Climate change poses serious challenges to the global community but is especially detrimental to the poorest and most vulnerable in developing countries. Large and small businesses alike may be affected by unpredictable access to energy or water scarcity, severe storms, rising sea levels and human migration resulting directly or indirectly from climate change. Businesses are also becoming subject to new disclosure and regulatory requirements related to concerns about rising greenhouse gas emissions. On the other hand, firms with climate friendly technologies and services, such as improvements in their energy efficiency or increased use of renewable energy, stand to benefit.

As part of a larger World Bank Group climate change strategy, IFC helps private companies identify both risks and opportunities associated with climate change. We provide clients with expert advice on reducing, managing, and mitigating the impacts of climate change on their businesses and on investing in sustainable energy and carbon finance. Through our investments, advisory services, and partnerships, IFC helps the private sector address climate change. In fiscal 2008, we mobilized more than $5 billion in clean energy related investments.

IFC’s Approach

Climate change is one of IFC’s strategic pillars and a core element of sustainability. We consider climate change implications in all our investments through requirements to quantify our carbon footprint, consider best available technologies, and explore opportunities for carbon offsets. Over the next three fiscal years (FY09-11), IFC has committed to increase lending for clean energy by two to three times.

IFC is currently developing several new products to better respond to climate change challenges:

- **Assessment of private sector adaptation risks**: Climate change poses risks to private sector companies. To help its clients understand and manage these risks, IFC is undertaking studies to assess the financial and business risks of climate change and identify adaptation measures.

- **Greenhouse gas footprint analysis**: Building on methodologies developed by leading research organizations, IFC is introducing requirements to evaluate the greenhouse gas implications of its investments. Aside from providing a basis to understand its carbon footprint and to measure changes over time, such analysis will allow IFC to better identify climate-related business opportunities and help clients to access additional funding from carbon finance and donor countries.

Development Impact

- Financing industrial growth while reducing greenhouse gas emissions
- Creating new models of climate-friendly sustainable investment
- Supporting local financial institutions’ entry into the renewable energy and energy efficiency market
- Helping clients access the $64 billion global carbon finance market
Track Record

- **Energy Efficiency and Renewable Energy**: IFC clean energy investments (excluding large hydro projects) grew by 64 percent in fiscal 2008. Our clean energy portfolio employs the full range of financial instruments: structured project finance, corporate financings, extensive support for financial intermediaries, and advisory services.

- **Clean Technology**: IFC-financed clean technology projects support a growing global market. Examples include new-generation engine controls, environmentally sound glass to reduce heat loss from buildings, and high-efficiency lighting, and materials for and manufacture of solar photovoltaic cells, wind turbines, and methane capture.

- **New Technology Commercialization**: With funding from donor partners, IFC also manages a portfolio of more than $200 million worth of projects to make climate-friendly innovations such as fuel cells and micro-turbines commercially viable.

- **Carbon Finance**: IFC’s carbon delivery guarantees allow client companies producing Kyoto Protocol-compliant carbon credits to access more buyers at higher prices by mitigating risk.

- **Sustainable Forestry**: IFC also invests in forest-based carbon sequestration projects.

- **Waste Reduction and Recycling**: IFC has helped clients minimize waste and develop recycling networks in the manufacture of panels, and steel.

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**Making Financial Institutions Sources of Sustainable Financing for Clean Energy**

Many studies show the enormous potential for profitable clean energy investments in developing as well as industrialized countries. However, a lack of awareness and the often small and dispersed nature of clean energy measures are among the reasons why banks typically have not focused on these opportunities as a business opportunity. Starting more than a decade ago in Hungary, IFC has developed a package of technical assistance, partial risk guarantees, and credit lines to motivate interest in clean energy as a banking business. In FY08, IFC had nine such investments in five countries including some of the largest and most rapidly growing greenhouse gas emitters – Brazil, China, Russian, Turkey, and Ukraine. These projects will provide commercial lenders with more than $280 million for dedicated clean energy credit lines.

In China, an IFC risk-sharing facility and advisory services package helped one of the country’s most innovative financial institutions, **Industrial Bank**, gain recognition as a successful pioneer of sustainable financing. The program receives funding from our **China Utility-based Energy Efficiency Finance Program (CHUEE)** with donor support from the Global Environment Facility and governments of Finland and Norway. Many of the loans it has made under the program finance smaller Chinese companies’ installation of energy-saving equipment that dramatically reduces their carbon dioxide emissions—and strengthens their bottom lines. Since joining the program in 2006, Industrial Bank has provided nearly $180 million in energy efficiency loans, recording zero defaults. Recently, Industrial Bank also became the first Chinese bank to endorse the Equator Principles.

**Renewable Energy: A Growing Emphasis in Manufacturing**

The use of renewable energy in IFC-supported projects includes manufacturing of solar cells and materials required for their manufacture. In the forest products sector, several IFC-supported pulp mills are entirely energy self-sufficient and some export electricity to the local grid.

Colombia’s **Productora de Papeles (Propal)**, a producer of paper from sugar cane bagasse, is upgrading its utility systems and expanding its power generation capacity with IFC support. Its new boiler will burn pressed waste water treatment plant sludge and bagasse residues.