

A Sustainable Environment: Our Obligation to Protect God's Gift

by
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We're Heading in the Wrong Direction With Oil Sands

Last month I voiced my concern that the U.S. government is not doing enough to mitigate carbon emissions, a growing concern by everyone on this planet. Earlier this month, the U.S. State Department released its Supplementary Environmental Impact Statement relative to the Keystone XL pipeline. If approved, it will significantly increase the extraction and shipment of tar sands oil to the Gulf of Mexico. Here we go again with another over concern as to whether the government is doing the right thing for our future generations or for the energy companies.

About 40 years ago when I was working for an international chemical company, we had developed a water treatment chemical with great market potential. One of the potential markets was in Ft. McMurray, Alberta, Canada. I traveled there to meet with the potential customer that was extracting oil from the Athabasca tar sands. This required large quantities of water to separate the oil from sands, not too dissimilar to using water to extract natural gas from rock layers with a process known as hydraulic fracturing – or fracking. The water required treatment in order to clean it before it could be discharged. Although this process was of great interest to the local people, it was too expensive compared to extracting oil with typical drilling rigs. Keep in mind that the price of oil at that time was about \$2.50 per barrel compared to the current price of about \$90.00 per barrel. Today, that process can definitely be competitive.

The State Department's statement is encouraging the construction of the pipeline to bring this oil through the U.S. This will allow Canada to increase their oil production by almost one million barrels per day, an increase from their current production of two million. The real problem is that this oil is much "dirtier" than most other extracted oil in terms of the concentration of carbon dioxide that would be emitted. And surprisingly, the State Department acknowledges the effects the dirtiest oil on earth will have on the climate yet implies that there will not result in significant adverse environmental effects. Huh? The State Department also says that whether the pipeline is built or not built, it won't make any difference in the development of the tar sands oil. That is doubtful as TransCanada, the company developing this project, would not spend billions of dollars to build the pipeline and millions for lobbying if there was an alternative route to developing this market.

In President Obama's inaugural speech of 2013, he made a commitment to fight the climate crisis of increased carbon dioxide emissions. Yet he is seriously considering approving the construction of this pipeline. Hopefully, his advisors will convince him that this project could have a very negative impact on the future generations. On the other hand, I am sure Obama will be advised to the contrary by energy company lobbyists.

James Hansen (Director-NASA Goddard Institute for Space Studies), one of the most highly respected scientist on climate change, says that "If Canada proceeds, and we do nothing, it will be game over for the climate." Our goal is to reduce the carbon emissions as quickly

as possible, but the tar sands oil contains twice as much carbon dioxide as all of the oil used historically. And what will happen? In the long term, the increase in the global temperature will cause the ice sheets to melt faster, sea levels will rise and destroy many coastal cities – even in the U.S. In the short term, we will continue to experience droughts and periods of heavy rains. The higher air temperature allows for higher moisture concentrations, and when a cold air stream hits these warm air currents, much more water is discharged in a short period of time. This is what has caused floods all over the world.

The droughts that we have experienced will continue and will have a detrimental impact on food prices and availability. China is already experiencing water shortages as the glaciers in the Himalayas are not providing sufficient water for irrigation, and this country will be importing much of their wheat. We will also see meat prices increasing for the same reason. Insufficient water will cause the price of animal feed to increase. The number of animals for food will also decrease due to the droughts.

It is critical that we find ways of decreasing the emission of carbon dioxide and not introduce ways to increase the emissions. President Obama has an excellent opportunity to set an example for all Americans and leaders of other countries to show how serious we are in mitigating the climate change crisis and even reversing it. Even Van Jones, President Obama's first environmental advisor, said that Obama should not approve the Keystone pipeline. But will he do it?