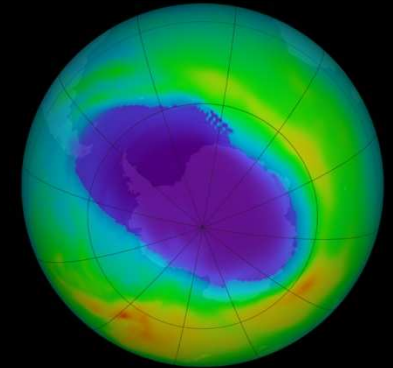


# **Financing** **Least Developing Countries**

## **Lessons from**

# **The Montreal Protocol**



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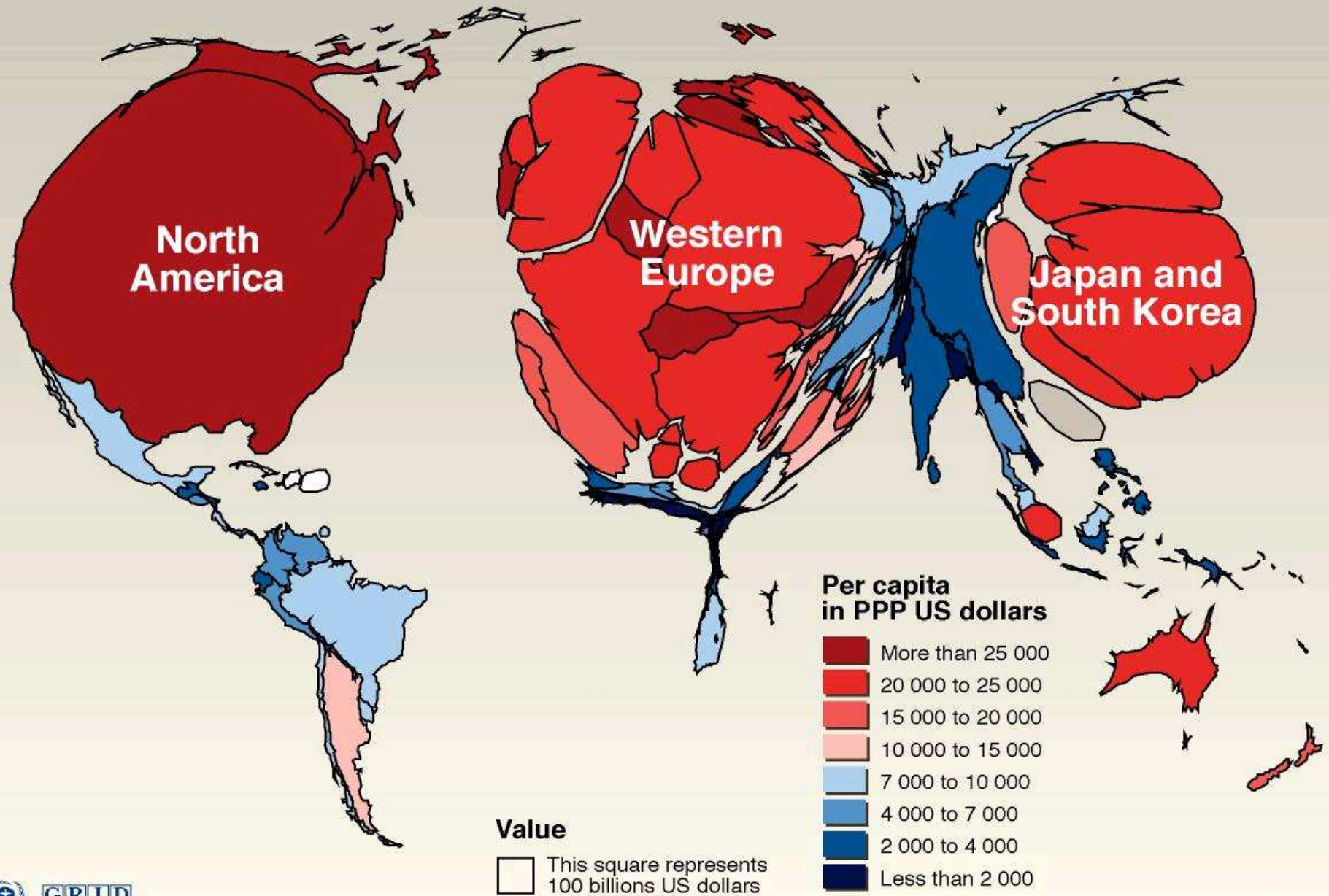
*World Forum Lille*  
*19 Nov 2009*

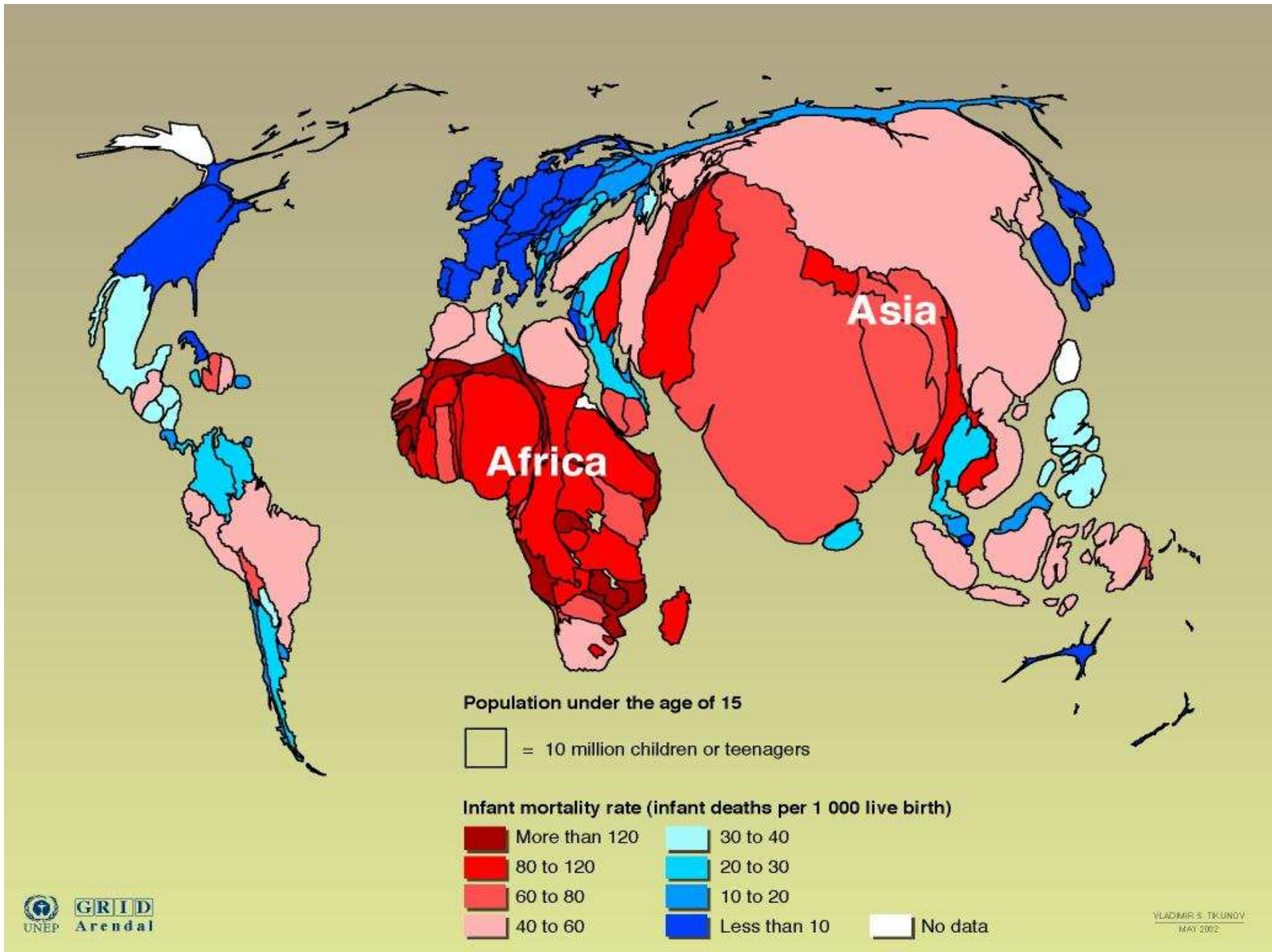
*Rajendra Shende*  
*UNEP*  
*OzonAction , Paris*

**2 weeks from now ...**

**... Can we ?**

# Gross Domestic Product

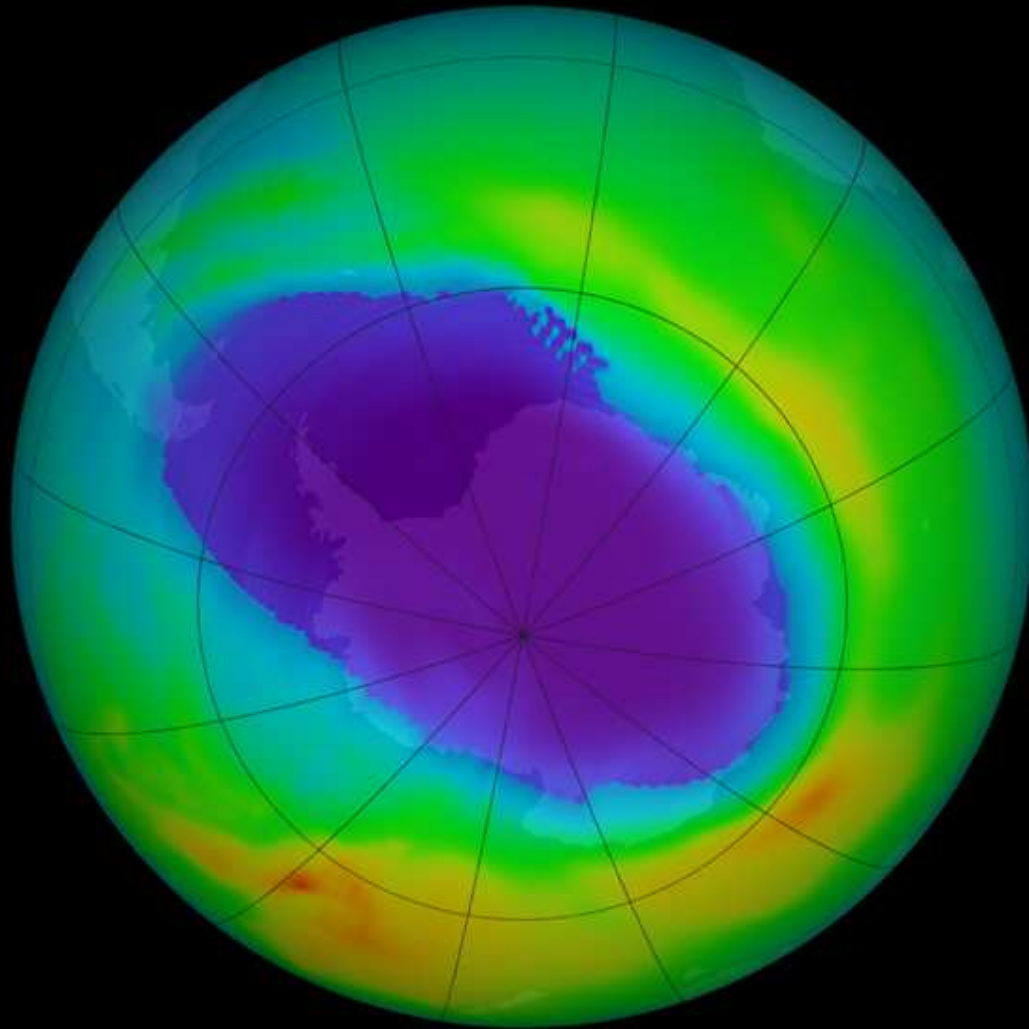




**6 weeks from ...**

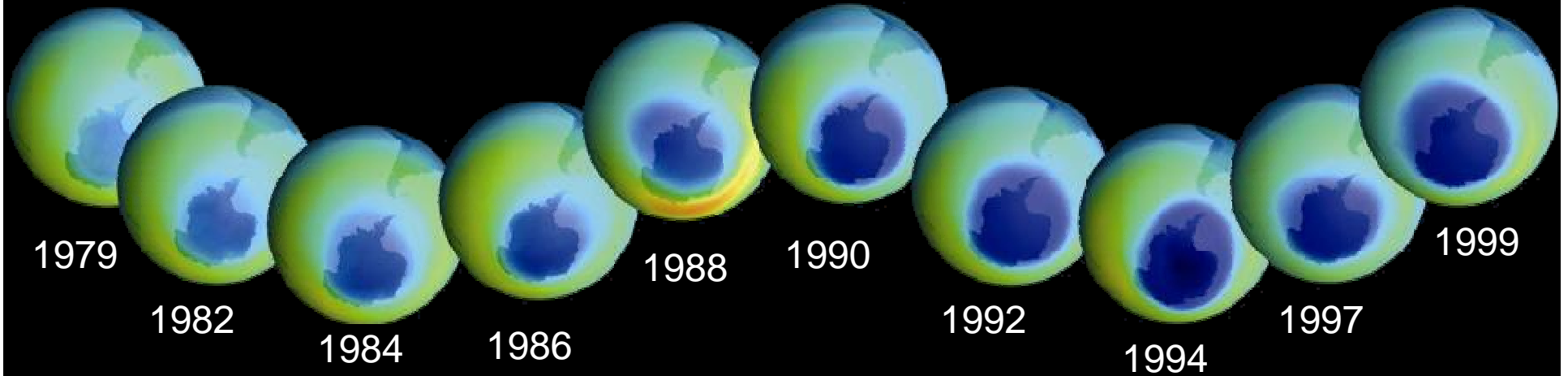
**... We did it.**

# Thinning of the Ozone Layer

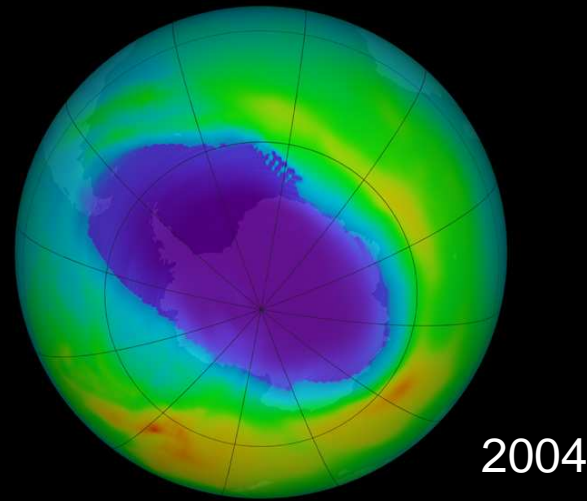


Evidence from satellites of thinning of the Ozone layer led to the Montreal Protocol for reducing CFCs

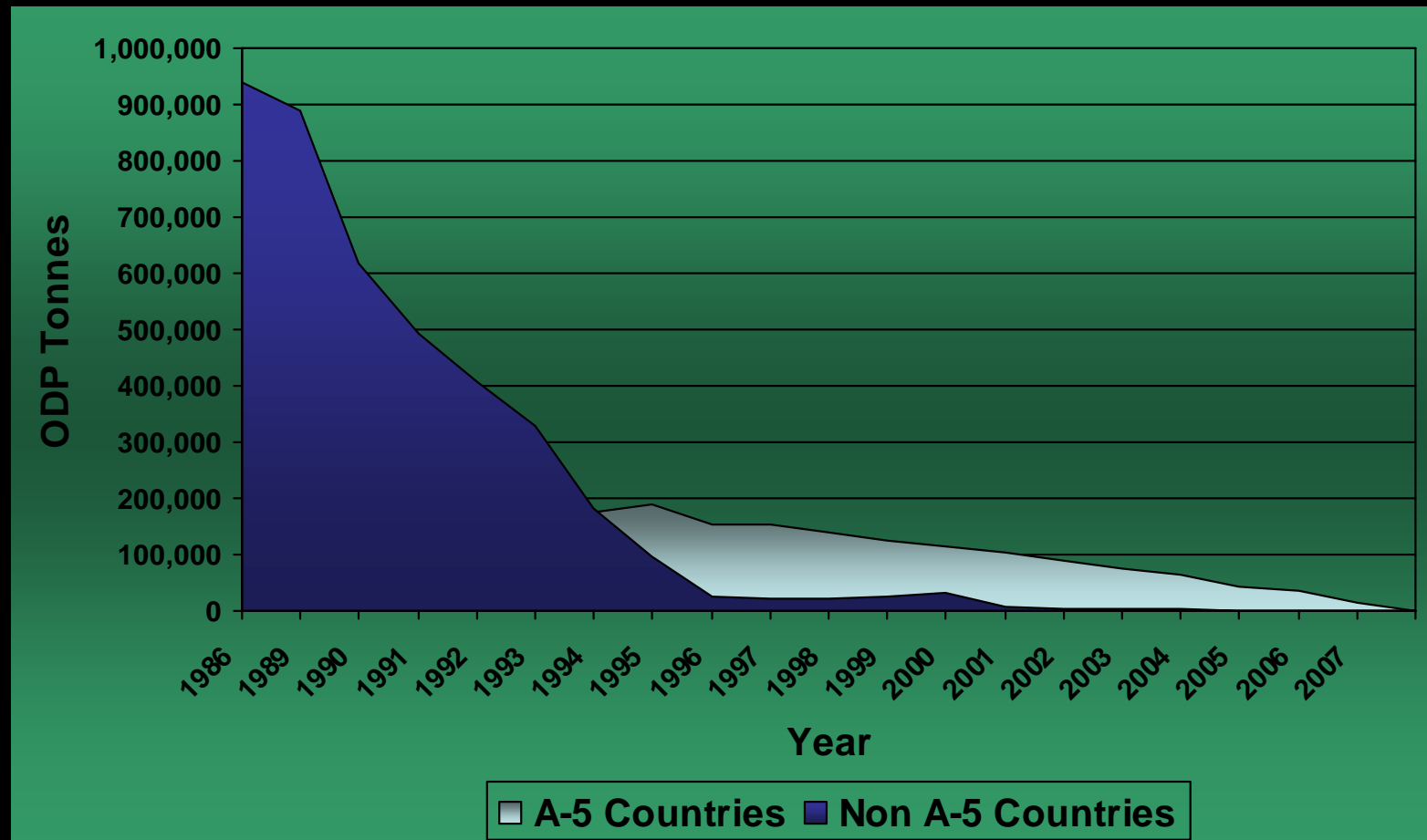
# Ozone Hole



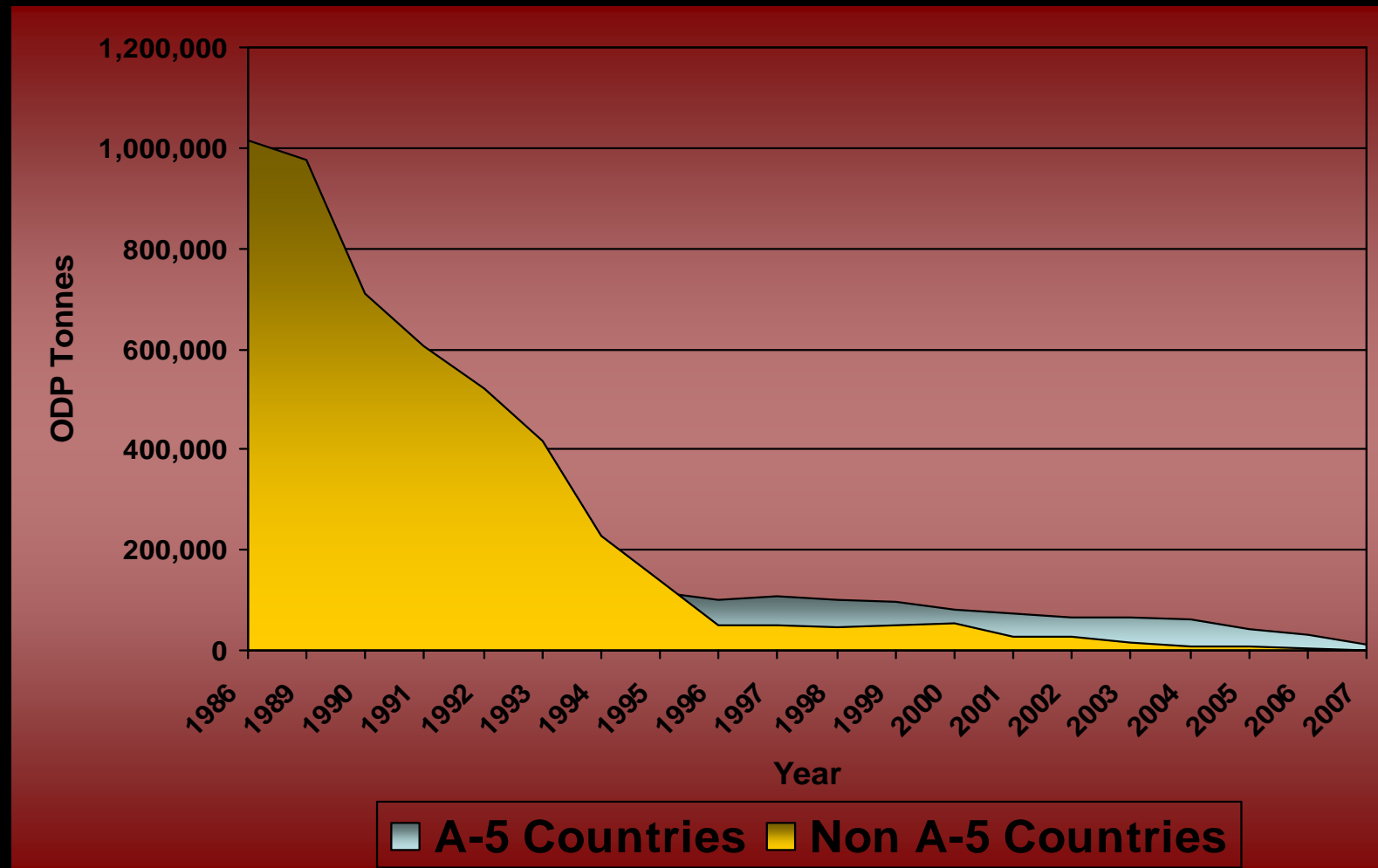
Darkest blue areas represent regions of maximum ozone depletion



# CFC Consumption On the way out



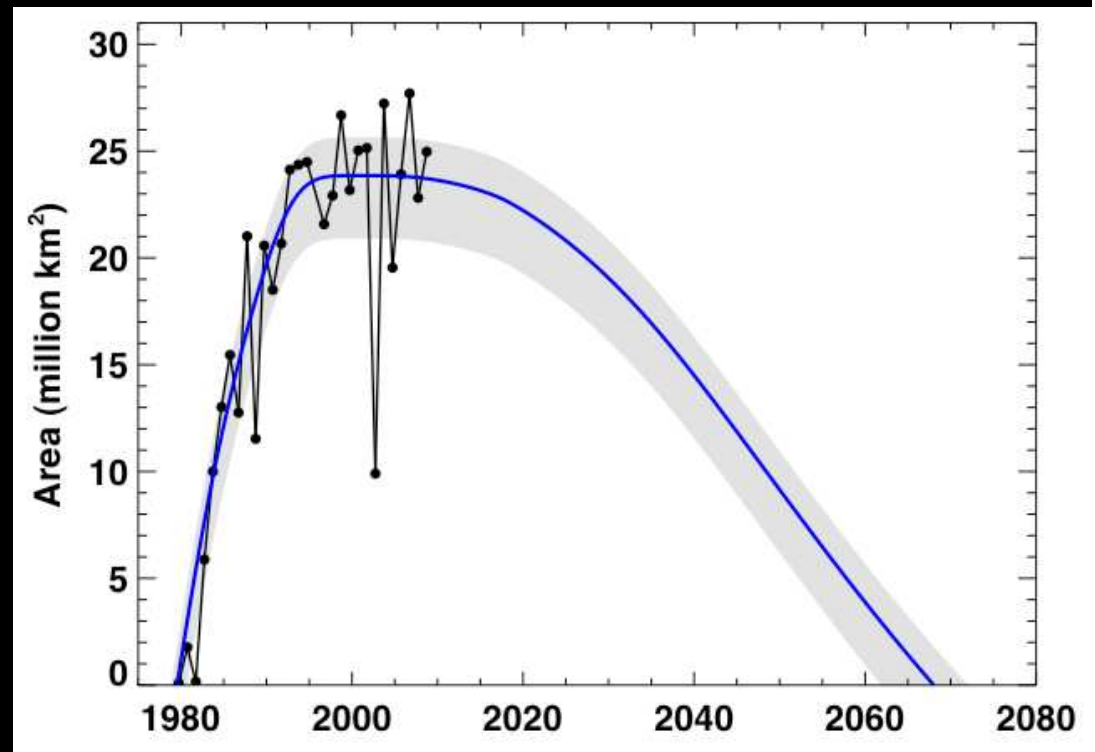
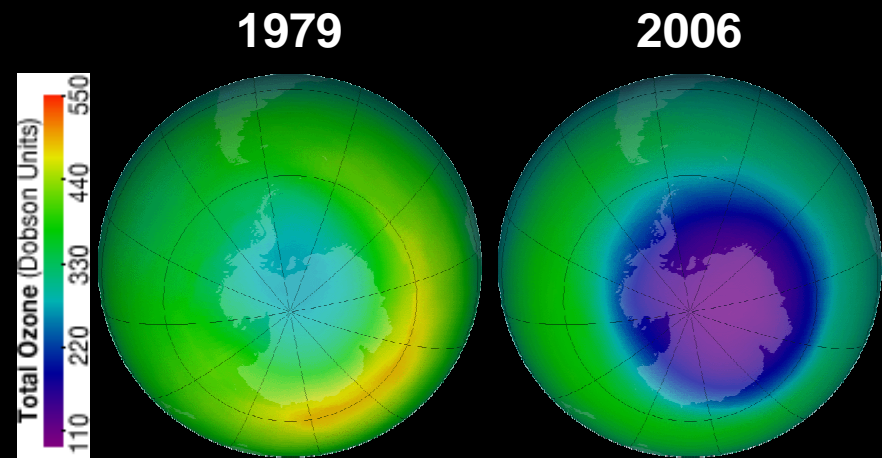
# CFC Production Assigned to History books





# Antarctic Ozone Hole

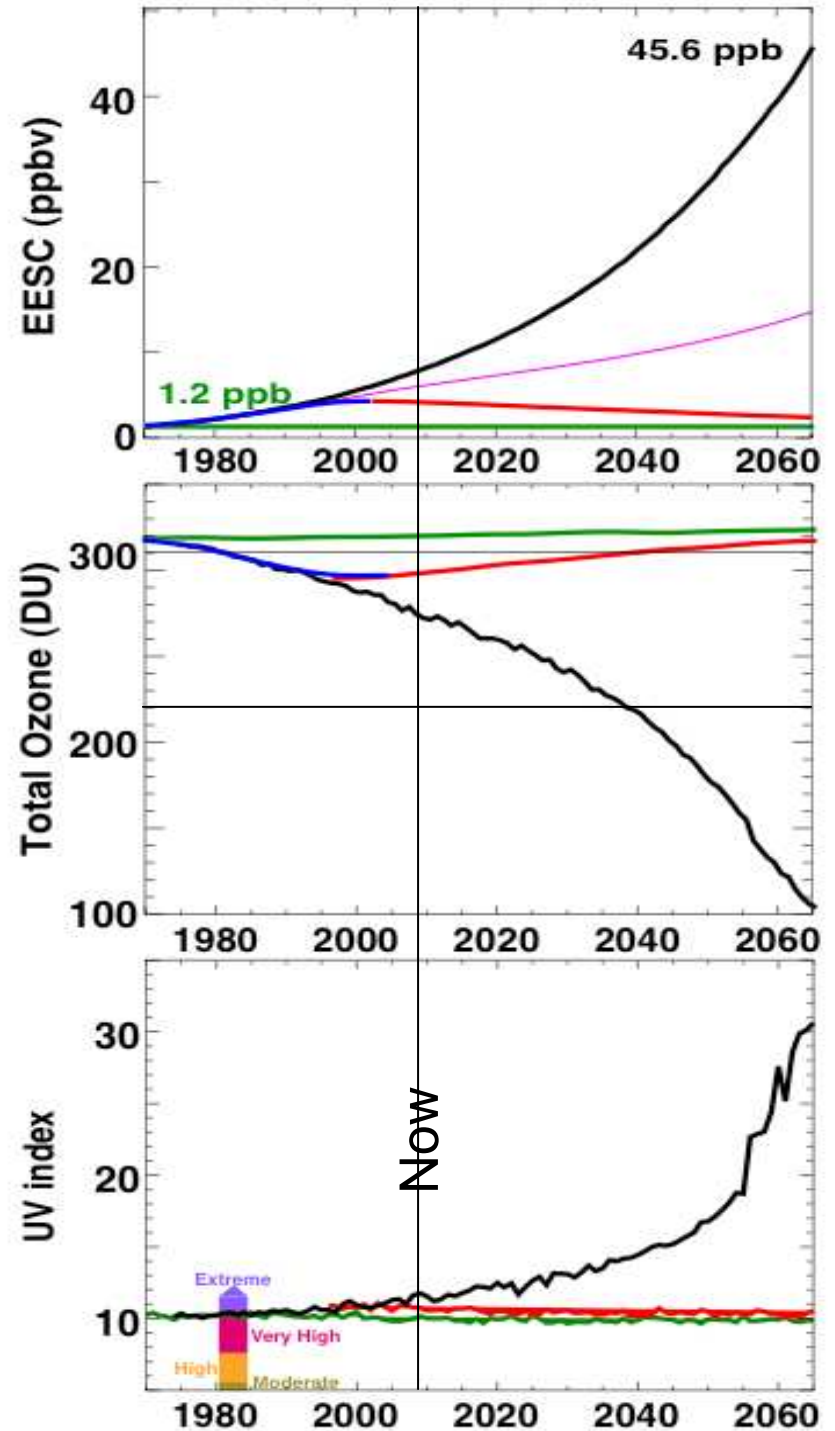
- cold Antarctic winter temp. → formation of PSCs → activation of chlorine → ozone loss as sun rises → ozone hole in Oct.
- Because of reduced CFCs, it is projected to recover in approximately ~2065



# World Avoided

increased 3% per year (no Montreal Protocol), what would have happened?

- By 2065, Cl & Br levels are 40 times higher than natural levels, and two-thirds of our ozone layer would have been destroyed (the ozone hole covers the Earth)
- UV irradiance would have dramatically increased across the Earth



*All developing countries benefitted*

**Afghanistan, Mozambique ,  
Bhutan, Maldives,  
Zimbabwe, Tuvalu, Lesotho,  
Nepal, Honduras, Tonga,  
.....all in Compliance.  
( 96% Compliance )**



***...20 years after the  
Montreal Protocol signed  
Demonstrates what can be  
achieved when countries  
act together and in  
concerted way to resolve  
global environmental  
problems***

**Millenium Development Goals  
.....*Report of UN 2007***

# Montreal Protocol is Working

**“Perhaps the single most successful international environmental agreement to date has been the Montreal Protocol, in which states accepted the need to phase out the use of ozone-depleting substances”**

*“We the Peoples: the Role of the United Nations in the 21st Century”,  
2000, pg 56*

**We have demonstrated concerted and Synchronised actions**



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**WE Can Lose the battle But not lessons**

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# Managing our Atmosphere

- **Chlorine Loading : *Chemistry of Montreal Protocol***

\* 4 ppb



2 ppb (0.6 ppb)

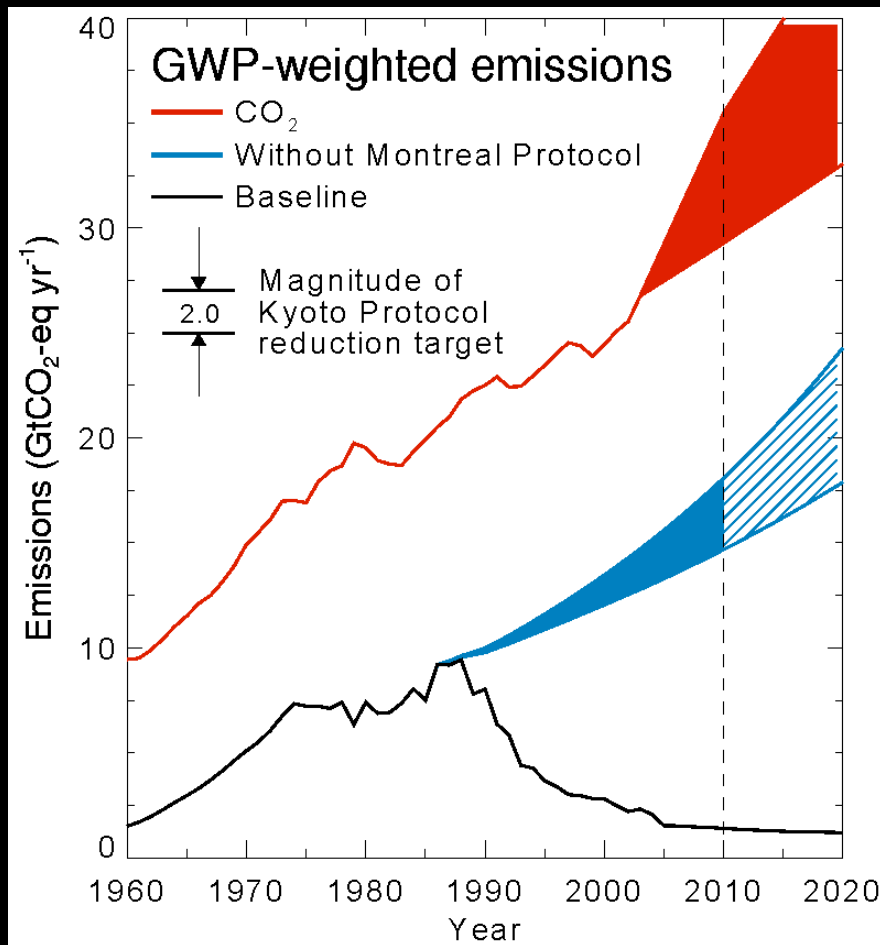
- **CO2 Concentration: *Chemistry of Kyoto Protocol***

\* 380 ppm



450 ppm (280 ppm)

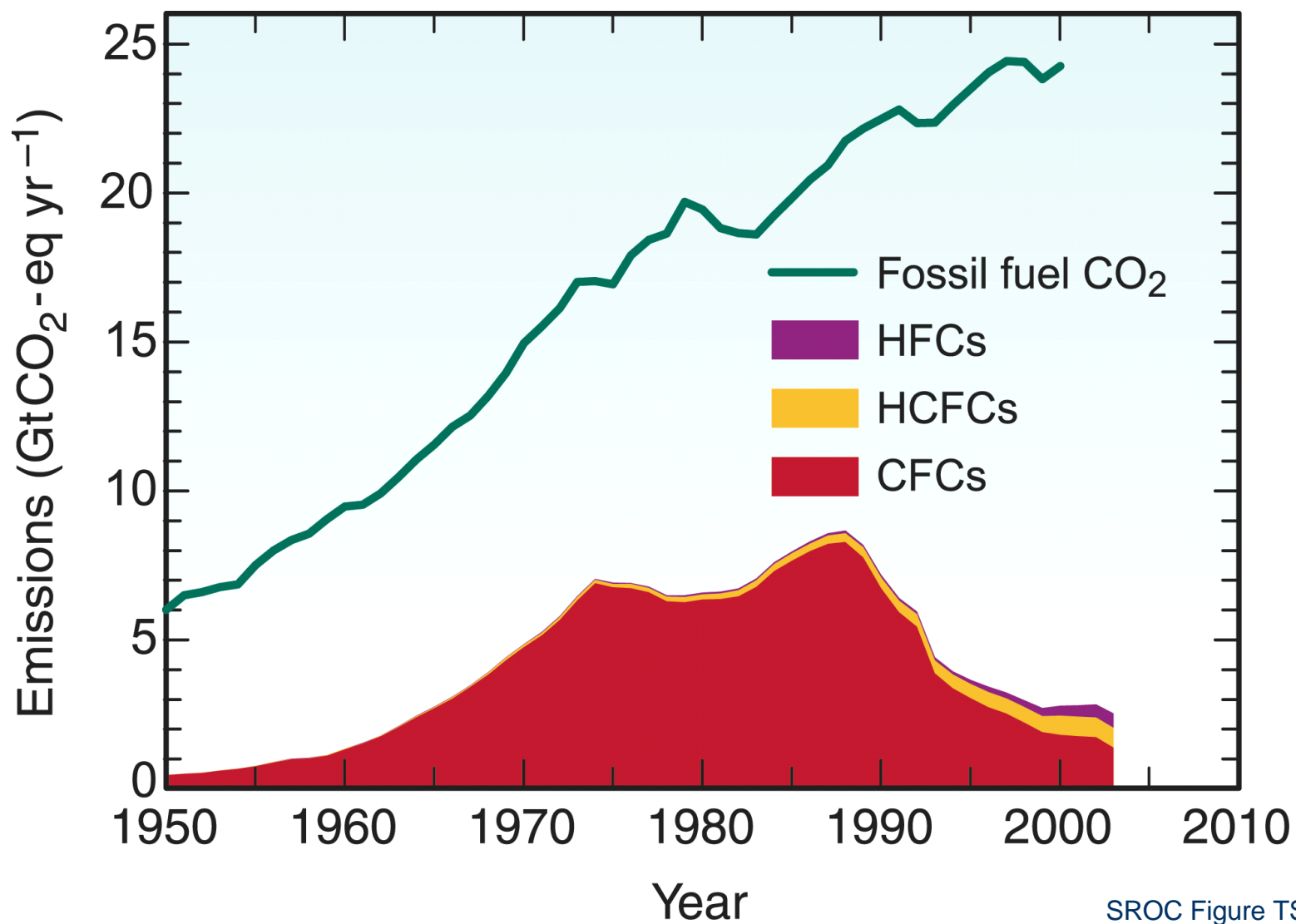
# Bail out by the Montreal Protocol...



Reduction Montreal Protocol  
of ~11 GtCO<sub>2</sub>-eq/yr

→ 5-6 times Kyoto target

## Direct GWP-weighted emissions



SROC Figure TS -9

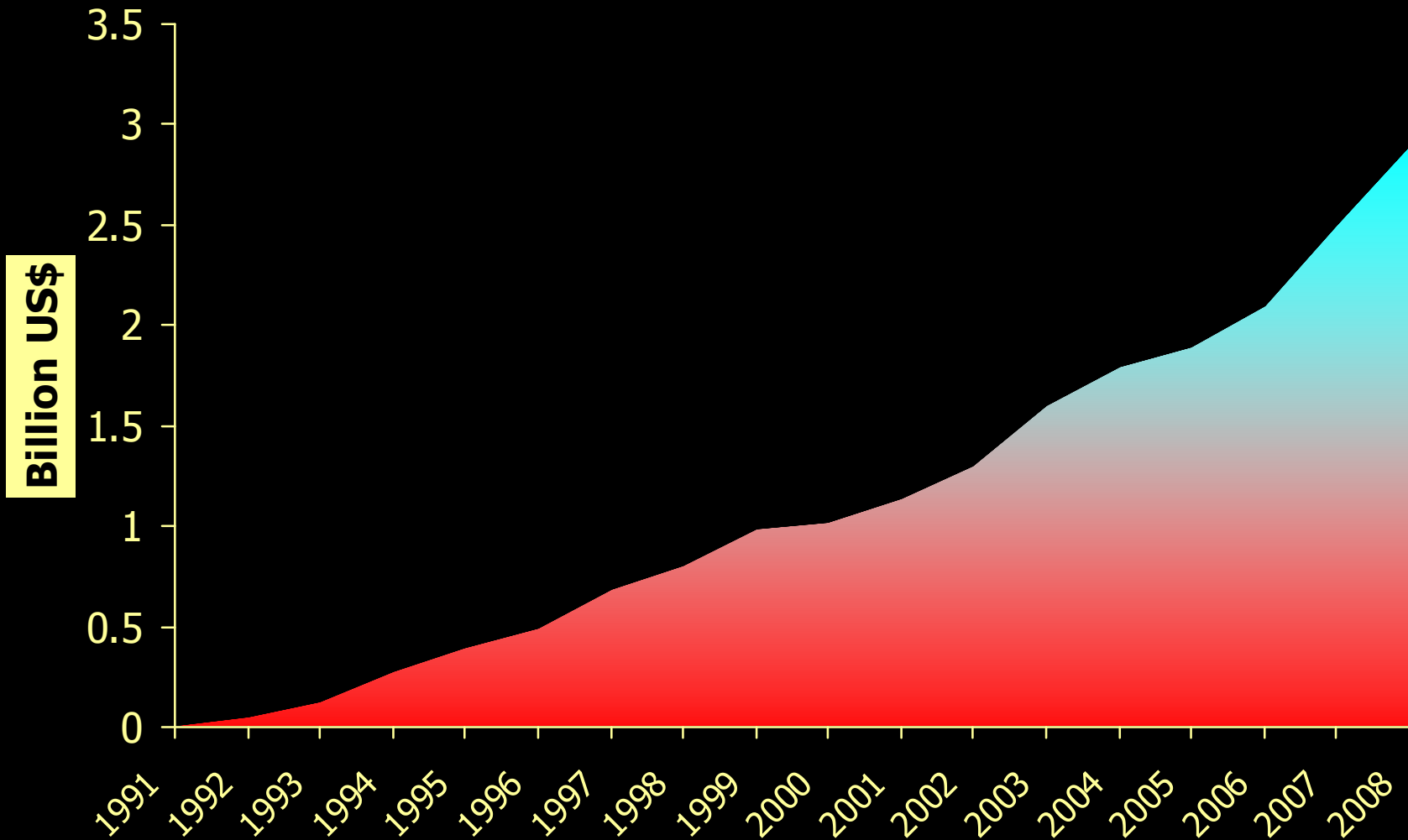
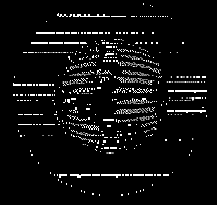
# **PRINCIPLES** **OF NEGOTIATIONS**

- ➔ **Precautionary Approach**
- ➔ **Polluter to Pay**
- ➔ **Common But Differentiated Responsibility**

**Based on Trust and Democracy**



# UNPARALLEL COOPERATION



# **Spin Offs from Financial Assistance**

- ➔ **Technology upgrades and modernisation**
- ➔ **New Business Opportunities, Employment**
- ➔ **Spring Board for Co-Financing**

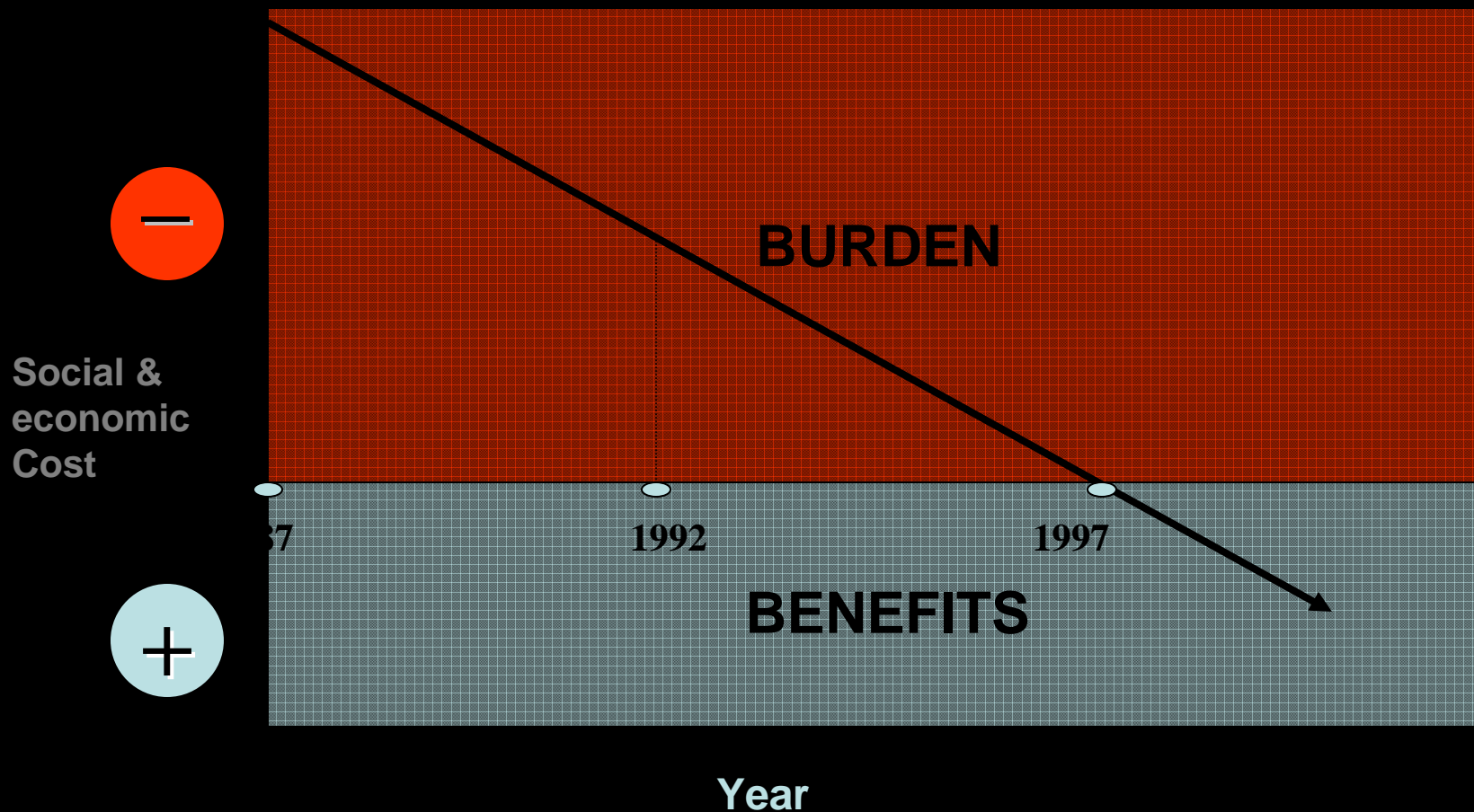
# **Spin Offs from Financial Assistance To Developing Countries**

- ➔ **Technology upgrades and modernisation**
- ➔ **New Business Opportunities, Employment**
- ➔ **Spring Board for Co-Financing**

**Financial Assistance acts as Catalyst  
For Development**

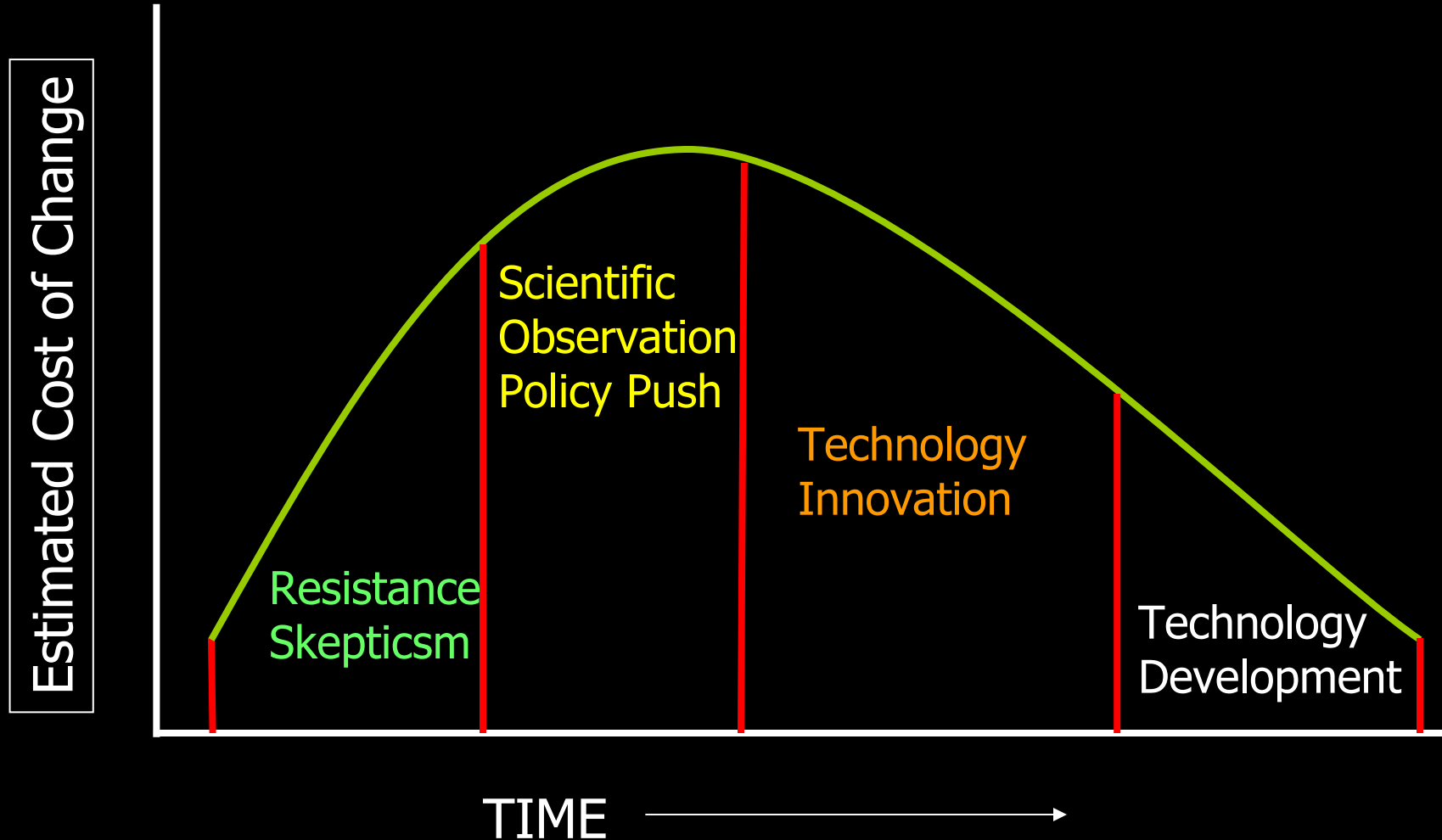
# TECHNOLOGY FOSTERING: EFFICIENCY GAINS

## Experience of Montreal Protocol





# MONTREAL EXPERIENCE

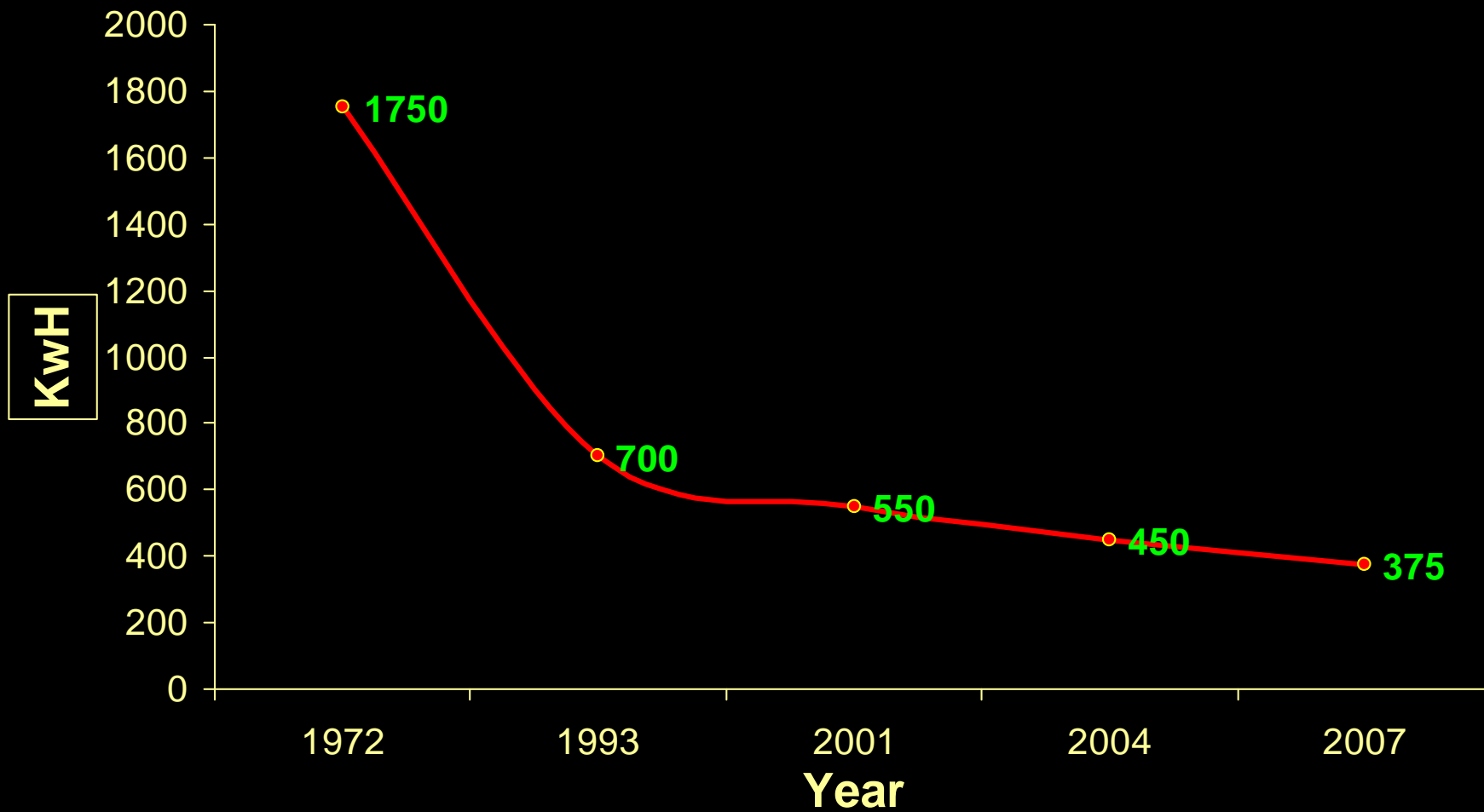


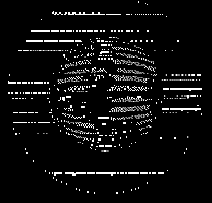
# Case of Domestic refrigerators

- Economic benefits
- Environmental advantages
- Social benefits



# ENERGY EFFICIENCY IMPROVEMENT-Domestic Refrigerator





***It Is not the strongest  
species  
that survive,  
nor the most intelligent,  
but the ones  
most responsive to change***

***- Charles Darwin***

**LET US BE RESPONSIVE TO  
EMERGING CHANGES**



**END**

**e-mail:** [rmshende@unep.fr](mailto:rmshende@unep.fr)

**Website:** [www.uneptie.org/ozonaction](http://www.uneptie.org/ozonaction)

**B2B:** [www.halontrader.org](http://www.halontrader.org)