

# Climate Change: The Forgotten Five

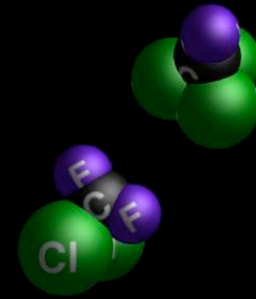


**Landfills**



**Forests**

CFC Molecules



**F Gases**



**Cement**



**Farming**

# The F Gases: 11% of the problem

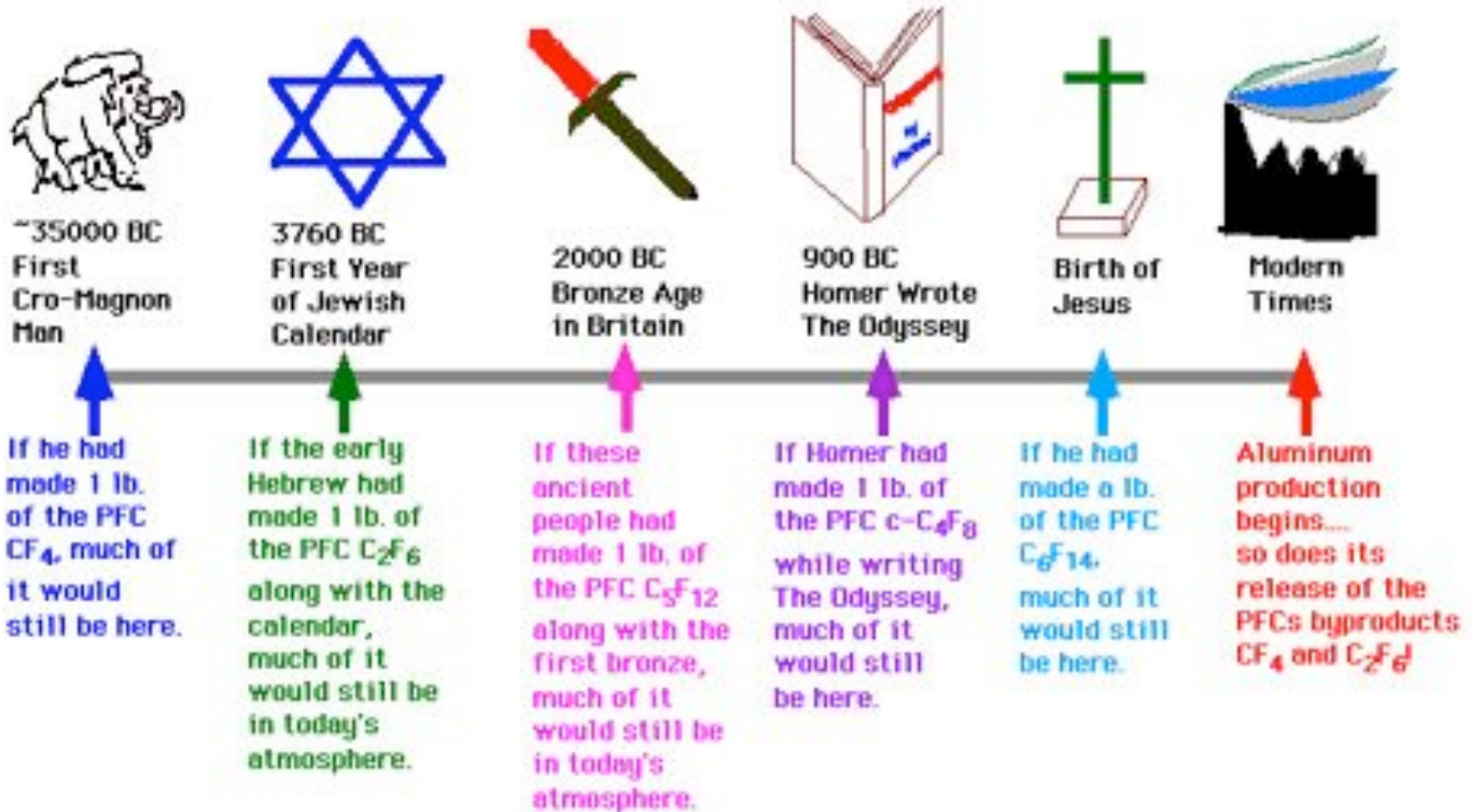
	Purpose	Lifetime	Global warming potential
CFCs	Coolants, foams	102 years	8,100
HCFCs	Coolants	12 years	1,500
HFCs	Coolants, CFC & HCFC substitutes	1-264 years	12,000
PFCs	Aluminum, Solvents, Plasma etching	3,200 to 50,000 yrs	5,700
SF6	Magnesium production Dielectric fluid	3,200 years	22,200

**The Solution:**

**Phase them all out by global treaty**

# PFCs last 3,200 to 50,000 years in the atmosphere

PFCs: HUMAN-MADE COMPOUNDS WITH VERY LONG LIFETIMES-  
HOW LONG DO THEY LIVE IN THE ATMOSPHERE?



# De-Forestation: 18% of the problem



## The Solutions:

1. More Forest Stewardship Council certification
2. Use Kyoto mechanisms to support forest protection
3. Stop illegal harvesting, importing
4. Reduce demand for wood and wood products
5. Reduce demand for beef, and soybeans to feed cattle
6. Massive global purchase of threatened rainforests, to be held in trust for indigenous peoples
7. Plant trees

# Farming: 14% of the problem



## The Solutions:

1. Soil conservation - reduces carbon loss
2. Change nitrogen-use patterns - reduces N<sub>2</sub>O
3. Shift to organic methods (stores carbon)
4. Capture biogas, use for power and heat
5. Reduce the methane from cattle
6. Consume less meat

# Cement: 2.5% of the problem



**1 tonne of CO<sub>2</sub> per tonne of cement**

## **The Solution:**

- 1. Tax all Portland cement use, and use the income to support the substitutes: Flyash - Pozzolana - Geopolymeric cements**
- 2. Phase out all use of Portland cement**

# Landfills: 1.6% of the problem



**Landfills produce methane from their rotting wastes**

## **The Solution:**

**Tax the methane so that it becomes very costly, and persuades landfill owners to capture and use the gas**