV/PDF/9GPM/UNEP_CH_progressreports_pcfvgovernance.pdf)

Nov. 16 — Sister Valsa John, an advocate for people’s rights in the face of coal mining projects in Pachuwara, India, is assassinated.

Nov. 28 — Climate conference starts in Durban, South Africa. It was the 17th annual conference on climate change, and there was much at stake. Two important questions faced the delegates: Would the Kyoto Protocol be continued? And how will the Green Climate Fund be financed and managed? The UN’s [top climate negotiator hopes so](http://www.washingtonpost.com/world/africa/un-climate-official-hopes-conference-will-take-long-delayed-decision-on-cutting-pollution/2011/11/27/gIQA3r2C1N_story.html).

2011 year-end note: The [global escalation of environmental assassinations](http://www.radford.edu/~wkovarik/envhist/murder.html), in retaliation for peaceful oppostion to mining and logging, is one of the most disturbing trends we have observed in environmental history. Circumstances call for concerted investigations by the United Nations High Commissioner for Human Rights and other international human rights and environmental NGOs.

***2012***

A cold winter in Europe contrasts with an unusually warm winter in North America. Blistering heat, astonishing wildfires and willful Republican denialism mark the North American summer.

January — The US begins primary campaigns for the Nov. 2012 presidential election with Republican candidates insisting that they do not “believe” in climate change or environmental protection.

January 18 — US President Barack Obama denies an application from a Canadian company for a permit to build and operate the controversial Keystone XL oil pipeline.

January 15 — [**Cadmium spill in Longjiang River,  China**](http://en.wikipedia.org/wiki/2012_Guangxi_cadmium_spill) — About 20 metric tons of cadmium, a carcinogenic metal used in the manufacture of electronic devices leaks into the Longjiang river, threatening drinking water of cities downstream.  The Chinese government claimed it had the situation under control by Jan. 30.

Jan. 25 — UNEP says there are economic benefits to ocean cleanup, but serious consequences if no action is taken.

Feb. 8 — **Mohamad Nasheed**, the first democratically elected president of the Maldives, is deposed in a coup. Nasheed was known for his outspoken advocacy about climate change and the potential for island nations to disappear in the 21st century. Silencing him may be one reason for the coup.

Feb. 22 — United Nations renewable energy agency kicks off “sustainable energy for all” program in 2012. The program is particularly targeted to the developing world, where one person in five lacks access to modern electricity, and nearly three billion people rely on wood, coal, charcoal or animal waste for cooking and heating.

Feb. 28 –The Shanghai unit of Johnson Controls is shut down by the Chinese government after discoveries of heavy lead poisoning among children. The government says it will continue to crack down on heavy metal pollution after numerous similar incidents in recent years.

March 2 — The battle over access to a climate scientists university records came to a close with the Virginia state supreme court telling the state’s attorney general that his inquisition had gone too far. Climate scientist Michael Mann, meanwhile, published a bookabout his experiences in the Climate Wars.

March 11 — First anniversary of the Fukushima nuclear disaster of 2011.

* [Japan’s emperor leads mourning](http://www.guardian.co.uk/world/2012/mar/11/japan-earthquake-disaster-tsunami-anniversary) (Guardian)
* The Fukushima disaster[was preventable](http://www.nytimes.com/2012/03/10/opinion/fukushima-could-have-been-prevented.html?scp=1&sq=Fukushima&st=cse)say experts (New York Times)
* On the anniversary of Fukushima, renewable energy is[under fire from nuclear](http://www.renewableenergyworld.com/rea/news/article/2012/03/is-the-end-of-renewables-nigh-as-fukushima-anniversary-nears)and oil companies. (Renewable Energy World)

March 27– US EPA issues the first limits on greenhouse gas emissions from newly built power plants.

March 27 — Shell Oil and Total Oil Co. shut down natural gas platforms in the North Sea as uncontrolled gas bubbles up from the seabed.

May — [Tsunami debris](http://www.bna.com/western-states-working-n12884910108/) from the Japanese earthquake / tsunami / nuclear meltdown begins washing up on US Pacific Coast shores as [protests mark the re-start of two Japanese reactors](http://www.philly.com/philly/wires/ap/business/20120621_ap_crisisplanslagevenasjapansreactorsrestart.html).

May —  Fire-stopping chemicals  in household furnishings simply do not work, according to new investigations [reported by the Chicago Tribune](http://www.chicagotribune.com/news/opinion/editorials/ct-edit-fire-20120511,0,7668934.story).   Some fire retardant materials used over the years pose serious health risks — cancer, neurological deficits, developmental problems and impaired fertility. And the chemical industry “disseminated misleading research findings so frequently that they essentially have been adopted as fact,” the Tribune found.

May – June — Riots in Peru over[Xstrata and Minas Conga](http://politicsofpoverty.oxfamamerica.org/2012/06/06/perus-mining-conflicts-explode-again/) projects.

May  24 — A lawsuit against herbicide manufacturer Syngenta by 15 water providers in the US state of Illinois is settled.  Documents show that  Syngenta[investigated and attempted to discredit research scientist Tyrone Hayes,](http://www.newyorker.com/reporting/2014/02/10/140210fa_fact_aviv) a critic of Syngenta, for his work on  the environmental effects herbicide atrazine.

June 19 — James Lovelock, the 92-year-old former scientist once famed for the [Gaia](http://en.wikipedia.org/wiki/Gaia_hypothesis) hypothesis, [now says he’s NOT worried about climate change](http://www.telegraph.co.uk/earth/earthnews/9340819/Im-not-worried-about-sea-levels-says-climate-change-expert.html). Wind energy is “useless” he says and the [green movement is full of “meaningless drivel.”](http://www.dailymail.co.uk/news/article-2161379/This-meaningless-green-drivel-environment-guru-Scientists-U-turn-doomsday-claim.html)Lovelock also reviles environmental science and says environmentalism is just a substitute for religion. The dehumanizing rhetoric is picked up by susceptible organizations like the [Christian Broadcasting Network](http://www.cbn.com/cbnnews/healthscience/2012/June/Global-Warming-Guru-Calls-Green-Energy-Drivel/), and becomes another contribution to the [climate of fear and harrassment faced by scientists](http://www.popsci.com/science/article/2012-06/battle-over-climate-change?single-page-view=true).

June 20 – 22 — [UN Conference](http://en.wikipedia.org/wiki/United_Nations_Conference_on_Sustainable_Development) — As delegates head home from Rio +20- — a disappointing 20th anniversary[Earth Summit](http://en.wikipedia.org/wiki/Rio_Conference) conference — native Brazilians[demonstrate](http://green.blogs.nytimes.com/2012/06/22/megastars-of-the-earth-summit/) against the [Bello Monte dam complex,](http://e360.yale.edu/feature/video_belo_monte_dam_conflict_in_the_brazilian_amazon/2536/) third largest in the world. One major issue involves increasing [murders of environmental activists](http://www.radford.edu/wkovarik/envhist/murder.html).

June 28 — US federal appeals court [upholds EPA’s rules](http://www.denverpost.com/breakingnews/ci_20960957/federal-court-upholds-epas-greenhouse-gas-rules) for regulating greenhouse gas emissions.

June 25 — The[50th anniversary of the publication of Silent Spring](http://www.environmentalhealthnews.org/ehs/news/2012/commentary-paul-ehrlich-on-rachel-carson).

June 25 — US Geological Survey notes that [sea level rise on the US east coast is accelerating](http://www.nypost.com/p/news/national/sea_rise_faster_on_east_coast_than_KJ5dCWPEaT5VtiPcjUuP3K), with sea levels 4.8 inches higher in some locations.

June 26 — US federal court upholds EPA finding on the need to regulate greenhouse gases.

June 27 — Canada’s bird populations [are in deep decline](http://www.canada.com/news/Many+Canada+bird+populations+deep+decline+report+says/6848882/story.html), according to a report by the Canadian Wildlife Service.

July 1 –  [Thousands protest](http://en.wikipedia.org/wiki/Shifang_protest)proposed copper smelter in Shifang, central China. Hundreds of people are arrested, but by July 3, police release nearly all and authorities announce cancellation of the smelter project.

July 4 — China’s controversial Three Gorges Dam becomes fully functional.

July 5 — A [parliamentary inquiry in Japan](http://www.nytimes.com/2012/07/06/world/asia/fukushima-nuclear-crisis-a-man-made-disaster-report-says.html?_r=1&hp)concludes that the nuclear accident at **Fukushima was a preventable disaster** rooted in government-industry collusion and the worst conformist conventions of Japanese culture.

July 5 — Another death in Peru’s [ongoing series of riots and protests](http://en.mercopress.com/2012/07/06/peruvian-mining-conflict-with-locals-in-the-andes-region-remains-stalled)over mining.

July 8 — Death toll in [Russian flooding](http://www.bbc.co.uk/news/world-europe-18758895) tops 155.

July 11 — In the wake of violent mining [protests in Bolivia](http://www.bbc.co.uk/news/world-latin-america-18749380), president Evo Morales revokes the mining rights of the Canadian based South American Silver Corp. According to the [Montreal Globe and Mail](http://www.theglobeandmail.com/report-on-business/industry-news/energy-and-resources/in-latin-america-nationalism-stumps-canadian-mining-companies/article4405034/):

*“Mr. Morales has been a champion of his country’s natural resources since he became Bolivia’s first indigenous president in a landslide victory in 2006, when he promptly nationalized the key natural gas industry. Backed by the nation’s indigenous majority, he has since taken control of several utility companies as well Bolivia’s largest smelter and its top telecommunications firm.”*

July 16 — Studies [confirm links between mountaintop removal mining and human health problems](http://www.wvgazette.com/News/201207160109) in West Virginia.

July 24 —  **Greenland melting** —  U.S. National Aeronautics and Space Administration (NASA) [reports that  the surface of Greenland’s ice sheet](http://youtu.be/0IjvLavB23Q)has been going through the most extensive and rapid melt since satellite observations began 30 years ago. Scientists said that over a four day time period,  97 percent of the surface ice had started melting, which was unprecedented. 

Aug. 21 — **US air pollution rule blocked** — A panel of federal judges invalidated the EPA’s  rule targeting soot- and smog-forming air pollution that crossed state lines. The effect is to reduce limits on coal fired power plant pollution in one state that affects other states.Oct. 8 — Beef  from Canada’s XL Foods is recalled, one of dozens of belated recalls of tainted foods over the summer and into the fall of 2012.

Aug 30 — **Climate Joke** — Presidential candidate Mitt Romney [tells the Republican national convention:](http://www.huffingtonpost.com/2012/08/31/mitt-romney-obama-climate-change_n_1846440.html) “President Obama promised to begin to slow the rise of the oceans… ” (pause for laughter) “… and to heal the planet. *My* promise … is to help you and your family.”  Joking about climate science is one reason Romney loses the presidential election in November, 2012.



Flooding in Manhattan, New York, from Hurricane Sandy Oct. 28, 2012. Photo by David Shankbone, Wikimedia Commons (thanks).

Oct. 29 — **Some 253 fatalities are caused by Hurricane Sandy** which, after sweeping through the Caribbean,  makes landfall in the US. Sandy is the second most expensive hurricane in history, causing $65 billion in damages. The hurricane was widely taken to be caused, at least in part, by climate change, which in turn added weight to the arguments about a scientific (rather than superstitious) approach to climate change. Storm recovery proves difficult, and it appears by mid-December that   [reports and warnings about storm preparations from the 1970s went unheeded.](http://www.philly.com/philly/news/nation_world/20121209_N_Y__storm_warnings_unheeded.htmlhttp:/)

Nov. 8 — **Mysterious disease in Sri Lanka** may be due to contaminated farm chemicals, as reported [here](http://www.publicintegrity.org/2012/12/28/11985/sri-lanka-new-steps-target-mysterious-kidney-disease)and here.  On this day Sri Lankan president Mahinda Rajapaksa [promises new regulations](https://www.documentcloud.org/documents/548546-sri-lanka-2013-budget-speech.html#document/p17/a85139) to tighten quality controls on pesticides and fertilizers.

Nov. 27 –**Protesters in Burma** demanded  a complete shutdown of a Chinese-backed copper mining project near Monywa in Upper Burma, but on Nov. 27 are  [forcefully dispersed by police](http://www.irrawaddy.org/archives/20064) using tear gas and water cannons. Dozens of people were also badly burned in a police raid. The incident is significant as the first major protest following over 20 years of military rule in Burma (Myamar) and as taking place a week after the visit of  US president Barack Obama to strengthen the nation’s commitment to democratic processes.

Nov. 28 — [**Gunmen kill another environmental activist** in Mexico](http://www.boston.com/news/world/latin-america/2012/11/29/gunmen-kill-environmental-activist-south-mexico/2OaBlsUnwVViuN5Ez6F64H/story.html) — Juventina Villa Mojica, who was with her 10 year old daughter and under police protection, was gunned down in retaliation for her advocacy of protection for Mexico’s few remaining forests.  Her husband and sons were killed the previous year.

Dec. 3 –[**Typhoon Bopha**](http://en.wikipedia.org/wiki/Typhoon_Bopha_%282012%29)hits Mindinao island in the Philippines, south of the Typhoon belt,  leaving over a thousand dead in its wake. The previous year a tropical storm Washi also hit the country south of the usual Typhoon belt and  killed more than 1,200 people.

Dec. 7 –**NOAA publishes “**[**Arctic Report Card**](http://www.arctic.noaa.gov/reportcard/)**“** detailing “widespread, sustained change driving Arctic environmental system into new state.” Mother Jones [calls the trends “terrifying.”](http://www.motherjones.com/blue-marble/2012/12/6-scariest-arctic-changes)

Dec. 8  — The [**United Nations climate talks in Doha, Quatar**](http://www.bbc.co.uk/news/science-environment-20653018) close with few genuine decisions, but acceptance, at least, of the principle that rich nations should compensate poor nations for climate losses.   Activists from various international environmental NGOs are unhappy with activities,[as are delegates from some nations,](http://rendezvous.blogs.nytimes.com/2012/12/09/ignoring-planetary-peril-profound-disconnect-between-science-and-doha/) like the Philippines, following Typhoon Bopha and the concern that climate change is creating more monster storms around the world.

December — **A seven-fold increase in birth defects in Basra**, Iraq over the past 20 years may be associated with US use of uranium-tipped ammunition, [Der Spiegel](http://www.spiegel.de/international/world/researchers-studying-high-rates-of-cancer-and-birth-defects-in-iraq-a-873225.html) reports.

***2013***

January 4 — **Crystal River nuclear power plant** financing starts to unravel as Duke Energy Co.  declares the plant “inoperable.” The insurance system that is supposed to pool risk against minor incidents says it is overburdened, and  [the fiasco spreads](http://www.newschief.com/article/20130102/NEWS/130109898/1003/news01?p=1&tc=pg).   The Tampa Times editorial reflects the deep loss of confidence that the world nuclear industry now confronts:

*Duke Energy officials say they are contemplating repairs at Crystal River and estimate costs would fall between $1.5 billion and $3.5 billion. At the same time, Duke refuses to pay taxes on the Citrus County property appraiser’s $2.4 billion assessment, which includes about $600 million for the nuclear plant. So Duke is weighing $3 billion in potential repairs on a structure it swears is worth less than $600 million? That is a shell game only a corporate bloodsucker or Florida legislator could applaud.*

A month later, [the plant is permanently closed](http://www.tampabay.com/news/business/energy/duke-energy-announces-closing-of-crystal-river-nuclear-power-plant/1273794), and [related developments](http://www.sfgate.com/business/energy/article/Senator-wants-probe-at-San-Onofre-nuke-plant-4256691.php)show that [nuclear power](http://www.nytimes.com/2013/06/15/business/energy-environment/aging-nuclear-plants-are-closing-but-for-economic-reasons.html?ref=business) prospects are declining in the US and Japan.

**The city of Beijing** struggles through [months of life-threatening toxic smog](http://www.scmp.com/business/article/1144842/clear-evidence-obscures-truth-beijings-pollution-data) in the winter of 2012 and spring of 2013.[Increasing cancer](http://www.chinadaily.com.cn/china/2013-02/04/content_16199689.htm) is one result.  One small silver lining is that  the obvious environmental problem creates an opening for more political dialogue, similar to Glasnost in 1980s  Russia, which took off in part as a response to that country’s environmental problems and the Chernobyl disaster.

**US Electric utilities** running on coal start going bankrupt in the US as the price of natural gas undercuts an older, heavily subsidized rate structure.  The leveraged Texas utility [Energy Future Holdings](http://www.dallasnews.com/opinion/latest-columns/20130303-al-armendariz-energy-future-holdings-deal-hurt-texas.ece) bankruptcy exposed the built-in subsidies and their weaknesses.   Both coal and nuclear power faced new competition from increasingly cheap natural gas from [“fracking.”](http://en.wikipedia.org/wiki/Fracking)

**Exxon loses** $236 million[lawsuit by state of New Hampshire over MTBE](http://www.bloomberg.com/news/2013-04-09/exxon-mobile-is-found-neligent-in-new-hampshire-mtbe-use.html)contamination on April 8, the first state-level lawsuit, with anywhere from $1 to $15 billion more to come in estimated liabilities in other states.   MTBE was an octane booster that replaced other options such as leaded gasoline and severe reforming / BTX compounds.   Surprisingly, despite its well known threat to groundwater, [MTBE is still marketed as safe](http://www.zawya.com/story/Global_experts_promote_MTBE_usage_at_QAFAC_Workshop-ZAWYA20130423125306/) in many other countries.￼

**Renewable energy** goals are increasingly [set aside in the US](http://www.bloomberg.com/news/2013-04-23/u-s-states-turn-against-renewable-energy-as-gas-plunges.html) as the price of natural gas declines, apparently without any historical memory of the boom and bust energy cycles.

March 13 — [**Pope Francis:**](http://en.wikipedia.org/wiki/Pope_Francis) Cardinal Jorge Mario Bergoglio is elected Pope,  leader of the Catholic Church.  He choses the name Francis, after St. Francis of Assisi, the patron saint of the poor and of   animals and the environment.

April 8 — Death of **Mikhail Beketov**, a Russian environmental journalist who became a symbol of the effects of government impunity and brutality. His death was a direct result of a beating in 2008 for his defense of Russia’s environment, especially the Khimki Forest, which he said was being plundered by Russian government officials.

**April 20-22**  — Earth Day is a bust in the US, with far fewer communities participating and perhaps one quarter of the news articles being written than only a few years before.  As usual, when concerns about the environment dip dramatically, other concerns are at work: in this case, the Boston Marathon bombing.

**Germany’s Energiewende** [faces problems](http://www.economist.com/news/special-report/21579149-germanys-energiewende-bodes-ill-countrys-european-leadership-tilting-windmills), as might be expected, transitioning from fossil and nuclear to all renewable energy.  Still, as documented in the book [Clean Break,](http://www.amazon.com/Clean-Break-Kindle-Single-ebook/dp/B00A4IEJ5K/ref=sr_1_7?s=digital-text&ie=UTF8&qid=1352557036&sr=1-7&keywords=Clean+Break) Germans are determined.

July 6 — Over 50 dead in [Lac-Megantic, Quebec](http://en.wikipedia.org/wiki/Quebec_oil_train_disaster), as an **oil train races out of control** and explodes in a small town.  The train disaster raises questions about the safety of trains versus pipelines, and also about the safety and wisdom of a petroleum economy in the first place.

July 11 —  Google incorporated[hosts a fund-raiser](http://www.guardian.co.uk/environment/2013/jul/09/google-climate-denier-jim-inhofe) for leading climate denier and ultra-right wing US Sen. James Inhofe. Google’s hard right turn, combined with its cooperation US government surveillance, is ominous for world flow of  information.

July 16 — Twenty two school children die in India after eating a lunch that had been [accidentally poisoned by pesticides](http://www.bbc.co.uk/news/world-asia-india-23353017).  The children are among about 200,000 people a year being killed by organo-phosphorous pesticides, [one news agency reports](http://www.businessweek.com/news/2013-07-18/understanding-pesticide-s-role-in-india-child-deaths-q-and-a).

Aug 20 — [Nigeria’s president vows](http://allafrica.com/stories/201308200763.html)that the lead poisoning that killed 400 children working in the country’s gold mines will never occur again.  The lead poisoning took place in the late 2008 – 2010 period as small scale gold mines popped up in Zamfara State.

Summer 2013 — Violent crime is down worldwide, and the correspondence to the decline in blood lead levels from taking lead out of gasoline is rather more than coincidental.   [Mother Jones](http://www.motherjones.com/kevin-drum/2013/08/murder-rate-down-40-jamaica).

Sept. 8 — Japan wins  bid to host the 2020 Olympic Games, despite the Fukushima disaster.   Prime Minister Shinzo Abe says [the future of Japan](http://www.theguardian.com/world/2013/sep/19/future-japan-fukushima-leaks-pm)now  hinges on decommissioning the reactors and containing the radiation.

Sept. 15 — Anglo-American mining company pulls out of a  highly controversial Pebble [Alaskan mining operation](http://www.washingtonpost.com/national/health-science/firm-withdraws-from-pebble-mine-project/2013/09/16/326d954a-1f09-11e3-8459-657e0c72fec8_story.html).      Meanwhile, expansion of [mining operations in northern Chile](http://www.santiagotimes.cl/opinion/special-reports/26638-in-chiles-dry-north-big-mining-threatens-a-vital-resource) proves controversial.   And thousands of Romanians protest government [give-away of a gold mine](http://www.spiegel.de/international/europe/romanian-mining-plan-sparks-mass-national-protests-a-923625.html) to Gabriel Resources.

Sept. 27 — **Intergovernmental Panel on Climate Change**, [fifth assessment,](http://www.ipcc.ch/report/ar5/wg1/)says climate scientists are 95 percent certain that “human influence has been the dominant cause” of global warming.  While the conclusion isn’t different from previous assessment, the[research behind climate science has  improved.](http://www.washingtonpost.com/blogs/wonkblog/wp/2013/09/26/will-the-u-n-s-massive-new-climate-report-tell-us-anything-new/)

**Minamata Convention** on mercury poisoning signed Oct. 10, 2013  —  A thousand delegates from  140 nations — but not the US — [adopted a treaty that controls the use and trade of mercury.](http://www.japantimes.co.jp/news/2013/10/10/national/minamata-convention-is-adopted/?utm_source=feedburner&utm_medium=feed&utm_campaign=Feed%3A+japantimes+(The+Japan+Times%3A+All+Stories)#.Ulak3VB4yVo)  The convention was named for the Japanese city that suffered thousands of deaths and injuries from uncontrolled releases of mercury into the ocean and, ultimately, into the food chain.  In the 1950s and 60s, “Minimata disease” was one of the world’s earliest and strongest wake-up calls for environmental protection. Some 65,000 patients have applied for help, but only  3,000 were officially recognized. That number is set to expand following [an April 16, 2013 ruling of Japan’s Supreme Court](http://japandailypress.com/japan-supreme-court-upholds-decision-in-minamata-disease-case-1727142/).   Some supporters have demanded that the government conduct a thorough investigation on the spread of the disease but they have been refused. That it took over 55 years for Japan to begin to  recognize the broader implications of Minamata disease, and for the international community to form an agreement, despite obvious need,  indicates the extraordinary weakness of environmental laws.  Still, as [Environmental Health News noted](http://www.environmentalhealthnews.org/ehs/news/2013/a-call-for-action-in-minamata):

*The UN mercury treaty now bears Minamata’s name. This creates a special obligation to meet the demands of mercury-poisoned victims in the Japanese seaside city and transform a human tragedy into an opportunity for change…*



Pope Francis

Nov. 24 — Pope Francis issues **[Evangelii Gaudium,](http://www.vatican.va/holy_father/francesco/apost_exhortations/documents/papa-francesco_esortazione-ap_20131124_evangelii-gaudium_en.html)** which says (¶ 56).

*While the earnings of a minority are growing exponentially, so too is the gap separating the majority from the prosperity enjoyed by those happy few. This imbalance is the result of ideologies which defend the absolute autonomy of the marketplace and financial speculation. Consequently, they reject the right of states, charged with vigilance for the common good, to exercise any form of control. A new tyranny is thus born, invisible and often virtual, which unilaterally and relentlessly imposes its own laws and rules. Debt and the accumulation of interest also make it difficult for countries to realize the potential of their own economies and keep citizens from enjoying their real purchasing power. To all this we can add widespread corruption and self-serving tax evasion, which have taken on worldwide dimensions. The thirst for power and possessions knows no limits. In this system, which tends to devour everything which stands in the way of increased profits, whatever is fragile, like the environment, is defenseless before the interests of a deified market, which become the only rule.*

Dec. 19 –[**Carbon dioxide** concentrations in the atmosphere pass the 400 parts per million mark](http://www.theguardian.com/environment/2013/dec/19/2013-climate-change-review-global-warming).   The last time the atmosphere had that much carbon, seas were 40 meters higher.   Meanwhile, experts say climate change is leading to the [spread of dsease](http://www.usatoday.com/story/news/nation/2013/12/04/climate-change-disease/2623863/), along with [drought and famine](http://www.dw.de/climate-change-fuels-water-scarcity-and-hunger/a-17325128), public health experts say.

 Globally, 2013 was tied with 2003 as the fourth warmest year on record, according to the [National Oceanic and Atmospheric Administration](http://en.wikipedia.org/wiki/National_Oceanic_and_Atmospheric_Administration) (NOAA).

***2014***

Jan. 9 — [**A catastrophic spill of methyl cyclohexane**](http://en.wikipedia.org/wiki/2014_Elk_River_chemical_spill)shuts down water supplies for 300,000 people in Charleston, W.Va., sending shock waves through the most industry-friendly political establishment in the US. The “[Elk River chemical spill](http://en.wikipedia.org/wiki/2014_Elk_River_chemical_spill)” (as it was known) produces a little soul-searching but not much protection for West Virginians.

Jan 21 — One quarter of the world’s [cartilaginous fish](http://en.wikipedia.org/wiki/Cartilaginous_fish) — sharks and rays among them — face extinction within the next few decades, according to latest research.

Feb 3  — Duke Energy Co.’s coal ash pond on the Dan River releases  82,000 tons of coal ash and up to 27 million gallons of water.

Feb 16  – American [science educator](http://en.wikipedia.org/wiki/Science_educator) and [engineer](http://en.wikipedia.org/wiki/Engineer) [Bill Nye](http://en.wikipedia.org/wiki/Bill_Nye)  debates global warming with congresswoman Marsha Blackburn (R-TN).

Feb 19 —   Melting sea ice in the Arctic and the resulting exposure of dark water is reducing Earth’s [albedo](http://en.wikipedia.org/wiki/Albedo) more than previously forecast, according to NASA.

April 3 — [Navajo uranium cleanup](http://www.washingtonpost.com/politics/anadarko-petroleum-to-pay-515-billion-to-settle-pollution-claims-justice-dept-says/2014/04/03/af5bd8dc-bb53-11e3-9a05-c739f29ccb08_story.html) — US Dept. of Justice announces largest environmental fine in US history against Andarko Petroleum — $5.15 billion — for damages suffered by Navajo tribes in the Southeastern US during uranium mining.

April 11 — The [IPCC](http://en.wikipedia.org/wiki/Intergovernmental_Panel_on_Climate_Change) releases another key part of the[**Fifth Assessment Report**](http://en.wikipedia.org/wiki/IPCC_Fifth_Assessment_Report)**on climate change.**   The[executive summary (pdf)](http://ipcc-wg2.gov/AR5/images/uploads/IPCC_WG2AR5_SPM_Approved.pdf) helps explain the “unequivocal”  findings, which include:

* + Warming of the atmosphere and ocean system is *unequivocal*. Many of the associated impacts such as sea level change (among other metrics) have occurred since 1950 at rates unprecedented in the historical record.
  + There is a clear human influence on the climate
  + It is *extremely likely* that human influence has been the dominant cause of observed warming since 1950, with the level of confidence having increased since the [fourth report](http://en.wikipedia.org/wiki/IPCC_Fourth_Assessment_Report).

May 31 — Retired archbishop**Desmond Tutu**, leader of the South African anti-apartheid campaign, [says that tar sands are “filth”](http://www.dailyclimate.org/archives_tdc.jsp?tn=1title%2Clede%2Cdescription%2Ctext%2Csubject%2Cpublishername%2Ccoverage%2Creporter&ss=1&tv=Tutu) and Canada should not develop them.

June 2 — **US President Barack Obama** proposes new carbon emissions rules for power plants in order to slow the rate of CO2 accumulation in the atmosphere and fight climate change.  The new rules are greeted with enthusiasm in some areas, despair in others.   The[rules are a compromise](http://bigstory.ap.org/article/obamas-boldest-move-carbon-comes-perils) and not as strong as environmentalists hoped and some industries feared.

June 5 — **Mountaintop Removal Mining** — a scourge of Appalachia’s environment — is one step closer to ending[after a federal district court rulin](http://www.wvgazette.com/article/20140605/GZ01/140609519/1419)g   that the practice is ruining water and aquatic ecosystems.

Aug 1 — **Public opinion** — Americans are deeply [polarized over environmental issues](http://msutoday.msu.edu/news/2014/congressional-rift-over-environmental-protection-sways-public/), according to polls from Michigan State University and the Pew Center.  While environmental issues united the country in the 1970s, they  became increasingly divisive after the fall of the Soviet Union. At that point, around 1991, when the “red scare” was replaced by the “green scare.”

Aug 3 — **Nuclear decommissioning** — One of the first major nuclear [power plant decommissioning projects](http://www.utsandiego.com/news/2014/aug/01/decommissioning-san-onofre-moves-forward/) in the US, to take place at San Onofre, California, will cost $4.4 billion, according to [Southern California Edison](http://www.songscommunity.com/).   The plant has been one of [the least safe in the US](http://sanonofresafety.org/), according to environmentalists.

Aug 4 — **Dam breaks at Mount Polley mine** in central British Columbia dumping 24 million cubic meters of water and mine tailings into Quesnel Lake.

**Sept. 21 — People’s Climate March in New York, with over 400,000 people demonstrating for action on climate threats.**