

LAND AND AGRICULTURE



CONFIDENTIAL

To: Leaders Representing Land and Agriculture

Subject: Your Negotiating Goals in “World Energy”

Welcome to the global climate and energy policy negotiations. As leaders for the land use, forestry, and agriculture sectors, you will make decisions regarding global policy over the coming decades.

Your group includes representatives of large agricultural producers and landowners, government ministries of forests and agriculture, agriculture-oriented and land conservation think tanks, and agriculture and forestry-related industry and manufacturing.

You will make decisions regarding global forestry, agriculture, and other land use over the coming decades. Your goal is to achieve the best outcome for the groups you represent. Do your best in the time allotted.

The best available science shows that greenhouse gases (GHGs) emitted by human activity are already changing the climate, that the risks of further climate change to our economy and to human welfare are serious and that avoiding the worst impacts is possible. The internationally agreed upon goal is to limit the increase in global average temperature to no more than 2°C above preindustrial levels. Warming above 2°C threatens the economy and human welfare of all nations. Your own climate science experts agree with this assessment.

However, you must balance the imperative to prevent dangerous climate change with the needs of your key stakeholders, including the public (your customers, in some cases), shareholders, and the policymakers who provide you license to operate, regulate your industry and affect your operating costs.

You represent the people and companies who feed the world. World population is now about 7.2 billion and heading for more than 9 billion by 2050, while growing income per capita increases demand for wood, fiber, meat and other land-intensive products. Still today about one billion people suffer from what the UN euphemistically calls “food insecurity”—they lack adequate, reliable food supplies. Malnutrition and starvation are still major problems in many nations. Meeting the growing demand for food, wood, and fiber requires land for crops and the associated development. Unfortunately, doing so also contributes to deforestation, habitat loss and GHG emissions, including CO₂ (from deforestation), methane (CH₄), nitrous oxide (N₂O) and the “f-gasses” (chlorofluorocarbons and others), all potent GHGs. Cutting back could drive up the cost of food. Those who need it most might go without, while agricultural industry profit margins shrink.

Policies promoting Reductions in GHG Emissions from Deforestation and land Degradation (so-called “REDD policies”) over the past twenty years, primarily in Brazil and Indonesia, have been partially successful. And, there is much further to go. Adoption of best practices in animal husbandry, agriculture, fertilizer manufacturing and use, and industry also has the potential to reduce GHG emissions from land use and agriculture.

In much of the world, the infrastructure for the “business as usual” land use, forestry, and agriculture economy is already in place. Abandoning this infrastructure and these practices would be costly and, given the level of corruption in this area, change could be quite challenging. At the same time, the impacts of climate change including rising sea levels, more extreme weather such as droughts and floods and the geopolitical dislocations these impacts may create pose serious risks to your assets. Further, growing climate damage increases the likelihood of regulations and other policy changes that will adversely affect your industries even as they may stimulate better alternatives. Investing in new capabilities and shaping policy and regulations would be advantageous to your industry, particularly if

World Energy role play simulation developed by Climate Interactive, MIT Sloan School of Management, and UMass-Lowell. This version: 4/2014.

there is a price on carbon that helps you profit from conservation of forested lands. To that end, you are actively exploring how you might use your financial capital, your expertise, and society's existing infrastructure to compete in a changing world.

Many trends point in the direction of change in towards low-GHG alternatives:

- The U.S. company Nike reduced its GHG footprint 75% in a short period of time when it found an alternative to the potent GHG sulfur hexafluoride, SF₆, which was the "air" in Nike Air shoes.
- Brazil's greenhouse-gas emissions fell nearly 39% between 2005 and 2010, according to an inventory released by the country's government.
- As reported in the journal *Nature*, Cornell scientists have discovered that biochar – a charcoal-like substance produced from agricultural wastes and non-food sources – reduces the nitrous oxide generation from agricultural soil on average by about 55 percent and stanches emissions into the atmosphere.

You will take three actions:

1. **Decide** the future decrease in GHG emissions from Land Use & Forestry, and Other gases.
2. **Advocate** to **Carbon Pricing** for a carbon price policy, if any.
3. **Lobby** the five other parties. You should not have to bear the burden of cutting GHGs alone.

Notes on actions:

1. **You are responsible for policies that could reduce GHG emissions in two areas: Land Use and Forestry** (primarily reduction of deforestation, cutting CO₂ emissions) and Other gases (CH₄, N₂O, and the f-gases). Note that cutting GHG emissions from deforestation means limiting development of tropical and boreal forests, which prevents people, including the poor and corporations, from using those lands for farming and logging.

2. **Take a position on carbon pricing.** Your economists acknowledge that internalizing the environmental and social costs of greenhouse gas emissions with a carbon price could be the best way to reduce global GHG emissions. A carbon price would harm carbon-intensive energy production, by cutting demand for fossil fuels, increasing costs, and decreasing shareholder value for firms heavily dependent on fossil fuels, at least in the near term. However, a carbon price would create profit opportunities for low-carbon, renewable sources, bring capital into startups in these areas, and stimulate innovation. If there is a carbon price, consider the effect on your land, forestry, and agriculture investments along with the ways in which it can promote investment and profitability in a low-GHG world.

3. **Lobby and negotiate.** Preserving tropical forests might perpetuate poverty for many in the developing world. The climate crisis cannot be solved on the backs of the world's poor – the people who have contributed least to the problem but will suffer the most. Other groups have the ability to take actions that can mitigate GHG emissions and limit climate change without placing the greatest burden on the people and corporations you represent. The *Energy Supply* group can invest in renewable energy that generates no GHGs. The *Efficiency* group can invest in energy efficiency for buildings, industry, appliances and vehicles, saving money and advancing technology while also reducing carbon pollution. The *Population and Consumption* group can promote policies to limit future population, particularly in developing nations, and limit consumption per capita (e.g., through progressive taxation or high value-added taxes, particularly on luxury items).