Chapter 8
The Formation of ASPO and the Growing Influence of the "Peak Oil" Community

In addressing ASPO in Cork, Ireland, I argued that the peakists had won the intellectual argument, except for some minor details about precise timing, but that by and large everyone recognized that there were limits on our capacity to increase the production of crude oil as we have steadily since World War II. […] But acceptance by knowledgeable people is not enough. The political order should respond.

–James D. Schlesinger, former US Secretary of Energy

The first question to be asked is why nobody noticed the peak oil issue before? Well, in fact, people did notice. Take Hubbert as one of the first examples. He wrote clearly on this issue and published his analyses in many prestigious and visible locations including the National Academy of Sciences and in published congressional testimony. As we have seen, he was not alone in his views and was followed by others, such as L.F. Ivanhoe who developed his Hubbert Center at the Colorado School of Mines and wrote a quarterly newsletter since 1995 (Ivanhoe 1996), Albert Bartlett who prefers Gaussian curves to "Hubbert curves" (Bartlett 2000), Richard Duncan and Walter Youngquist (Youngquist 1997), and Richard Startzman and his students Al-Jarri and Al-Fattah who plotted oil and gas production of every country using Hubbert curves (Al-Jarri and Startzman 1997; Al-Fattah and Startzman 1999). During the past decade many changes in the production of oil occurred, and many people started to acknowledge the problem. Even the few holdout economists usually acknowledge the issue, although their perception of the timing might be quite different. It is a matter of communicating the message rather than a question of noticing the problem. A new issue is the discovery of methods to develop relatively minor fields, such as the Bakken formation in North Dakota. These developments are causing many people to think that the issue is resolved with new technology. It is not. Bringing Iraq back on line might make a larger difference.

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Part of the explanation relates to the mind-set and working environment of the oil companies. In the 1950s and 1960s, the higher management commonly had an exploration background or could at least call on objective advice. Norman Falcon, the distinguished chief geologist of BP, had a respected place on the Board. Shell of course had Hubbert. More recently financial pressures have called for the appointment of money managers and image makers to senior positions. Even if a geologist is appointed at these levels, the main concerns are not the technicalities of the projects. Take the case of BP's Tony Hayward, who is a geologist with a Ph.D. in geology. Under the new order, if the exploration manager started hinting at the natural limits, as some did, he would be accused of pessimism and a failure to deliver the posture of the dynamic oil finder expected of him. Of course, we are not saying that geologists can tell engineers, financiers, or CEOs how to do their job, but we do believe that many times the exploration departments were effectively relegated to the position of internal contractors, doing what is asked of them. Geologists are supposed to understand nature and the boss is supposed to deal with the economics. If geologists are asked to think first about economics, they will lose their imagination. As Wallace Pratt, former vice president of Standard Oil New Jersey, used to say: "oil is found first in the mind of geologists."

We are not trying to portray an idealized picture of geologists and geophysical sciences; we are just trying to give you an idea about the complexity inside the industry. In fact, many times geologists disagree among themselves about the profitability of an actual project. For example, when Jean Laherrère was in charge of Total's technical services, his company and BP were testing the Cusiana oil field in Colombia. While BP's team recommended stopping the drilling and testing efforts as there was little additional oil to be found, Total advised further tests. The assessments continued and Cusiana turned out to be the third largest of the 37 giant oil fields discovered in the 1990s (Halbouty 2003).

The experience of Colin Campbell can help us to understand how the oil business was changing. In one of its periodic attempts to rebuild a position in Norway, Amoco hired Colin Campbell as a consultant. He arrived in Houston to meet the team and help them prepare the applications to the government for oil concessions. The team was undoubtedly capable in technical terms, but there was a strange lack of direction or sense of judgment. In the meetings, the geologist concerned with each area expounded his interpretation. At the end of one such presentation, Campbell commented that a particular area certainly did not have the resources to justify the expense of development. The geologist, who had developed the report, looked crestfallen and apologized that he had evidently not worked hard enough to develop the prospect. Campbell tried to reassure him, he had done a magnificent job in describing a place that simply lacked the necessary geology. About this episode, Campbell wrote the following:

> I reassured him that he had done a magnificent job in describing a place lacking the necessary geology. His reaction was revealing because it showed that he saw his job not as using his judgment but as applying his skill to employ geological mental gymnastics to make a purse of a sow's ear: if the obvious Upper Jurassic source was not deep enough to generate oil, he would invoke long-range migration, or structural inversion such that what was now

> too shallow had previously been deeper. The scope for convoluted hypotheses was limitless. Judgment as such was not part of the job.

Colin Campbell saw things very differently from many of the other geologists. When, as was often the case, he and his colleagues had to propose exploration projects in new areas that did not look promising, the best he could do was hope that commonsense judgment—which often argued against undertaking the drilling—would prove wrong:

> We commonly lacked sufficient information to be absolutely sure, and the only way to know for sure was to drill holes. To get the money to do so from the managerial financiers, we had to pretend that there was a good hope of making money. They themselves risked little, because they could take the cost of failure as a charge against taxes, so that the unconscious taxpayer funded many dry holes. The problem was that they had many alternative opportunities around the world, against which any particular venture had to compete.

Thus, higher management, lacking professional geological qualifications to judge real exploration potential, had been delivered an endless list of similar-sounding prospects for acceptance or rejection based on hypothetical economic and political evaluations that often missed the point. It all involved much theater in the hierarchies of corporate power pyramids and posturing, ending up as little more than exercises in internal or external public relations. It was not so much a case of the blind leading the blind, but rather the blind leading those who had eyes to see but were asked to look the other way. Yet, even in this system, most large valid prospects normally did make it to the top of the pile and delivered easily predictable profitable results, while the cost of the lengthening list of dry holes was happily written off against taxable income.

It is understandable that the economists working in such an environment were misled into thinking that there was no, nor would there be, shortage of exploration opportunity. They in turn conveyed this impression to the investment community, who naturally not only believed what they were told but also had a vested interest in doing so because any talk of decline or limits was anathema to their business.

The financial reporting procedures added to the confusion. Companies were not required to report what they found, but rather only their current "reserves" which led to the much used (and much abused) concept of "reserve replacement." For the financiers, it made no difference if reserves were added by discovery, by acquisition, or by revising upwards what had been underreported. They therefore denied themselves knowledge of the actual trend in discoveries. It was not conspiracy or trickery, but rather a matter of mind-set because the underlying notion of natural limits was simply not there. The accounts were designed simply to describe the current status as if there were infinite opportunities in exploration—like indeed there are for most other businesses. If you want more potatoes, and the price is high enough, the simple solution is to grow more and the system readjusts to deliver a normal economic return. But oil cannot be grown like potatoes—there is only so much.

Consistent with this way of thinking is the widely used parameter of "reserve to production ratio." It states simply that the reserves could support current production for a given number of years with the tacit assumption that more reserves could always be added as the need arose. It absolutely ignores the issue of

depletion, which makes the calculation devoid of any sense. It is absurd to imagine that production can be held static for a given number of years and then stop dead, which is implicit in the ratio once the notion of a finite limit is introduced. In short, then, the world approached the end of the last century in denial about the depletion of the resource on which it had come to depend on so heavily. Denial is perhaps too strong a word, as it was not exactly deliberate denial but rather a case of living in the past. *The Coming Oil Crisis* by Campbell was not exactly a best seller when published, but it did begin to contribute to a new awareness. The voices in the wilderness, and there were several of them, began to be heard. A turning point was the article published by Campbell and Laherrère in the *Scientific American* magazine in 1998. In addition to the oilmen themselves, there was the new interest by what might be called the "renewable lobby," promoting solar and wind energy, fuel cells, and even nuclear energy. To that point, they had been primarily motivated by environmental issues, including climate change, but readily saw the significance of the depletion of fossil fuels. At that time there was no focal point for people interested in issues related to peak oil to come together and share ideas and expertise.

8.1 The Formation of ASPO

The Association for the Study of Peak Oil & Gas ("ASPO") is a network of concerned scientists, financial analysts and others in universities and institutions that are committed to study the issue of the peak of world oil and gas supply and evaluate its impact. Its declared mission is the following:

- To evaluate the world's endowment of oil and gas
- To model depletion, taking due account of economics, technology, and politics
- To raise awareness of the serious consequences for humankind

ASPO had its origin in Germany in 2000. Professor Wolfgang Blendinger, an ex-Shell geologist, was the professor of petroleum geology at Clausthal University in Clausthal-Zellerfeld, a small city near Göttingen, Germany. His own experiences in the oil industry gave him an intuitive grasp of depletion. He became interested in the topic and invited Colin Campbell to give a lecture in December 2000 at his university, situated almost literally in the heartland of Germany on the flanks of the Harz Mountains. The lecture was filmed and streamed on the Internet and reached a wide audience.

The German department with responsibility for natural resources, the Bundesanstalt für Geowissenschaften und Rohstoffe (BGR), sent a delegation to the lecture, and over some beers afterwards, Campbell proposed trying to form an organization to formalize the study of depletion. They suggested a meeting with Professor Wellmer, the Director in Hanover, who welcomed the idea but suggested that the best approach would be to keep it informal to avoid inevitable bureaucratic delays. In Norway, Campbell's friends at the Oil Directorate, who had initiated the study of

oil depletion 10 years before, joined with enthusiasm on the same informal basis. There was a need to give some identity to this ephemeral grouping, so Campbell started to write a monthly newsletter, at first distributed to a handful of interested people. In his first letter, dated January 2001, he introduced the world to a new term, "peak oil." Little did anybody imagine that the network would grow as it has done, now reaching many thousands of members.

In March 2001, Sarah Astor gave a call to Campbell. Her father-in-law, David Astor, had been the editor of *The Observer* newspaper in England. He had perceptively taken the oil shocks of the 1970s as a very serious matter and was much impressed by a BBC film, *The Last Oil Shock*, to which Colin Campbell had contributed. The Astor family endowed an institute to raise awareness of the issue, which eventually became the Oil Depletion Analysis Centre (ODAC) in London. At first, the center was run by Dr. Roger Bentley from Reading University, who organized a successful workshop at Imperial College in London and began to analyze the data. Jim Meyer later took over the running of the organization to concentrate on raising awareness by distributing news items primarily through the website.

Not long afterwards, Kjell Aleklett, a professor of nuclear physics at Uppsala University in Sweden, paid a visit to Campbell. Aleklett had read the *Scientific American* article and saw the significance of oil depletion in relation to energy policy in Sweden. So, he joined the new organization, which was named the Association for the Study of Peak Oil (the name proved to be successful in communicating the basic concern about a maximum production rate, but also, a bit misleading when interpreted as a prediction of future oil production); Jean Laherrère suggested the inclusion of "natural gas" in the name, so the organization finally came to be known by its current name. By July 2001 interest had grown widely with new members joining the network, such that virtually all European countries were represented by influential scientists in universities and government departments.

The next turning point came in May 2002 when Professor Aleklett organized the First International Workshop on Oil Depletion in Uppsala, to which about 65 people came from around the world. The meeting received wide media coverage. It is not necessary to record all the steps that followed. Subsequent annual workshops were held in Paris, Berlin, Lisbon, San Rossore (near Pisa) in Italy, Cork in Ireland, Barcelona, Denver, and Brussels in 2011. Professor Aleklett, who is the president of ASPO since 2003, has organized a website (http://www.peakoil.net/), as did several other national committees.

Somehow ASPO has become a voice that is heard, although it is nothing more than a loosely sewn network of interested scientists. Prestigious entities including the Deutsche Bank, Aramco, the US Congress, and the International Energy Agency (IEA) have referred to its positions. In parallel with this endeavor, the late Buzz Ivanhoe organized a newsletter in the United States through the Colorado School of Mines, which also began to attract serious attention. Walter Youngquist, now retired Professor of Geology from the University of Oregon, is a supporter of ASPO. In 1997, he wrote a famous book called "Geodestinies: The Inevitable Control of Earth Resources over Nations and Individuals" and a paper with Richard Duncan in 1999, "Encircling the Peak of World Oil Production." Today, members of ASPO are found

on 5 continents and more than 30 countries from both the developed and developing world, and more national organizations are in process of formation. Jean Laherrère describes the experience as a "spontaneous generation without any control. Those ASPO nationals are born, grow and should likely die one day."

A growing world awareness of oil depletion and the inevitable peak of production began to spread. The ASPO members and their associates found themselves being invited to an increasing number of conferences around the world. There is no point in listing them all as the list is a long one, but it is worth mentioning some highlights. Since 2000, more than 40 books and about a 150 peer-reviewed articles have been written in relation to the subject. Several films, interviews, and videos have been edited and today are ubiquitous in the Internet. Jens Junghans and Klaus lllum played key roles in organizing a presentation in the Danish Parliament, followed up by a dedicated conference organized by the Danish Society of Engineers. There were the normal spectrum of presentations by geologists, other scientists, members of the financial community, and so on, and they now began to include senior figures from the European Union and government departments.

In London, Roger Bentley and others made an official submission to the House of Lords, followed up later when Chris Skrebowski and Colin Campbell gave a presentation to select committees in the House of Commons in July 2004, as did Charles Hall in 2012. The net began to widen as presentations were given by ASPO members and associates as far afield as Calgary, Houston, Abu Dhabi, India, Australia, Hawaii, and Japan. In California, Kellia Ramares started carrying the story on an Internet news service. In Canada, Julian Darley built up the Post Carbon Institute, with the help of some presentations and a website, addressing primarily the responses to peak oil, but taking peak oil itself as a foundation. He wrote a book in 2004, "High Noon for Natural Gas: The New Energy Crisis," on peak gas with a foreword written by Richard Heinberg, who had already published *The Party's Over: Oil, War and the Fate of Industrial Societies* in 2003. Heinberg is a prolific American journalist and educator who has written extensively on energy, economic, and environmental issues. As senior fellow at the Post Carbon Institute, now located in California (http://www.postcarbon.org/), he has provided important contributions at ASPO meetings.

Professor Kyle Saunders, from the political science department at Colorado State University, and David Summers, mining engineering professor at Missouri University of Science and Technology—then known as University of Missouri-Rolla—started a blog by the name of *The Oil Drum* (also known as TOD in the blogosphere) in 2005. The site contains up to the minute prices of oil and a diverse suite of articles on energy, with accompanying comments and criticisms. It is probably one of the best places to get diverse and generally reliable information about energy. In their first year, they averaged more than 7,000 visits a day and had 2,200 registered accounts (Saunders 2006). Two years later, *The Oil Drum* was rated one of the top five sustainability blogs by Nielsen NetRatings and is currently acknowledged by a diverse collection of public figures, including Congressman Roscoe Bartlett (see Bartlett 2012), Princeton economist Paul Krugman, writer James H. Kunstler, billionaire investor Richard Rainwater, and the English rock band

Radiohead. In 2008, the site received the M. King Hubbert Award for Excellence in Energy Education from ASPO USA (http://www.theoildrum.com/).

A strong supporter of ASPO that deserves special mention was Matthew Simmons. He founded one of the largest and most experienced independent investment banks specializing in the energy industry. In addition to founding Simmons & Company International, he also started the Ocean Energy Institute in Mid-Coast Maine, an organization focused on researching and creating renewable energy sources from all aspects of our oceans. His presentations at several ASPO meetings and his 2005 book *Twilight in the Desert: The Coming Saudi Oil Shock and the World Economy*, questioning OPEC reserves, were a strong push for the propagation of "peak oil" (Simmons 2005). His numerous papers from 1996 to 2010 at his site "Simmons International" (http://www.simmonsco-intl.com/) presented many insightful arguments about the coming oil decline. Unfortunately, Matt Simmons passed away in August, 2010. It was a serious loss to the peak oil community.

Colin Campbell, as one of the founders of ASPO, received special attention from the media. British (three shows on BBC), Dutch, French, Irish, and Korean television crews and a host of independent film producers started to arrive in Ballydehob to film Campbell explaining the essence of the oil depletion argument with the Atlantic breakers below, as a fitting backdrop. Amund Prestegard got the Norwegian television interested in producing a program, but Campbell faced eventual legal conflicts when he declined to change the substance of the message. Maj Wechselmann from Sweden secured support for a film, *Looking for La Luna*, that retraced Campbell's steps from Trinidad to Colombia, where he studied the La Luna formation, the prime oil source rock in northern South America.

Ironically, it was in large measure the invasion of Iraq that prompted this new interest in oil depletion. Many people perceptively saw that the invasion had an oil agenda and began to ask just how important Middle Eastern oil was. The BBC Money Programme went so far as to broadcast a program titled "War for Oil", produced by David Strahan, whom Campbell had already helped with the program called *The Last Oil Shock*. This was broadcast by the BBC too. The doubling of oil prices in the latter half of 2004 really began to concentrate the mind of the public, leading to an avalanche of newspaper articles, including no less than the Wall Street Journal which sent a journalist to Ballydehob for an interview.

The following year, 2005, was full of activity on the oil issue. In February, Robert L. Hirsch, Roger Bezdek, and Robert Wendling published the report "Peaking of World Oil Production: Impacts, Mitigation, and Risk Management," the so-called Hirsch Report (Hirsch et al. 2005), by request of the US Department of Energy (which later discouraged Hirsch from undertaking similar analyses). Later in the same year, Prof. Kjell Aleklett, Dr. Hirsch, and Congressman Roscoe Bartlett gave testimony before for the House of Representatives Subcommittee on Energy and Air Quality on the topic "Understanding the Peak Oil Theory." In October, the Swedish prime minister announced that his government would appoint a commission to make Sweden independent of oil by 2020. ASPO received letters of congratulations for turning Sweden into a new direction. It was also the year when ASPO USA was founded.

In 2006 appeared *The Power of Community: How Cuba Survived Peak Oil*, an award-winning documentary cowritten and coproduced by Faith Morgan, Pat Murphy, and Megan Quinn Bachman, who is now on the Board of Directors of ASPO USA. In May 2003, Faith and Pat attended the second meeting of ASPO and learned that Cuba underwent the loss of over half of its oil imports and survived, after the fall of the Soviet Union in 1990. The documentary film has been translated into seven foreign languages with more than 13,000 copies sold worldwide; an adaptation for the public television series *Natural Heroes* appeared in August 2009.

In 2007, ASPO China was formed. In the same year, Prof. Aleklett was asked by OECD to write a report on the subject that came to be titled "Peak Oil and the Evolving Strategies of Oil Importing and Exporting Countries: Facing the Hard Truth about an Import Decline for the OECD Countries" (Aleklett 2007). A year later, Dr. Euan Mearns, editor of *The Oil Drum*, gave a presentation at the Royal Society of Chemists in Aberdeen, Scotland, about the global energy crisis and its role in the possible collapse of the global economy.

In 2011, the 9th ASPO conference in Belgium held two sessions to advance policy discussions, the first at the Walloon Parliament, in Namur, and the second at the European Parliament, in Brussels. The meeting at the European Parliament focused on transport, energy, and agricultural policy, while the meeting at the Walloon Parliament emphasized the role of regional planning and financial stability in an era of high oil prices. These were the first events where politicians at the Belgian and European level discussed together the impacts of peak oil.

In short, the world has woken up as ASPO and other concerned entities around the world succeed in drawing attention to these critical issues. The evidence is building. The clouds of obfuscation and denial are being swept away. Conferences are being held. Television programs are being made. Governments are being alerted. This awakening is itself a fascinating subject in its own right. Those who only a few years ago were lone voices in the wilderness now find themselves being taken seriously. New opinions, attitudes, and instincts are being formed, although there remain many uncertain points of detail. How successful will the world be in facing the challenges remains to be seen, but at least it becomes increasingly aware of the issue. Some countries may adopt policies to secure oil by military means, which, if successful, would raise the peak and steepen the subsequent decline, making a bad situation worse. Others may begin to find ways to use less and find alternative ways to live. Another option, explored especially by David Murphy in his Ph.D. dissertation (Murphy and Hall 2011), is that any increase in the price of oil above about $80 a barrel would by itself cause economic contraction as more money must be diverted from the rest of the economy to getting the oil (and energy generally). Then the declining economy would lead to reduced oil prices and perhaps another spurt of growth. No one should underestimate the challenges.

8.2 The Rimini Protocol

Perhaps the most promising development of all is the so-called Depletion Protocol. It arose at a conference in London when Colin Campbell was asked to cover not only the problem but offer some ideas for a solution. It did not take long to see that the only real way forward was to cut demand to match world depletion rate. It happened that the then secretary of OPEC, Mr. Lukman, was in the audience, and he came up after the lecture expressing enthusiasm for the idea, which he thought would help reduce the tensions and pressure that OPEC was facing then.

The next step came on April 5, 2003, when Campbell received an invitation by no less than Mr. Gorbachev to attend a conference organized by the Pio Manzu Research Center in Rimini, Italy, entitled "The Economics of the Noble Path." It was a remarkable affair at the Grand Hotel, at which philosophers and thinkers addressed the world condition. Armed police patrolled the corridors, and police helicopters hovered overhead. It seemed a good opportunity to propose again the Depletion Protocol, now renamed the Rimini Protocol for the occasion. It attracted much interest from the Italian press and television. Campbell later drew up the protocol as formally as he could contrive.

8.2.1 The Text of the Depletion Protocol

WHEREAS the passage of history has recorded an increasing pace of change, such that the demand for energy has grown rapidly in parallel with the world population over the past 200 years since the Industrial Revolution;

WHEREAS the energy supply required by the population has come mainly from coal and petroleum, having been formed but rarely in the geological past, such resources being inevitably subject to depletion;

WHEREAS oil provides 90% of transport fuel essential to trade, and plays a critical role in agriculture, needed to feed the expanding population;

WHEREAS oil is unevenly distributed on the Planet for well-understood geological reasons, with much being concentrated in five countries, bordering the Persian Gulf;

WHEREAS all the major productive provinces of the World have been identified with the help of advanced technology and growing geological knowledge, it being now evident that discovery reached a peak in the 1960s, despite technological progress, and a diligent search;

WHEREAS the past peak of discovery inevitably leads to a corresponding peak in production during the first decade of the twenty-first Century, assuming no radical decline in demand;

WHEREAS the onset of the decline of this critical resource affects all aspects of modern life, such having grave political and geopolitical implications;

WHEREAS it is expedient to plan an orderly transition to the new World environment of reduced energy supply, making early provisions to avoid the waste of energy, stimulate the entry of substitute energies, and extend the life of the remaining oil;

WHEREAS it is desirable to meet the challenges so arising in a co-operative and equitable manner, such to address related climate change concerns, economic and financial stability and the threats of conflicts for access to critical resources.

Now it is proposed that:

1. A convention of nations shall be called to consider the issue with a view to an Accord with the following objectives:
   (a) To avoid profiteering from shortage, such that oil prices may remain in reasonable relationship with production cost;
   (b) To allow poor countries to afford their imports;
   (c) To avoid destabilizing financial flows arising from excessive oil prices;
   (d) To encourage consumers to avoid waste;
   (e) To stimulate the development of alternative energies.
2. Such an Accord shall have the following outline provisions:
   (a) No country shall produce oil at above its current Depletion Rate, such being defined as annual production as a percentage of the estimated amount left to produce.
   (b) Each importing country shall reduce its imports to match the current World Depletion Rate, deducting any indigenous production.
3. Detailed provisions shall cover the definition of the several categories of oil, exemptions and qualifications, and the scientific procedures for the estimation of Depletion Rate.
4. The signatory countries shall cooperate in providing information on their reserves, allowing full technical audit, such that the Depletion Rate may be accurately determined.
5. The signatory countries shall have the right to appeal their assessed Depletion Rate in the event of changed circumstances.

We think this protocol certainly deserves urgent attention by the world governments as offering a mechanism for a managed transition to declining oil and gas supply. Demand would be put into better balance with supply, meaning that world prices would be held low, to be in reasonable relation to actual production cost. This would allow the poor countries to afford their needs. Profiteering by particularly the Middle East producers, which in turn leads to massive and destabilizing flows of money, would be avoided. Above all, the consumers would be forced to face the reality of their predicament. Even the Middle East itself would benefit by being forced to prepare by lessening its dependence on oil revenue, which is inevitably set to decline in the future as depletion hits that region too.

There are several issues that need to be tackled for the protocol to work. Jean Laherrère has pointed out that it is absolutely necessary to agree on definitions and

measures for concepts such as "production cost" or "amount left to produce." These two points by themselves would take many years to agree upon, although Laherrère is producing another book in this series on definitions in the oil industry.

Interest in the proposal seems to be growing, although not fast enough. A committee of international politicians considered it at the 2005 ASPO Conference in Lisbon. In his book, *The Oil Depletion Protocol: A Plan to Avert Oil Wars, Terrorism, and Economic Collapse*, Richard Heinberg highlights the need for the implementation of the Oil Depletion Protocol and suggests ways in which the protocol can be adopted. The Post Carbon Institute has undertaken the initiative, in association with Heinberg, "to lay the groundwork for and facilitate the successful adoption and implementation of the Protocol." They have created a website that gives the history of the protocol, educational materials, and some actions that people are implementing to reduce their oil dependency by 3% per year" (http://richardheinberg.com/odp).

Speaking of protocols, it is interesting to note the changing reaction of what can be called the Climate Change lobby. We believe that its models of damaging carbon dioxide emissions are flawed to the extent that they are based on extrapolations of oil demand rather than future possible supplies. At first it seemed as if the protagonists were negative to any notion that the natural depletion of fossil fuels would reduce the impact on the environment. But now they seem to become more positive seeing that the Rimini and Kyoto Protocols actually work in parallel, both stressing the importance of restricting demand, albeit for different motives.

In the most recent years the decreased economy of the Eurozone and the cessation of much if any growth of the US economy, probably in response at least in part to the increased oil prices of 2010–2012, and the development of new horizontal drilling/fracking techniques have led to a decrease in the price of oil and to many new articles on a new resurgence of oil production in the United States. While we think these new technologies are important, when you do the numbers, it seems that they cannot, over the next decade, compensate for the decline of the major oil fields that still supply most of the oil in the US. Unfortunately these new developments have led to a cessation of much of the political interest in the peak oil issue. Time will tell how all this plays out, but given the lack of serious preparation for peak oil in the past, it looks even less likely that our governments will take these issues seriously.

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