



Climate Change

BY JIM PLOUFFE

With the Kyoto Protocol coming into effect next month, it has become almost universally accepted that global warming is changing our environment. Here are the facts about climate change and what we are doing about it.

How Climate Change Will Affect the World

The burning of fossil fuels and destruction of forests are expected to increase the earth's average temperature by up to 5 degrees C by 2100. This rise will create more stress on Asia's already overtaxed environment and change the way we live. Here's how:



Region	Scope	Water	Agriculture	Coastal Zones	Health	Adaptations
Tropical Asia	Sixteen countries spanning India to the Philippines. Home to 1.6 billion people in six of the world's 25 largest cities	Himalayan glaciers will melt, causing floods. Silty runoff will contaminate water supplies and clog hydro-electric plants.	Rice yields will decline as temperatures increase. Farmers will be vulnerable to new pests and natural disasters.	Sea levels could rise by up to one metre, flooding coastal cities and tourist resorts, ruining water supplies and fishing grounds.	Malaria, dengue fever and schistosomiasis will move into new regions on the margins of the current endemic areas.	Several million people will be displaced. New crops will need to be introduced to replace faltering rice production.
Temperate Asia	Japan, Korea, Mongolia and most of China	A decrease in water supplies, as glaciers retreat and rains fail, will affect all the major rivers of China.	Higher carbon dioxide levels may increase grain yields. Warmer water will threaten fish farms.	Saltwater intrusion of water supplies will increase. About 90 per cent of the remaining sandy beaches in Japan will disappear.	Heat waves will kill more people as they strike more often and with greater severity. Cholera will increase.	Early warning systems for disease outbreaks must be developed. Farms will need to shift north or grow different crops.
Small Island States	Maldives, Kiribati, Marshall Islands	Changing rainfall patterns could mean water shortages for islands with no groundwater supplies.	No significant agriculture but tourism could falter as reefs and beaches suffer from rising sea levels and temperatures.	Cost of protecting shorelines from rising water levels will be a burden. Communities and vital infrastructure will be flooded.	Heat-related illnesses as well as dengue fever, cholera and biotoxin poisoning will increase.	Migration and resettlement outside national boundaries may become the only option for some island states.
Australasia	Australia, New Zealand, surrounding islands	Severe droughts in arid Australia and more flooding in New Zealand. Flood-prone cities will suffer financial losses.	Short-term increase in farm production. Changes in the suitability of land for specific uses.	Most of the population lives on coastal fringe, making it vulnerable to any increase in flooding or erosion.	Water- and sewage-related diseases will increase along with respiratory problems related to urban pollution.	More money will have to be spent on health care and protecting the environment.

Source: "The Regional Impacts of Climate Change," IPCC

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What the World Is Doing

In 1997, governments around the globe agreed to give the 1992 Convention on Climate Change some bite and adopted the Kyoto Protocol. The protocol commits developed countries to achieving the following goals by 2012:

WHO HASN'T SIGNED UP

Australia, United States, Singapore, Hong Kong and Macau (China agreed only to the mainland).

Problem Greenhouse gas emissions continue to rise

Kyoto Response

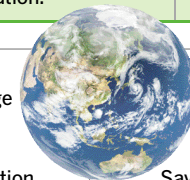
Developed nations have agreed to reduce their collective emissions of carbon dioxide, methane and nitrous oxide by at least five per cent. There isn't, however, a penalty for countries that exceed their targets.

Problem Getting everyone to live in a more climate-friendly way

Kyoto Response Global talkfests usually don't get much done, but the protocol has pushed governments to work together to ensure developed nations don't damage the economies of developing countries.

Problem Sharing the burden of change

Kyoto Response Each developed country has a reduction target, with the European Union agreeing to an eight per cent reduction and Japan a six per cent fall. Countries will be encouraged to set their own limits.



Problem Keeping the cost to a minimum

Kyoto Response Saving the environment is expensive, so countries that reduce emissions by more than their target can sell their credits. Countries can also benefit by financing international projects.