

SUSTAINABILITY UPDATE

INTERNATIONAL  PAPER

EHS & Sustainability

What is Climate Change?

Climate change, also called global warming, refers to any significant change in measures of the earth's climate, such as temperature, precipitation or wind that persist for decades or longer. Climate change may be caused by natural factors or processes, such as changes in the sun's intensity or changes in ocean circulation or by human activities that affect the composition of the earth's atmosphere (burning fossil fuels, which release greenhouse gases, etc.).

Greenhouse gases prevent heat from escaping earth to space and are necessary for life on the planet. Growing public concerns about the impact of these activities on our environment have brought attention to society's actions to reduce these emissions.

Greenhouse Gas Emissions

Paper manufacturing requires energy. Depending on the source of that energy, our manufacturing processes may also emit large amounts of greenhouse gases. Here are some important facts to know about International Paper's greenhouse gas emissions in 2007:

- 89 percent of our greenhouse gas emissions in the United States were generated at our paper mills.
- Greater than 70 percent of the energy used at our U.S. paper mills comes from trees (biomass and pulping liquors). These fuels are not counted as sources of greenhouse gas emissions because they come from renewable energy sources and are carbon-neutral. This means that the carbon removed from the atmosphere by tree growth is equal to the carbon released by its burning.
- Approximately 30 percent of the energy at our U.S. paper mills came from fossil fuels like coal, oil and natural gas. It is this energy that generates our greenhouse gas emissions.
- We account for 0.2 percent of total U.S. and 20 percent of the forest products industry's greenhouse gas emissions. All U.S. manufacturing accounts for 28 percent of the U.S. total greenhouse gas emissions.
- In the U.S., we emitted approximately 7.8 million metric tons of greenhouse gas – primarily carbon dioxide, mostly from direct combustion of fossil fuels. Approximately 2.7 million metric tons of greenhouse gas was emitted indirectly by suppliers of electricity services that support our operations.
- Globally, we emitted a total of 9.8 million metric tons of greenhouse gas from direct sources, and approximately 3.3 million metric tons from indirect sources.

The Nature of Our Products

International Paper is a global manufacturing company that produces recyclable paper and packaging products from renewable resources. Forests provide the predominant input for our products and the energy to make those products. Forests are a renewable resource that capture and store carbon. This carbon remains stored in the products we produce during their useful life.

Managing Greenhouse Gas Emissions

In response to this global challenge, International Paper has undertaken numerous activities including:

Understanding our footprint – we track and report greenhouse gas emissions from our sites, globally.

Participating in the debate – we have developed and are advocating principles for climate change with policymakers.

Committing to improvement – we have committed to voluntary emissions reductions.

Investing in the future – we have invested steadily to reduce our use of fossil fuels (particularly oil and natural gas), increase the use of bioenergy and conserve energy.

Learning by doing – we participate in greenhouse gas trading programs in the U.S. and Europe and are learning how to reduce climate impacts in a cost effective manner. For example:

- Membership in the U.S. EPA's Climate Leaders program and commitment to reduce greenhouse gas emissions by 15 percent between 2000 and 2010.
- Founding partner and participant in the Chicago Climate Exchange (CCX), where we helped develop a well functioning market for carbon trading.
- Participation in the European Union's carbon trading system through our IP European mills.
- Adoption of a company Global Forest Certification policy to assure sourcing of wood fiber from sustainably managed forests and to assure wood fiber is not obtained from illegal sources.
- Investment of more than \$180 million since 2003 in new energy efficiency and fuel cost reduction efforts.

Record of Success

International Paper has a record of success in managing greenhouse gases. From 2000 to 2007, we reduced gas and oil use per ton of paper produced by 47 percent and reduced our absolute greenhouse gas emissions at U.S. pulp and paper mills by 44 percent through energy efficiency projects, fuel switching and mill closures.

Engagement in Climate Change Policy

As an emitter of greenhouse gases, International Paper will be affected by any future greenhouse gas related legislation that may be enacted in the U.S. Our company is a stakeholder in the development of sound climate change policy at the regional, national and international levels of government. We believe that public policy development needs to:

- Address cost-containment for "energy-intensive" industries like pulp and paper manufacturing;
- Protect international competitiveness;
- Align greenhouse gas reduction programs with other nations; and,
- Avoid unintended consequences to the sustainability of forests, pulp and paper manufacturing and jobs in the industry.

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