

**EARTH BEATS**  
December 2014  
Justice and Environment Newsletter  
US Region



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**On Global Climate Change**



This issue of Earth Beats follows the steps of the Pastoral Cycle / Circle of Praxis:

- The Experience
- Social Analysis
- Theological Reflection
- Action Plan

**THE EXPERIENCE**

**FALL FOLIAGE AND MAPLE SYRUP INDUSTRY:**

***Will we continue to enjoy the beauty of our fall foliage and savor our maple syrup?***

- With rise in temperatures, our northern hardwoods and the beautiful fall colors they produce may migrate north by 100 to 300 miles. Southern trees may replace northern hardwood, spruce, and fir forests.
- Sugar maples are extremely susceptible to mid-winter thaws and summer droughts. On average, foliage visitors spend 16 percent more than non-foliage visitors. The maple syrup industry, an annual \$3 - 3.5 million industry, may collapse resulting in an economic loss.



**BREEDING BIRD POPULATIONS**

***Will our beloved hummingbird still come here to nest?***

- During the past 100 years there have been increases of severe droughts, winter freeze-thaw cycles, and outbreaks of tree pests and pathogens, which have led to diminishing of several northern hardwood species. Change in forests will impact our breeding bird populations.

**SHRIMP IN THE GULF OF MAINE**

***How long will there be shrimp reproduction?***

- The Gulf of Maine has **warmed one half of a degree a year since 2004.**
- Ocean temperatures are unfit for a cold water species like our shrimp. Therefore a steep decline in shrimp reproduction results in a winter loss of income for the fishermen.
- Ten years ago the shrimp fishery netted our fishermen some 12 million dollars annually.



## ENERGY SOURCES FOR NEW ENGLAND

Sources of energy are needed for our well-being. There is an ongoing discussion about the types of energy we need to sustain us: fossil fuels or alternative energies such as solar, wind and hydro. Two ongoing issues are:



- Discussion of the Northern Pass: its route, the cost to bury the lines ...
- More recently: There is a proposed pipeline to carry gas from Vermont through southern New Hampshire because Massachusetts communities do not want to bring it through their towns. We will be hearing more about this within the next months.

## SOCIAL ANALYSIS

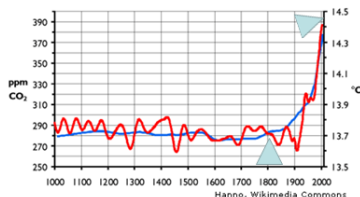
is like the diagnosis of a medical illness.

It gives a clear and complete description of the problem and identifies its root causes in order to prescribe effective treatment.

**Greenhouse Effect:** Gases such as water vapor, carbon dioxide, methane, nitrous oxide, fluorinated gases absorb energy, allow less heat to escape back into space, and “trap” it in the lower atmosphere. A good analogy is a car with the windows closed during the summer. Greenhouse gases are necessary for life on Earth. However, the overabundance of gases is causing a major challenge to Gaia, our Mother.

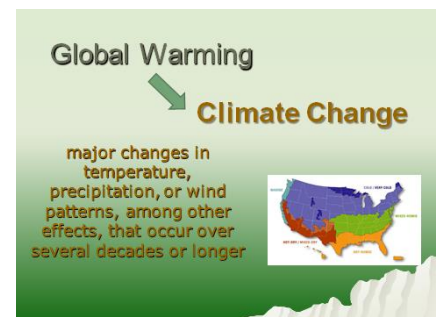
**Global Warming Potential:** The effect of gas on climate change depends on three factors: abundance of the gases, how long they stay locked in the atmosphere, and how strongly they impact global temperatures.

This graph shows CO<sub>2</sub> (the blue line) and temperature in Celsius (the red line). As CO<sub>2</sub> rises, so does temperature.



### **Carbon Dioxide Impact:**

Carbon dioxide produced by humans is the primary driver of climate change: pre-industrial levels of carbon dioxide (prior to the start of the Industrial Revolution) were about 280 parts per million by volume (ppmv). Current levels are 397.01 ppmv and increasing at a rate of 1.9 ppm. A projected sustainable level for Earth is 350 ppmv.



## THEOLOGICAL REFLECTION

### **Pope Francis on Care for Creation May 21, 2014**

Speaking in Rome, Pope Francis called on his followers to become “Custodians of Creation.” *“Creation is not a property, which we can rule over at will; or, even less, is the property of only a few: Creation is a gift, it is a wonderful gift that God has given us, so that we care for it and we use for the benefit of all, always with great respect and gratitude,”* Francis said. *“Safeguard Creation. Because if we destroy Creation, Creation will destroy us! Never forget this!”*

### **Time to tackle Global Warming running out, Pope tells Climate Summit that took place in Lima, Peru, Dec. 1-12, 2014.**

- *“The time to find global solutions is running out. We can find adequate solutions only if we act together and unanimously,”* he said in a written message to Manuel Pulgar-Vidal, Peru’s minister of the environment and host president of the 20<sup>th</sup> UN Climate Change Conference.
- The Pope encouraged the leaders in their discussions because their decisions will *“affect all of humanity, especially the poorest and future generations. What’s more, it represents a serious ethical and moral responsibility.”*
- *“An effective fight against **Global Warming** will be possible only with a collective and responsible answer”* that overcomes one-sided or special interests and is *“free from political and economic influence,”* he said.
- The Pope said the leader’s response will have to *“overcome distrust, promote a culture of solidarity, encounter dialogue, and be capable of showing responsibility for protecting the planet and the human family.”*

### **USCCB Position on Global Climate Change July 31, 2014**

Archbishop Wenski of Miami and Bishop Pates of Des Moines, Chairs of the Domestic and International Committees of the U.S. Catholic Bishops voiced support for a national standard to regulate carbon pollution from power plants in a letter to the Environmental Protection Agency (EPA). It was also submitted as oral testimony at the Washington, D.C., public hearing on the EPA plan for power plants by the USCCB staff member Cecelia Calvo, July 31, 2014. The Bishops wrote about the *“tragic consequences of **Climate Change**”* faced around the world. *“Increasingly limited access to water, reduced crop yields, more widespread disease, more frequent and intense droughts and storms, as well as conflict over declining resources – are all making the lives of the world’s poorest people even more precarious,”* the Bishops stated.

Shirley Brien, HCA

## ACTION



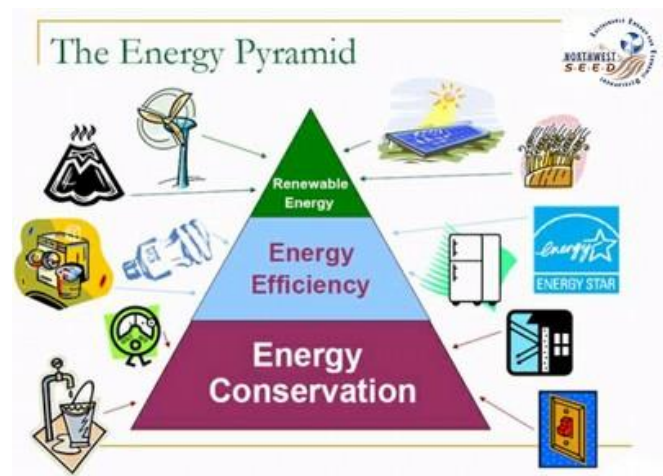
*"I must get into the habit of mapping my itinerary before I run out for errands . . . it means saving time and gas!"*

*"If I had worn a warm sweater to the meeting, they would not have had to turn up the heat!"*



Pauline Morneau, CSC

The actions listed above fall within the levels that appear on the energy pyramid.





## **RESOURCES / NETWORKING**

<http://co2now.org/Historical-CO2>

[www.ncdc.noaa.gov/sotc/service/global/extremes](http://www.ncdc.noaa.gov/sotc/service/global/extremes)

[www.350.org](http://www.350.org)

[www.yale.edu/religionandecology](http://www.yale.edu/religionandecology)

*excellent website with a variety of topics*

[www.globalchange.gov/](http://www.globalchange.gov/)

[www.epa.gov/climatechange](http://www.epa.gov/climatechange)

[www.noaa.gov/climate](http://www.noaa.gov/climate)

[www.climate.nasa.gov/](http://www.climate.nasa.gov/)

[www.whitehouse.gov/energy/climate-change](http://www.whitehouse.gov/energy/climate-change)

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