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This winter seismic field work here in Canada have dropped off almost fifty percent (50 %) from the same time last year. The numbers are similar to that of Q1 2010 after the fall off from the global economic crash in mid-2008 rippling down through our Industry over a period of a couple of years. However on the bright side the year ahead suggests brighter prospects.

Coal has been King for more than a decade comprising more than half the world's energy growth mix. Despite the environmentalists' influence in developed countries they have less impact (or none) in developing countries. An interesting article by the author dubbed (of the) Skeptical Environmentalist – Bjorn Lomborg follows:

Let Them Burn Coal (The Power to Develop) by Bjørn Lomborg Dec 12, 2013 – URL as follows

<http://www.project-syndicate.org/commentary/bj-rn-lomborg-argues-that-environmental-imperatives-should-not-trump-the-needs-of-the-poor>

Trade-offs are an inherent part of life. We all recognize this from our private budgets. To fix the roof, we may have to accept a less extravagant summer vacation. When we pick a cheaper wine, we can splurge on dessert.

Trade-offs also pervade environmental policy: Cutting more of one pollutant, for example, leaves fewer resources to address other issues. For example, coal is phenomenally polluting, but it also provides for cheap and reliable power, which drives development. Over the past 30 years, China has lifted 680 million people out of poverty, mostly through the use of coal. The average Chinese has become more than 13 times richer.

At the same time, Beijing and numerous other Chinese metropolises are experiencing debilitating smog, reminiscent of London in the 1950's. About 1.2 million Chinese die prematurely each year because of outdoor air pollution. Measurements from Beijing show that upwards of 16% of the air pollution comes from coal. The World Bank estimates that China's total annual air-pollution costs – based on what Chinese themselves indicate they are willing to pay to reduce their risk of dying – could be as high as 4% of GDP.

And yet the Chinese trade-off has been phenomenally beneficial. In 1982, the average Chinese earned \$585 a year; last year, she earned \$7,958. Meanwhile, the annual per capita environmental cost is \$318. So, not surprisingly, most other developing countries would gratefully seize the opportunity to replicate China's growth pattern – including its pollution.

Of course, the Chinese could do more to cut air pollution. It is estimated that meeting the World Health Organization's interim standards could reduce damages by \$80 per capita. But that pales in comparison to the \$600 increase in per capita income in 2013.

Nonetheless, many who live in rich countries confidently declare that this trade-off is not in the interest of the poor. The United States, the United Kingdom, and other European countries announced this year that they will not support international finance for coal-fired power plants in developing countries. These countries abstained in 2010 when the World Bank helped finance South Africa's Medupi coal-fired power plant. Today, they would vote it down.

But Medupi will provide 10% of South Africa's electricity and prevent rolling blackouts. As the South African finance minister, Pravin Gordhan, explained, "to sustain the growth rates we need to create jobs, we have no choice but to build new generating capacity – relying on what, for now, remains our most abundant and affordable energy source: coal." The US government even acknowledged that, without a coal-fired power plant, South Africa's "economic recovery will suffer, adversely impacting electrification, job creation, and social indicators."

Energy poverty is even more acute for the three billion people – almost half of the world's population – who burn dung, cardboard, and twigs indoors to cook and keep warm. The WHO estimates that while outdoor air pollution in developing-country cities may be ten times higher than in advanced-country cities, average indoor air pollution, caused by burning wood and dung, is a hundred times higher. Indeed, indoor air pollution kills 3.5 million people each year, making it the world's deadliest environmental problem.

The world's three billion energy-poor people need cheap electricity to cook and keep warm. And, for the foreseeable future, that electricity will be generated by fossil fuels.

Some environmental campaigners argue for cleaner stoves. But, while this might be part of the solution, it is essentially telling the poor to live with slightly less polluting open fires in their homes. Moreover, studies indicate that even significant air-pollution reduction starting at high levels will have only a minor impact.

Others claim that renewables are the way to go. Green energy, especially wind, can indeed help African countries, for example, get some electricity to remote, rural areas; but the grid will do the most good for the most people. According to a recent World Bank study, distributed renewable energy "will be the lowest cost option for a minority of households in Africa, even when likely cost reductions over the next 20 years are considered." Popular solar lights cost almost \$2 per kWh. Using hydro, gas, and oil, the grid cost for the main population centers in Ethiopia, Ghana, and Kenya will likely be \$0.16-25 per kWh. In South Africa, where coal powers 90% of electricity, the cost is just \$0.09 per kWh.

True, electricity from coal will cause extra air pollution. But pollution from indoor air pollution, which would disappear with electrification, accounts for 16% of outdoor air pollution. Even assuming (unrealistically) that coal produces all of the world's air pollution, we could generate 250 kWh/year with coal for every one of the three billion energy-poor people and still end up with lower air pollution. Moreover, it is easy and fairly cheap to cut coal pollution 90% or more with scrubbers.

For many opponents of coal, the issue is global warming. According to Christiana Figueres, the United Nations climate chief, coal-fueled development has “an unacceptably high cost to human and environmental health.” She argues that we need to close 75% of the planet’s coal-fired power plants, including all of South Africa’s, because they emit too much CO2. Al Gore’s climate adviser, James Hansen, argues that if we allow developing countries to “come up to the level of the developed world, then the planet is done for.”

Yes, the world needs to address global warming (mainly through higher investments in green research and development, and by promoting exploitation of cheap, less-polluting shale gas). But global warming will cause damage worth possibly 1-5% of GDP by the end of the century, when the UN expects developing-world incomes to have risen by 1,400-1,800%.

Meanwhile, poverty is killing millions right now, with an impact on global GDP that is likely an order of magnitude higher. And too many people, however well-intentioned, are unwilling to acknowledge the tradeoffs needed to improve poor people’s lives.

Excerpts from the Daily Oil Bulletin – January 20, 2014 - Industry Realism Curtails EU's Long-Term Climate Ambitions

Seven years after it set some of the world's most stringent environmental targets, the European Union is about to revise its long-term goals to take more account of industry and changed economic circumstances.

Following years of economic turmoil, low growth and rising energy costs, the EU is looking to strike a balance between tackling climate change and giving industry room to manoeuvre as it prepares to unveil new targets on Wednesday.

Instead of the "Holy Trinity" of goals laid down in 2007 -- a 20 per cent reduction in carbon dioxide emissions from 1990 levels by 2020, 20 per cent use of renewable energy sources and 20 per cent gains in energy efficiency -- the new targets for 2030 are likely to be simpler.

As the United States enjoys an energy boon because of the exploitation of vast shale gas reserves -- its natural gas prices are roughly a third of EU levels -- Europe will also avoid putting obstacles in the way of its own shale exploration.

Economics first

Roger Pielke, a professor of environment at the University of Colorado at Boulder, says it is an "iron rule" that economics dominates climate goal-setting.

*"When politics focused on economic growth confronts politics focused on emissions reductions, it is economic growth that will win every time," he wrote in his book *The Climate Fix*.*

Tough choices for a new generation. Given lengthening life expectancy is will be 20 years or more before the younger generation have the voting wherewithal to fully take over the political spectrum in countries such as Canada. Economics certainly trumps environmentalism the older you get unless you are rich (Neil Young, Darryl Hannah, Robert Redford, Al Gore etc. etc.).

From the Thursday Files

How come the people in Red Shirts always died on Star Trek?

Questions to show your age- somewhere on the Internet