



AFP - NICOLE TIGET

Jean Jouzel

Intergovernmental Panel on Climate Change,
Vice President

IS THERE STILL ANY DOUBT ABOUT THE SCIENTIFIC EVIDENCE FOR GLOBAL WARMING?

A broad consensus has now been reached on the interpretation of the scientific data through the work of the Intergovernmental Panel on Climate Change (IPCC); it confirms that global warming is 'unequivocal'; those questioning this trend have been marginalized. Forecasts established in 1990 at the time of the first IPCC report, based on the different scenarios for increased greenhouse gas emissions, are now being borne out. These foresaw, for example, an average global temperature increase of between 0.1 and 0.2°C per decade. We are on the very trajectory predicted some fifteen years ago, even though, in five years, greenhouse emissions have increased by more than 10%. The significant contribution made by human activity to global warming witnessed over the past fifty years has also become clear. In the eyes of public opinion, the phenomenon has moved from hypothetical to perceptible, the evidence being clearly seen in short-term weather patterns which seem to confirm global warming, and particularly in major consequences such as the retreat of glaciers and the melting of the ice sheet. The IPCC's assessment, which everyone now shares, is thus based on a series of solidly-based arguments and incontrovertible proof.

WHAT CAN BE DONE?

In my opinion, the only way to avoid devastating consequences for the global climate is to stabilize greenhouse gas emissions, which means taking specific measures to reduce them. This is a major challenge but also an opportunity for growth. The report of economist Nicholas Stern, beyond the detailed modeling the worth of which I am not in a position to assess, does say this: the worst case, in economic terms, is to do nothing rather than commit to a proactive policy on controlling greenhouse gas emissions.

Carbon dioxide is not the only gas which contributes to the greenhouse effect but it is the main culprit. Specifically because it remains in the atmosphere for a long time. Stabilizing the greenhouse effect will necessarily mean containing CO₂ concentrations. If we are to hope to limit the global average temperature rise to 2°C, this concentration must be capped at 450 parts per million (we are currently at 380). This means that carbon dioxide emissions – which represent more than 7 billion tonnes of carbon per year (GtCO₂/year), largely due to the use of the fossil fuels-coal, natural gas and oil – must peak at 10 GtCO₂/year in 2020, return to their current levels by 2040, then rapidly decline to 2 GtCO₂/year between now and the end of the century. As a climatologist, I fully support this massive challenge. However, we need to recognize that the battle has yet to be won.

AND IN FRANCE?

In France, the 2005 energy act is a major step in the right direction, in my opinion. This act provides for an annual fall in final energy intensity of 2% as of 2015 and sets a target for France to divide its greenhouse gas emissions by four or five between now and 2050. To contain the greenhouse effect, we must halve these emissions globally, recognizing that we cannot, at present, ask too much of the developing countries. They need our help. And for that, the industrialized countries must do better than this division by two. This is one positive aspect of the act. Acting upon it will be more difficult. Note that France is likely to meet its Kyoto protocol objectives, between 2008 and 2012, the level of greenhouse gas emissions at 1990 levels. We will only get there if everyone supports this, be they individuals, companies, local authorities, etc. The only way to avoid disaster is if everyone shares this objective.

WHAT CAN EDF DO?

For an energy company such as EDF, whose generation is mostly based on non CO₂ emitting nuclear and hydropower technologies in France, the challenge is probably to make its contribution to combating greenhouse gas emissions a Group-wide commitment; to incorporate energy generation which is low-carbon, consumes increasingly less fuel, is increasingly lower in emissions and has a higher renewables contribution into its investment decisions, its product offerings and its research and development programs.