



The David Hume Institute

Presidential Address 2003

Professor Sir Alan Peacock DSC, FBA, FRSE

“The Political Economy of Sustainable Development”

Sponsored by Cairn Energy

THE ECONOMISTS' PART IN THE EVOLUTION OF SD DISCUSSION

1. **MALTHUS AND DOOMWATCHING**
2. **MILL AND THE NEGATIVE EXTERNALITIES OF ECONOMIC GROWTH - INTERESTS OF POSTERITY**
3. **JEVONS AND THE EXHAUSTION OF NON-RENEWABLE SOURCES OF ENERGY - ENDOGENOUS CONSTRAINTS**
4. **JEVONS, SUNSPOTS AND CYCLES - EXOGENOUS CONSTRAINTS**
5. **THE ATTEMPT TO CROWD OUT ECONOMICS**

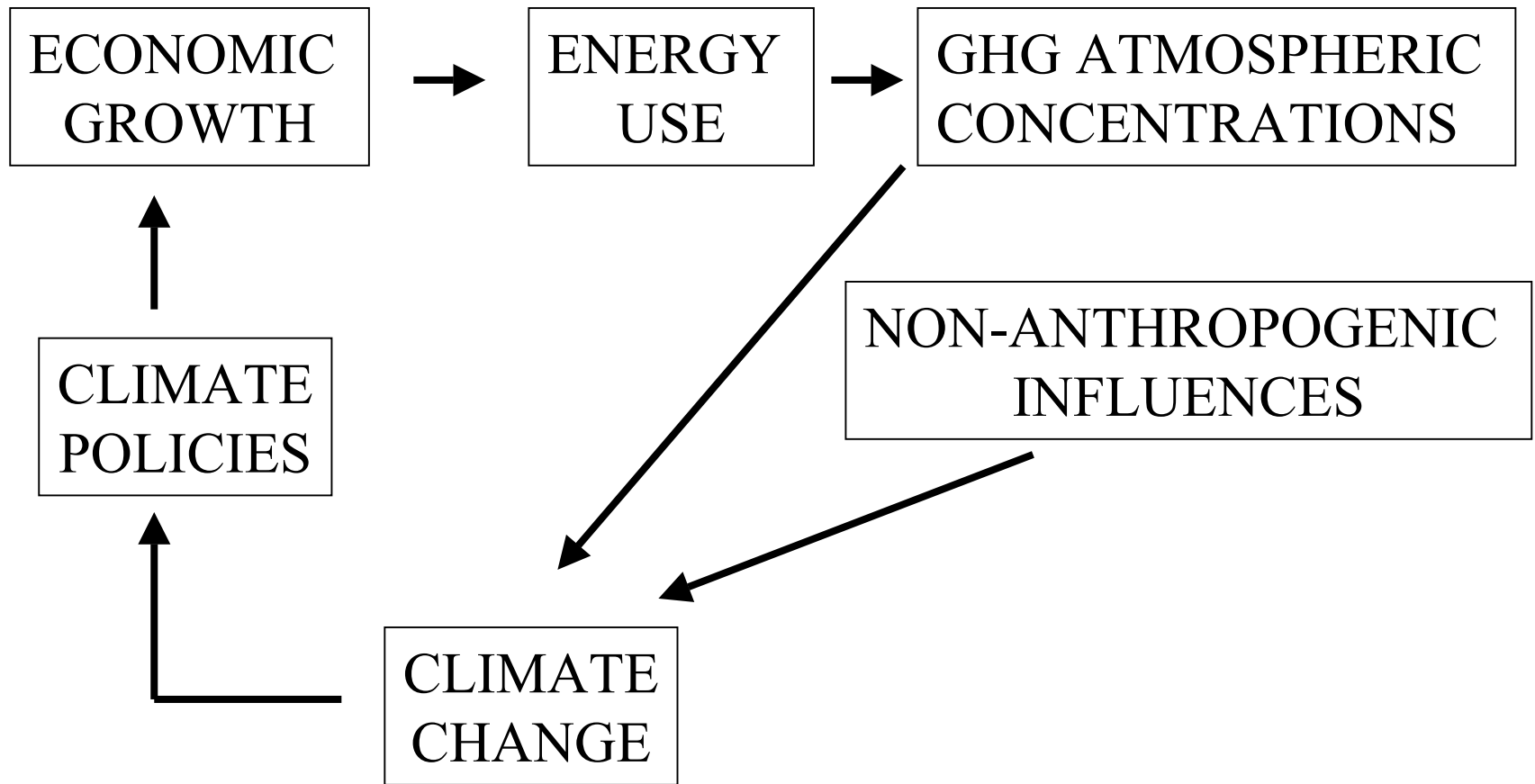
MILL AND THE ECOLOGICAL FOOTPRINT

“THERE IS NOT MUCH SATISFACTION IN CONTEMPLATING A WORLD WITH NOTHING LEFT TO SPONTANEOUS ACTIVITY OF NATURE; WITH EVERY ROOD OF LAND BROUGHT UNDER CULTIVATION...EVERY FLOWERY WASTE OF NATURAL PASTURE PLOUGHED UP, ALL QUADRUPEDS OR BIRDS WHICH ARE NOT DOMESTICATED FOR MAN’S USE EXTINGUISHED AS HIS RIVALS FOR FOOD, EVERY HEDGEROW OR TREE ROOTED OUT AND SCARCELY A PLACE WHERE A WILD FLOWER OR SHRUB COULD GROW WITHOUT BEING ERADICATED AS A WEED IN THE NAME OF IMPROVED AGRICULTURE. IF THE EARTH MUST LOSE THAT PORTION OF ITS PLEASANTNESS WHICH IT OWED TO THINGS THAT THE UNLIMITED INCREASE IN WEALTH AND POPULATION WOULD EXTIRPATE FROM IT, FOR THE PURPOSE OF ENABLING IT TO SUPPORT A LARGER, BUT NO BETTER OR HAPPIER POPULATION, I SINCERELY HOPE **FOR THE SAKE OF POSTERITY**, THAT THEY WILL BE CONTENT TO BE STATIONARY, LONG BEFORE NECESSITY COMPELS THEM TO IT”

JOHN STUART MILL

PRINCIPLES OF POLITICAL ECONOMY 1848

THE CLIMATE CHANGE CHAIN



QUESTIONS (i) Magnitude of change?
(ii) Time Lags

THE DEMAND FOR SUSTAINABLE DEVELOPMENT

1. The Conventional Approach: The New Commandments in Stone
2. The Interest of Individuals in Posterity - Deriving SD objectives from individual preferences
3. Individual Choice and Consumer Ignorance
 - a) Information Gaps
 - b) Filling the Gaps:
 - i) 'Expert' Valuation
 - ii) NGO'S and Pressure Groups

THE SUPPLY OF SUSTAINABLE DEVELOPMENT

1. The 'Costs' of Economic Growth
2. Climate Change, Global Warming and SD
 - i) The 'Doomwatch' Analysis
 - ii) The Technical Controversy
 - iii) The Economics Evidence
 - iv) The Policy Dilemmas
3. Resource Depletion and Human Welfare
 - i) The Index of Sustainable Welfare (ISEW)
 - ii) The Hazards of Green Accounting

CLIMATE CHANGE SCENARIO: 1990-2100

| | 1990 | 2000 | 2050 | 2100 |
|--|-------------|------------------|-----------------|-----------------|
| Global Population (billions) | 5.3 | 6.1-6.2 | 8.4-11.3 | 7.0-15.1 |
| Per Capita Income Ratio (a) | 16.1 | 12.3-14.2 | 2.4-8.2 | 1.4-6.3 |
| CO2 Concentration (b) | 354 | 367 | 463-623 | 478-1099 |
| Global temperature change (C) (d) | 0 | 0.2 | 0.8-2.6 | 1.4-5.8 |
| Global Sea-Level Rise (cm) | 0 | 2 | 5-32 | 9-88 |

INDEX OF SUSTAINABLE WELFARE (ISEW)

$$\begin{aligned} \text{ISEW} = & \text{PERSONAL CONSUMPTION} \\ & + \\ & \text{NON-MARKETED LABOUR SERVICES} \\ & + \\ & \text{WELFARE PRODUCING PUBLIC SERVICES} \\ & + \\ & \text{NET CAPITAL} \\ & - \\ & \text{PERSONAL COSTS OF CONSUMPTION} \\ & - \\ & \text{POLLUTION AND ENVIRONMENTAL DAMAGE} \\ & - \\ & \text{DEPRECIATION OF NATURAL CAPITAL} \end{aligned}$$

ISEW VARIANTS FOR UK:1950-1998

(per head at 1955 prices)

| | 1950 | 1973 | 1998 |
|------------------|-------|-------|--------|
| GDP | 4,216 | 7,338 | 12,100 |
| | - | (2.4) | (1.8) |
| ISEW | 2,142 | 3,271 | 2,849 |
| | - | (1.9) | (-0.6) |
| ISEW (R1) | 2,863 | 5,400 | 9,526 |
| | - | (2.8) | (2.3) |
| ISEW (R2) | 2,755 | 6,733 | 14,674 |
| | - | (4.0) | (3.1) |

Source: Crafts (2002)

Notes: 1. Figures in brackets are growth rates

2. R1 = Revision *excluding* changes in life expectancy

3. R2 = Revision *including* changes in life expectancy

ILLUSIONS OF POLICY FORMATION

1. **“PEOPLE CAN BE MADE TO CHANGE”**

“Men are not able radically to cure either themselves or others, that narrowness of soul which makes them prefer the present to the remote. They cannot change their natures. All they can do is to change their situation”. *David Hume*.

2. **“MARKET FAILURE MAKES GOVERNMENT ACTION IMPERATIVE”**

Hume on the Public Goods Problem

The Market Approach to Removing Negative Externalities

3. **“GOVERNMENTS ARE MORE FAR-SEEING THAN THOSE THEY REPRESENT”**

Public Choice Analysis and SD Policies



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