Population and Consumption

CONFIDENTIAL

To: Population and Consumption Representatives
Subject: Your Negotiating Goals in "World Energy"

Welcome to the global climate and energy policy negotiations. You represent the combined public voice of government ministries, the United Nations, NGOs across nations and the political spectrum (such as UNICEF, Zero Population Growth, and the Club for Growth), religious organizations, social change movements and business organizations such as Chambers of Commerce.

You will make decisions over the coming decades in two areas: (1) population and (2) economic development, specifically, growth in consumption per capita.

You make decisions as a whole. 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 populations of developed and developing nations; rich and poor; and businesses, society and the policymakers who provide your license to operate and regulate your activities.

World population today exceeds 7.1 billion. The UN population program projects population will exceed 9 billion by 2050, and more than 10 billion by 2100. The large majority of that growth is expected in the developing world, where income per capita, energy use and GHG emissions per capita are low. Poverty, malnutrition and disease are common in many developing nations. Their governments seek to develop their economies as rapidly as possible to gain the health, educational, social and economic opportunities those in the developed world enjoy today.

Worldwide, GDP per capita is growing at roughly 2.2%/year. Growth in GDP/capita, however, is much higher in the rapidly developing nations of the world, including China, India, Brazil, Indonesia, etc., and lower in the developed nations. As a result, energy use and GHG emissions are rising very rapidly in the developing nations (GDP is the product of population and GDP per capita).

It is impossible to meet the global target of no more than 2°C warming if current trends in population and economic growth continue in the developing world—if the energy needed to do so continues to come from fossil fuels. Some in the developed world argue that the developing nations must implement population control programs such as China's one-child policy to slow the growth of their populations. Other groups argue that policies to empower women (literacy and education, employment opportunity, public health investments) will not only promote human rights but will lead to smaller family sizes that help reduce projected population growth.

In contrast, many in the developing world point to the huge disparity in consumption per capita between the rich and poor nations, noting that the rich consume a disproportionate share of global resources, and that GHG emissions per capita in the US, Europe, Japan and other developed nations are far higher than in their nations. They point out that the majority of cumulative GHG emissions since the industrial revolution came from the developed nations, who used those fossil fuels to power their economic growth and, they claim, now want to prevent the world's poor from doing the same. They assert the right to develop their economies, and demand that the developed world make large cuts in their GHG emissions and resource use, even if that slows the growth of their economies.

While radical change could be difficult, there are some positive trends pointing toward slower population growth and ways to improve well-being without endless growth in consumption:

- The global population growth rate has slowed, from about 2.0% per year in 1970 to about 1.2% per year in 2013. However, the larger population, 7.2 billion today vs. 3.7 in 1970, means the number of people added to the world population today is higher, about 77 million per year.
- Historically, improvements in public health, food security and education reduce infant mortality and overall death rates; after a long lag, fertility and desired family size fall as well, slowing population growth, a process known as the *demographic transition*. The UN population program and many demographers believe this process will continue around the world, and note that the transition can be accelerated with policies that provide information on and access to health care, contraception, and education, particularly for women and girls.
- Research shows that, beyond a certain point, increases in income and consumption per capita do not increase well-being much or at all.
- Bhutan emphasizes increasing Gross National Happiness instead of GDP as their national goal. Nations including France and the UK are exploring how to measure and improve the well-being and happiness of their citizens instead of merely maximizing GDP per capita.

You will take three actions:

1. **Set** future global population and GDP/capita growth.
2. **Advocate** that the *Carbon Price* group set a price on GHG emissions (if you desire any—you can argue that there should be any price on GHGs, from zero on up).
3. **Lobby and negotiate with** the five other parties to encourage them to take actions that contribute to solving the climate change problem while improving the welfare of the people and groups you represent. The burden of solving the climate crisis cannot be borne by the poorest of the poor who need to rise out of poverty and join the growing global middle class.

Notes on actions:

1. **You can propose pathways for future world population and GDP/capita** to reflect the impact of the policies you advocate. Population policies could range from education for girls and women and information about and access to contraception to mandatory family size limits such as China's one-child policy. Policies to limit consumption per capita could include progressive taxation or high value-added taxes, particularly on luxury items. Consider how your proposed population and GDP/capita pathways would affect those in the developed and developing world. Consider how you might implement these policies, including public resistance to any policies you propose.

2. **Take a position on carbon pricing**. Economists acknowledge that internalizing the environmental and social costs of greenhouse gas emissions with a price on carbon (e.g., via a tax) could be the best way to reduce global GHG emissions. However, a carbon price would harm the poor (in both developed and developing nations) more than the rich. If there is a carbon tax, advocate that the revenue generated be given back to the public and not to energy companies. Developing nations and the world's poor will be heavily affected by higher energy prices compared to the wealthy. You are their voice in these negotiations.

3. **Lobby and negotiate**. Other groups have the ability to take actions that can mitigate GHG emissions and limit climate change. The *Energy Supply* group can invest in renewable energy that generates no GHGs, and tax or regulate fossil fuel production. The *Efficiency* group can invest in technology and programs to improve the energy efficiency of buildings, vehicles, and infrastructure. The *Land and Agriculture* group can promote policies that reduce emissions of methane (CH_4) and nitrous oxide (N_2O), two potent GHGs. To the extent these other groups succeed in lowering energy demand and the carbon intensity of the energy system, global GHG emissions might fall even as global population and affluence continue to grow.