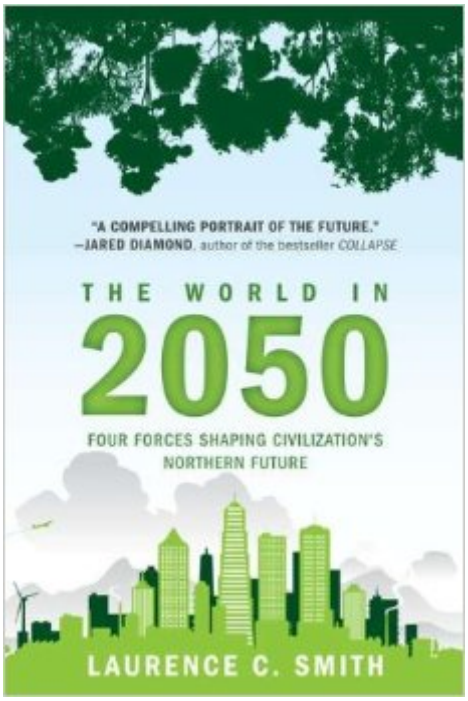
The World In 2050: Four Forces Shaping Civilization's Northern Future



Synopsis

"The World in 2050 is a compelling portrait of the future and vividly relates the big challenges facing the world now." -Jared Diamond, author of Collapse The world's population is exploding, wild species are vanishing, and our environment is degrading. What kind of world are we leaving for our children and grandchildren? Just who will flourish-and who will fail-in our evolving world?Combining the lessons of geography and history with state-of-the-art model projections and analytical data, Guggenheim fellow Laurence C. Smith predicts how the eight nations of the Arctic Rim (including the United States) will become increasingly powerful while the nations around the equator struggle for survival. Like Bjorn Lomborg's The Skeptical Environmentalist, The World in 2050 is as credible as it is controversial, projecting the looming benefits as well as the problems of climate change.

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Customer Reviews

First - It will surprise you. Some of it is ground that's been covered, but it's put together in a fresh and useful way. It's like being told a great story by an old friend.Second - Dr. Smith exhibits a sly sense of humor often missing in serious compilations of facts and figures. It creeps up on you slowly, gives you a couple of moments where you will actually laugh out loud, and then maintains a consistent twinkle. He does it without trying, which gives you the impression he can be trusted. His sense of humor accepts that some ludicrous things come to pass, and some things we think of as inevitable, never come close to happening.Third - Viewing grain as water transfer. Enlightening.Fourth - Considering the relationship between water and oil. Pretty damn enthralling, if you let it sink in.Fifth - If you think about these ideas long enough, you will start to consider

armageddony things. Yet the book will make you feel surprisingly optimistic.Sixth - While this book just skims the surface, the ideas in it run the gamut of Yergin's "The Prize." This book could serve as an introduction to "The Prize: Part II." You can see the potential in the future of this story.Seven - Dr. Smith does not assume technology will save us. Which is refreshing, and necessary. There is a strong feeling of realism in his account.Eight - The book will spark your imagination more than Disney Land. It will help you fall in love with the North.Nine - It will make you want to learn Norwegian.Ten - You will be happy you hit the - Add to Cart - button.

The author is a UCLA geography professor. His specialty is the geophysical impacts of climate change. And, he is a scientist member of the Intergovernmental Panel for Climate Change (IPCC). His original intent when writing this book was to study such climate change impact at high Northern latitude. As he engaged into this investigation, his study became multi-dimensional as he realized there were many demographic, economic, and political issues worth studying. Thus, his resulting book addresses far more than climate change.The author derives that our future is driven by two dominant forces: demographic growth and economic growth. Both will push upward our consumption of natural resources. And, this growth in resource consumption will butt against the constraints of resources availability.Our demographic growth appears predictable. Relying on relevant data, the author anticipates by 2050 the World population will increase by 31% or from 7 billion currently to 9.2 billion. However, the urban component will nearly double from 3.5 to 6.4 billion. While the rural population will shrink from 3.5 to 2.8 billion. Population growth will be unevenly distributed and mainly concentrated in Third World countries. Many Third world cities will become gigantic. And, many of them will become unsustainable, chaotic, violent slums they already are today (example: Lagos in Nigeria projected to hold 16 million by 2025). Others may emerge as the next Singapore or Hong Kong.Another predictable pattern is that the entire world is aging. Nations will incur rising dependency ratios with more retirees per actively employed individuals. This will strain fiscal solvency due to rising entitlement costs worldwide.Economic growth is a huge multiplier of demographic growth in terms of resource consumption. The author mentions that if the entire developing world living standard rose to the West level material consumption would skyrocket. Let's say the US, EU, Canada, Australia, New Zealand, Japan, Singapore combined have a population of 900 million. And, that the average living standard of those countries is 10 x greater than the remainder of the World (6.1 billion). If the remainder of the World catches up to the developed group, it would cause overall material consumption to increase by 4.6 times! Where would all the oil, water, food, metals come from to support such a worldwide high living

standard?That’s where resource constraints kick in. He uses an interesting metric to capture that: Reserves of a given resources divided by yearly production or the R/P life index. For instance, oil has an R/P of only 42 years. That’s why there is all the fuzz about Peak Oil. But, other critical resources have far shorter R/Ps. Those include many elements that are key to manufacturing our hi tech electronics (batteries, computers, screens, TVs, etc...). They include lead (R/P 22), nickel (21), silver (14), and indium only 8 years. Thus, how are we going to produce all our hi tech gear 40 years from now for a potentially far larger customer base?The author indicates that this demographic & economic growth multiplier is a far stronger causal agent on our future than even climate change alone. That’s even though the mentioned multiplier is also a cause of climate change.Regarding resources constraints, the author pays special attention to: water. That’s because the majority of the population growth will occur in developing countries who are already water stressed. They will be even more so in 2050. They will depend even more than currently on food imports for survival.Water is not only essential for life on Earth, it is also essential for supporting energy production and industrial manufacturing. Without it, civilization grinds to a halt. This is why the author became extremely interested in the Northern latitudes (north of 45 degree).The Northern Rim Countries (NORCs) include Northern Canada and US (Alaska), Norway, Sweden, Finland, part of Denmark, and much of Russia. This region has a very promising future on several counts. First, it will strongly benefit from climate change as the region is expected to warm substantially. The NORCs are anticipated to experience much sustainable population growth, economic development, and agricultural expansion. The NORCs also benefit from a ton of water resources that will soon be the next oil (the author calls it Blue Oil). It is likely that it will export water transfers down south through two means: one being export of foods (that the author calls virtual water trade) and the other through actual water projects (aqueducts, pipeline) as the US has already extensively developed throughout the West. Such projects linking Northern Canada to Southern Canada and the US are likely.The NORCs have much more than water going for them. The area has huge unexploited oil reserves (Canada tar sands and Alaska North Slope) and natural gas reserves (Russia). And, the NORCs have much more than resources going for them. Those countries have economies that are very well integrated within our trading system. And, except for Russia, they are peaceful and provide much political freedom.The NORCs represent a formidable economic region. Its GDP at $7 trillion (as defined on page 253) is half the US or the EU. It is 43% of the BRICs. And, although it is not a trading block like the EU, the NORCs have far more in common than the BRICs (that are either indifferent or antagonistic towards one another). It has also more in common than many European countries.The NORCs (except for Russia) have empowered their respective aborigines populations

through various land claims, mineral rights, treaties, and even independence (Greenland vs Denmark). See interesting map on page 212. Thus, as NORCs develop the local populations will strongly benefit. This is why for instance in Alaska, the natives are very much in favor of oil and gas exploration. The author makes a convincing case that such economic empowerment is far more enlightened than Russia's hypocritical effort to maintain their traditional way of life. That means enslaving them to a dire poverty while forbiding them from reaping any economic benefits from the land they live on.

In many ways this book reminds me of 'Popular Mechanix' magazine; filled with dazzling technological innovations of the future which are practical, inevitable, feasible and yet rarely happen. Consider the internal combustion engine; invented in the 1870s, it took 40 years to develop the "horseless carriage" which, a century later, depends on the same basic engines. In the 1930s, the aviation industry learned how to move people in an aluminum tube with wings, much as railroads move people and goods in long metal boxes; the basic ideas are still used despite decades of 'Popular Mechanix' suggestions. In the 1960s, I attended seminars on computerized word processing; the advances since are due more to Moore's Law than to new concepts. That said, Smith is far better than any 'Popular Mechanix' feature. But, he seems to leap too far too fast; human progress is incremental rather than any Great Leap Forward. Granted, I can endorse and encourage almost every element of this book; but, I have the nagging feeling a viable energy future may involve growing algae in the deserts instead of wearing mukluks in the snow. Having lived just south of James Bay, where temperatures do drop to - 50 F degrees, I fully sympathize with the attraction of the far north. A century ago, Robert W. Service and Jack London wrote incomparable stories about arctic life. Yet, given the choice between wet mushy slush and pure driven icy snow, more Canadians prefer Toronto than the elegantly designed town of Kapuskasing, built by 'The New York Times.' Fortunately, Smith cites the environmentalist's nightmare of the Athabasca Tar Sands, which is somewhat analogous to the coal-powered Four Corners Generating Station. The Environmental Protection Agency recently ordered an upgrade of pollution controls at the plant, because the plant creates as much pollution as found in the air in Phoenix. Someday, Canadians may become equally sensitive to remote regions which produce energy for far distant consumers. In brief, this is a dynamic book about a bright future that could change the industrial world. The Arctic is one area where it might happen, perhaps even the most feasible. Smith shows the potential, if governments have the imagination to make it happen. But then ... he didn't foresee the rise of the Tea Party movement and its desire to reduce government and get it out of economic development.

The challenges ahead may be less than learning how to live in -50 F degree weather than in learning how to live with people who say "No!"

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