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## 1: CLIMATE EMERGENCY

***“We are on the precipice of climate system tipping points, beyond which there is no redemption.”***

*—climate scientist James Hansen—*

*In the decades following World War II, it seemed that civilization might be destroyed in nuclear war. That danger still exists, but we now face an even greater threat: global devastation caused not by someone deciding to enter launch codes, but simply by continuing business as usual.*

*In Part One:*

- ▶ **Tomorrow Will Be Too Late.** *Fidel Castro’s compelling statement to the 1992 Rio Earth Summit, in which described the crisis, explained its causes, and posed solutions. No other world leader was as clear or decisive.*
- ▶ **Some Impacts of Global Warming and Not a Distant Prospect.** *Two articles that summarize in point form the probable effects of uncontrolled global warming, and recent evidence that climate change is already changing the world.*
- ▶ **Climate Wrongs and Human Rights.** *A 2008 Oxfam report showing that climate change will undermine human rights on a massive scale.*
- ▶ **If Socialism Fails: The Spectre of 21st Century Barbarism.** *An essay on the horrifying consequences that face the world if the existing social order isn’t replaced.*

## Tomorrow Will Be Too Late

*Fidel Castro*

*Earth Summit, Rio De Janeiro, Brazil, June 12, 1992*

Mr. President of Brazil Fernando Collor de Melo;

Mr. UN Secretary General Boutros Boutros-Ghali; Your Excellencies;

An important biological species is in danger of disappearing due to the fast and progressive destruction of its natural living conditions: humanity. We have become aware of this problem when it is almost too late to stop it.

It is necessary to point out that consumer societies are fundamentally responsible for the brutal destruction of the environment. They arose from the old colonial powers and from imperialist policies which in turn engendered the backwardness and poverty which today afflicts the vast majority of mankind.

With only 20 percent of the world's population, these societies consume two-thirds of the metals and three-fourths of the energy produced in the world. They have poisoned the seas and rivers, polluted the air, weakened and punctured the ozone layer, saturated the atmosphere with gases that are changing weather conditions with a catastrophic effect we are already beginning to experience.

The forests are disappearing. The deserts are expanding. Every year billions of tons of fertile soil end up in the sea. Numerous species are becoming extinct. Population pressures and poverty trigger frenzied efforts to survive even when it is at the expense of the environment. It is not possible to blame the Third World countries for this. Yesterday, they were colonies; today, they are nations exploited and pillaged by an unjust international economic order.

The solution cannot be to prevent the development of those who need it most. The reality is that anything that nowadays contributes to underdevelopment and poverty constitutes a flagrant violation of ecology. Tens of millions of men, women, and children die every year in the Third World as a result of this, more than in each of the two world wars. Unequal terms of trade, protectionism, and the foreign debt assault the ecology and promote the destruction of the environment.

If we want to save mankind from this self-destruction, we have to better distribute the wealth and technologies available in the world. Less luxury and less waste by a few countries is needed so there is less poverty and less hunger on a large part of the Earth. We do not need any more transferring to the Third World of lifestyles and consumption habits that ruin the environment. Let human life become more rational. Let us implement a just

international economic order. Let us use all the science necessary for pollution-free, sustained development. Let us pay the ecological debt, and not the foreign debt. Let hunger disappear, and not mankind.

Now that the alleged threat of communism has disappeared and there are no longer any more excuses for cold wars, arms races, and military spending, what is blocking the immediate use of these resources to promote the development of the Third World and fight the threat of the ecological destruction of the planet?

Let selfishness end. Let hegemonies end. Let insensitivity, irresponsibility, and deceit end. Tomorrow it will be too late to do what we should have done a long time ago. Thank you.

## Some Impacts of Global Warming

*Climate and Capitalism, November 19, 2007*

From the *Synthesis Report* of the Intergovernmental Panel on Climate Change, November 17, 2007....

### Africa

- ▶ By 2020, between 75 and 250 million people are projected to be exposed to increased water stress due to climate change.
- ▶ By 2020, in some countries, yields from rain-fed agriculture could be reduced by up to 50%. Agricultural production, including access to food, in many African countries is projected to be severely compromised. This would further adversely affect food security and exacerbate malnutrition.
- ▶ Towards the end of the 21st century, the projected sea-level rise will affect low-lying coastal areas with large populations. The cost of adaptation could amount to at least 5-10% of Gross Domestic Product (GDP).
- ▶ By 2080, an increase of 5-8% of arid and semi-arid land in Africa is projected under a range of climate scenarios.

### Asia

- ▶ By the 2050s, freshwater availability in Central, South, East and South-East Asia, particularly in large river basins, is projected to decrease.
- ▶ Coastal areas, especially heavily-populated megadelta regions in South, East and South-East Asia, will be at greatest risk due to increased flooding from the sea and, in some megadeltas, flooding from the rivers.
- ▶ Climate change is projected to compound the pressures on natural resources and the environment, associated with rapid urbanization, indus-

trialization and economic development.

- ▶ Endemic morbidity and mortality due to diarrhoeal disease primarily associated with floods and droughts are expected to rise in East, South and South-East Asia due to projected changes in the hydrological cycle.

### **Australia and New Zealand**

- ▶ By 2020, significant loss of biodiversity is projected to occur in some ecologically rich sites including the Great Barrier Reef and Queensland Wet Tropics.
- ▶ By 2030, water security problems are projected to intensify in southern and eastern Australia and, in New Zealand, in North Island and some eastern regions.
- ▶ By 2030, production from agriculture and forestry is projected to decline over much of southern and eastern Australia, and over parts of eastern New Zealand, due to increased drought and fire. However, in New Zealand, initial benefits are projected in some other regions.
- ▶ By 2050, ongoing coastal development and population growth in some areas of Australia and New Zealand are projected to exacerbate risks from sea level rise and increases in the severity and frequency of storms and coastal flooding.

### **Europe**

- ▶ Climate change is expected to magnify regional differences in Europe's natural resources and assets. Negative impacts will include increased risk of inland flash floods, and more frequent coastal flooding and increased erosion (due to storminess and sea-level rise).
- ▶ Mountainous areas will face glacier retreat, reduced snow cover and winter tourism, and extensive species losses (in some areas up to 60% under high emissions scenarios by 2080).
- ▶ In Southern Europe, climate change is projected to worsen conditions (high temperatures and drought) in a region already vulnerable to climate variability, and to reduce water availability, hydropower potential, summer tourism and, in general, crop productivity.
- ▶ Climate change is also projected to increase the health risks due to heatwaves, and the frequency of wildfires.

### **Latin America**

- ▶ By mid century, increases in temperature and associated decreases in soil water are projected to lead to gradual replacement of tropical forest by savanna in eastern Amazonia. Semi-arid vegetation will tend to be replaced by arid-land vegetation.
- ▶ There is a risk of significant biodiversity loss through species extinction

in many areas of tropical Latin America.

- ▶ Productivity of some important crops is projected to decrease and livestock productivity to decline, with adverse consequences for food security. In temperate zones soybean yields are projected to increase. Overall, the number of people at risk of hunger is projected to increase.
- ▶ Changes in precipitation patterns and the disappearance of glaciers are projected to significantly affect water availability for human consumption, agriculture and energy generation.

### **North America**

- ▶ Warming in western mountains is projected to cause decreased snowpack, more winter flooding, and reduced summer flows, exacerbating competition for over-allocated water resources.
- ▶ In the early decades of the century, moderate climate change is projected to increase aggregate yields of rain-fed agriculture by 5-20%, but with important variability among regions. Major challenges are projected for crops that are near the warm end of their suitable range or which depend on highly utilized water resources.
- ▶ During the course of this century, cities that currently experience heatwaves are expected to be further challenged by an increased number, intensity and duration of heatwaves during the course of the century, with potential for adverse health impacts.
- ▶ Coastal communities and habitats will be increasingly stressed by climate change impacts interacting with development and pollution.

### **Polar Regions**

- ▶ The main projected biophysical effects are reductions in the thickness and extent of glaciers and ice sheets and sea ice, and changes in natural ecosystems with detrimental effects on many organisms including migratory birds, mammals and higher predators.
- ▶ For human communities in the Arctic, impacts, particularly those resulting from changing snow and ice conditions are projected to be mixed.
- ▶ Detrimental impacts would include those on infrastructure and traditional indigenous ways of life.
- ▶ In both polar regions, specific ecosystems and habitats are projected to be vulnerable, as climatic barriers to species invasions are lowered.

### **Small Islands**

- ▶ Sea-level rise is expected to exacerbate inundation, storm surge, erosion and other coastal hazards, thus threatening vital infrastructure, settlements and facilities that support the livelihood of island communities.
- ▶ Deterioration in coastal conditions, for example through erosion of

beaches and coral bleaching is expected to affect local resources.

- ▶ By mid-century, climate change is expected to reduce water resources in many small islands, e.g., in the Caribbean and Pacific, to the point where they become insufficient to meet demand during low-rainfall periods.
- ▶ With higher temperatures, increased invasion by non-native species is expected to occur, particularly on mid- and high-latitude islands.

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## Not a Distant Prospect

*Ian Angus*

*Climate and Capitalism, March 10, 2009*

Global warming is not a distant prospect that might affect our grandchildren at the end of the century.

Anyone who opens a newspaper has read about the devastating heat wave and fires in Australia. And you've probably seen news of several studies that conclude that global warming and CO<sub>2</sub> emissions have already exceeded the worst case scenarios in the IPCC's 2007 reports.

But those big stories are just the tip of the (rapidly melting) iceberg. The following items from various news sources are just a sampling of many I gathered in January and February, 2009. Most are based on peer-reviewed reports by climate scientists.

It's here, and it's very real.

- ▶ Canada's forests, stressed by global warming, insect infestations and persistent fires, are now pumping out more carbon dioxide than they absorb. *Chicago Tribune, Jan. 2*
- ▶ Ten million people are facing hunger in Kenya after harvests failed because of drought. The government has declared a national emergency. *Associated Press, Jan. 9*
- ▶ Some regions of Antarctica, particularly the peninsula that stretches toward South America, have warmed rapidly in recent years, contributing to the disintegration of ice shelves and accelerating the sliding of glaciers. *New York Times, Jan. 22*
- ▶ There has been a "sudden and dramatic collapse" in the amount of CO<sub>2</sub> absorbed by the Sea of Japan. Absorption from 1999 to 2007 was half the level of 1992 to 1999. *Guardian (UK) Jan. 12*
- ▶ A study of past heat waves of the past predicts severe food shortages and rising malnutrition, especially in places where people are already poor and hungry. Crop yields may fall 20, 30, or 40 percent in some cases. *Discover.com, Jan. 21*

- ▶ The U.S. Geological Survey says the death rates of trees in western U.S. forests have doubled over the past two to three decades, driven in large part by warmer temperatures and water scarcity linked to climate change. *Washington Post, Jan. 22*
- ▶ If CO<sub>2</sub> concentrations reach 450 to 600 parts per million, up from about 385 ppm today, problems like inexorable sea level rise and massive droughts will last for at least a thousand years. *New York Times, Jan. 27*
- ▶ The world's marine ecosystems risk being severely damaged by ocean acidification. PH levels are changing 100 times faster than natural variability. *BBCNews.com, Feb. 1*
- ▶ The Earth's seasons have shifted back in the calendar year, with the hottest and coldest days of the years now occurring almost two days earlier. *LiveScience, Feb. 3*
- ▶ 33 countries, including Malawi, Guinea, Senegal, Uganda, Bangladesh, Cambodia, Vietnam, Peru and Colombia are highly vulnerable to the effects of climate change because of their heavy reliance on fisheries and limited alternative sources of protein. *Agence France-Presse, Feb. 5*
- ▶ U.S. energy secretary Steven Chu says water shortages could eliminate all agriculture in California by the end of the century. *Los Angeles Times, Feb. 4*
- ▶ The ice caps are melting so fast that the world's oceans are rising more than twice as fast as they were in the 1970s. *Times (UK), Feb. 8*
- ▶ Since October, drought has killed 1.5 million cattle in Argentina. *Washington Post, Feb. 9*
- ▶ The Audubon Society says more than half of 305 bird species in North America are spending the winter about 35 miles farther north than they did 40 years ago. *Associated Press, Feb. 10*
- ▶ One of the largest penguin colonies in the world is under threat because the birds are being forced to swim 25 miles further from their nesting sites than they did only a decade ago, to find food. The colony has already declined by a fifth in the past 22 years. *Independent (UK), Feb. 9*
- ▶ Researchers in Norway report that atmospheric levels of carbon dioxide rose to 392 parts per million in December, up 2-3 ppm from the same time a year earlier. *Reuters, Feb. 12*
- ▶ Warmer temperatures are at least partly to blame for a surge in malaria cases in the highlands of East Africa and the increasing development of drug-resistant strains of the disease. *Daily Climate, Feb. 16*
- ▶ Indonesia's outermost islands face the risk of disappearing altogether because of human-induced climate change. *Jakarta Post, Feb. 17*
- ▶ The U.N. Environment Program says that up to a quarter of global food production could be lost by 2050 due to the combined impact of climate change, land degradation and loss, water scarcity and species infestation.

Cereal yields have already stagnated worldwide and fish catches are declining. *Reuters, Feb. 17*

- ▶ Global climate change threatens the complete disappearance of the Andes' tropical glaciers within the next 20 years, putting water, energy and food sources at risk, the World Bank says. Glacial retreat has already reduced by 12 percent the water supply to Peru's dry coastline, where 60 percent of the country's population lives. *Associated Press, Feb. 18*
- ▶ Russia will likely see more forest fires, droughts and floods in the coming century due to global warming, and policy makers need to prepare for large-scale change. Over the past 100 years, air temperatures in Russia warmed by around 1.29 degrees C., compared with 0.74 degrees C. globally. *Associated Press, Feb. 18*
- ▶ Nearly one quarter of Papua New Guinea's rainforests were damaged or destroyed between 1972 and 2002. *Mongobay, Feb. 23*
- ▶ Glaciers in the Pyrenees, which covered 3300 hectares a century ago, now cover 390 hectares. Worldwide, in 1996-2005, glaciers melted twice as fast as in the previous 10 years. *Guardian, Feb. 23*
- ▶ As a result of drought in Northern China, about 4.7 million people and 2.5 million head of livestock now lack adequate drinking water. *New York Times, Feb. 26*
- ▶ California's Governor Arnold Schwarzenegger has declared a state of emergency because of a severe drought. *BBCNews.com, Feb. 28*

And by the way: poor countries have received less than 10% of the money promised by rich countries to help them adapt to global warming. The world's richest countries have together pledged nearly \$18bn (£12.5bn) in the last seven years, but less than \$0.9bn has been delivered. (*Guardian, Feb. 20*)