



## The Energy and Environment Round-Up: October 10th 2007

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In Alberta, the debate of the the tar sands royalty review is heating up. Major companies are threatening to pull investments in the province, while other point out that a peaking world offers them few other options. The environmental effects of large-scale bitumen mining, which are not considered often enough, are discussed in detail in journalist Willam Marsden's new book.

On the other side of the country, LNG shipments seem set to ignite a political row over safety in narrow shipping lanes. Nuclear appears to be approaching a revival, although cost is an issue. The effects of climate change are making themselves felt across the globe, notably in the Australia and in the Arctic, where Inuit climate change campaigner Sheila Watt-Cloutier could be about to share the Nobel Peace Prize with Al Gore. (More under the fold!)

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### [Lazy-Ass Nation](#)

In 1883, Charles Stillwell of Philadelphia invented a machine to produce the brown paper bag—or, as he called it, "the Self-Opening Sack, the first bag to stand upright by itself." Without Stillwell's invention, the self-service supermarket, created in 1916 by Clarence Saunders, of Piggly Wiggly fame, might not have amounted to much. The sometimes startling transition from a class of invention that solved serious problems to the type that made life a little more convenient was already apparent with the 1891 creation of the escalator by Kansas-born patent holder Jesse W. Reno: those reaching the top of this "inclined conveyor belt" were offered brandy to help them get over the shock of rising 45 feet above ground level.

Alarmed by such tendencies, Teddy Roosevelt, in a 1917 letter, weighed in thusly: "The things that will destroy America are ... the love of soft living and the get rich quick theory of life." T.R.'s fears of what the typical American might become are perhaps best embodied by our current national mascot, Homer Simpson, a man not too proud to drink his beer from a helmet equipped with two cup holders and several feet of tubing.

Cup holders, by the way, are everywhere. Can we step back from the pseudo-serious tone of this article a minute to ask: Cup holders? What, you can't hold your ... cup? There is an extremely rich man in China who laughs long and hard every time he tells his friends how he made his fortune.



### [Forget Your Silver Bullet](#)

The United States' Task Force on Strategic Unconventional Fuels ([www.unconventionalfuels.org](http://www.unconventionalfuels.org)) has made public its findings and recommendations on the future role to be played by five non-petroleum energy sources found in America: shale oil, heavy crude, tar sands, coal-to-liquids and enhanced oil recovery (EOR) using captured carbon dioxide.

In three volumes, the Task Force, made up of the U.S. Secretaries of Energy, Interior and Defense, along with the governors of Wyoming, Colorado, Utah, Kentucky and Mississippi, takes a comprehensive look at the potential contribution these, heretofore under-utilized resources can make in supplementing the nation's declining petroleum production. They conclude that even under the most aggressive development scenario, these resources could produce about 7.6 million barrels a day of synthetic liquid fuel by 2035. Under current, business-as-usual, conditions -- and assuming a whole host of issues from socioeconomic to technical can be resolved -- unconventional fuels might add 2.3 mbld by 2035, about one-tenth of what America currently consumes.

While there are no known proponents of "peak oil" to be found among the senior task force members, nonetheless, Volume One of "America's Strategic Unconventional Fuels" reads as if it might have been produced by the Association of the Study of Peak Oil. There are references to M. King Hubbert and energy return on energy invested (EROI).

### [Macleans: The brewing fight over oil sands taxes](#)

[Albertans look to Newfoundland and Labrador Premier Danny Williams for inspiration](#)

Perhaps it was inevitable, given the number of Newfoundlanders flowing into Alberta in the last few years to work the oil sands. Still, it was a little odd to see many Albertans looking to Newfoundland and Labrador Premier Danny Williams for inspiration last week, with the release of Alberta's oil sands royalty review report. Last month, Williams defended his Alberta counterpart Ed Stelmach during a Council of the Federation meeting in Moncton, where others intended to slam Alberta's climate change stance. "We don't want to slay the goose that lays the golden egg here," he said, citing Alberta as Canada's delicate economic heart. But now Alberta is focused on another aspect of Williams's legacy -- and this time it's not good news for Stelmach.

Last year, Williams stared down a consortium of oil companies when they refused to budge on negotiations over the Hebron Ben Nevis oil project. Williams won that game of chicken, just weeks away from an election, kick-starting Hebron and securing an equity position and a healthy royalty take. Stelmach, who will also soon face an election but whose popularity is somewhat weaker than Williams's, has a similar opportunity to appear resolute with a demand for higher royalties from the oil sands.

### [Lessons from King Danny](#)

Williams has a hidden message for a political pal struggling outside his campaign bubble, specifically Alberta Premier Ed Stelmach who is poised to make a life-or-death policy decision that has a Conservative dynasty trembling with electoral fear.

Newfoundland and Alberta have more than the unfortunate symmetry of being an empty job market exporting labour to a province awash in help wanted ads. They share an economy lubricated by Big Oil, an industry that strives to remove a dwindling natural resource owned by the public for the lowest possible impact on their obscene profit margins....

...What has elevated to deity-level approval ratings is Williams' claim to have successfully forced oil companies to capitulate to demands for a greater share of their energy windfall.

It was a hollow victory. Analysts much wiser than me have peeled away the fine print and found the premier didn't exactly put the industry over an offshore barrel until it cried uncle.

Yet it's the perception that counted -- a sense among Newfoundland voters that their premier stood up to global forces to defend a public resource from an unfair plundering by foreign shareholders.

### [Polls won't affect decision, Tories insist](#)

It's popular to say Albertans need a bigger share from oil and gas companies, but Tory MLAs insist public opinion polls alone won't determine whether they hike energy royalties.

They were largely unsurprised by an Edmonton Journal-Calgary Herald poll that suggested 88 per cent of Albertans don't believe the government collects its "fair share" from oil and gas royalties, and that two-thirds want Premier Ed Stelmach to fully adopt recommendations from his royalty review panel, including its demand for a 20-per-cent overall increase on royalties.

Treasury Board President Lloyd Snelgrove, one of Stelmach's top lieutenants, said he understands that people want a fair share, but also expressed concern that opinion is being heavily influenced by the media, the panel's report and a scathing auditor-general's report this week. It said the government ignored internal advice to collect an extra \$1 billion annually from energy firms.

"It is very simplistic to look back and say, 'Oh, we could have had so much more,' when in fact who knows what taking that billion dollars out of the economy three years ago would have meant in the loss of jobs, the loss of corporate and personal income tax," Snelgrove said Wednesday.

### [Royalty debate needs really good airing](#)

POINT: Gas companies say natural gas prices are falling sharply, while at the same time, production costs in Alberta are rising. They say changing royalty regimes now would be terrible.

COUNTERPOINT: The blue-ribbon royalty review panel recommended lowering royalties on most gas production. Under the proposed model, 82 per cent of the province's gas wells would pay less in royalties. Lower royalties rate would also be extended to coalbed methane gas production, an important emerging gas source. Yes, some wells would pay significantly more in royalties -- the cheapest and most profitable ones.

In the conventional oil sector, 57 per cent of oil wells would pay less in royalties under the proposal. The new terms are significantly more attractive for conventional heavy oil, and much of Alberta's remaining conventional reserves are heavy oil.

### [Smaller oilpatch players join big oil in fighting royalty increases](#)

Over the past week, four major energy companies have come out with vocal opposition to a recent royalty review report that says Alberta should boost its take by nearly 20 per cent or \$2 billion annually.

Firms like EnCana Corp. and Talisman Energy even put a price on the plan, saying they'd hack between \$500 million to \$1 billion in annual spending from the province if royalties rise.

Others like Petro-Canada and ConocoPhillips were more vague, warning that they - and the rest of the industry - would simply take their money and go elsewhere.

But with a decision from the Alberta government expected within about a week, it's unclear whether the missives from Calgary's tallest oil towers are being taken as stark reality or fear-mongering threats.

"Mr. Stelmach is a proud man who doesn't react well to threats," says David Taras, a political science professor at the University of Calgary.

Speaking with a common voice in public, energy executives concede privately that the recent lobbying by the oilpatch's largest and most lucrative players could have the opposite effect by angering Stelmach and ordinary Albertans.

Particularly when a recent report by Alberta's auditor general also said the province has lost billions annually in recent years for not boosting royalty rates sooner.

## [Canadian Natural May Cancel Some Oil-Sands Projects](#)

Canadian Natural Resources Ltd., the largest heavy-oil producer in Alberta, said it may cancel oil-sands projects worth as much as C\$7 billion (\$7.08 billion) if the government boosts royalties.

The company said it may halt the Gregoire Lake, Kirby and Birch Mountain tar-sands projects if the government adopts recommendations released last month that include a new tax on such developments. The four projects combined would boost the company's production by as much as 235,000 barrels of oil a day in the next 15 years, Calgary-based Canadian Natural said.

The developments, which extract an extra-heavy crude from the tar sands called bitumen, need oil prices of about \$85 a barrel to be economically attractive if the panel's suggestions are adopted, Chris Felton, an analyst with Calgary brokerage Tristone Capital Inc., said today in a telephone interview.

"You'd be hard pressed to make the economics go around at \$70 a barrel for a bitumen project," said Felton, who rates the company's stock as "market perform" and owns none. "I wouldn't view this as a threat at all. I think this is a realistic challenge that they're going to have to overcome."

## [Major investors press Alberta on royalties](#)

Investors controlling upward of \$1-trillion pressed the Alberta government yesterday to water down proposed increases of energy royalties and taxes in the province.

A group of major investors, including Ontario Teachers Pension Plan, met with Ron Stevens, Alberta deputy premier and justice minister, and Mel Knight, energy minister, yesterday afternoon in Calgary, a gathering organized by Michael Tims, chairman of Calgary brokerage Peters & Co. Ltd....

...The Toronto Stock Exchange energy index is down about 4 per cent since the report was issued, which is about how much Teachers has lost on its large energy investments, holdings that include Nexen Inc. and Suncor Energy Inc.

## [Heavy hitters give Alberta tax warning](#)

Canadian and U.S. money managers warned Alberta politicians yesterday they will look elsewhere if returns in the province are eroded by higher taxes and royalties on the oil and gas industry....

"...But they are trying to say that capital -- whether by companies or whether by institutional investors -- is mobile, and it will be attracted to the places where its risk-adjusted return is the best."

### [Albertans own the goose that lays golden eggs](#)

While royalties that are too high will dissuade energy companies from developing Alberta's energy resources, royalties that are too low will cause them to be exploited too quickly, increasing costs in the industry and placing stress on the physical and social infrastructure, without much return to their owners, Albertans. With royalties that are too low, in the end the resources will be depleted, and Albertans will have little to show for having owned them.

### [Alberta's gas sector digs in its heels on royalties](#)

The gas business accounted for 70 per cent of the wells drilled in Alberta in 2006.

The sector also accounted for 60 per cent of the royalties paid to the government in fiscal 2006-07. The industry has slumped considerably this year because of low natural gas prices and Mr. Buckee said Alberta would be foolish to do it further harm.

"It's the dominant product," Mr. Buckee said in an interview. "There's the potential for huge blunders here."

The statements of Petrocan and Talisman follow one from EnCana Corp., which last Friday said it would cut \$1-billion from its planned 2008 spending of \$3-billion in Alberta, mostly in natural gas if the report was adopted in full. Mr. Buckee said he expects more companies to make public statements.

In all of the public declarations, the natural gas business has featured prominently. While the oil sands receive much of the attention inside and outside Alberta, it is natural gas production that drives the province's economy. The industry is conceding higher royalties in the oil sands could be reasonable - royalties won't "make-or-break" oil sands projects, said Richard Bird, an executive at oil pipeline company Enbridge Inc. - but energy companies are united in their argument that higher rates in gas are simply not viable and would cause widespread pain in the Alberta economy.

### [Alaskan solution instructive as Alberta re-examines royalty rates](#)

When the gas producers cry doom and gloom about the royalty panel, it's also important to remember that many of them cut back their drilling plans months ago when natural prices declined -- long before the panel reported.

Panel member Evan Chrapko can't figure out why these companies are crying foul over his report. In fact, those companies will pay less under the panel's proposal than with the existing rates as gas prices fall.

"What's getting lost here is that we recommended on the gas side a lowering of the royalty rates as prices fall. At \$6 ( per mcf ) we would lower the rate on 82 per cent of wells. Under the current regime, royalties won't change (if prices fall)."

EnCana also doesn't mention the fact the royalty panel would give a substantial break to their vast coalbed methane reserves which will be the major supply of gas in the future. The proposed rates are lower for this kind of production.

### [70s royalty hike a boom not a bust](#)

#### [Yet petroleum industry was predicting job losses and dire economic consequences](#)

Last time Alberta Conservatives stirred up a hornets' nest by raising oil and gas royalties, the province kept score on the aftermath.

"We heard many dire predictions," Peter Lougheed reminded the legislature in his first annual state-of-Alberta address as premier on Oct. 25, 1972.

Six months earlier, public hearings on Tory royalty proposals rang with warnings of hard times ahead if they were enacted. The industry chorus included Lougheed's brother, Don, doing his job as Calgary drilling and production chief of then Toronto-based Imperial Oil.

The Independent Petroleum Association of Canada, an ancestor of today's Canadian Association of Petroleum Producers, predicted losses of 50,000 jobs.

Investors would shun Alberta -- and not least because the plan tarred the province's reputation for stability by scrapping a decades-old economic compact between the former Social Credit regime and industry, financial gurus said.

The Tories promptly enacted their royalty hikes, including a then-radical procedural step entitling the cabinet to change rates rapidly by amending regulations rather than passing bills in the legislature.

About two years later the Department of Mines and Minerals, ancestor of Alberta Energy, printed a poster-sized scorecard on government revenues and industry activity. In 1970s style, before public relations ballooned into a big business, the document was all numbers. Just the facts were dramatic.

### [Beyond royalty hysteria](#)

The panel relied on Pedro van Meurs, a Dutch-born expert who ran an oil company and was a consultant with Alaska. I interviewed him this week.

"What governments around the world do is try to be competitive with one another, taking into consideration cost. They watch each other carefully," he said. "What's important all the time is to make sure a government doesn't overplay its hand. If it does, activity significantly declines. If governments get too greedy, they are punished by the market of course."

He said 20 governments have raised royalties.

"Alaska increased 10% overall and Ireland last week increased the government take by

25%, along with Denmark. The U.S. Gulf of Mexico increased by 10%," he said. "The panel is not being too aggressive."

Here is Van Meurs' comparisons with other jurisdictions: - Alberta versus Texas conventional natural gas: Small wells in Alberta now pay 12% (based on current low prices); medium-sized wells producing 650,000 cubic feet a day pay 24% and big wells of several million feet day are at 29%. In Texas, royalties vary depending upon the landowner, but Dallas experts hired to consult said the average was 25%.

"The proposal would match 25% for smaller wells and raise it to 34% for big ones," he said.

Deep gas, expensive to produce, will still get a royalty holiday of \$500,000. "The proposal was silent on this, but I assume it's going to continue, which should protect these wells." - Alberta oilsands versus Alaska heavy oil: "The panel is proposing 64% for the oilsands after they get all their money out, which matches what Alaska gets. The big difference is that oil companies in Alberta pay only 1% until they get all their investment out, plus a good rate of return. In Alaska, oil companies pay a royalty right from the start," he said. "This is important to understand and makes the oil sands is far more favourable than the Alaska jurisdiction. I negotiated the Alaska terms with the oil industry, so I'm extremely familiar with them."

Van Meurs also addressed the hysteria in the United States and elsewhere over raising royalties.

"What Americans don't understand is that the two systems are very different. In the U.S. system, the royalty rate is written in your lease; it's a contractual agreement. In Alberta, that is not the case. An Alberta lease says you shall pay whatever royalty the government decides from time to time."

### [Royalty panel acted on half-information](#)

Similarly, last week Deutsche Bank Securities (DBS) in New York issued an analysis of the royalty report that said panellists had failed to take into account the low margins of return in Alberta's oilsands relative to other oilpatches in the world. "Even at \$75 a barrel, Alberta's oilsands contain some of the least valuable reserves on the planet." Indeed, they are one-fifth as profitable per barrel as those in Saudi Arabia, and just 91st out of 105 major reserves in the world.

If the Alberta government tries to squeeze the oilsands at the same rate as Norway (2.5 times as profitable) squeezes its producers, or Venezuela (3 times) or Russia (3.5 times), billions in investment could easily be shelved until the provincial government regains its senses.

The telling point of the DBS study is that it was based entirely on publicly available filings made with security regulators by Alberta oil and gas companies and their counterparts around the world. If a couple of analysts at an investment bank in New York could find the information, so could the royalty panel. Or they could have hired a couple of New York analysts.

Before the provincial government buys into the panel's notion that Albertans are being short-changed, it needs to have the other half of the equation.



## [Render not unto Caesar](#)

Two thousand years ago, the Roman emperor Tiberius, no friend of freedom and under whose reign Jesus Christ was executed, declared the Roman state to be exclusive owner of all mineral rights. Since around that time, just about every government through history has found it convenient to seize ownership of underground mineral rights and extract fat "royalties."

The idea of government ownership of mineral rights -- gold, copper, coal, oil, gas, etc. -- is today so entrenched it is beyond question, even among the extraction industries who pay the royalties. "Render unto Caesar the things which are Caesar's," as Jesus Christ reportedly said before Caesar's underlings orchestrated his execution. Today in Canada, rendering unto Caesar means rendering unto the emperor of Alberta new royalties that would pull another \$2-billion into government coffers.

Modern Caesars, of course, have reworked the language, so that the rendering is now supposedly done onto "the people," the citizens and voters for whom the government claims to act as beneficial surrogate. When the Alberta Royalty Review Panel last month recommended a new royalty regime for Alberta oil and gas, it said the resources "belong to the people" and the people are not getting a "fair share" of revenue from their mineral rights.

The review panel's report played this angle to the hilt. Royalties, it claimed, are different from taxes. "When a government designs a tax system, it must justify every dollar or fraction of a dollar it takes away from wage earners and business, because that money belongs to the people who earned it. Alberta's natural resources belong to Albertans, and this is a different proposition. The design of a royalty and tax system for energy resources therefore must justify every dollar that does not go to the owners."

Even Tiberius could have used these guys. So now "every dollar" of revenue from mineral resources belongs to Caesar, and every dollar that Caesar doesn't get must be justified.

## [Wall Street to Alberta: Don't be 'so stupid'](#)

After years of carefully cultivating an image as an investors' paradise, the Alberta government is getting a rough ride on Wall Street over proposed royalty changes that would significantly reduce profits for oil companies that invest in the province.

Accustomed to dealing with political risk in places like Russia and Venezuela, investors and analysts are stunned that Alberta - which has sold itself as Texas North - has apparently taken such an aggressive approach to the industry that has spawned so much wealth there.

"The Alberta government is doing a classic 'shoot yourself in the foot' strategy," said Fadel Gheit, an influential New York-based analyst with Oppenheimer & Co.

### [Ottawa unmoved by positive LNG study](#)

A federal study has concluded that LNG tankers could navigate Head Harbour Passage off the Bay of Fundy with little risk of accident, but Ottawa continued to insist yesterday that it will bar U.S. tankers from the disputed waters.

Proponents of the competing LNG plants proposed for northern Maine have seized on the study - which was released on an obscure federal website - to argue that the Canadian government has exaggerated the safety concerns in order to favour domestic producers.

The federal government has refused to co-operate with U.S. regulators who are reviewing three separate plans for terminals that will regasify imported liquefied natural gas and pipe it to markets in the U.S. Northeast.

Earlier this year, Canada's Ambassador in Washington, Michael Wilson, wrote to U.S. Secretary of State Condoleezza Rice that the projects "present risks to the region of southwest New Brunswick and its inhabitants that the government of Canada cannot accept."

### [Environmental Armageddon: It's not just Alberta, it's the whole country](#)

Marsden encounters several smart Albertans with profound messages. Former premier Peter Lougheed tells him that the province has stupidly forgotten how to behave like an "owner." David Schindler, one of the world's foremost water ecologists, explains how the systematic and ignorant trashing of provincial watersheds could ensure citizens a bleak future within 50 years. David Hughes, an energy and peak oil expert, wonders why federal and provincial politicians don't seem cleverly interested in oil and gas conservation now that Canadians are stupidly reduced to digging big holes in the ground for the world's dirtiest oil. And on it goes.

But Marsden really finds his mark while recording the tales of ordinary Davids facing powerful yet stupid Goliaths. Francis Gardner, one fine rancher, gets the better of Shell Oil in a brazen, Russian-like encounter on New Year's Eve. Jessica Ernst, a courageous oil-patch consultant, tells how EnCana carelessly drilled into a local aquifer and gave her groundwater a shocking advantage: She can light it on fire. Dr. John O'Connor, a physician with a moral heart, explains how both federal and provincial bureaucrats tried to silence his disturbing documentation of cancer deaths downstream from the tar sands. In these inspiring tales, at least, Marsden proves that moral intelligence has not disappeared from Alberta; it just doesn't appear to exist in government circles any more.

### [Power firm agrees to record environmental fine](#)

[American Electric Power to pay \\$4.6 billion to reduce Northeast pollution](#)

One of the nation's largest power generators has agreed to end a years-long federal

lawsuit by paying \$4.6 billion to reduce pollution that has eaten away at Northeast mountain ranges and national landmarks, The Associated Press has learned.

The settlement requires American Electric Power, based in Columbus, Ohio, to reduce chemical emissions that cause acid rain by at least 69 percent over the next decade.

It also fines AEP an additional \$15 million in civil penalties and another \$60 million in cleanup and mitigation costs to help heal parkland and waterways that have been hurt by the pollution.

### [Parallel destinies](#)

Waskaganish, population 2,000, is a Cree village located at the confluence of the kilometre-wide Rupert River into James Bay. Prized by canoers and trappers, the river has become the epicentre of a five-year construction project, begun this January, which will divert 71 per cent of its volume to feed power plants on the Eastmain and La Grande River systems further north.



On its website, Hydro-Québec praises the project, which it claims will promote energy efficiency by harnessing the existing power stations to full capacity. Environmentalists point to the cost of 346 square kilometres of flooded forests (by reservoirs, to hold the diverted water), plus a loss of livelihood for the Cree.

### [Biofuels speeding global warming](#)

Most crops grown in the U.S. and Europe to make "green" transport fuels actually speed up global warming because of industrial farming methods, says a report by Nobel prize-winning chemist Paul J. Crutzen.

The findings could spell particular concern for alternative fuels derived from canola, used in Europe, which the study concluded could produce up to 70 per cent more planet-warming greenhouse gases than conventional diesel.

The study suggested scientists and farmers focus on crops, which required less intensive farming methods, to produce better benefits for the environment.

Biofuels are derived from plants that absorb the planet-warming greenhouse gas carbon dioxide as they grow, and so are meant as a climate-friendly alternative to fossil fuels.

But the new study shows that some biofuels actually release more greenhouse gases than they save, because of the fertilizer used in modern farming practices.

The problem greenhouse gas, nitrous oxide, is more famous as the dentists' anesthetic "laughing gas," and is about 300 times more insulating than the commonest man-made greenhouse gas, carbon dioxide.

### [EU May Trim Biofuel Crop Cash After Extra Land Sown](#)

European Union agricultural regulators are likely to reduce subsidies paid to farmers to help them grow more biofuel feedstock crops after planting rose more than expected, officials said on Monday.

One particular subsidy payment, called the energy crop premium, was introduced in 2004 after the EU's major farm policy reform the previous year. From 2007, the bloc's newest joiners, including Bulgaria and Romania, get the same payments.

A flat-rate subsidy of 45 euros (US\$63.49) per hectare, it aims to encourage farmers to grow raw materials for biofuels. Crops targeted include sugar beet, cereals and vegetable oil plants such as rapeseed.

### [Nuclear power primed for comeback](#)

Nuclear plants are hugely expensive to build; they have long lead times and a history of cost overruns. Bottlenecks loom for key components if more than a few plants are built. The price of uranium has soared in recent years. So has the cost of construction materials and skilled labor, which is in short supply. Politicians, environmentalists and business still can't decide how to dispose of radioactive waste.

"If I were an investor, I'd be squeamish," said Jim Harding, a consultant and former director of power-supply planning at Seattle City Light.

To ease financial concerns, the nuclear power industry has turned to Congress. Among the biggest reasons for renewed interest in nuclear power are the tax breaks, loan guarantees and other subsidies in the Energy Policy Act of 2005.

Those benefits were "the whole reason we started down this path," Crane said after filing NRG Energy's license application. "If it were not for the nuclear provisions in there, we would not have even started developing this plan two years ago."

For each nuclear plant seeking federal approval before the end of 2008, the act provides tax credits of up to \$125 million for eight years, loan guarantees for up to 80 percent of a plant's cost, shared application costs and insurance that would cover the costs of regulatory delay.

Nuclear plants also receive other subsidies, including local tax breaks and limits on liability for catastrophic accidents.

Many utility executives, however, say they need more.

### [Yankee collapse raises questions](#)

The chairman of the Nuclear Regulatory Commission said Wednesday the partial

collapse of a cooling tower at the Vermont Yankee nuclear plant in August raises questions about the maintenance and safety of the plant.

Dale Klein, who was speaking to the U.S. Senate's Subcommittee on Clean Air, Climate Change and Nuclear Energy, made the statement under questioning by Sen. Bernard Sanders, I-Vt., who has introduced legislation that would give states the right to ask for independent safety assessments of reactors.

So far, the NRC has shown no interest in the legislation, saying that its own regulatory process was superior to the independent safety assessment that was used at the now-dismantled Maine Yankee nuclear plant.

### [Students bask in sun-powered homes contest](#)

American, Canadian and European university students battle for architectural and engineering supremacy in Washington this month in a contest of homes whose lights, refrigerators and televisions must be powered by solar energy.

Twenty teams will show off their futuristic creations at the third edition of "Solar Decathlon 2007" between October 12-20 in the US capital's vast Mall esplanade, and 125,000 people are expected to visit the homes.

Construction and engineering experts will judge the homes using 10 criteria including architecture, engineering, market viability, interior comfort and whether the sun actually powers appliances and produces hot water.

The solar power going through the homes must also be able to charge an electric car.

### [No simple solution for Great Lakes muck, scientists say](#)

When runaway algae killed fish and fouled beaches in the Great Lakes region decades ago, governments ordered cutbacks of phosphorus — a key algae nutrient — from laundry detergents and sewage treatment plants. It worked, for a while.

But scientists acknowledge there are no simple solutions for a recent algae outbreak that is littering shorelines with stinky muck, and it may be responsible for die-offs of loons and other water birds.

"We've done all the easy stuff," Harvey Bootsma, a University of Wisconsin at Milwaukee scientist, said during a conference this week on Lake Michigan environmental problems.

Another crackdown on phosphorus from sources such as livestock farms and urban lawn fertilizer would help, he said. But there's a catch. While areas near shore have too much phosphorus, some deeper waters don't have enough to support plankton, a crucial link in the food chain. So fish are going hungry.

"We have almost two ecosystems in the lake," Bootsma said. "And we don't have one nice, handy management strategy that will work in both cases."

## [Forests in Peril](#)

From state to state and forest to forest, the situation is variable and dynamic. "There is a lot of healthy forest left," said Dr. Joan Gardner Ehrenfeld, an expert on invasive species who is a professor in the Department of Ecology, Evolution and Natural Resources at Rutgers University.

But in some areas, multiple threats "are coming together as a sort of a perfect storm," she said. "There are too many different problems all converging at the same time in the same place, and the multiple effect makes the situation all the more serious."

These threats, experts say, include suburban sprawl, the impact of marauding invasive plants and insects, climate change and not only acid rain but also, contrarily, lack of rainfall. But in many locales, the implacable browsing of deer on young trees is killing replacement saplings, depleting shade and promoting the growth of invasive plants that smother native species.

## [Canada's Chemical Valley Exposed](#)

Ecojustice (formerly Sierra Legal) released an investigative report today that for the first time documents the staggering amount of air pollution released from industrial facilities around Sarnia, Ontario: Canada's Chemical Valley.

The report reveals that there are 62 large industrial facilities within 25 kilometres of the City of Sarnia and adjacent Aamjiwnaang First Nation reserve. In 2005, these facilities released more than 131,000 tonnes of air pollution – a toxic load of more than 1,800 kilograms per Sarnia and Aamjiwnaang resident.

"What is particularly striking about the air pollution in the Sarnia area is the immense quantity of toxic chemicals emitted," said Ecojustice Senior Scientist and report author Dr. Elaine MacDonald. "In 2005, these facilities released more dangerous chemicals -- substances associated with cancer and respiratory and reproductive disorders -- than the industrial releases from the entire provinces of Manitoba, New Brunswick or Saskatchewan and greater than any other community in Ontario."

Located at the southernmost tip of Lake Huron, at the border between Ontario and Michigan the region's cluster of heavy industry is home to 40% of Canada's chemical industry.

## [World moves into the ecological red](#)

The world moved into 'ecological overdraft' on Saturday, the point at which human consumption exceeds the ability of the earth to sustain it in any year and goes into the red, the New Economics Foundation think-tank said.

Ecological Debt Day this year is three days earlier than in 2006 which itself was three days earlier than in 2005. NEF said the date had moved steadily backwards every year since humanity began living beyond its environmental means in the 1980s.

### [The nature of the new world](#)

We recently entered a new century, but we are also entering a new world, one where the collisions between our demands and the earth's capacity to satisfy them are becoming daily events. It may be another crop-withering heat wave, another village abandoned because of invading sand dunes, or another aquifer pumped dry. If we do not act quickly to reverse the trends, these seemingly isolated events will occur more and more frequently, accumulating and combining to determine our future.

Resources that accumulated over eons of geological time are being consumed in a single human lifespan. We are crossing natural thresholds that we cannot see and violating deadlines that we do not recognize. These deadlines, determined by nature, are not politically negotiable.

Nature has many thresholds that we discover only when it is too late. In our fast-forward world, we learn that we have crossed them only after the fact, leaving little time to adjust. For example, when we exceed the sustainable catch of a fishery, the stocks begin to shrink. Once this threshold is crossed, we have a limited time in which to back off and lighten the catch. If we fail to meet this deadline, breeding populations shrink to where the fishery is no longer viable, and it collapses.

We know from earlier civilizations that the lead indicators of economic decline were environmental, not economic. The trees went first, then the soil, and finally the civilization itself. To archeologists, the sequence is all too familiar.

### [World Bank accused of razing Congo forests](#)

The World Bank encouraged foreign companies to destructively log the world's second largest forest, endangering the lives of thousands of Congolese Pygmies, according to a report on an internal investigation by senior bank staff and outside experts. The report by the independent inspection panel, seen by the Guardian, also accuses the bank of misleading Congo's government about the value of its forests and of breaking its own rules.

Congo's rainforests are the second largest in the world after the Amazon, locking nearly 8% of the planet's carbon and having some of its richest biodiversity. Nearly 40 million people depend on the forests for medicines, shelter, timber and food.

The report into the bank's activities in Democratic Republic of Congo since 2002 follows complaints made two years ago by an alliance of 12 Pygmy groups. The groups claimed that the bank-backed system of awarding vast logging concessions to companies to exploit the forests was causing "irreversible harm".

## [Documenting ravages of big oil in Amazonia](#)

Imagine one of the most bio-diverse places on earth where there are more tree species than in all of North America. A place named a UNESCO Biosphere Reserve because of its variety of insects, birds, orchids, trees and animals. A place where a people called the Huaorani have lived in harmony with their environment for thousands of years.



The name of this place is Yasuni National Park, in Ecuador's Amazon. Unfortunately, right under the bare feet of the Huaorani is an estimated billion barrels of oil. With crude at \$80 a barrel and climbing, a potential jackpot of about \$80 billion has drawn the interest of oil companies from around the world.

You'd think that the Huaorani, whose most sophisticated technology is a blowgun that shoots poisonous darts, wouldn't have much of a chance against oil companies able to spend millions on public relations campaigns, soldiers and bribes.

But in the documentary *Keepers of Eden*, director Yoram Porath shows that the Huaorani are learning how power works.

Porath was in Quito almost two years ago when scores of Huaorani marched through the streets. Dressed in traditional clothing -- which meant most of them didn't wear very much at all -- they occupied the Ecuadorean national legislature. The Huaorani were successful in embarrassing the government into prohibiting the Brazilian oil company Petrobras from building a road into Yasuni for drilling.

It was seeing the protest in Quito that convinced Porath that he had to tell the story of the Huaorani's fight against the oil companies.

## [Indigenous group to bar developers in its section of Amazon jungle](#)

An indigenous group in Guyana has banned miners and loggers from its section of the Amazon jungle and pledged to pursue an economic strategy based on ecotourism, research and traditional crafts. The leader of the Wai Wai said the group of 200 has developed a management plan for its homeland in remote southern Guyana, near the border with Brazil, that is intended to preserve forest, create jobs and keep young people from leaving for cities.

## [South America chokes as Amazon burns](#)

Vast areas of Brazil and Paraguay and much of Bolivia are choking under thick layers of smoke as fires rage out of control in the Amazon rainforest, forcing the cancellation of



flights.

Satellite images yesterday showed huge clouds of smoke and much of the Amazon basin burning as fires, originally set by ranchers to clear land, have raged into the forest itself.

From Santa Cruz in the east of Bolivia, where flights have been grounded, to the Brazilian frontier city of Porto Velho, where the river Madeira has been made unnavigable, burning smoke has blocked out the sun and local communities have begun to complain of respiratory disorders.

Roberto Smeraldi, head of Friends of the Earth Brazil, said the situation was out of control: "We have a strong concentration of fires, corresponding to more than 10,000 points of fire across a large area of about two million sq km in the southern Brazilian Amazon and Bolivia."

Each year at the end of the dry season, in anticipation of the first winter rains, farmers and cattle ranchers throughout South America set fires to "renovate" pasture land. But this age-old cycle has spun out of control as deforestation and climate change have created a tinderbox. There has also been a massive expansion of cattle ranching into forested areas, where fires are then set to clear an area after chainsaws have felled the trees.

### [Sheila Watt-Cloutier: Waiting for an important call](#)

But with less than a week to go before this year's winner of one of the world's most important awards is announced in Oslo, normalcy appears set to disappear from Watt-Cloutier's life - as surely as it has from the Arctic homeland she's gained fame defending in the face of record warming trends and disturbingly rapid ecological and cultural change.

Experts in Norway say Watt-Cloutier and her co-nominee - eco-oracle Al Gore, the former U.S. vice-president who created and starred in the hit documentary film *An Inconvenient Truth* - are, in fact, the leading contenders to take the \$1.5-million prize - a choice that would make Watt-Cloutier the first Nobel peace laureate from Canada since Lester B. Pearson took the top global honour in 1957.

"I think they are likely winners this year," Stein Toenneson, director of Oslo's International Peace Research Institute and a longtime Nobel Peace Prize watcher, told Reuters yesterday.

### [Shrinking ice 'locked into spiral of decline'](#)

Dramatic new evidence showing that ice cover on the Arctic Ocean has fallen to its lowest level recorded proves the area is "locked into a spiral of decline", a Welsh scientist said last night....

....Over the past 10 years the polar ice cap has never been observed to shrink by more than 0.2m square km, but this year has fallen by more than 1m square km.

### [Walrus Abandon Ice for Alaska Shore](#)

Thousands of walrus since late summer have congregated in haulouts on Alaska's northwest shore, a phenomenon likely connected to record low Arctic sea ice.

Joel Garlich-Miller, a walrus expert with the U.S. Fish and Wildlife Services in Anchorage, said Wednesday animals began showing up on shore in late July, a month earlier than usual. By August, several thousand animals -- far more than normal -- were bunched up in haulouts in a stretch of coastline from Barrow, America's northernmost community, to Cape Lisburne, about 300 miles to the southwest on the Chukchi Sea.

"It's raising a bunch of conservation issues for us," Garlich-Miller said.

### [Feds announce plans to bolster Arctic sovereignty](#)

A part of a continuing effort to bolster Arctic sovereignty, the federal government announced it will invest in 26 new research and development projects that include improvements to the port of Churchill -- Canada's only sea port on the Arctic Ocean.

Prime Minister Stephen Harper made the announcement Friday in Churchill, Man., a tiny community nestled on Hudson Bay.

He reiterated the government's commitment to Arctic sovereignty and stressed that the projects are another facet of Canada's ownership of the region.

"Scientific inquiry and development are absolutely essential to Canada's defence of its North, as they enhance our knowledge of, and presence in, the region," Harper said.

"Like I've said so many times before, use it or lose it is the first principle of sovereignty."

### [Ice melt raises passage tension](#)

In another sign of potential friction in the warming Arctic, Canada has warned that it will step up patrols of the Northwest Passage.

Record summer melting of sea-ice has made the passage fully navigable; and immediately escalated a dispute over who controls the route.

Canada maintains the waterway that connects the Atlantic with the Pacific lies within its territorial waters.

It has backed that up with plans for a new military base in the Arctic.

However, the United States, and other countries claim international rights to use the route for shipping.

## [Navigating the Northwest Passage](#)

While there has been much talk that Arctic trade routes will open up as northern ice melts, shipping companies and experts say using the fabled Northwest Passage through Canada's Arctic archipelago would be too difficult, too dangerous and totally impractical.

In theory, the idea is tempting - the passage cuts the distance between Europe and the Far East to just 7,900 nautical miles (14,630 kilometres), from 12,600 nautical miles (23,335 km) through the Panama Canal.

Global warming means the summer ice cover in the Arctic is shrinking at such a rapid rate that experts predict the waters could be clear for at least part of the year within a few decades.

Yet few predict vessels will steam through the passage in any great numbers.

The highly unpredictable nature of Arctic ice, a total lack of infrastructure, narrow channels, relatively shallow waters, increased insurance costs and the unwillingness of firms to take risks are all deterrents.

## [Siberian energy boom threatens traditions](#)

Russia is forging ahead with ambitious energy projects in eastern Siberia, but the indigenous Evenk people are complaining that their age-old way of life is in danger.

Work has begun on a 4,130km (2,560-mile) oil pipeline - the longest pipeline in the world's largest country.

The plan is to feed the growing demand for oil in China and Russia's other energy-hungry East Asian neighbours.

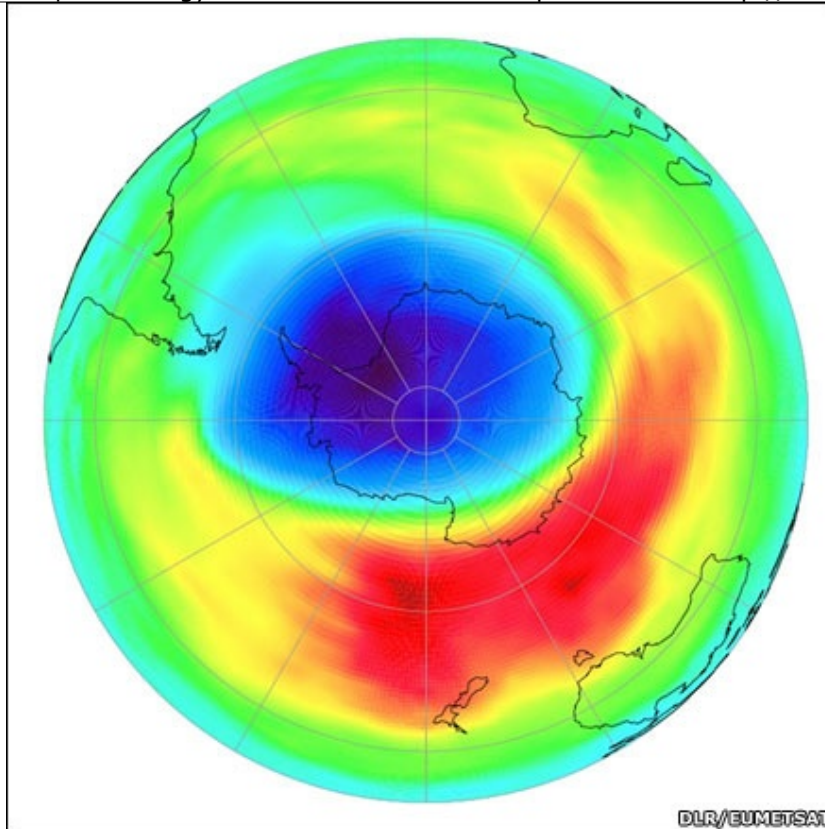
The government of Russia's Sakha Republic - better known as Yakutia - backs the pipeline, arguing that the whole region will benefit economically. The collapse of the Soviet Union left many Siberians struggling to make a living.

At first Nikolai Martynov, an ethnic Evenk, thought Russia's natural resources would bring his people wealth.

But he says thousands of reindeer have been "driven away by the building work for the pipeline and other projects and we have fewer and fewer".

"Selling the meat and fur is no longer profitable," says Mr Martynov, who has been a deer herder for 45 years.

## [Metop sees Antarctic ozone 'hole'](#)



Europe's new Metop satellite has revealed the extent of ozone thinning over Antarctica this year.

At its worst in late September, the hole was twice as big as Europe. Nearly 200 governments recently agreed a faster timetable for phasing out the chemicals thought to be depleting the protective layer in the stratosphere.

They say some unusual meteorological conditions this year drove extensive thinning over the South Atlantic and South America and a build-up of ozone over Australia.

However, the thinning this year has been well short of last year's record hole, which at times was bigger than North America.

### [Drought cuts Australia wheat forecast again](#)

South Australia, the nation's third-largest wheat-growing state, has cut its forecast for wheat production for a second time, as drought damages crops.

It is now estimated that the state will produce 4.85 million tonnes of wheat in the harvest starting this month, down 13 per cent from the 5.5 million tonnes estimated last month, Rural Solutions SA says in its latest crop report.

Primary industries officials said further rain this month was also required to avoid another reduction in the forecast yield.

Harvest expectations in Australia have been scaled back since the US Department of Agriculture forecast on September 12 that the country would tie with Canada as the

### [Oceans Interact to Dry Australia Further](#)

Further projected decreases in rainfall in southwest and southeast Australia could be arrested if carbon dioxide emission increases were halted, but a full recovery would take around 600 years, Dr Wenju Cai, a leading scientist with the government-backed Commonwealth Scientific and Industrial Research Organisation (CSIRO) said.

"The recovery takes a long, long time.... Not in our lifetime," Cai said.

As it stands, the CSIRO is confidently forecasting a further 10-15 percent decline in rainfall in southeast Australia and a decline of over 20 percent in southwest Australia by 2050.

This takes in Australia's capital cities, almost all of the national population of around 20 million and farmlands which produce one of the biggest exportable surpluses of agricultural produce in the world.

### [Climate change past tipping point: Flannery](#)

The UN climate change report to be released next month will show that greenhouse gases in the atmosphere have already reached dangerous levels, Australia's pre-eminent conservationist said on Tuesday.

Scientist and Australian of the Year Tim Flannery said the report from the Intergovernmental Panel on Climate Change showed that the previous research had underestimated the danger and that the tipping point on climate change had passed in 2005.

"We thought we'd be at that threshold within about a decade," Prof Flannery told ABC. "We thought we had that much time, but the new data indicates that in about mid-2005, we crossed that threshold."

### [World Agriculture Faces Serious Decline from Global Warming](#)

World agriculture faces a serious decline within this century due to global warming unless emissions of carbon dioxide and other greenhouse gases are substantially reduced from their rising path, and developing countries will suffer much steeper declines than high-income countries, according to a new study by a senior fellow at the Center for Global Development and the Peterson Institute.

Developing countries, many of which have average temperatures that are already near or above crop tolerance levels, are predicted to suffer an average 10 to 25 percent decline in agricultural productivity by the 2080s, assuming a so-called "business as

usual" scenario in which greenhouse gas emissions continue to increase, according to the study.

### [SoCal Farmers to Face Water Woes in 2009](#)

Officials of Southern California's major water wholesaler say deliveries to the region's agricultural customers will be cut by nearly a third next year and residents are likely to face rate hikes in 2009 because of a statewide shortage.

Utilities that serve residential customers and are supplied by the Metropolitan Water District of Southern California can expect price hikes between 5 percent and 10 percent in 2009, district spokesman Bob Muir said Monday.

The rate increases would be needed to pay for additional water supplies from other sellers in the state and further investment in the water grid, he said.

The district provides water to nearly 18 million people in Los Angeles, Orange, San Diego, Riverside, San Bernardino and Ventura counties. The district sells water at wholesale rates to local utilities, providing Southern California with half its supply. The rest comes from underground sources and other local supplies.

The district is also reducing by 30 percent deliveries to 12 agencies that buy water at discount pricing for agricultural customers, Muir said. Those cuts will take effect Jan. 1, he said.

Utilities that sell to agricultural users receive water at a discount under a program that makes them first to suffer cutbacks during shortages.

### ['Long-term' climate sensitivity of 6 degrees C for doubled CO2](#)

Which climate sensitivity is more relevant to humanity: the Charney 3°C for doubled CO<sub>2</sub> or the "long-term" 6°C for doubled CO<sub>2</sub>? Both. The net human-made climate forcing, including negative forcing by tropospheric aerosols, has been substantially positive only for the past three decades. On that time scale the Charney sensitivity is a good approximation, as little contribution from slow feedbacks would be expected. Thus climate models with 3°C sensitivity for doubled CO<sub>2</sub>, incorporating only the fast feedbacks, are able to achieve good agreement with observed warming of the past century. We suggest, however, that these models provide only a lower limit on the expected warming on century time scales due to the assumed forcings. The real world will be aiming on the longer run at a warming corresponding to the higher climate sensitivity.

### [An SOS from WWF - Save Our Seas](#)

A clear marine planning system for building offshore developments, such as wind and

wave farms, would also make it easier to develop renewable energy resources to help cut greenhouse gas emissions, WWF said.

Jan Brown, senior marine policy officer at WWF, said: "Our seas have been in decline for some time and it is imperative the government addresses the urgency of the situation.

"The facts are inescapable - many nationally important species and habitats are at risk.

"It is imperative we have overarching marine legislation in all UK seas to prevent further deterioration and decline.

"The UK seas have the greatest potential for renewable energy in Europe, yet we do not have an efficient marine planning system to enable this resource to be used effectively and swiftly."

### [Bye bye, Bluefin?](#)

The 300-kilogram bluefin tuna that Ewen Clark landed off Prince Edward Island in late September could have earned him thousands of dollars at auction.

The giants, whose ruby-red meat is savoured by sushi connoisseurs from Tokyo to Toronto, are the most valuable fish in the sea. Prize specimens can sell for as much as \$10,000 right off the boat and have been known to command 10 times that much in Japan's markets.

But Clark and his sport-fishing team let this one go off Malpeque after jabbing a \$4,000 device into its silvery back to aid a U.S.-Canada research team tracking the imperilled creatures. The device will gather intelligence in the Atlantic for the next year if the fish can avoid the countless hooks, nets, traps and harpoons that have been reducing the stocks.

The giant bluefins, which can live as long as 30 years, are at the centre of an escalating international battle. No one knows precisely how many remain in the sea but most people agree they are in serious trouble.

### [China to raise coal output, open 'super' mines](#)

Energy-starved China will boost coal output by 400 million tonnes a year by 2010 by streamlining the industry and opening a string of new "super" pits, state media reported Friday.

Widespread closures and mergers will leave fewer than 20 firms, including six to eight new "super coal production enterprises" with a yield of 100 million tonnes each, accounting for more than 50 percent of the country's entire output by 2010, Xinhua news agency said.

China reported a total coal output of more than 2.3 billion tonnes of coal last year.

Small mines that are illegal or inefficient and have given the industry its appalling safety

record are already being weeded out, Wang Xianzheng, deputy director of the State Administration of Work Safety, was quoted as saying.

### [China's Solar Boom Loses Its Luster](#)

China's solar-power stocks were a red-hot bubble until Wednesday. That's when investors learned that an accounting officer had quit one of the industry's hottest firms, the silicon-wafer maker LDK Solar (ticker: LDK), while alleging that LDK's warehouse and financial reports were loaded with junk. As its American depositary shares fell by nearly 30%, LDK defended its bookkeeping and assured shareholders that it has more than 1,000 metric tons of silicon material.

There may be good stuff in that pile of silicon, but that doesn't mean it's worth what LDK's balance sheet says. On Sept. 25, the Xinyu City, China, firm's financial controller, Charley Situ, sent e-mails to regulators, auditors and investment bankers saying that he had quit because his bosses refused to write off bad inventory. His allegations were disclosed, and largely dismissed, in a Wednesday note by LDK investment banker Piper Jaffray. Still, the news sent LDK's depositary shares reeling, from over \$71 to 50.95 by Friday.

Even after that sickening dive, LDK's New York-listed shares go for nine times book value and over 40 times this year's forecast earnings—so investors should still care if the book value, and therefore its profit, is overstated. The inventory that makes up that book value may warrant concern. With the help of an interpreter, Barron's talked to someone with knowledge of LDK's manufacturing. That person said that the company's silicon ingots were indeed so impure that a recent production run had produced tons of them that were too contaminated for technicians to even analyze with instruments. The company says it knows of no such problems.

LDK isn't the only producer of solar silicon in China that uses low-paid workers to sort through scrap in search of some good enough to be melted into solar-cell wafers. Nor is it the only one with a high-priced stock, as you can see in the table. Investors in China and the U.S. have rushed into China's solar-cell stocks as rashly as investors jumped onto the Internet in the 1990s.

### [Burma: the backstory](#)

The current protests in Burma are attributed to a 500% increase in fuel prices which crippled an already struggling population's ability to survive. The people of Burma have been descending into deeper and deeper poverty over the last decade. According to Jonathan Head, author of the BBC article, the people of Burma spend an average of 70% of their income on food. The dramatic increase in fuel prices on August 15, 2007 was too much to bear.

It appears that the government of Burma (Myanmar) were reacting to a "suggestion" by the International Monetary Fund, that they needed to phase out the state subsidizing of oil prices.



## [It's the Oil and Gas, Stupid](#)

Analysts describe it as the Burmese paradox: How can the rulers of a country so rich in energy, teak, minerals and gems be in such financial trouble? Even as it sits on top of 19 trillion cubic feet of natural gas and billions of barrels of crude oil reserves, the junta had to abruptly hike fuel prices so high in August that it triggered the popular uprising led by Buddhist monks.

Part of the explanation is simply bad governance. The Burmese regime is so arrogant—and inept—that it doesn't expect citizens to rebel even when they watch their hard-won savings disappear overnight. That's what happened in the summer of 1988, when the regime's surprise demonetization of the local currency, the kyat, meant a lot of money was suddenly not worth the paper it was printed on....

...But there's a more important reason for Burma's predicament. Before the 1962 coup that installed a military regime in power, Burma had one of Southeast Asia's highest standards of living. It boasted a well-educated intellectual class. It was one of the world's biggest exporters of rice. But today, the country's infrastructure is so decrepit that the regime cannot adequately exploit its own resources without outside help. Despite the country's lucrative oil and gas sectors, the domestic refining industry is a mess due to half a century of mismanagement, lack of investment and neglect. Local refineries aren't suited to processing the high sulfur content in Burmese oil. As a result, the government has to import nearly all of its diesel, to the tune of nearly 20,000 barrels daily by 2004.

Combine that hunger with today's high prices, and you can easily see how the need to import diesel could help prompt a price rise. This wasn't the first time the regime imposed such a hike, either; two years ago fuel prices shot up ninefold. You don't have to be a rocket scientist to know people might be mad about the abrupt Aug. 15 doubling of diesel prices and fivefold increase in the cost of compressed natural gas, a hike passed on to passengers using public transport.

## [Chevron's links to Burma stir critics to demand it pull out](#)

Chevron Corp. of San Ramon is drawing harsh criticism for its business ties to Burma, the Asian nation conducting a brutal military crackdown.

The company owns part of a natural gas project in Burma, where soldiers crushed pro-democracy protests last week and killed at least 10 people.

U.S. sanctions prevent most U.S. companies from working in Burma, but Chevron's investment there existed before the sanctions were imposed and continues under a grandfather clause. As a result, the company is one of the few large Western companies left in the country.

Now Chevron faces pressure to pull out.

## [The Curse of Oil in the Great Lakes of Africa](#)

Several interconnected elements shaped conflicts in the Great Lakes region, including the interests of neighbouring countries, competition over natural and economic resources concerns over instability and lack of security, and ethnic chauvinism, to name but a few.

The oil prospects of the Great Lakes region appear at once more dangerous. Uganda and the Democratic Republic of Congo are sitting on what prospectors believe could be oil reserves of up to one billion barrels in the Albertine Basin which they share. At the time of writing, the oil region of the eastern DRC was the theatre of clashes culminating in killing of civilians and militaries by the Ugandan and Congolese armies. This is now leading to fears that the lake Albert conflict may spread and make a renewed cross-border conflict involving other negative forces and countries.

This may lead to another case of conflict over resources and well described in a recent movie named " Blood Diamond" where the old man sighs: "I hope they don't discover oil. Then we will be in real trouble".

### [Bird flu virus becoming more dangerous: study](#)

The H5N1 bird flu virus has mutated to infect people more easily, although it still has a way to go to transform into a pandemic strain, U.S. researchers claim.

All flu viruses are continuously evolving. Scientists have some ideas about what mutations are needed to change a virus from one that infects birds easily to one more contagious in humans.

Kawaoka says the mutation his team has discovered is related to the body temperature the virus can withstand in order to replicate.

Birds usually have a body temperature of 106 degrees F; humans have a body temperature of 98.6 degrees F. The human nose and throat, where flu viruses usually enter, is usually around 91.4 degrees F.

The bird flu doesn't usually grow well in the nose or throat of humans, but the mutation his team has found allows H5N1 to live well in the cooler temperatures of the human upper respiratory tract.



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