

People who are poor suffer the most from Climate Change

In our 2008 *Seeds of Peace* Chapter Act, we recognized that “climate change, especially global warming, is already affecting peoples and biological systems throughout the world.” We also committed ourselves to “stand in solidarity and act in justice with marginalized people whose lives are already affected by the devastation of Earth.”

Our lifestyles –however unwittingly—are contributing to climate change and impacting God’s earth and people, particularly people who are poor.



Pak Mat lost his home in Malaysia in an unpredictable storm

Why are people who are marginalized the least able to adapt to climate change?

- ⌘ They are most likely to live on marginal land
- ⌘ They are most vulnerable to natural disasters
- ⌘ They are most reliant on harvests coming at the right time
- ⌘ They are least able to move from affected regions.



Marla Roche of Brazil is unable to plant her harvest due to early and heavy rains

People who are poor contribute least to climate change, yet they experience most its devastating effects. So how can we live in a way that practices the teaching ‘love does no harm to its neighbor’?

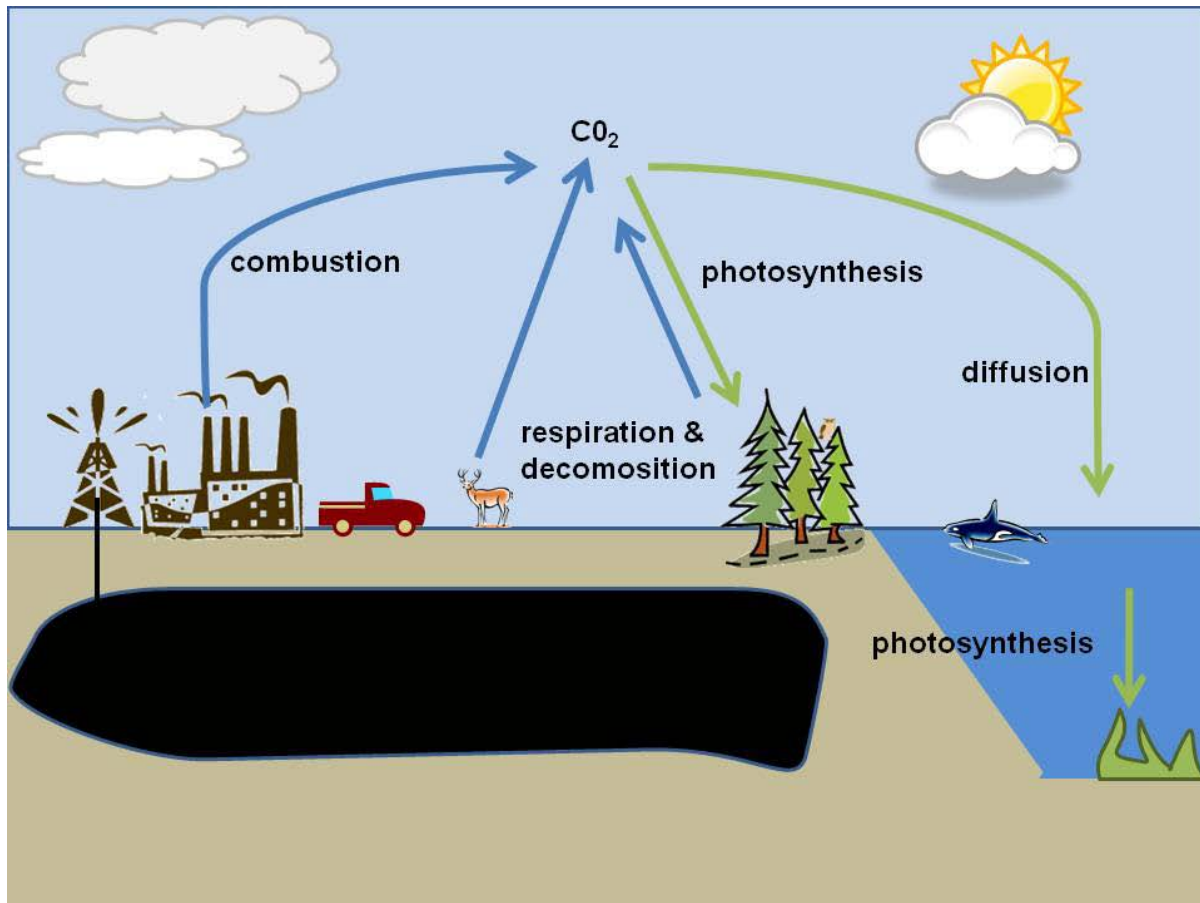
To prevent catastrophic levels of climate change we need keep global temperature rise as far below two degrees as possible. To do this, we need to take urgent action to peak global emissions by 2015 with a decline after that point.

We can help by adding our voice, through the global church, to a worldwide call to reduce greenhouse gas emissions and provide finance and green technology to help the poorest and most vulnerable people adapt to the impacts of climate change.

We can also take steps to decrease our personal and communal contributions to climate change. In our 2008 Chapter Act, we also committed personally and communally to:

- ⌘ “pray, study and act for a sustainable lifestyle” and
- ⌘ “identify and reduce our carbon footprint in our communities, ministries and institutions.”

Sources: www.tearfund.org; www.panda.org

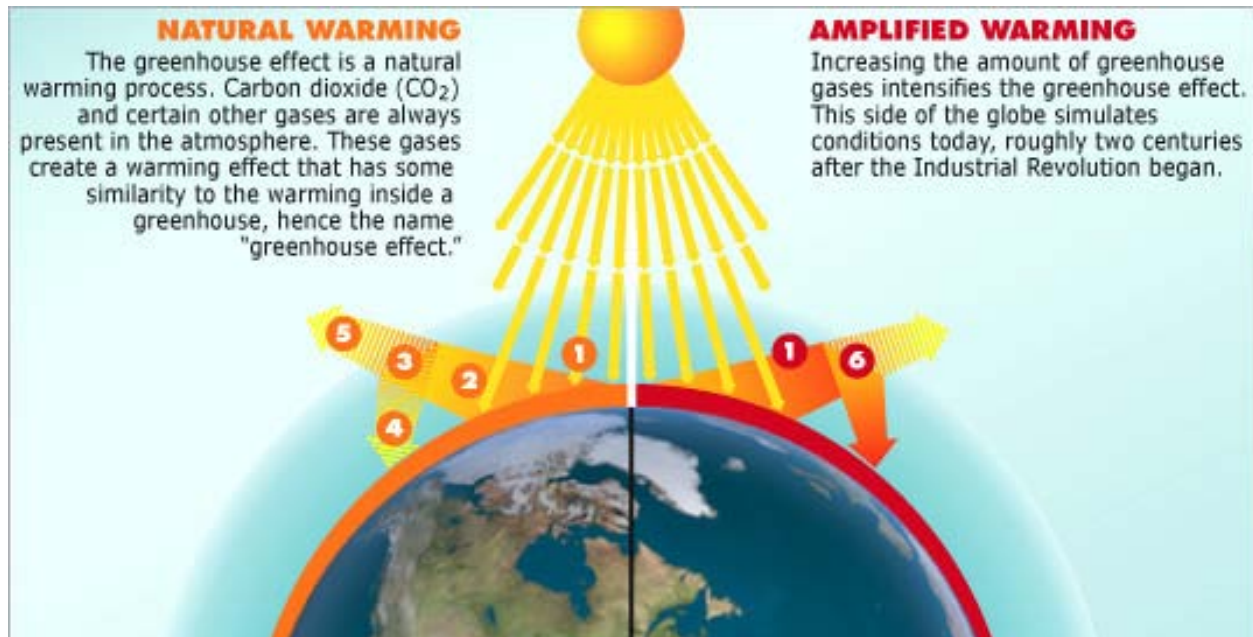
CARBON CYCLE OF EARTH, AND GREENHOUSE GASES

There are four different ways that carbon is stored on Earth: in the air, in rock, in organic matter, and in the oceans. But it doesn't stay put; it cycles through all these:

- ⌘ carbon in the air (carbon dioxide) is absorbed into the oceans by diffusion
- ⌘ in the sea or on land, plants take carbon in through photosynthesis
- ⌘ animals, including ourselves, eat the carbon-rich plants, and when we breathe out, we exhale carbon dioxide into the air.
- ⌘ plants, when they break down, either through decomposition, or through combustion when burned, release their carbon into the atmosphere once again.

How Much Carbon is Too Much?

- ⌘ From the beginning of humanity up until about 200 yrs ago, the amount of carbon in the atmosphere stayed around **275 parts per million** of particles in the air.
- ⌘ The Industrial Revolution of the 1800s began an era of more and more combustion. When atmospheric carbon stays around **350 ppm** or less, the resulting change in temperature would still sustain life. More than that, and we are close to an irreversible heating.
- ⌘ Right now we are **in the danger zone at 390 ppm**.

GREENHOUSE EFFECT

1. Sunlight brings energy into the climate system; most of it is absorbed by the oceans and land.

The Greenhouse Effect:

2. Heat radiates outward from the warmed surface of the Earth.
3. Some of the heat is absorbed by greenhouse gases in the atmosphere, which re-emit the energy in all directions.
4. Some of the heat further warms the Earth.
5. Some of the heat is emitted into space.

Amplified Greenhouse Effect:

6. Higher concentrations of CO₂ and other greenhouse gases trap more heat in the atmosphere than occurs naturally. The additional heat further warms the atmosphere and Earth's surface.

In order for us to live sustainably, that is, within the limits of Earth's resources, each person on the planet would need to emit no more than **4400 lbs** carbon dioxide per year!

Most of our daily activities have as a by-product the release of CO₂ into the atmosphere, from the energy used in production. One example is in food:

One pound of **beef**



emits **13.3 pounds** of CO₂

One pound of **eggs**



emits **1.95 pounds** of CO₂

One pound of **rice & beans**



emits **0.2 pounds** of CO₂

Another example is the energy we use for transportation:



One US gallon of **gas** emits **19.1 pounds** of CO₂.

One UK gallon of **petrol** emits **22.9 pounds** of CO₂.

To Learn More:

☞ Watch the **Carbon Footprint 101** video again. You can see the watch the video online via the CSJP You Tube Channel: <http://www.youtube.com/user/CSJPpeace>

☞ Visit the following websites:

- www.catholicclimatecovenant.org
- www.tearfund.org/climate
- www.cafod.org.uk/climatechange
- www.ncrlc.com