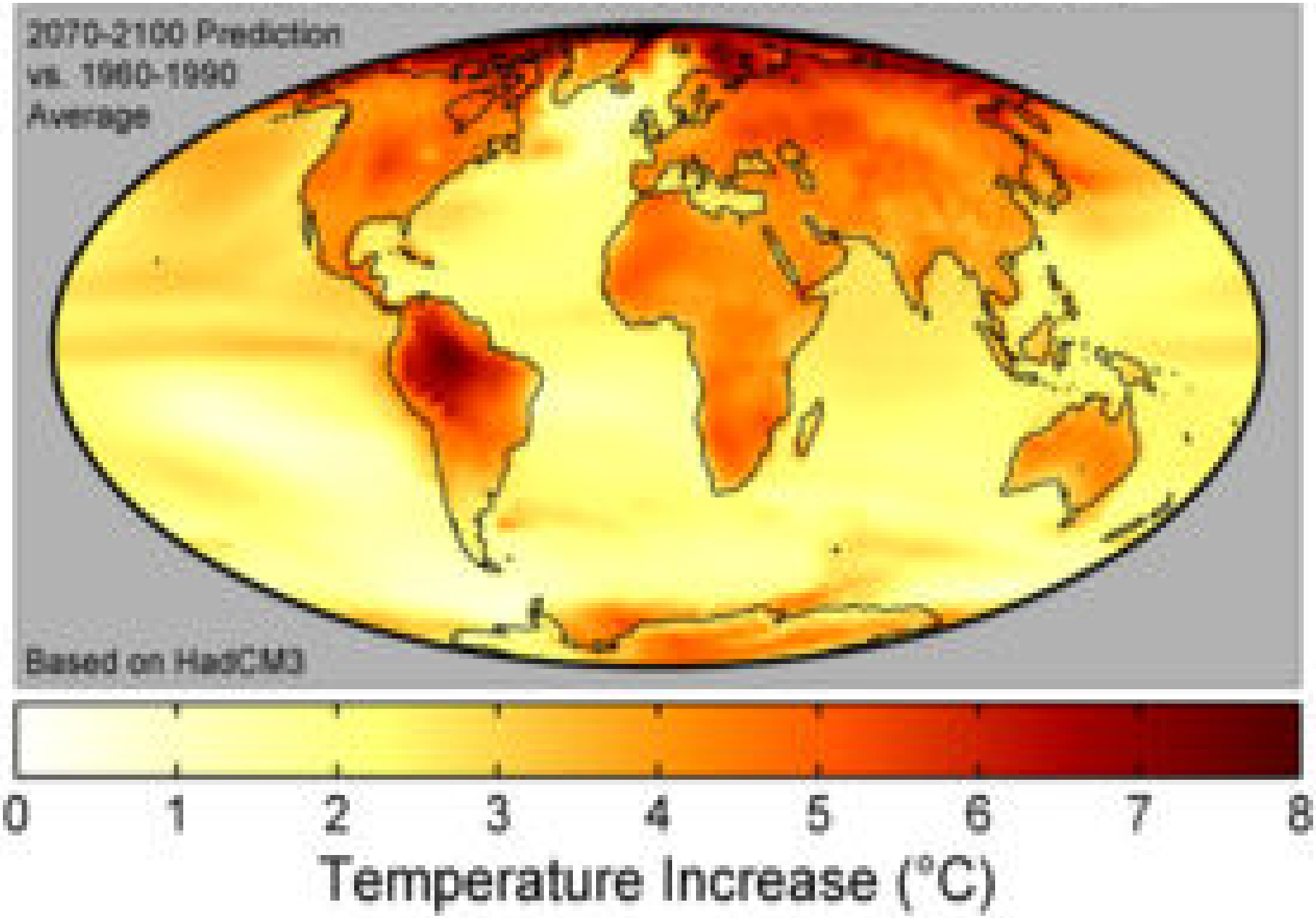
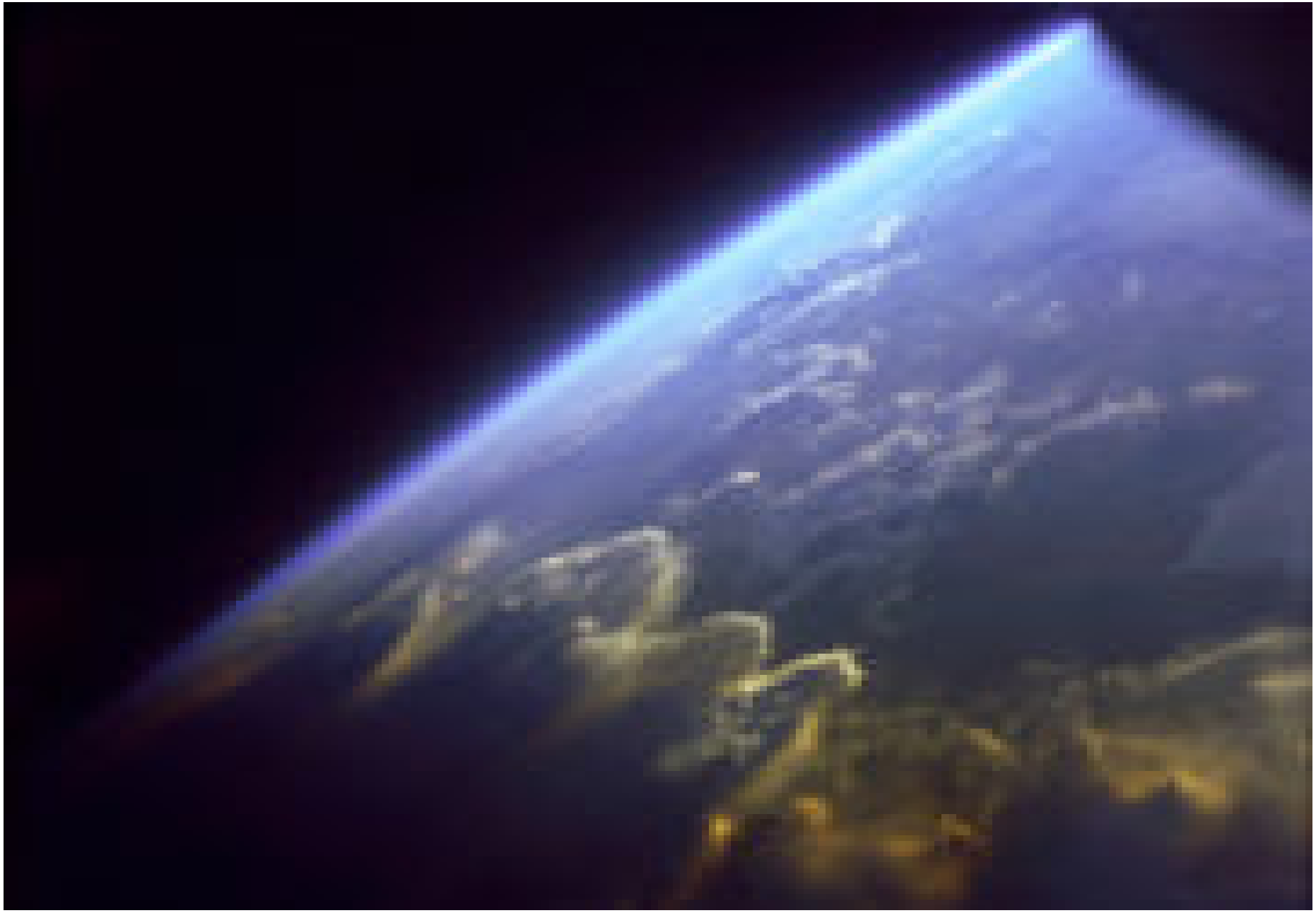
By far the most terrifying film
you will ever see.

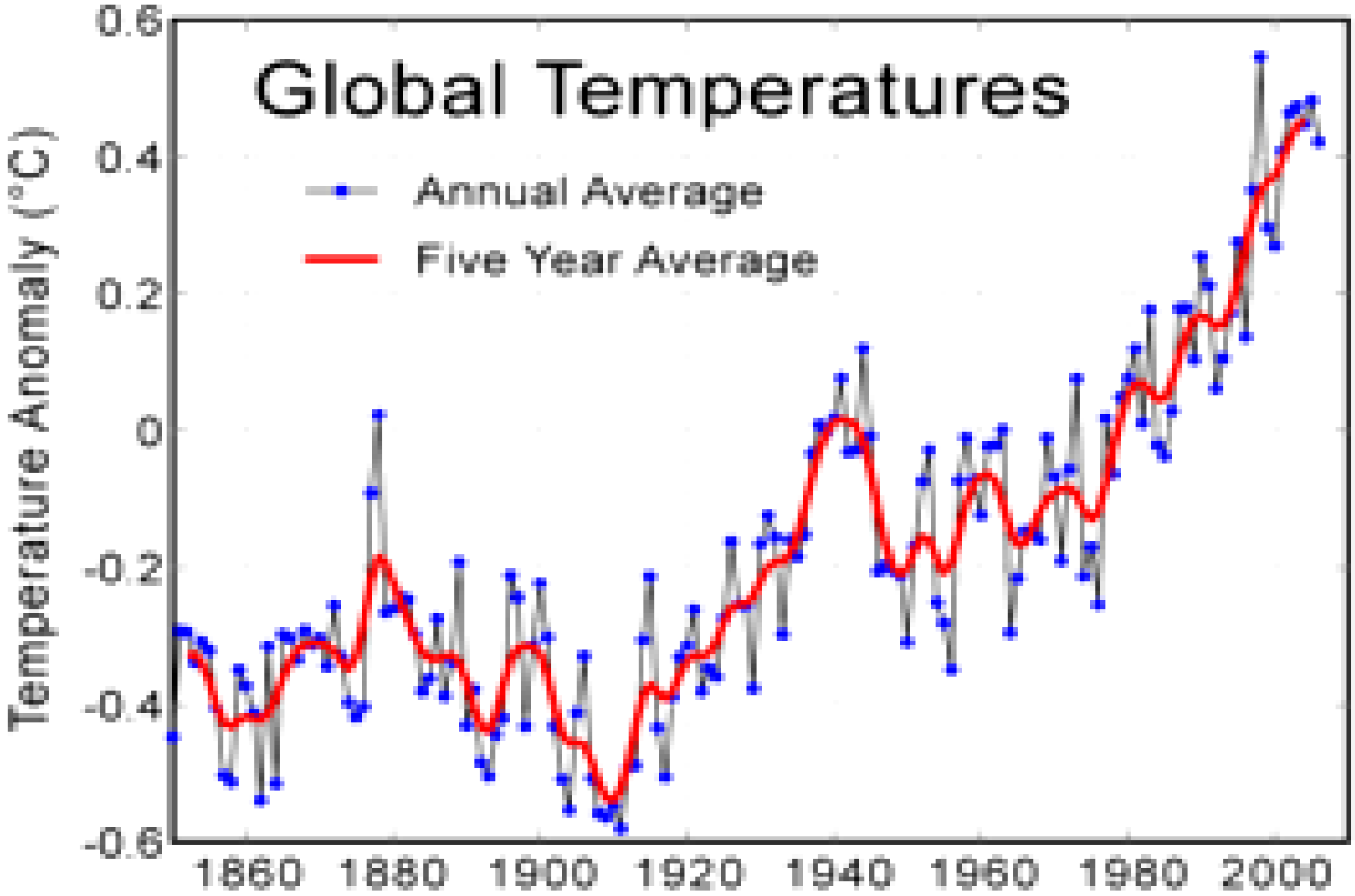
Global Warming Predictions





Earth’s atmosphere from space

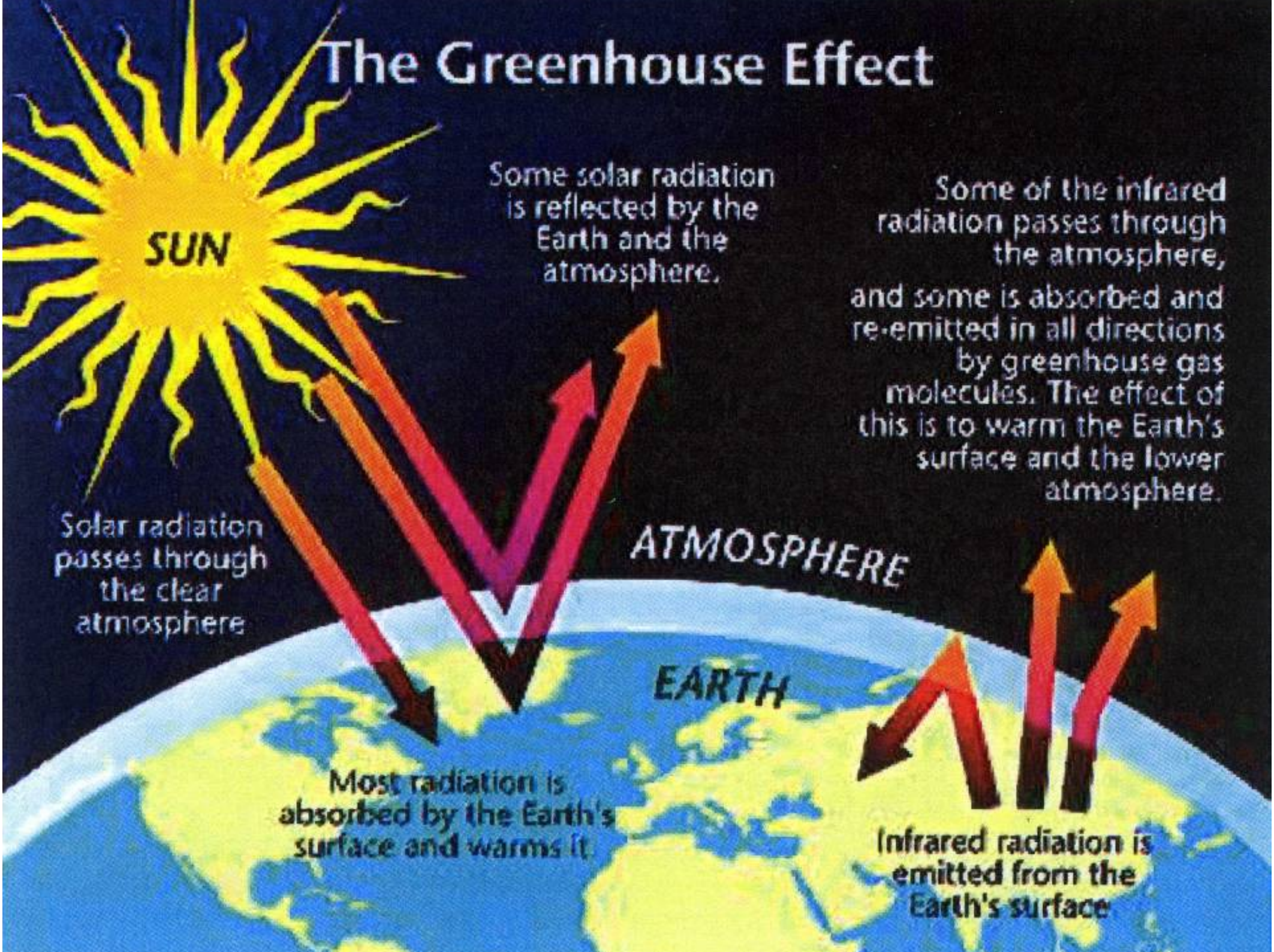
Nitrogen	78.084 %
Oxygen	20.946 %
Argon	0.934 %
Carbon dioxide	0.038 %
Water vapor	> 1 %
Other	0.002 %



Global mean surface temperature anomaly 1850 to 2006

relative to 1961 - 1960

The Greenhouse Effect



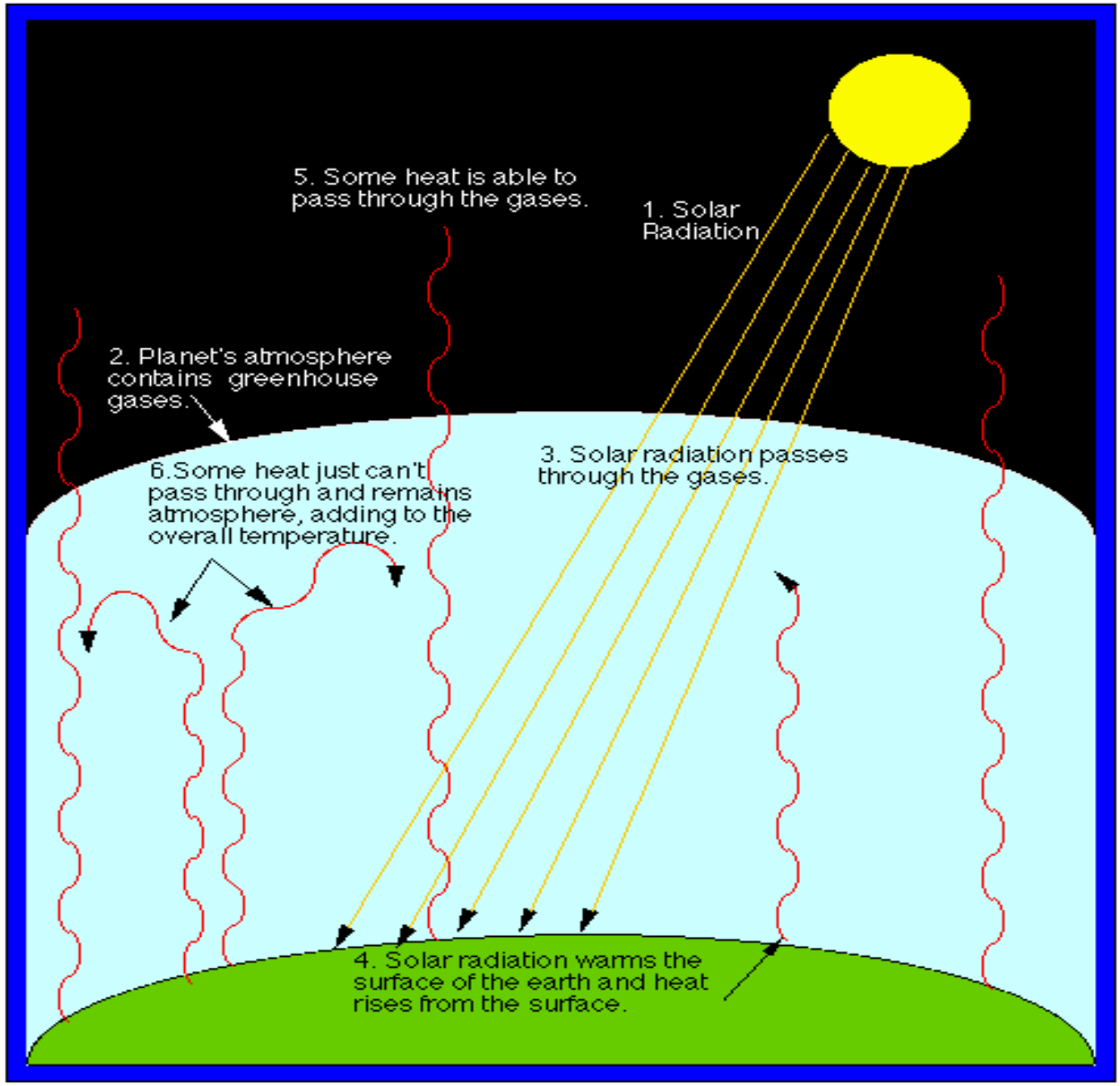
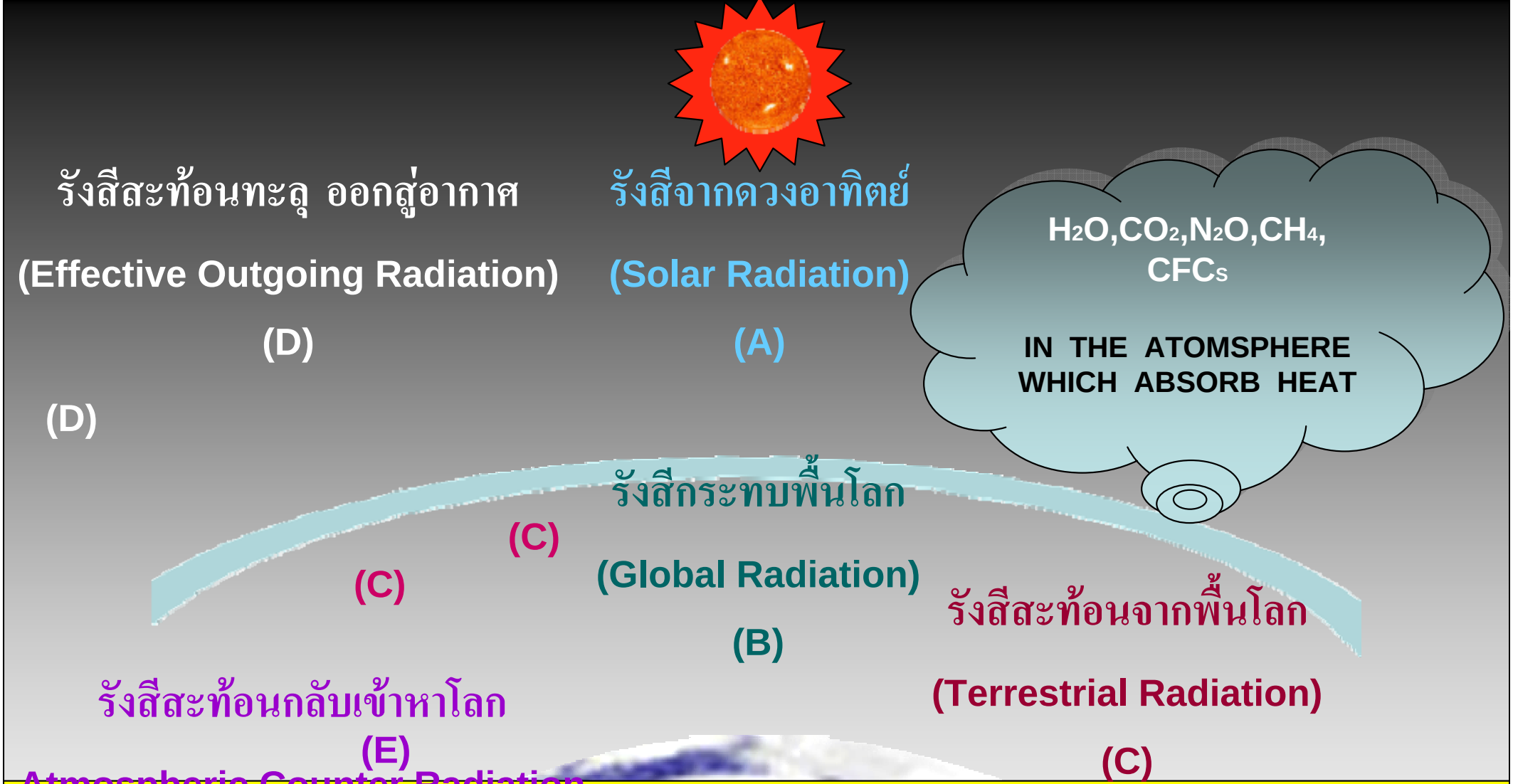


Diagram to help explain the process of global warming and how greenhouse gases create the " greenhouse effect"

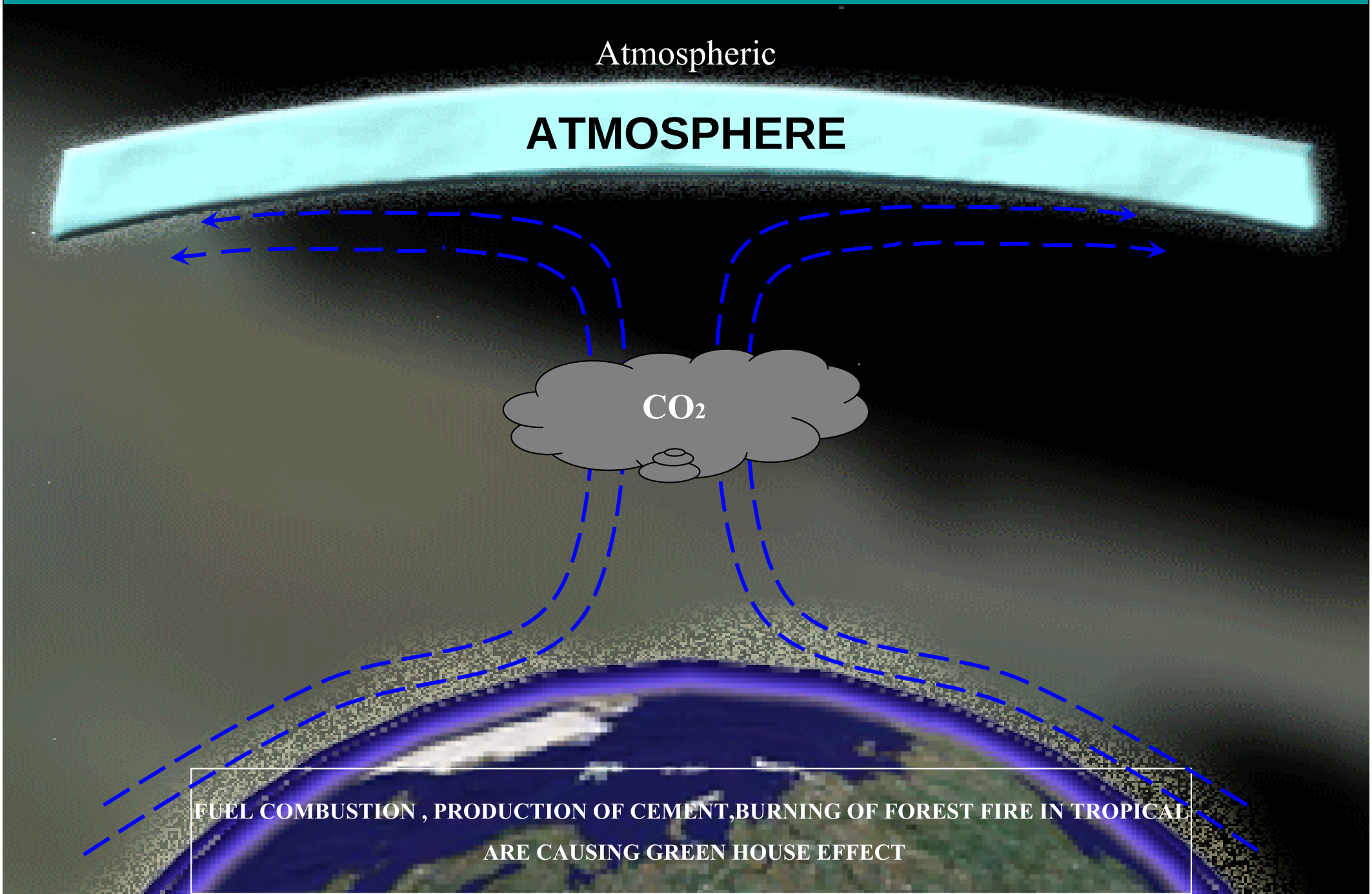
MAJOR SIGNIFICANT GAS IN THE ATMOSPHERE

- NITROGEN	78.084 %
- OXYGEN	20.946 %
- ARGON	0.934 %
- CARBON DIOXIDE	0.033%
- METHANE	0.0002%
- NITROUSOXIDE	0.00005%



	A: Solar Radiation	รังสีจากดวงอาทิตย์
	B: Global Radiation	รังสีกระทบพื้นโลก
	C: Effective Outgoing Radiation	รังสีสะท้อนจากพื้นโลก
	D: Effective Outgoing Radiation	รังสีสะท้อนทะลุผ่านออกสู่อากาศ
	E: Atmospheric Counter Radiation	รังสีสะท้อนกลับเข้าหาโลก

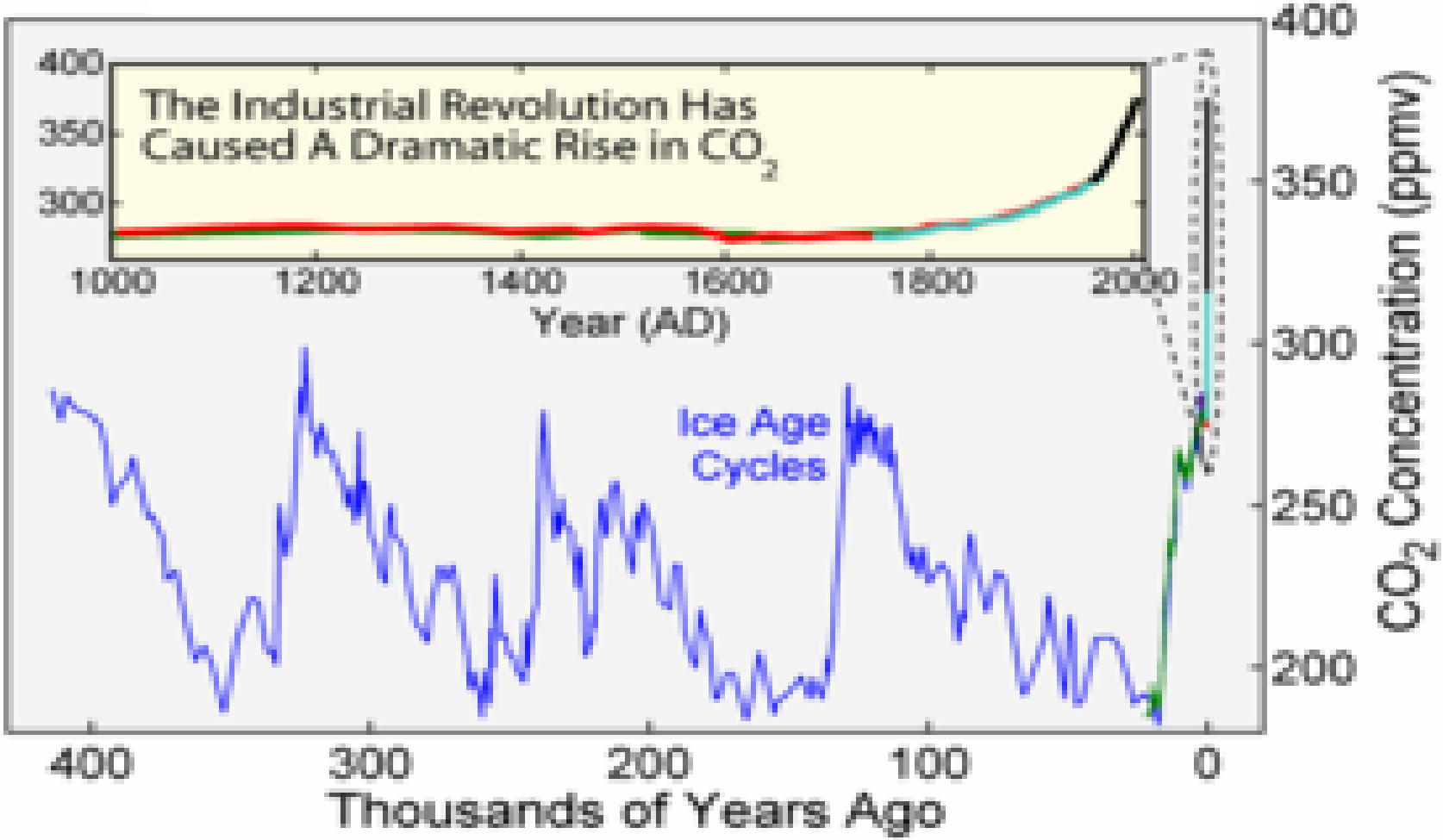
HUMAN ACTIVITY THAT CAUSE AN INCREASING AMOUNT OF CARBON DIOXIDE IN THE ATMOSPHERE



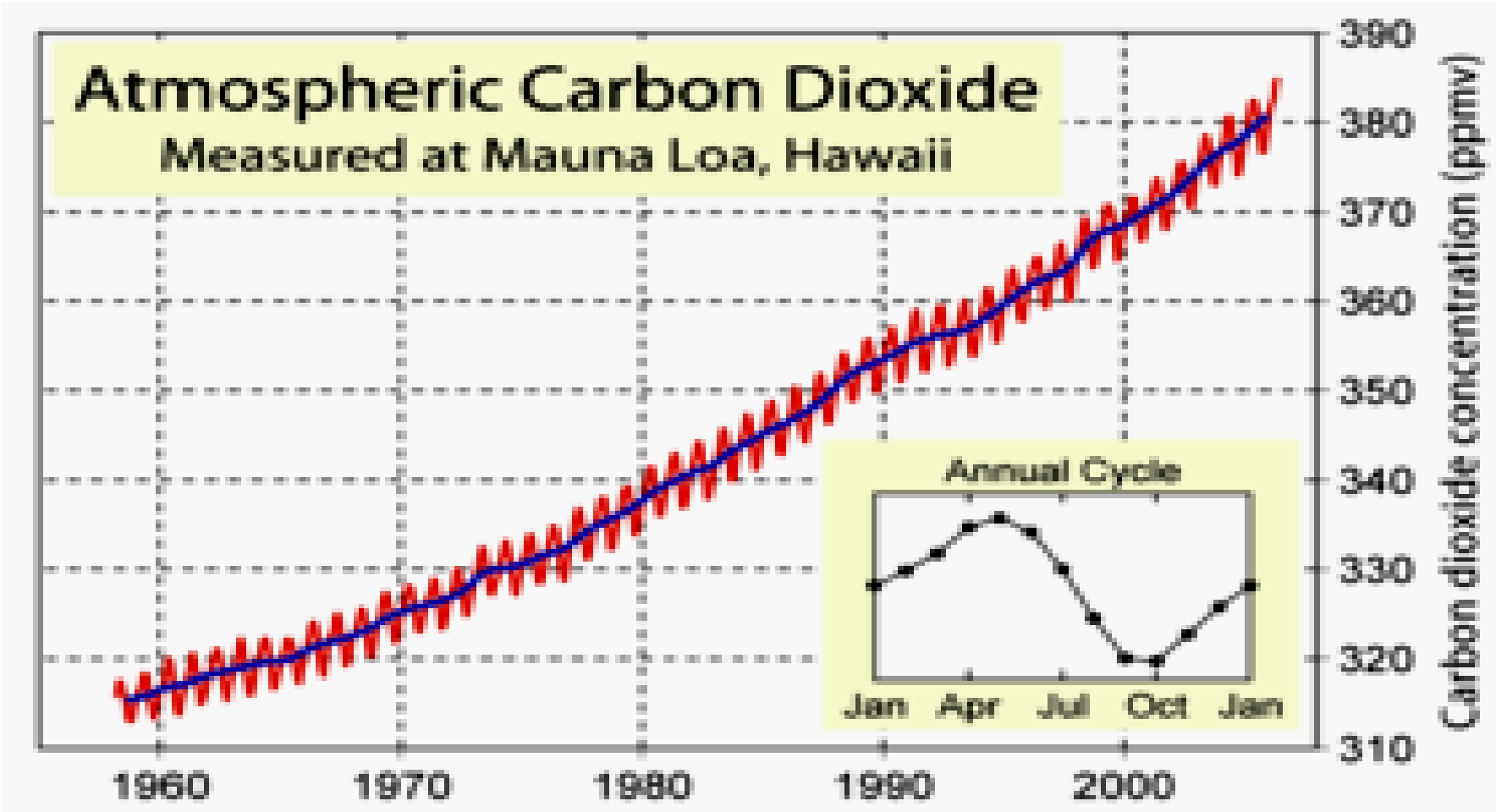
FUEL COMBUSTION , PRODUCTION OF CEMENT,BURNING OF FOREST FIRE IN TROPICAL

ARE CAUSING GREEN HOUSE EFFECT

Carbon Dioxide Variations

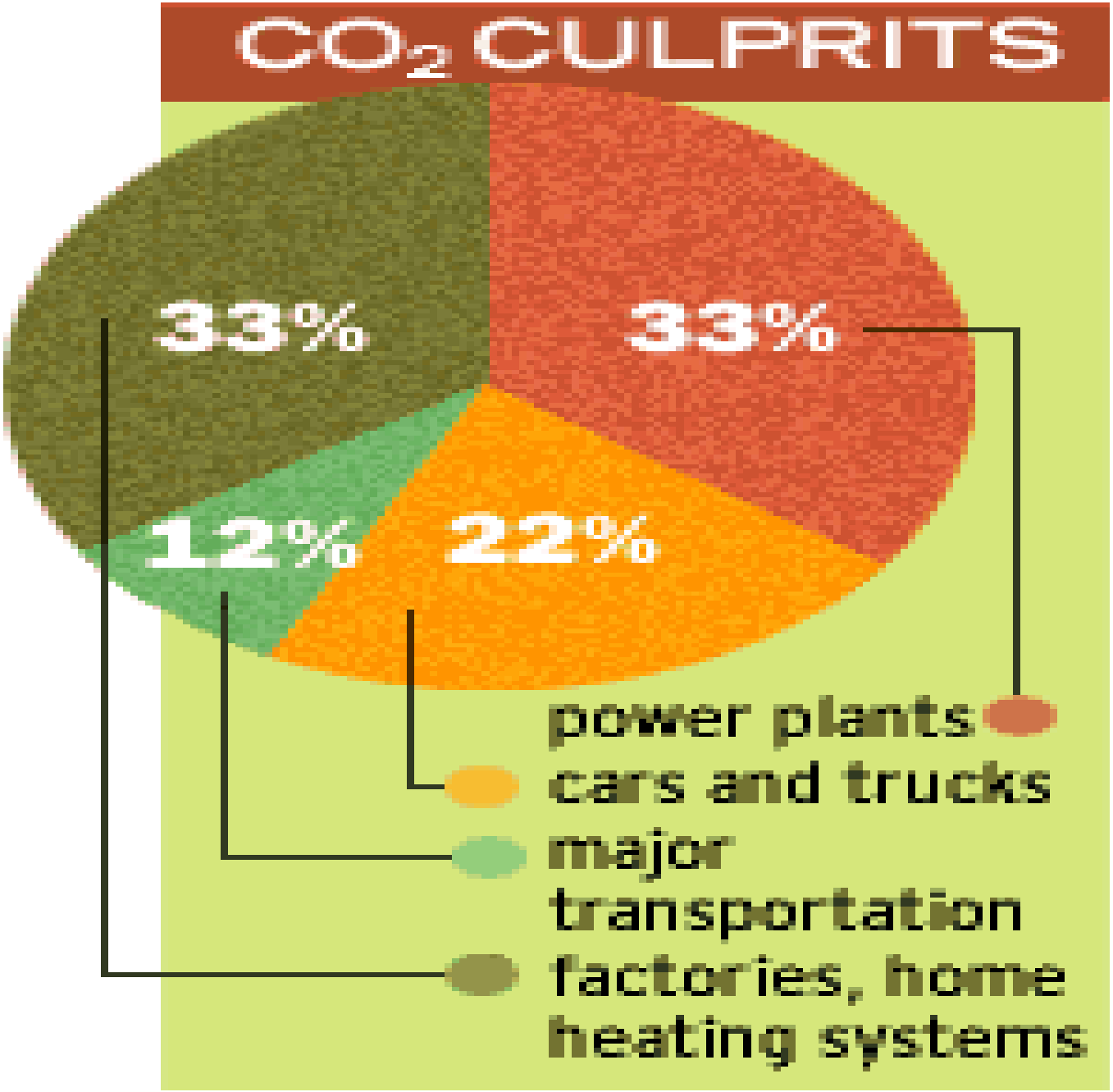


Carbon dioxide during the last 400,000 years and (inset above) the rapid rise since the Industrial Revolution; changes in the Earth's orbit around the Sun, known as Milankovitch cycles, are believed to be the pacemaker of the 100,000 year ice age cycle.

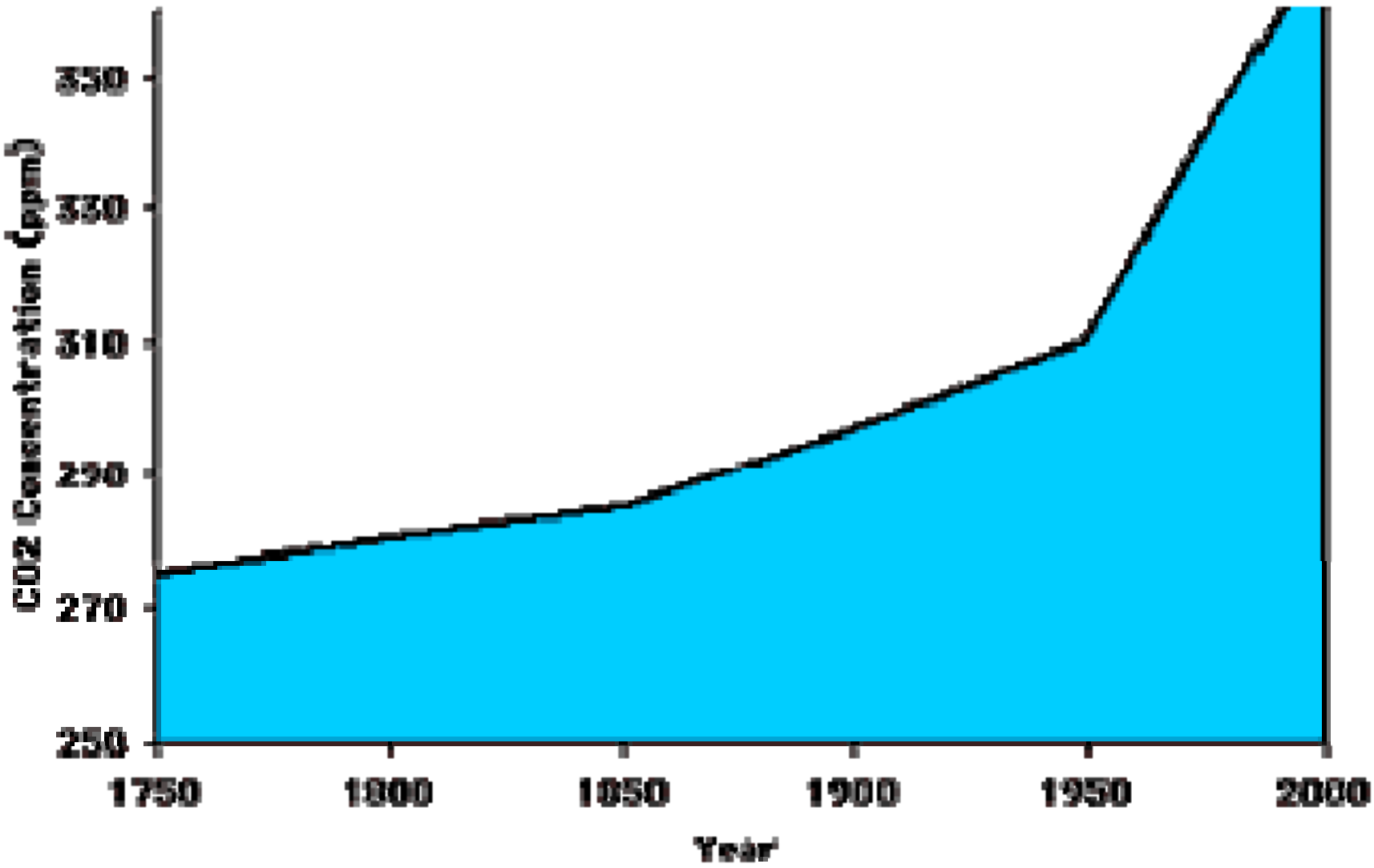


Recent increases of atmospheric carbon dioxide (CO_2).The monthly CO_2 measurement displays small seasonal oscillations in an overall yearly uptrend; yearly maximum level is reached during the northern hemisphere's late spring, and declines during the northern hemisphere growing season as plants remove some CO_2 from the atmosphere.

Cars also contribute to CO_2 in the atmosphere.

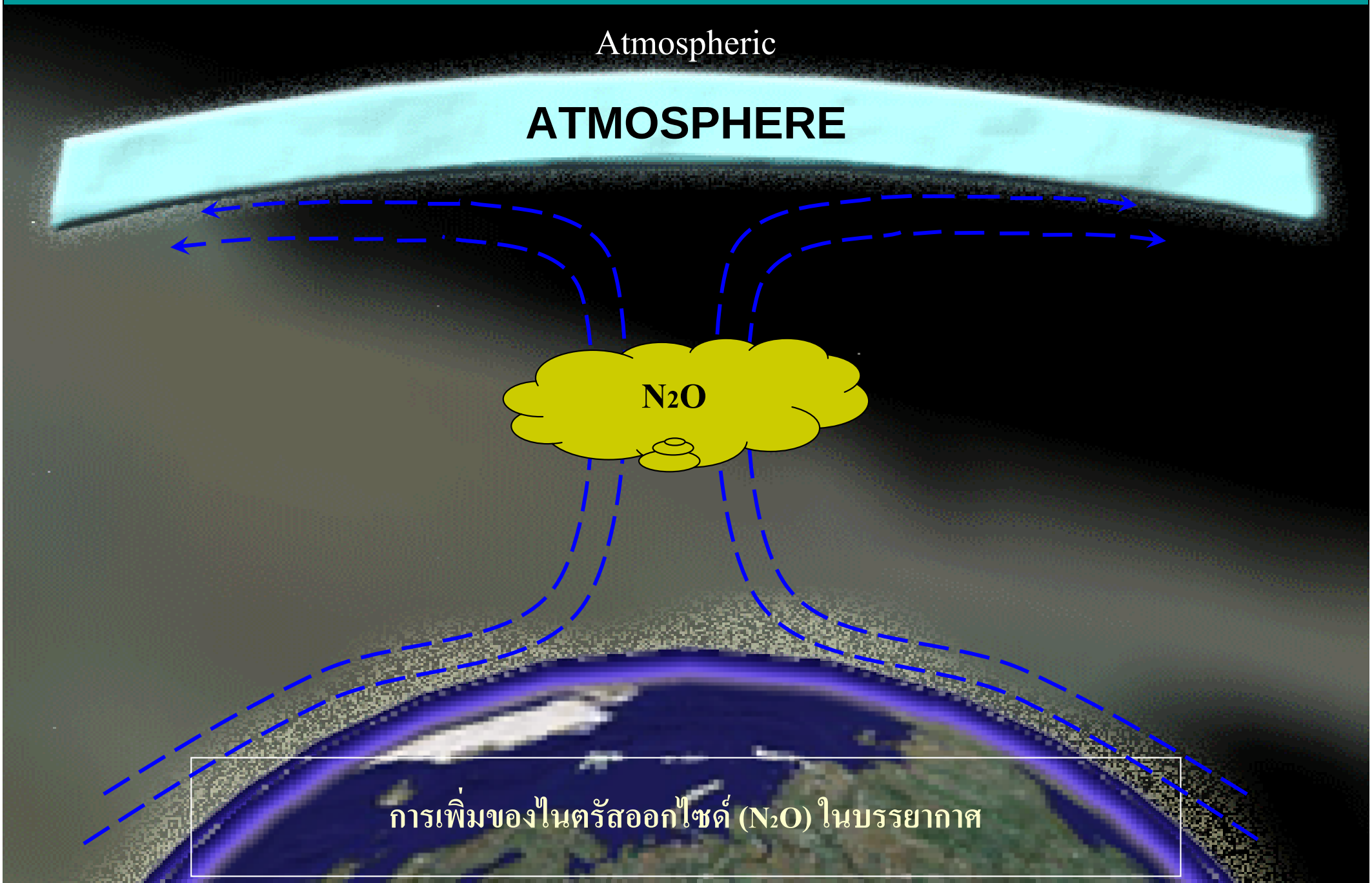


Pie chart shows how CO_2 is produced



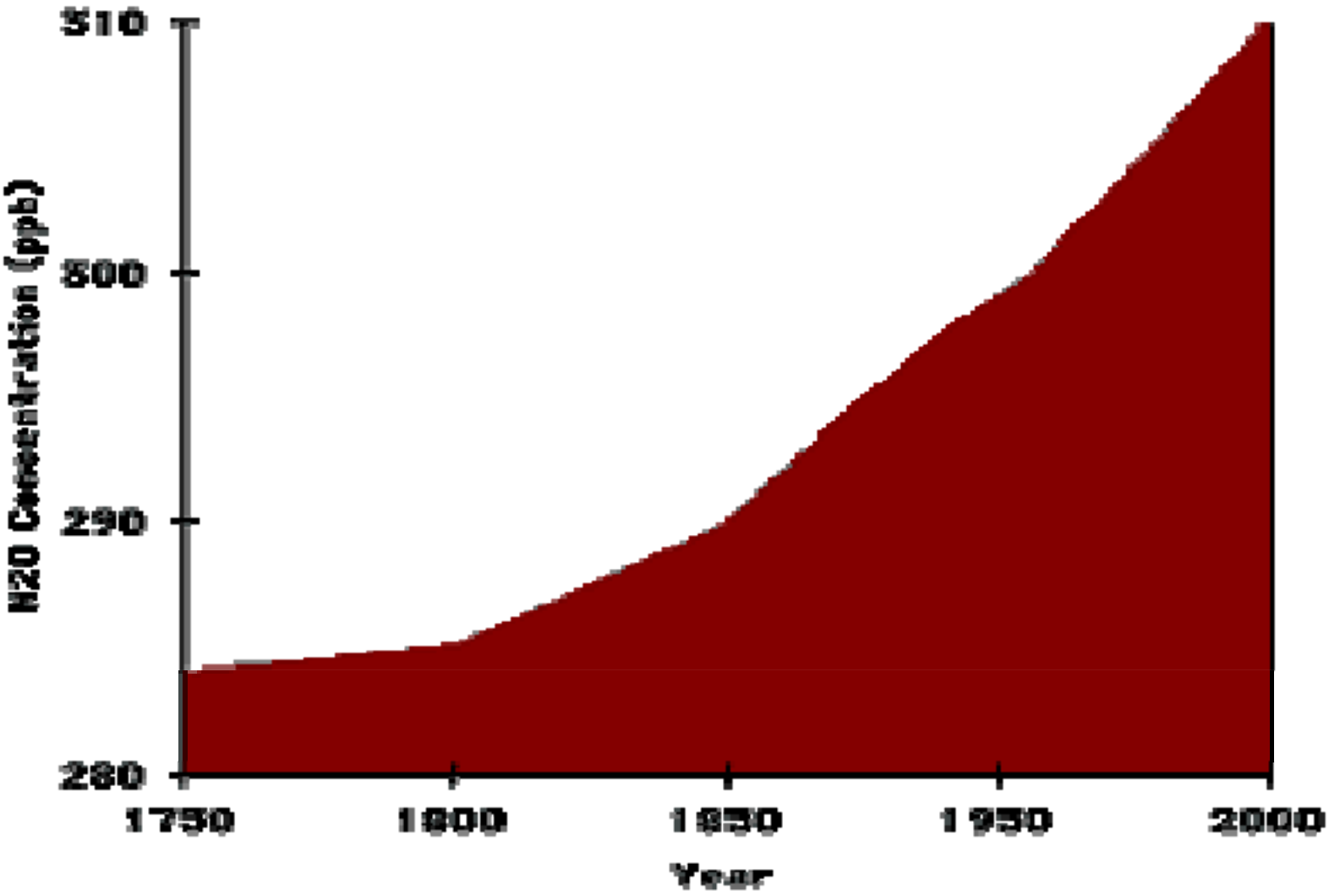
This graph shows the increase of carbon dioxide in the air over the past few centuries

HUMAN ACTIVITY CAUSING USAGE OF N_2O SPECIFICALLY IN FERTILIZER PRODUCTION , COMBUSTION OF FUEL GAS ,USAGE OF NITRIC ACID IN CHEMICAL INDUSTRY OR PLASTIC INDUSTRY



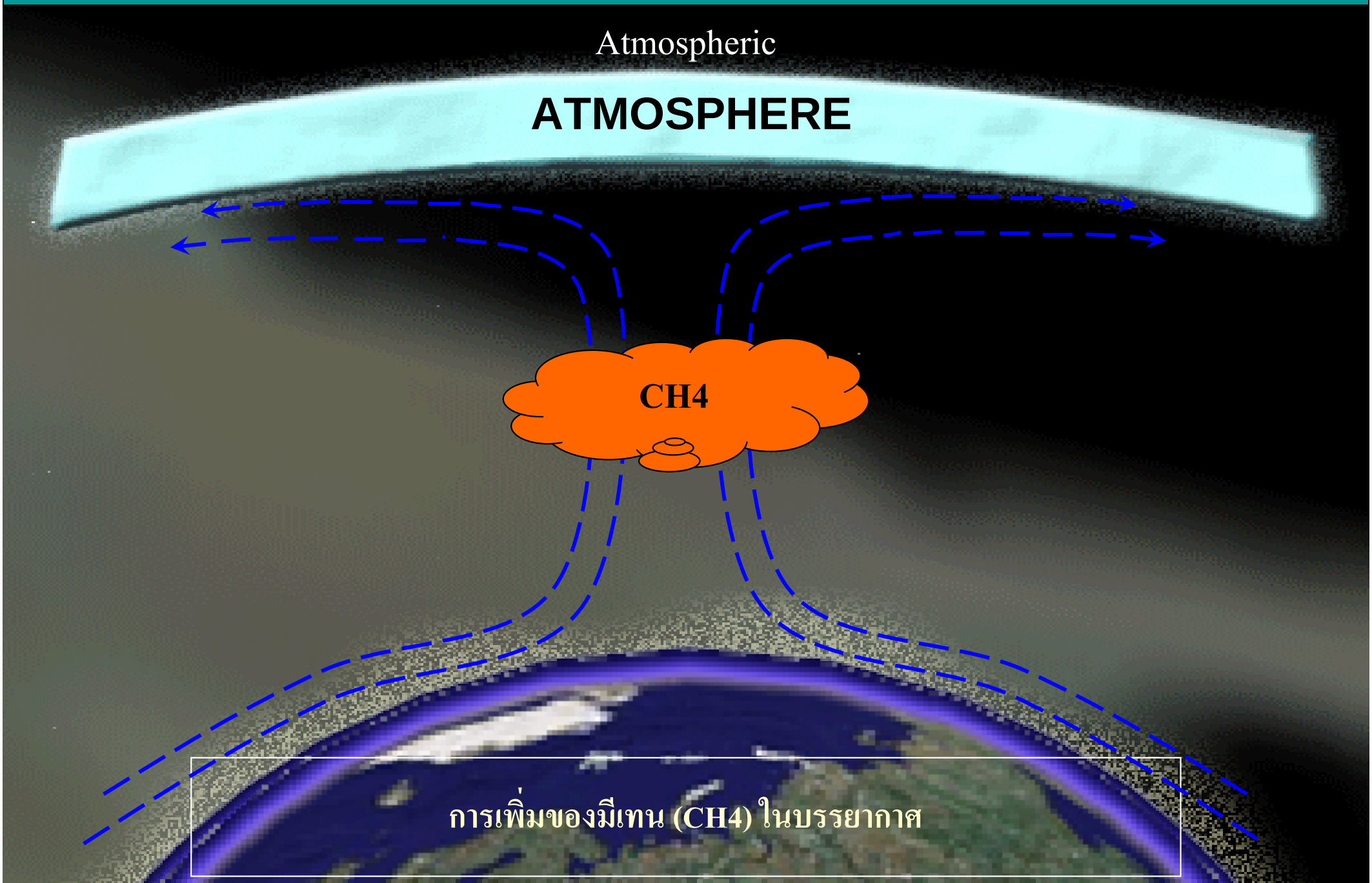
การเพิ่มของไนตรัสออกไซด์ (N_2O) ในบรรยากาศ

Greenhouse Gases



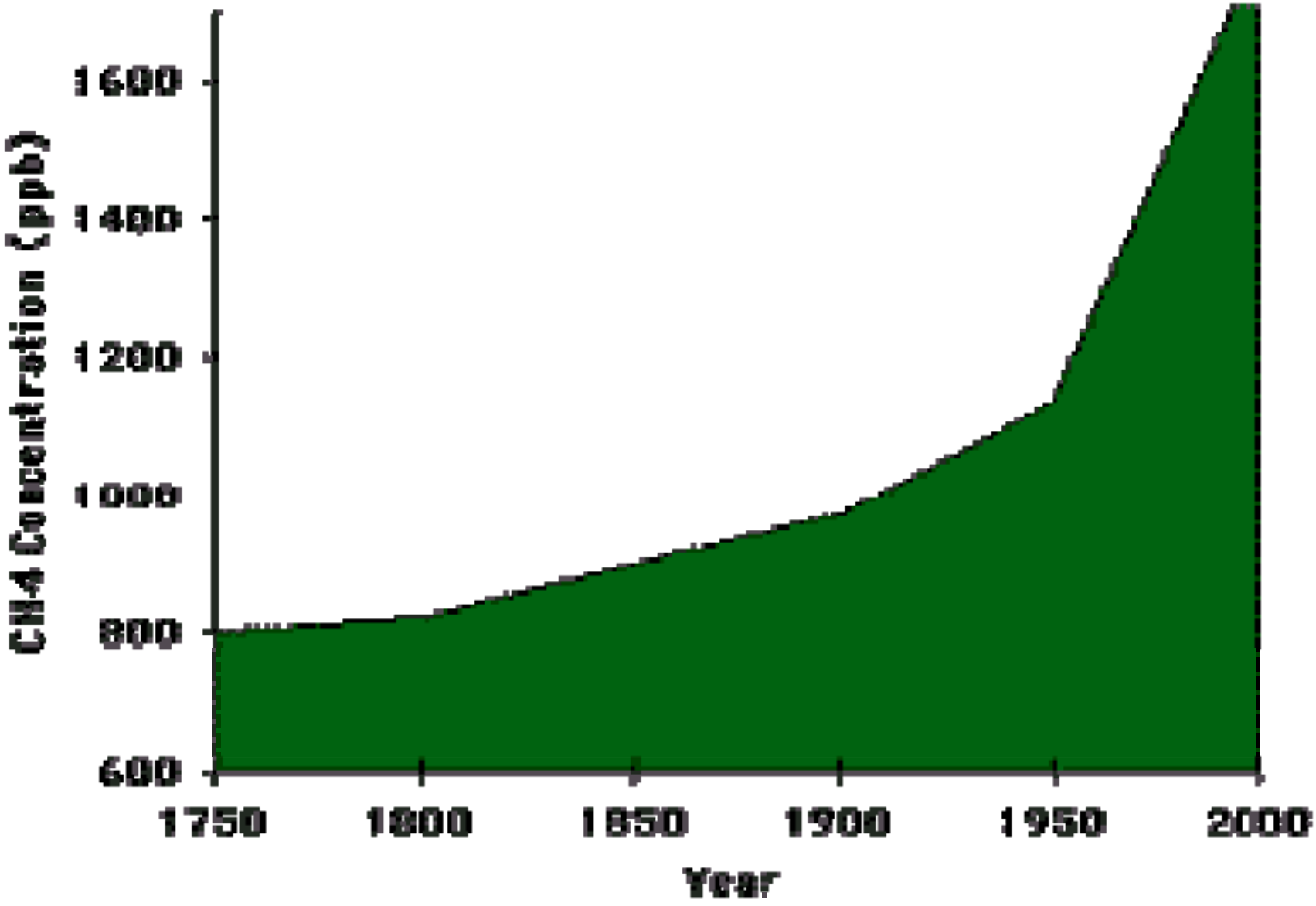
Nitrous Oxide has risen since 1750

CERTAIN HUMAN ACTIVITY CAUSING USAGE OF CH4 CREATED FROM ANIMAL WASTE (COW, BUFFALO) , RESULT OF BURNING TOO MUCH COAL AND NATURAL GAS FOR ENERGY



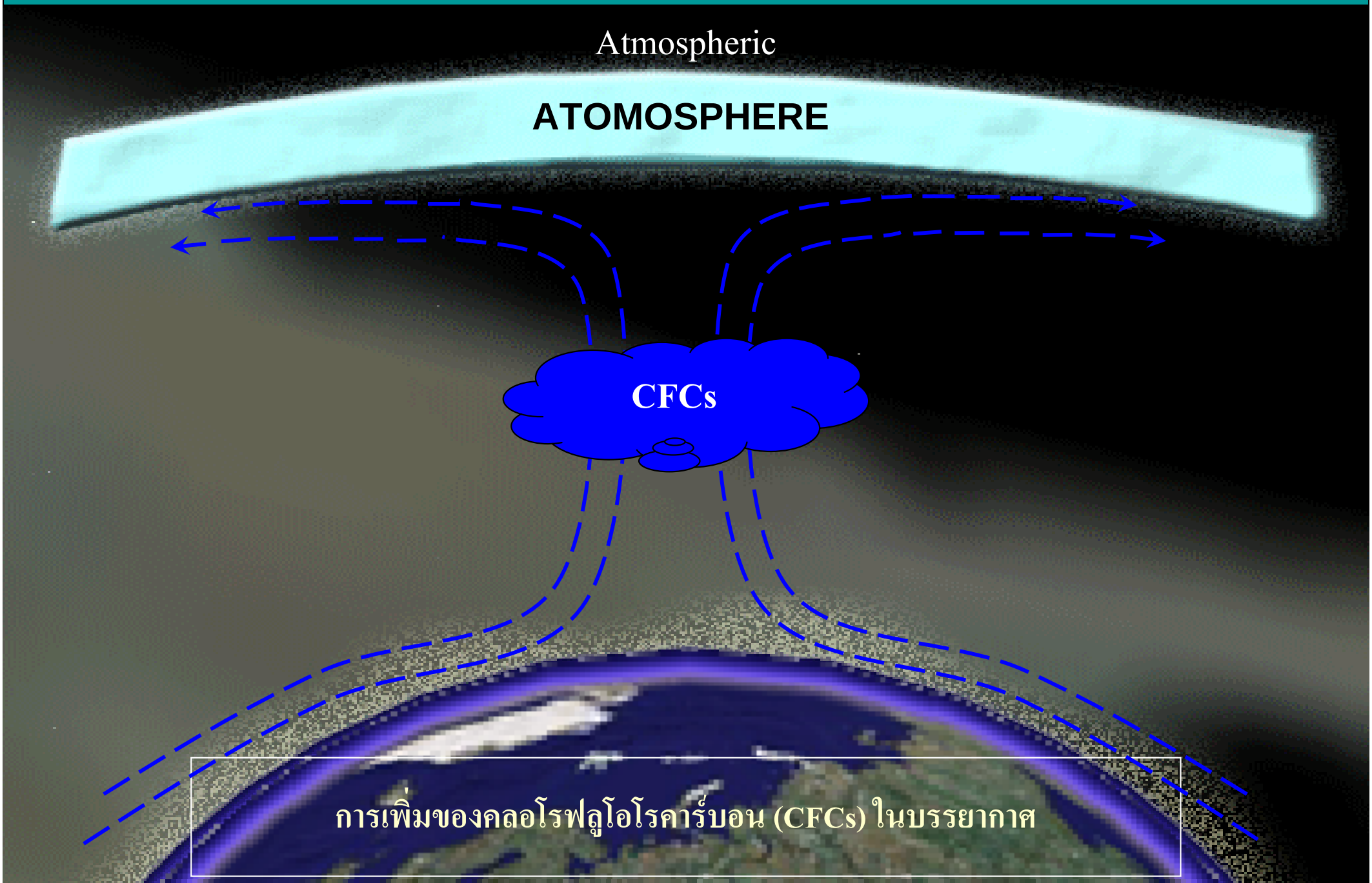
การเพิ่มของมีเทน (CH4) ในบรรยากาศ

Cattles normally contribute a large amount of methane to the air.



Methane has risen since 1750

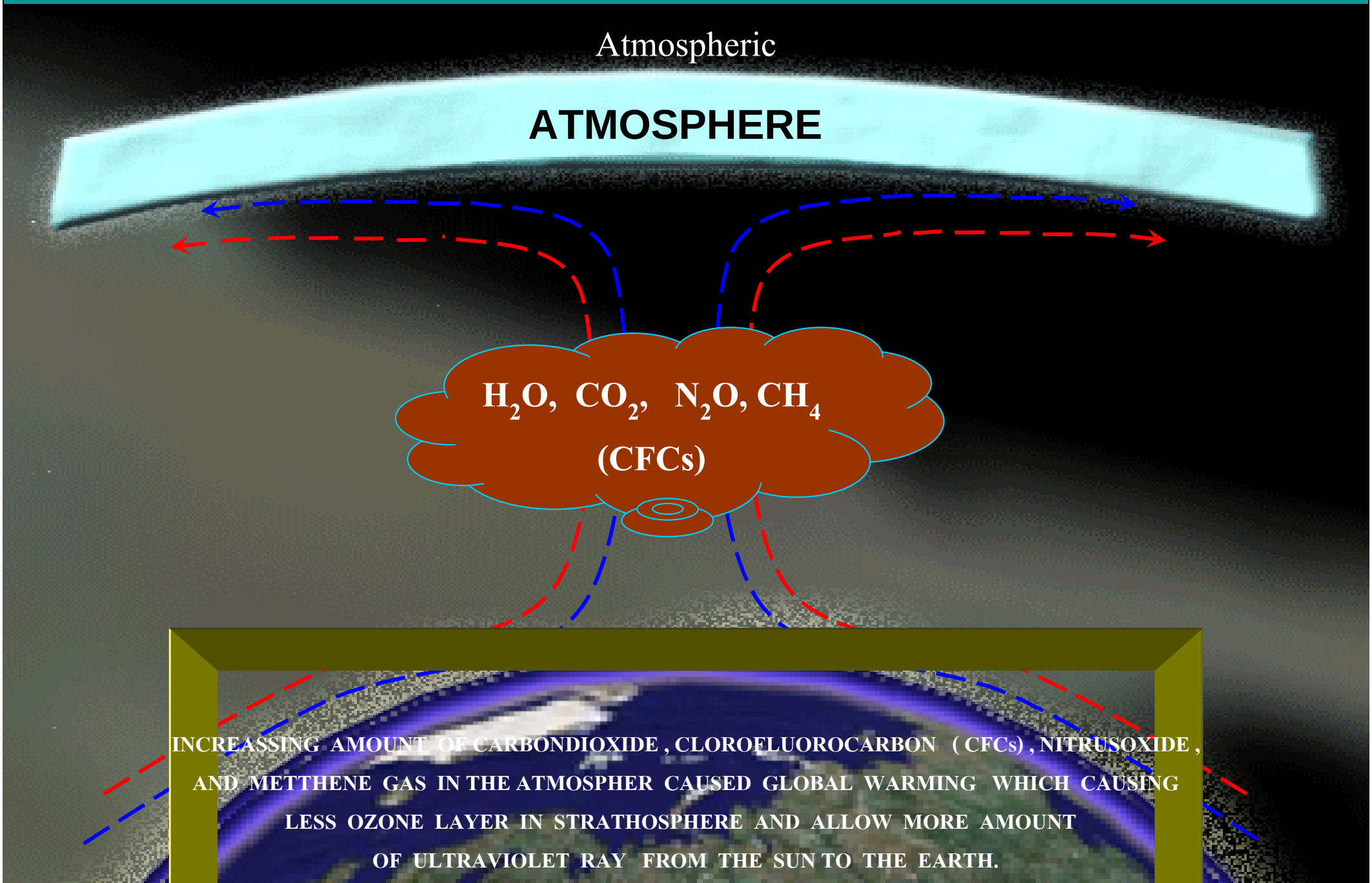
CERTAIN HUMAN ACTIVITY CAUSING USAGE OF CFCS IN DIFFERENT INDUSTRY ESSPECALLY REFRIGERATING INDUSTRY , AIRCONDITIONING, FIRE EXTINGUISHER , FOAM , DETERGENT AND CHEMICAL IN ELECTRONIC INDUSTRY



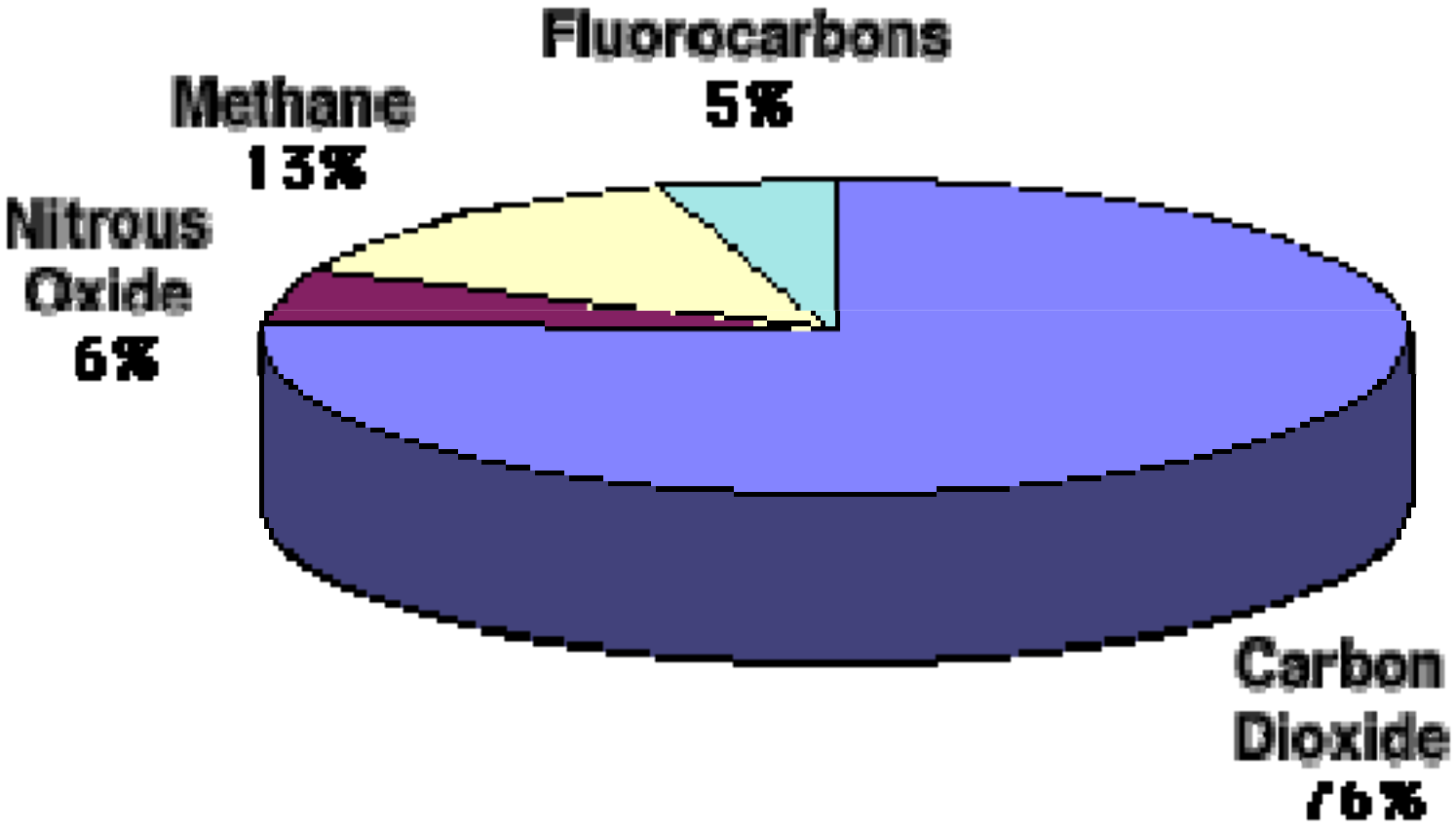
การเพิ่มของคลอโรฟลูโอโรคาร์บอน (CFCs) ในบรรยากาศ

CERTAIN HUMAN ACTIVITY CAUSING USAGE OF CFCS IN DIFFERENT INDUSTRY ESSPECALLY REFRIGERATING INDUSTRY , AIRCONDITIONING, FIRE EXTINGUISHER , FOAM , DETERGENT AND CHEMICAL IN ELECTRONIC INDUSTRY

COMBUSTION OF FUEL , PRODUCTION OF CEMENT, AND FOREST BURNING CONTRIBUTE TO GREENHOUSE EFFECT

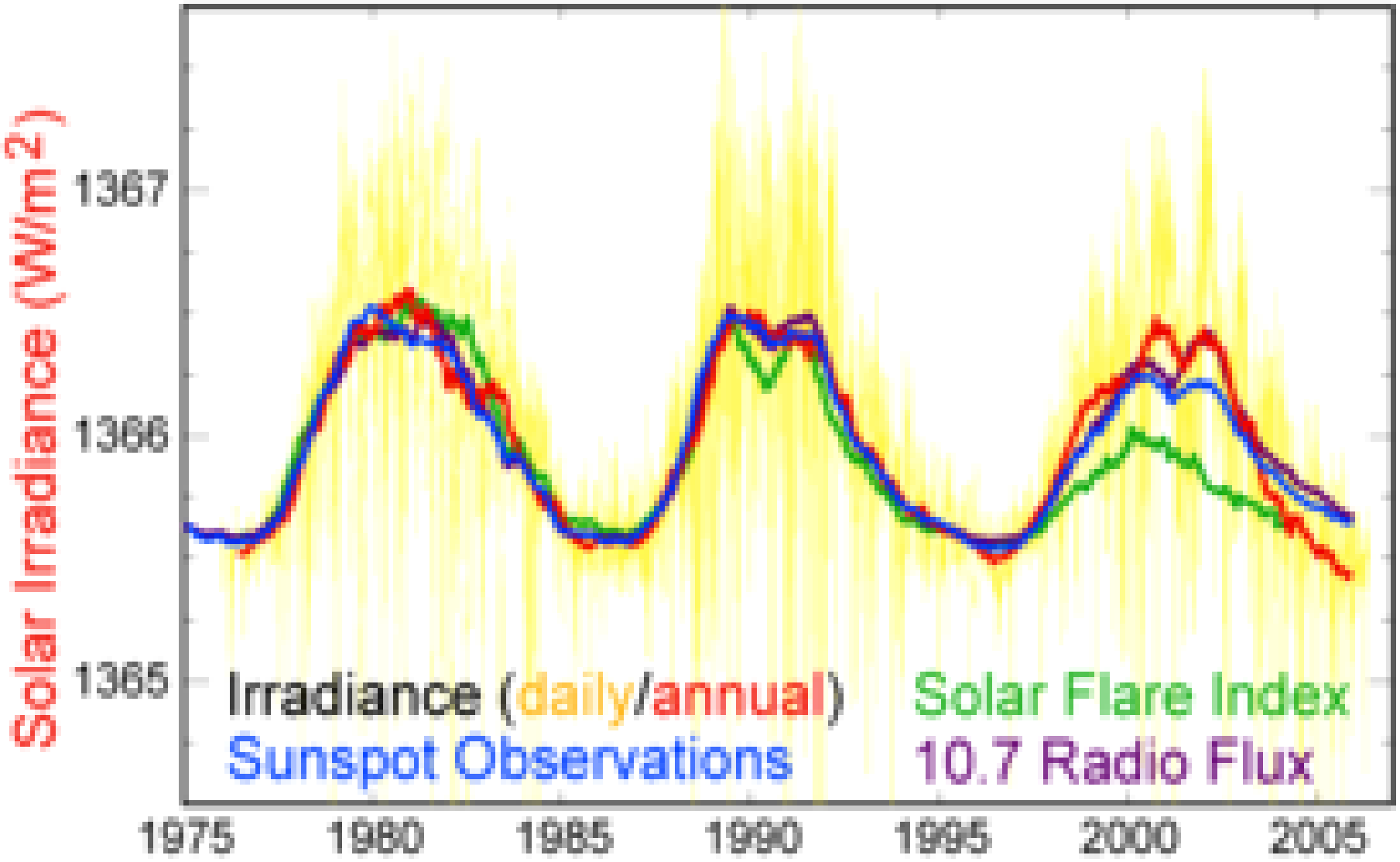


Greenhouse Gases

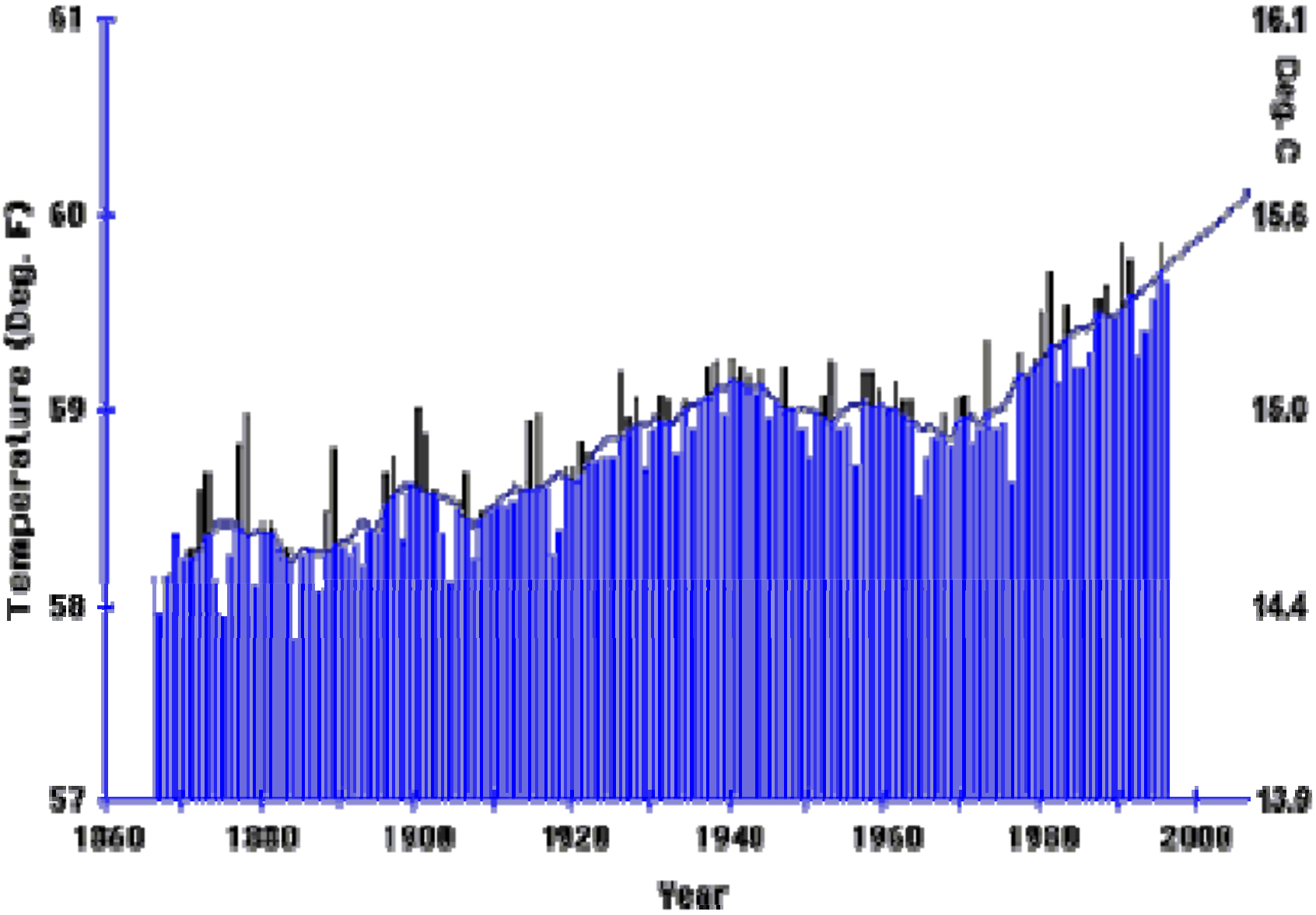


This graph shows the distribution of GHG in the Earth's atmosphere. Carbon Dioxide is clearly the majority.

Solar Cycle Variations

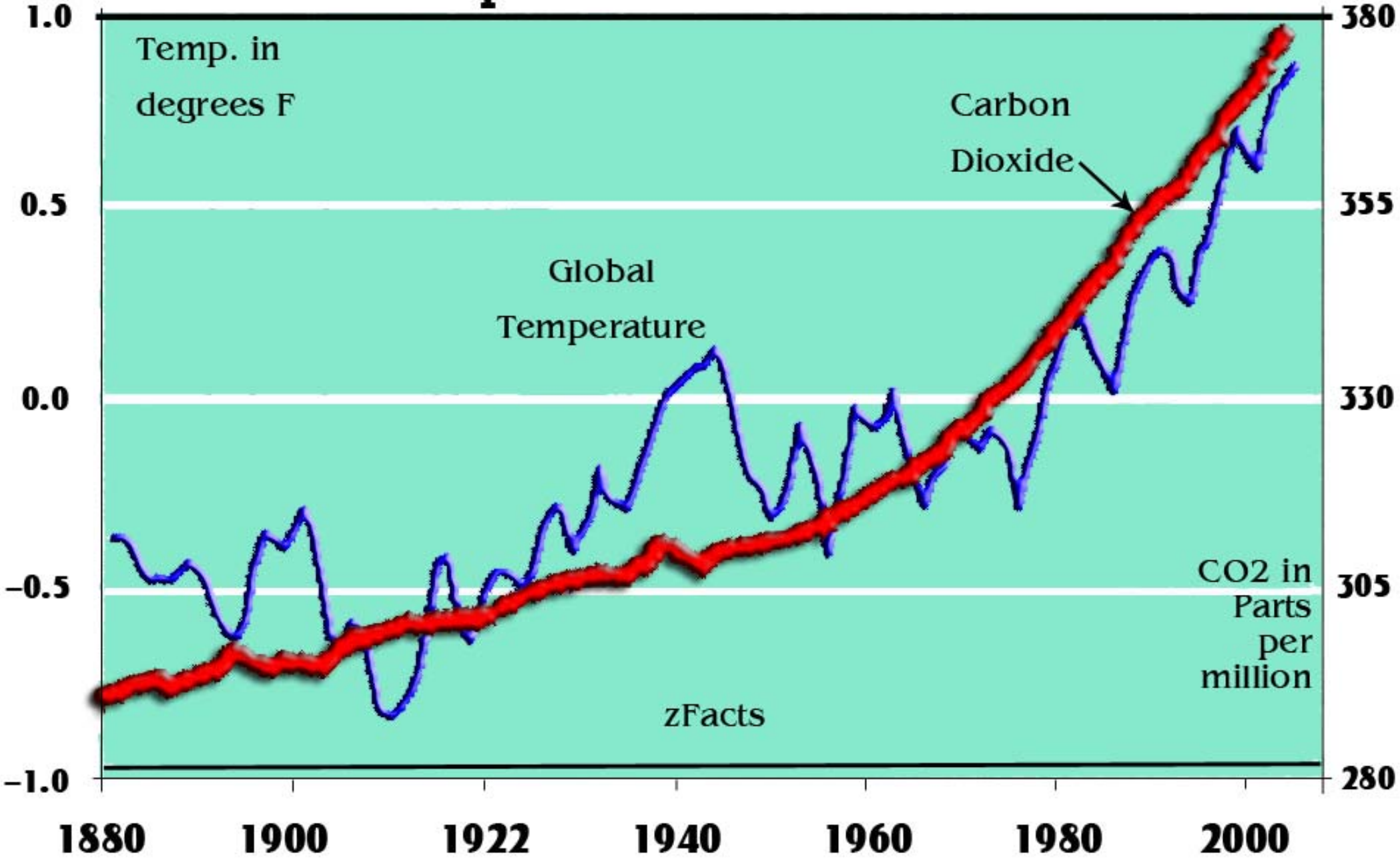


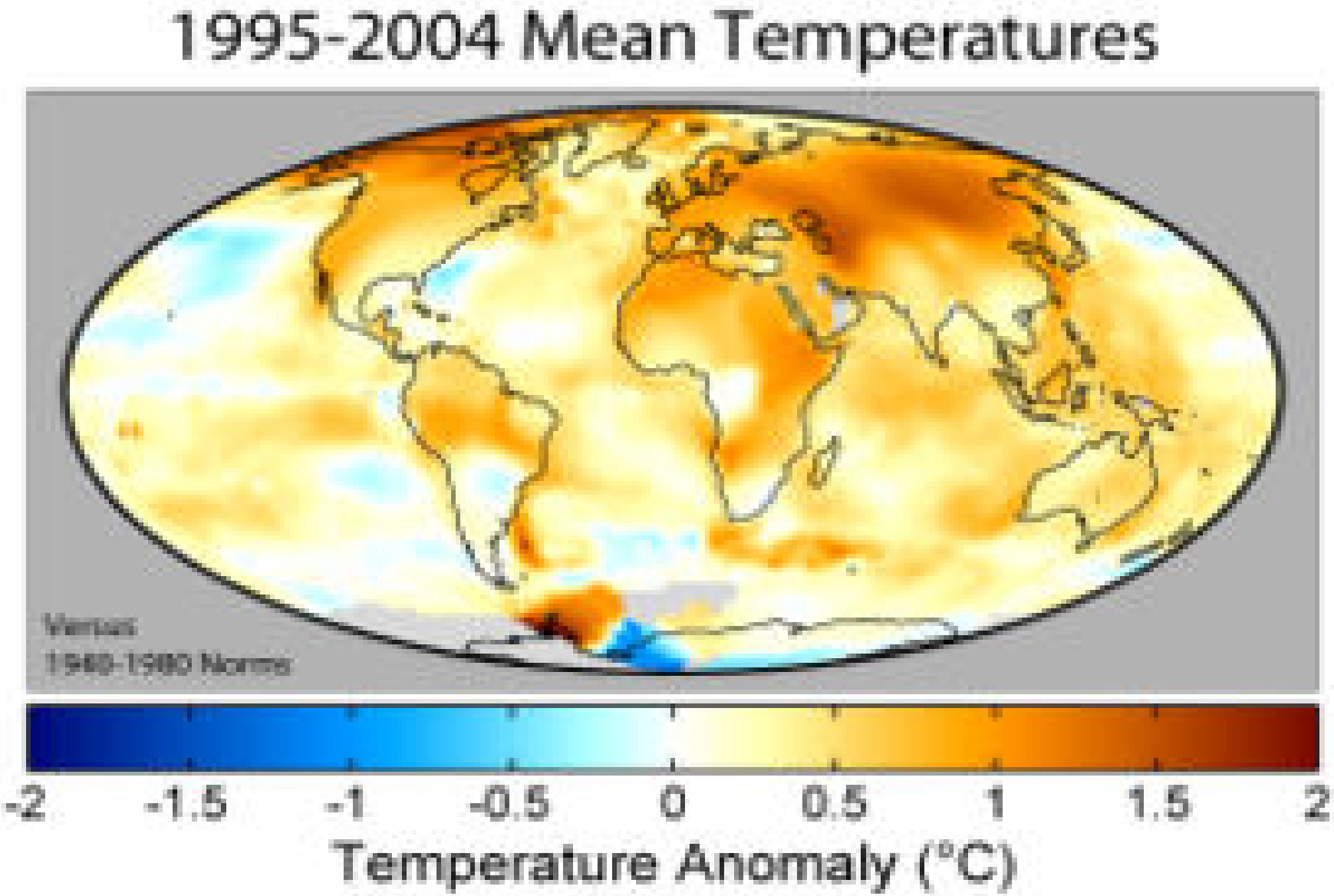
Solar variation over the last 30 years.



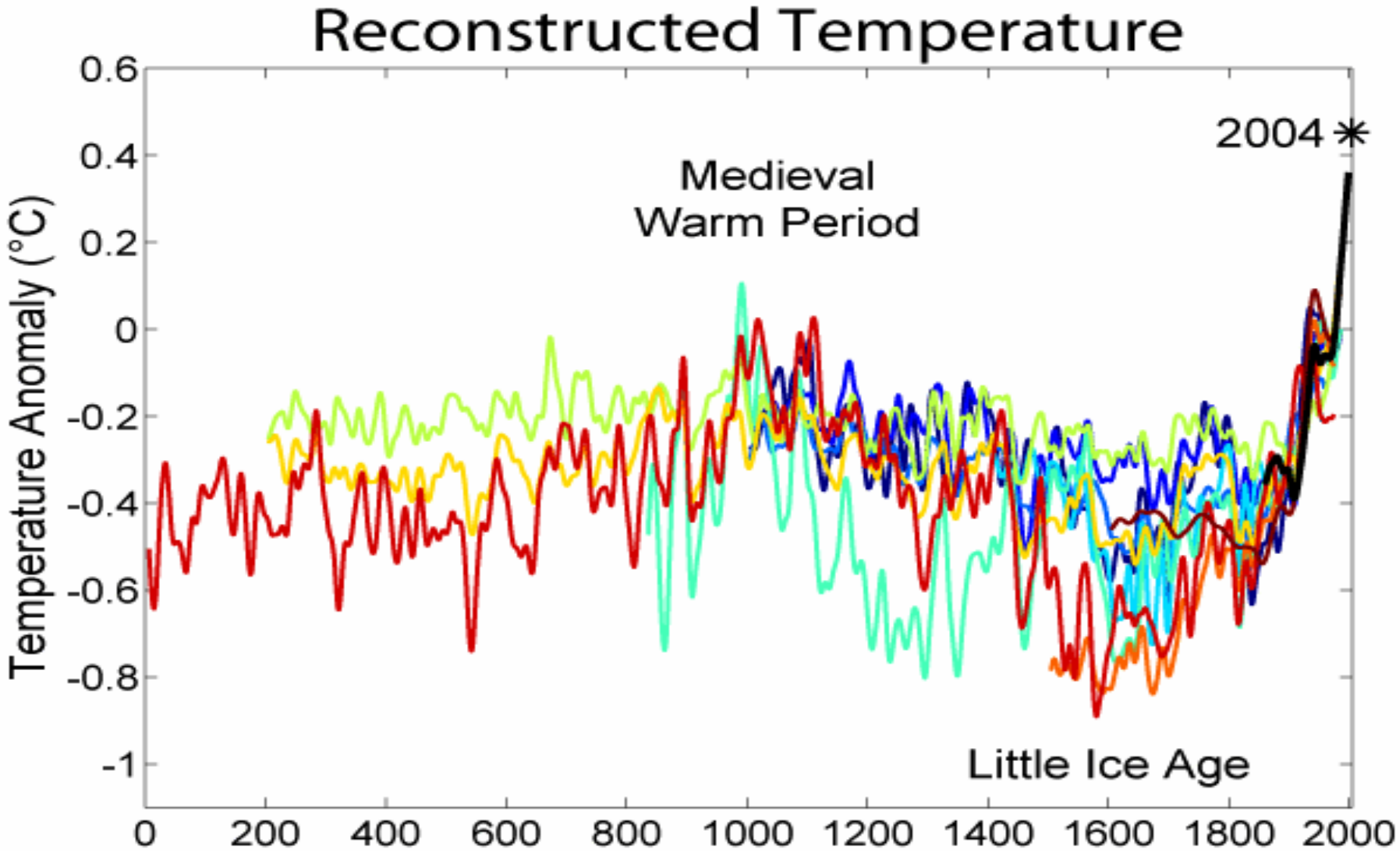
Average yearly temperature rise : 1860 - 1998

Global Temperature and Carbon Dioxide

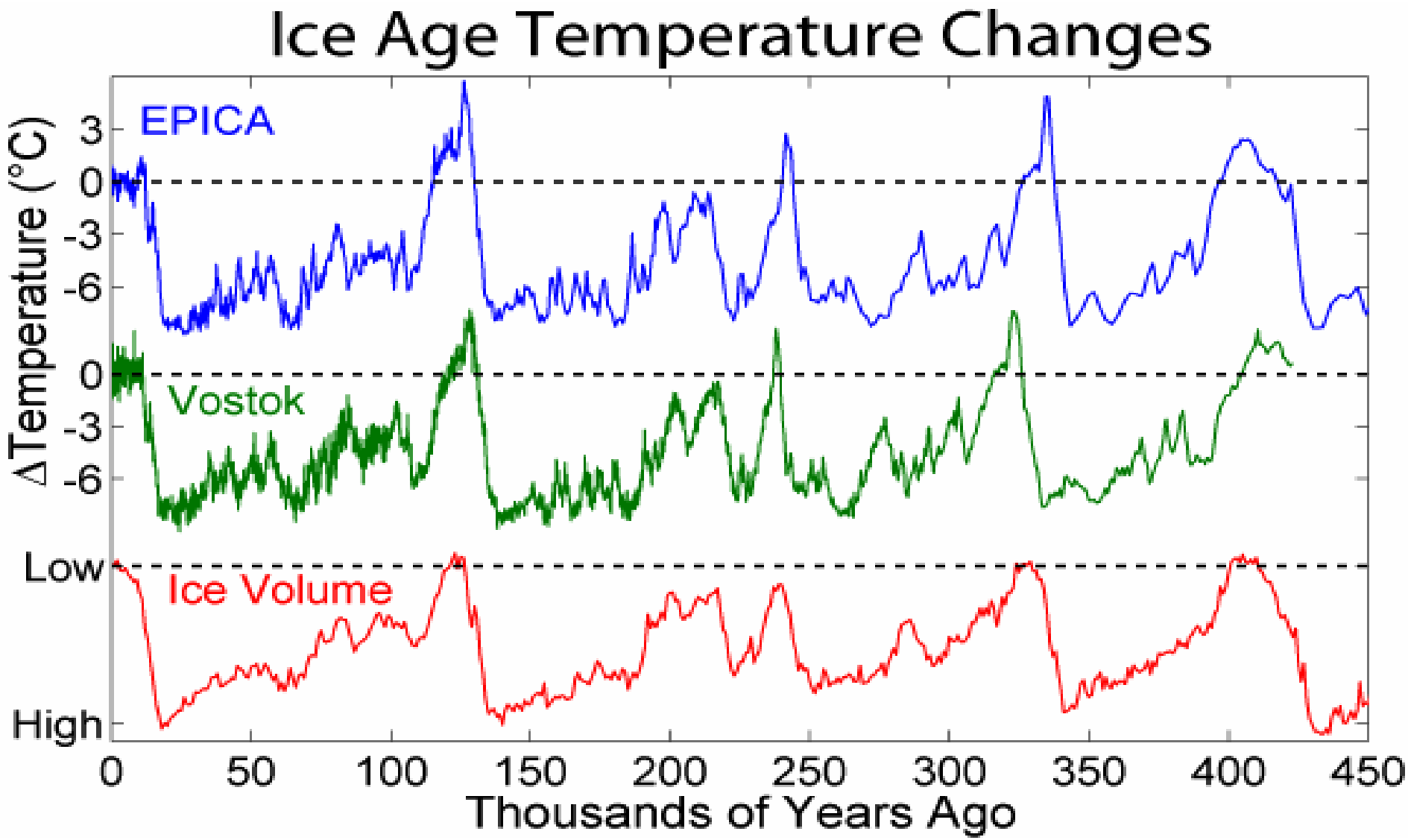




Mean surface temperature anomalies during 1995 to 2004 compare to the average temperatures from 1940 to 1980

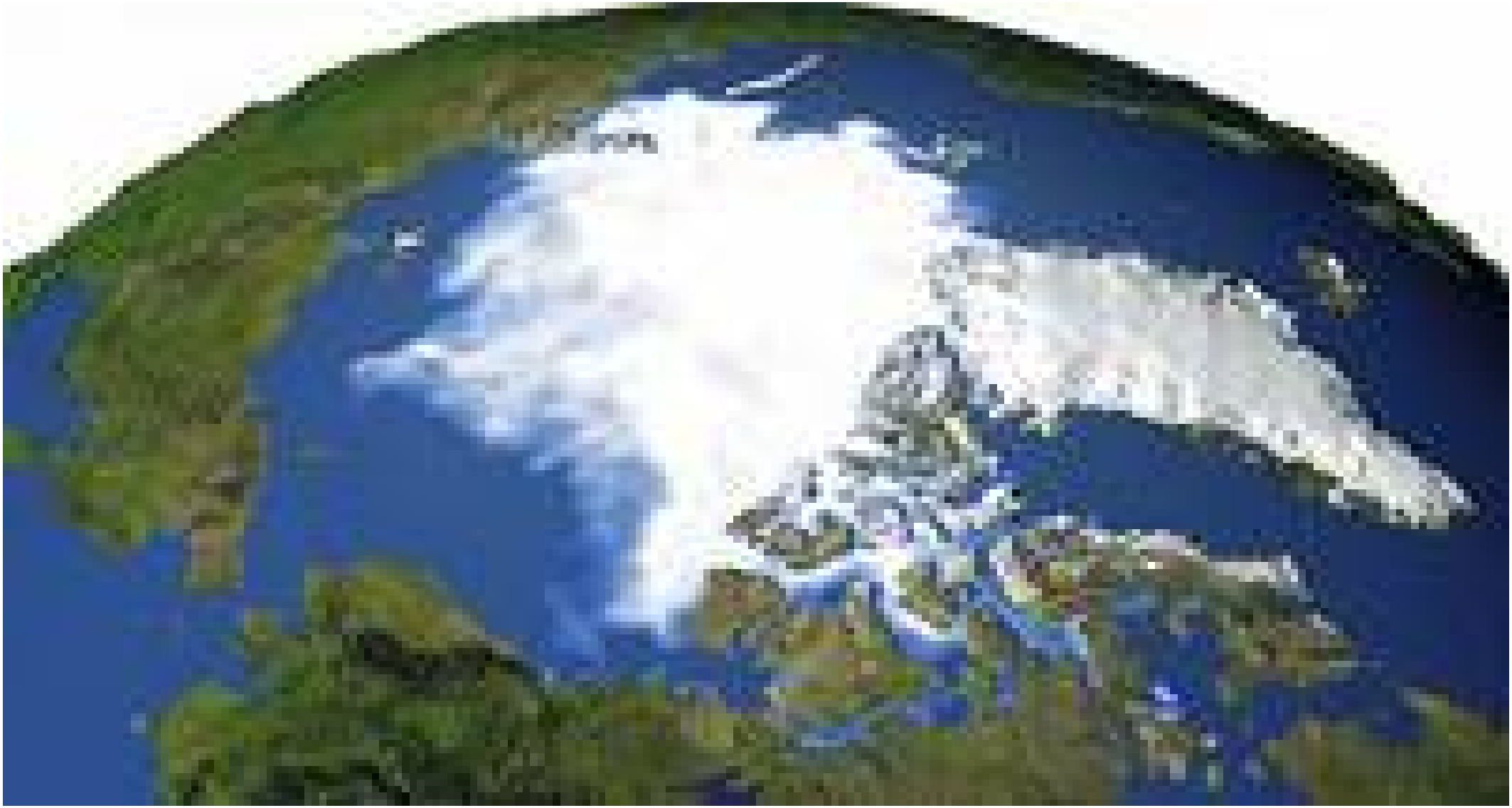


The different reconstructions of mean surface temperatures in the past 2,000 years show smooth graphical de cadal scale. The unsmooth value of 2004 is also plotted for reference.

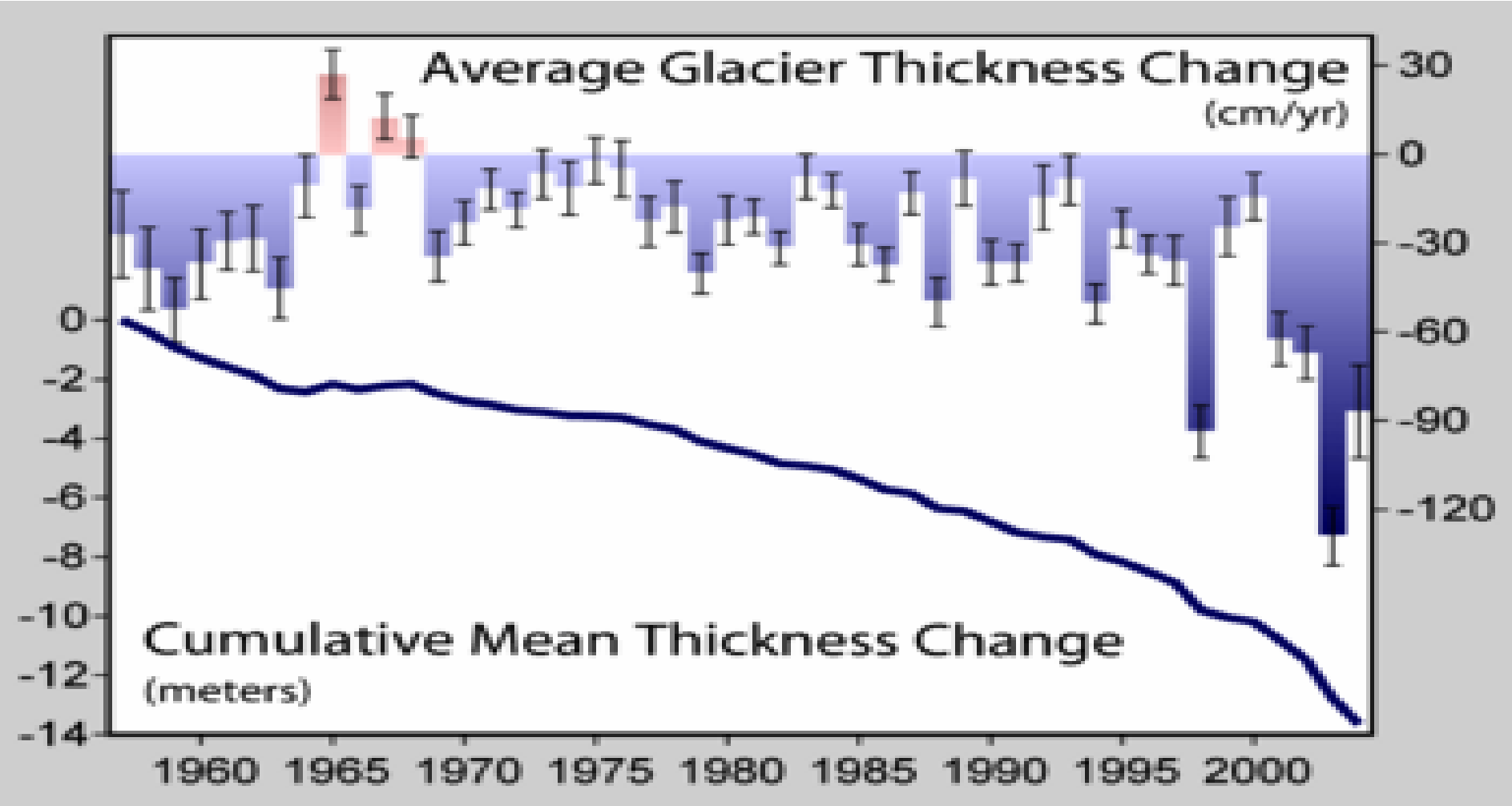


Curves of reconstructed temperature at two locations in Antarctica and a global record of variations in glacial ice volume. Present date is on the left side of the graph.

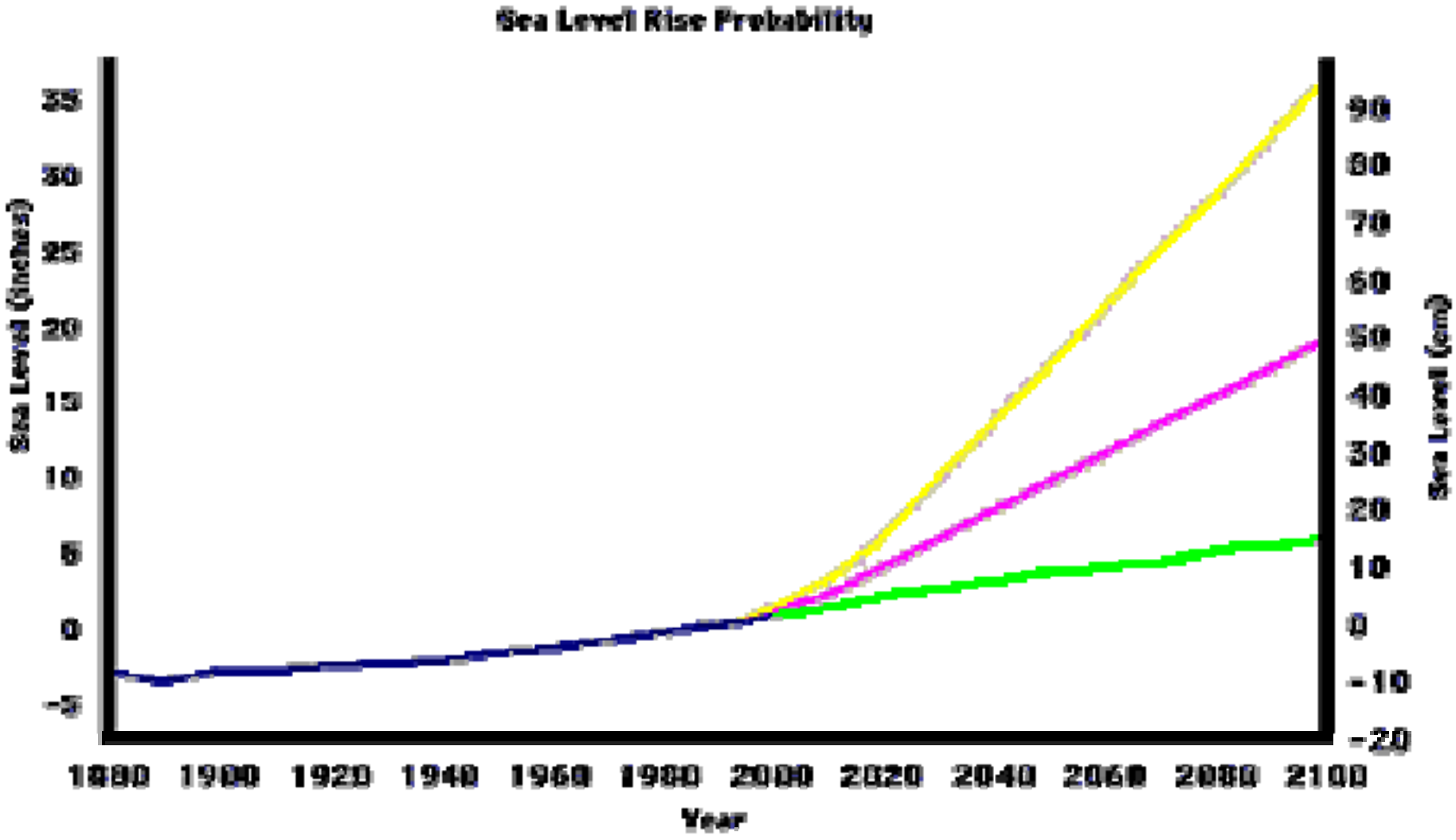
The picture of glacier ice volume at the Arctic circle taken by Terra Satellite in 1979



The picture of glacier ice volume at the Arctic circle taken by Terra Satellite in 2003



Sparse records indicate that glaciers have been retreating since the early 1800s. Measurements from introduce the monitoring of glacial mass balance, reported to the WGMS and the NSIDC.



This graph shows history of sea level and the possible increases of sea level extrapolating over the next century. The blue line represents the history of sea level. The yellow line is a high estimate of sea level extrapolated. The red line a central estimate, and the green line is a low projection.

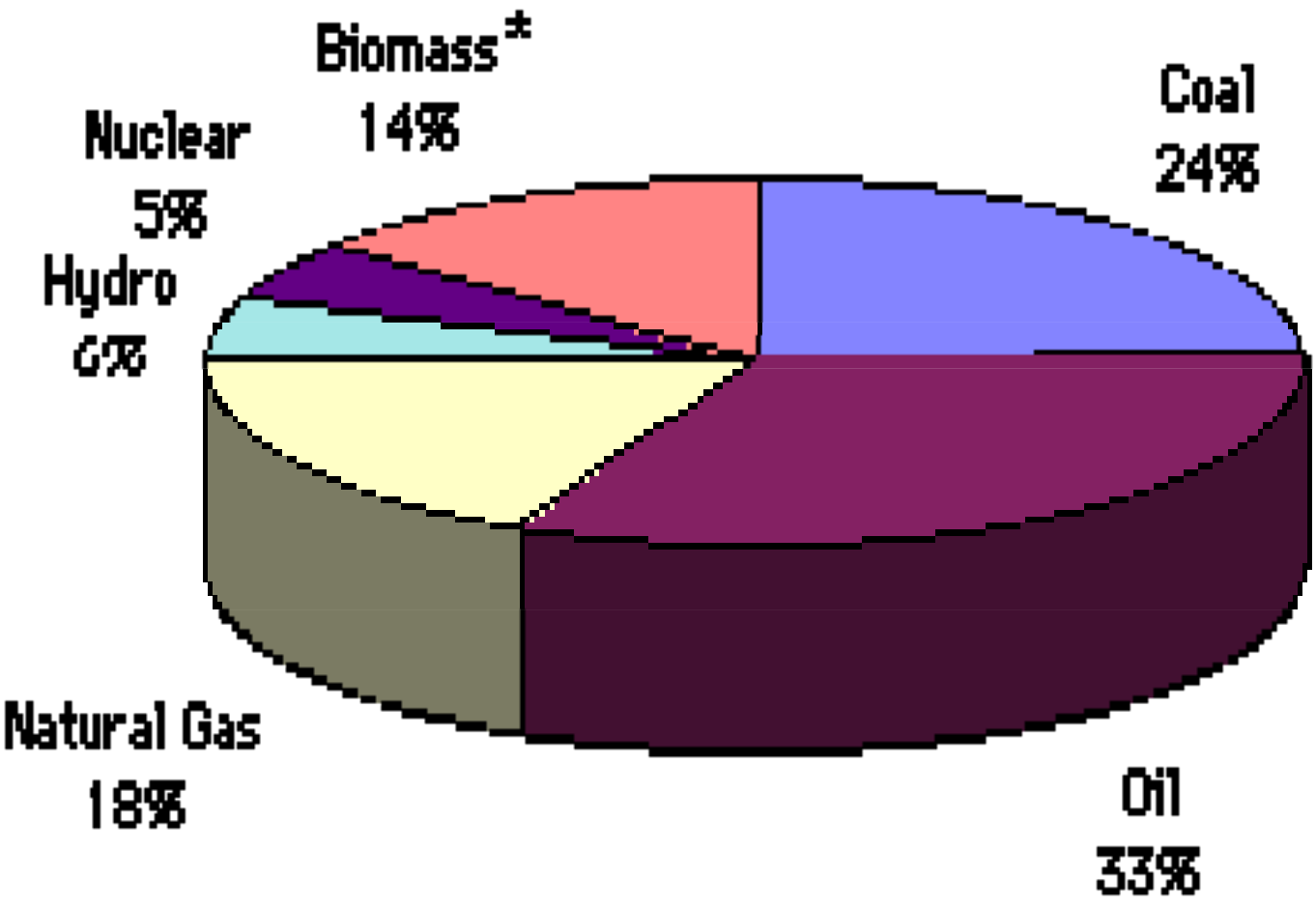
Flooding form global warming may be already happening.

AP

A man rescues his parrot and two dogs from flood waters in Tabasco, Mexico, on Thursday. A week of heavy rains unleashed massive flooding in southeastern Mexico, forcing tens of thousands to flee the rising waters for shelters in Tabasco and Chiapas states.

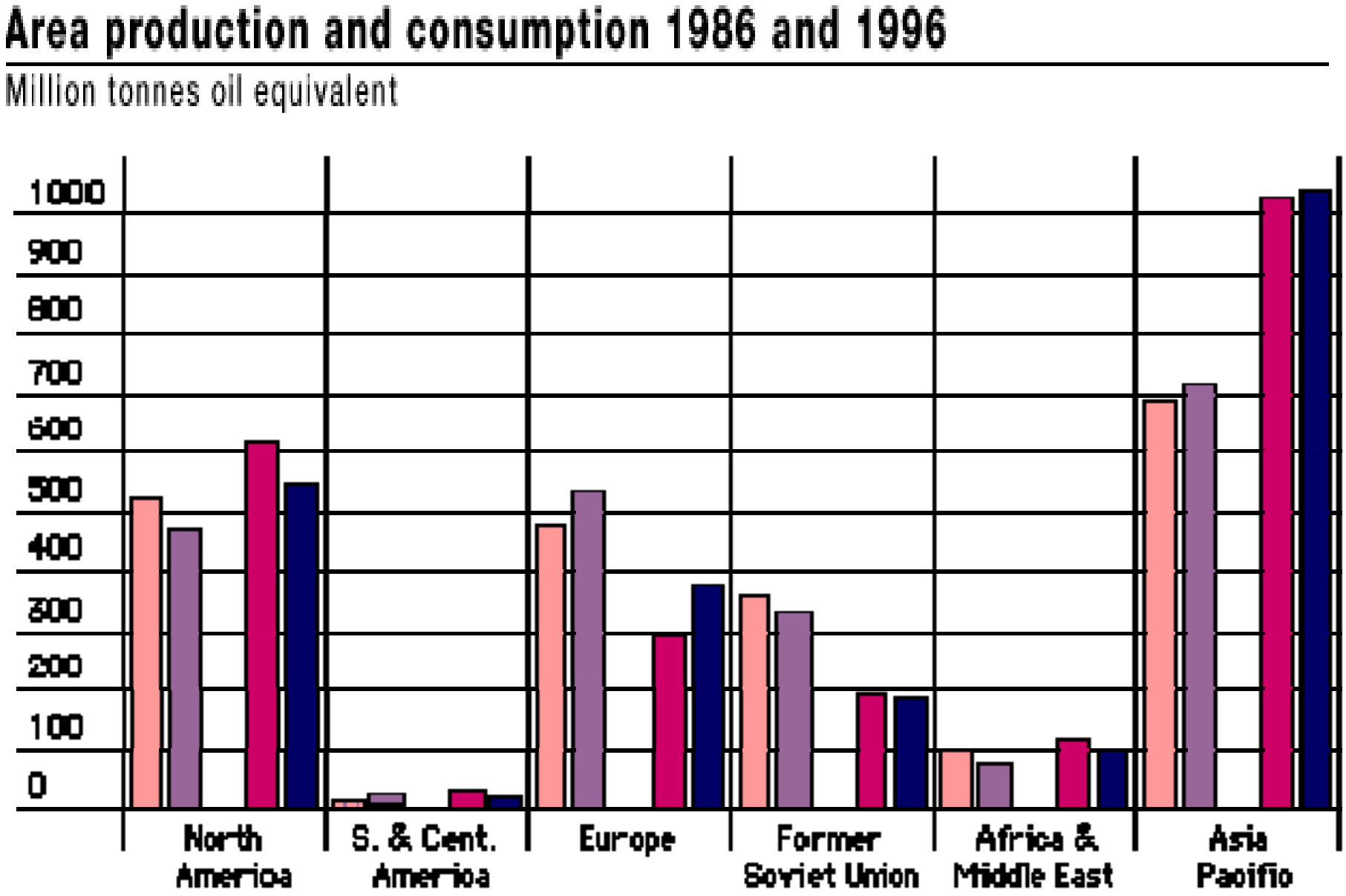
This picture taken from a rescue helicopter shows the expansive flooding caused by Tropical Storm Noel in the Dominican Republic.

The Present ways of Producing Energy



This pie graph shows the breakdown of how the world produces its energy.

Before desulfurization filters were installed, the emissions from this power plant in New Mexico contained excessive amounts of sulfur dioxide.



This chart shows how much coal different areas of the world have produced and consumed over time

Hydro Power

Hydro Power plant on a river

A field of wind mills

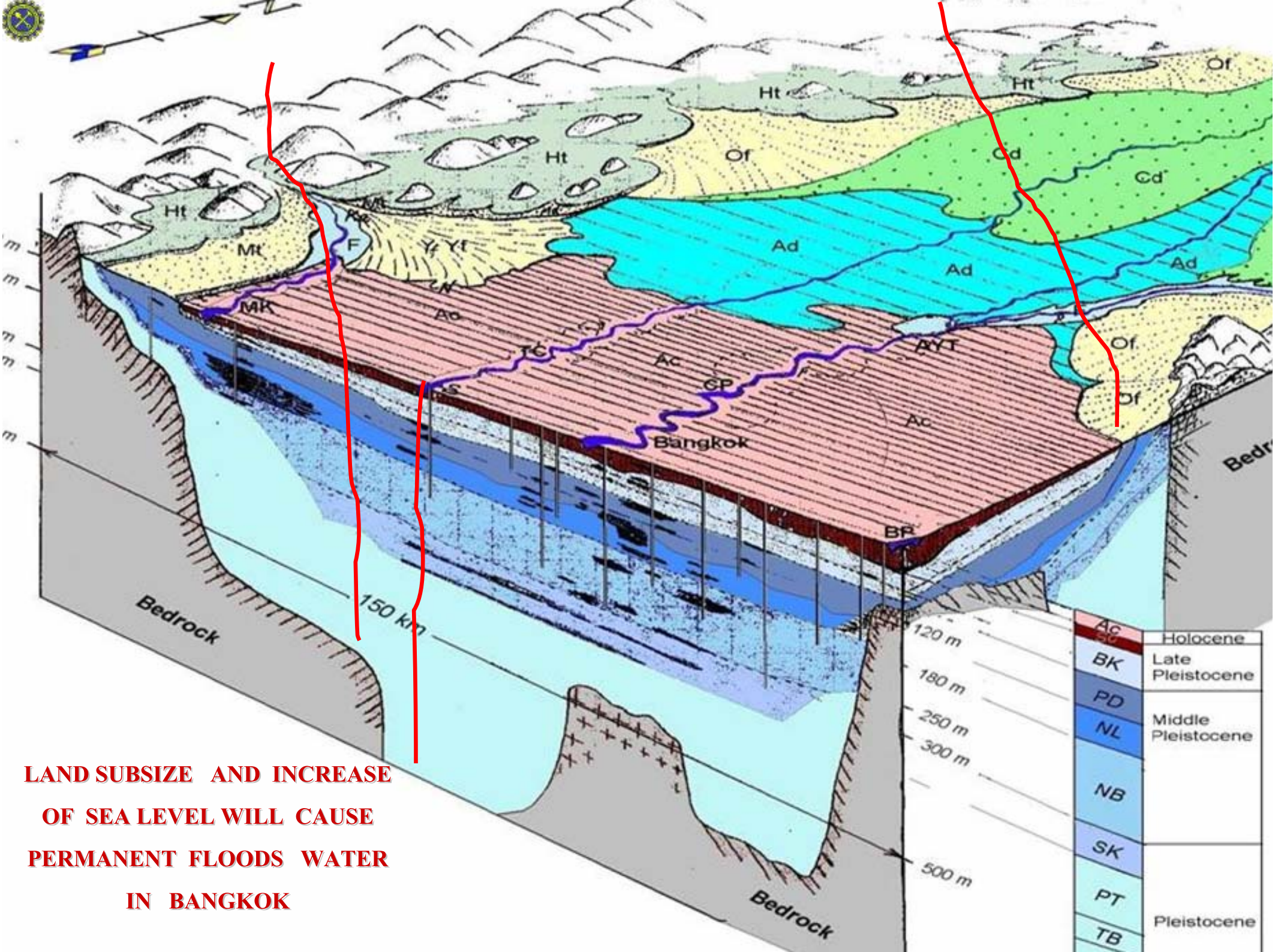
Nuclear power plants are successful in Europe,

but not in the United States

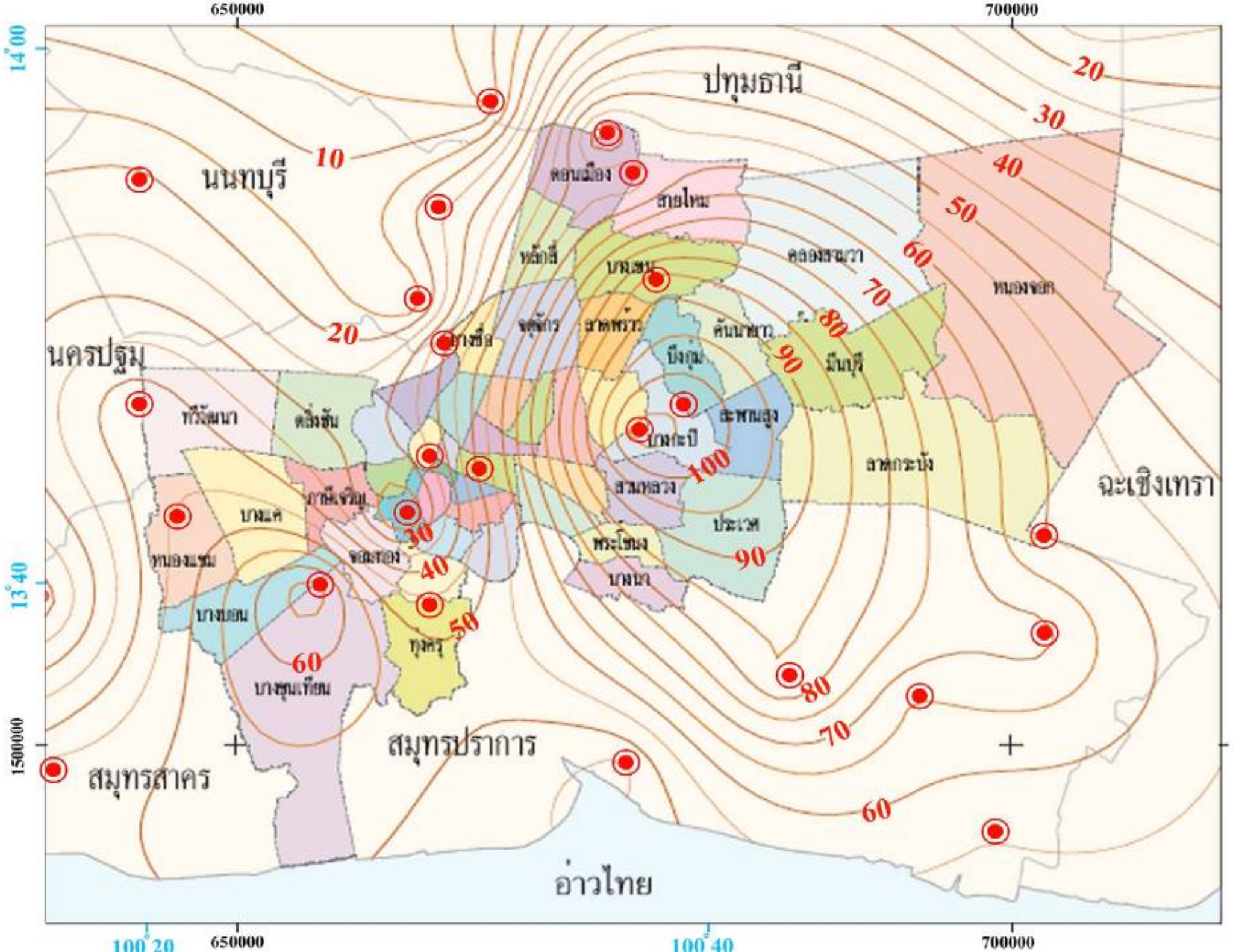
A field of PV's gathering sunlight producing power

Global warming may cause sea-level rises that can worsen the effects of storm surges and tsunamis.

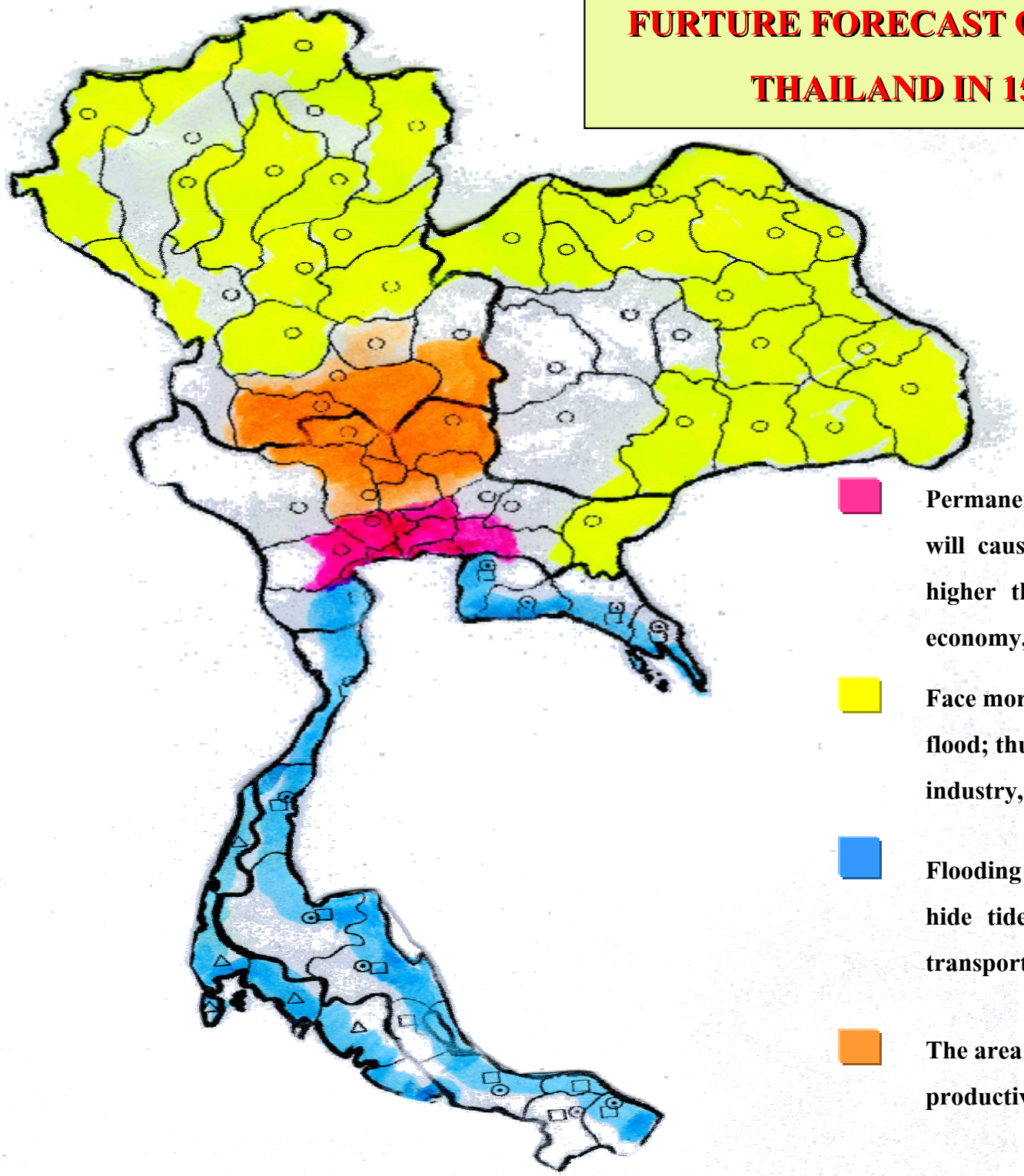
GLOBAL WARMING AND SEA – LEVEL RISES WILL CAUSE PERMANENT FLOODS WATER IN BANGKOK



LAND SUBSIZE AND INCREASE OF SEA LEVEL WILL CAUSE PERMANENT FLOODS WATER IN BANGKOK


650000
700000
14°00
13°40
1500000
100°20
100°40
ปทุมธานี
นนทบุรี
นครปฐม
ฉะเชิงเทรา
สมุทรปราการ
สมุทรสาคร
อ่าวไทย
10
20
30
40
50
60
70
80
90
100

FURTURE FORECAST OF GREEN HOUSE EFFECT IN THAILAND IN 15-20 YEAR FROM NOW



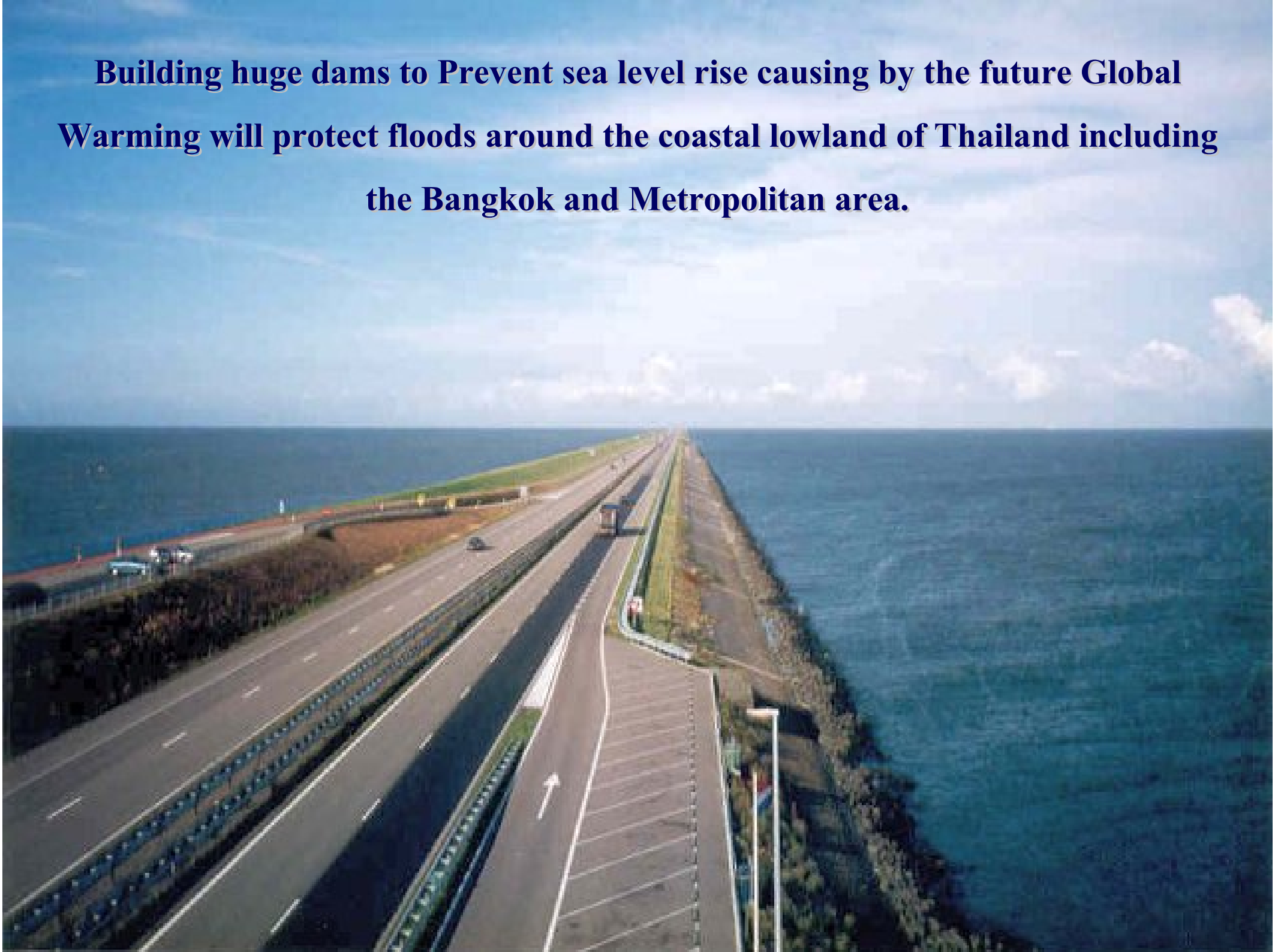
- Permanent sea level rise area together with land sub size will cause severe flooding of up to 0.50 – 1.00 meter higher than the current level which will affect the economy, tourism, ways of living and transportation.
- Face more natural disaster which cause either drought or flood; thus causing detrimental effects to agriculture, industry, tourism and daily ways of living.
- Flooding along the river bank and sea coast during the hide tide or severe tidal waves which affect tourism, transportation and industrial plant.
- The area will be affected in terms of agricultural productivity.

Kam Ling resevoir between coastal line and dam line for storing clear waters in the dry season and waters coming from the north in the rainy season.

Sea level rise preventing dams around the Bangkok and Metropolitan area.

แผนผังการสร้างเขื่อนเพื่อป้องกันน้ำทะเลหนุนบริเวณพื้นที่ของ กรุงเทพมหานครและปริมณฑล

Building huge dams to Prevent sea level rise causing by the future Global Warming will protect floods around the coastal lowland of Thailand including the Bangkok and Metropolitan area.



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THANK YOU