



**ANU**

**THE AUSTRALIAN NATIONAL UNIVERSITY**

# **Eco-social systems and health promotion**

**Vic Health, July 25, 2005**

**Colin Butler**

**National Centre for Epidemiology and  
Population Health**

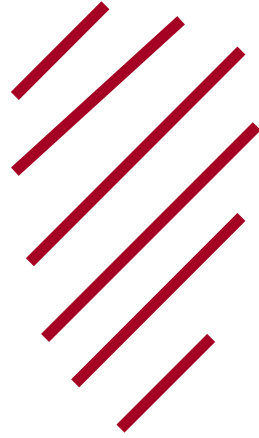
**The Australian National University  
Canberra, Australia**

# NOT a new health issue

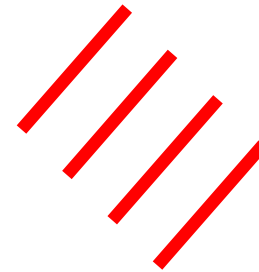
- Man, medicine and the environment (Dubos, 1968)
- The environment and human health (Boyden, Med. J. Aust., 1972)
- Good planets are hard to find (Kickbusch, 1989)

personal  
initiatives

healthy  
environment

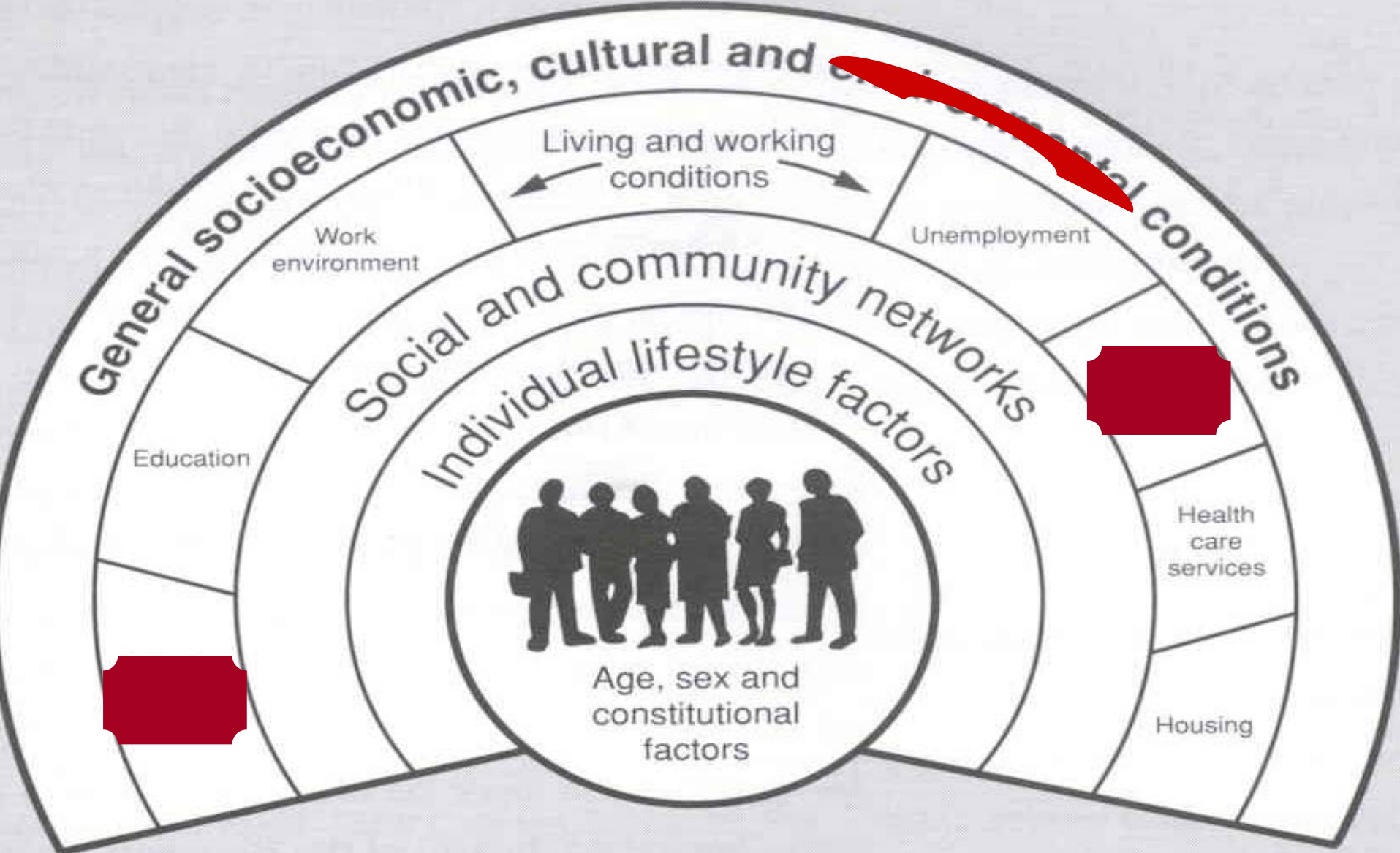


support systems



health  
promotion

Epp report, 1986



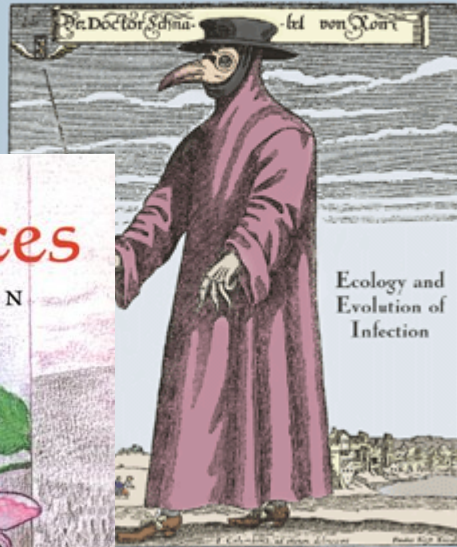
Dahlgren and Whitehead, 1991



# Science

11 May 2001

Vol. 292 No. 5519  
Pages 1009-1248 \$9



ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE

Winner of Two Pulitzer Prizes

# Biophilia

EDWARD O. WILSON

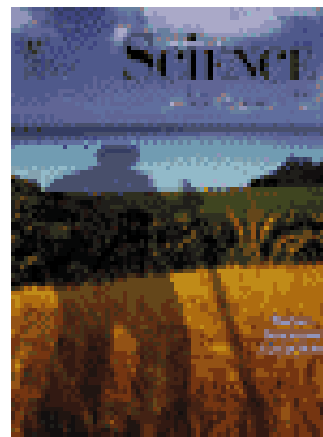


# Nature's Services

SOCIETAL DEPENDENCE ON  
NATURAL ECOSYSTEMS



EDITED BY GRETCHEN C. DAILY

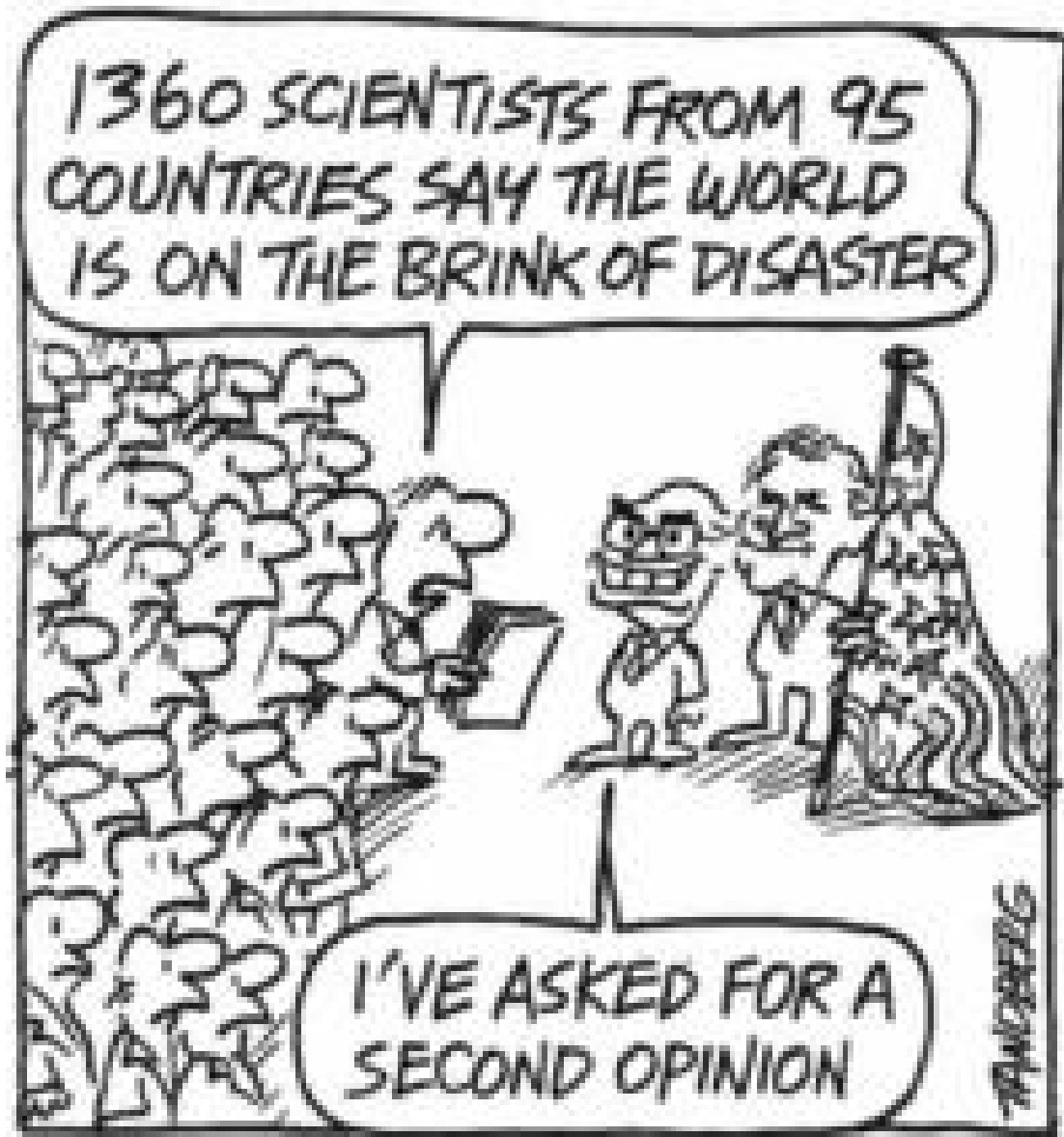


# OUR FINAL HOUR

**A SCIENTIST'S WARNING:  
HOW TERROR, ERROR, AND ENVIRONMENTAL  
DISASTER THREATEN HUMANKIND'S FUTURE  
IN THIS CENTURY—ON EARTH AND BEYOND**

# Martin Rees

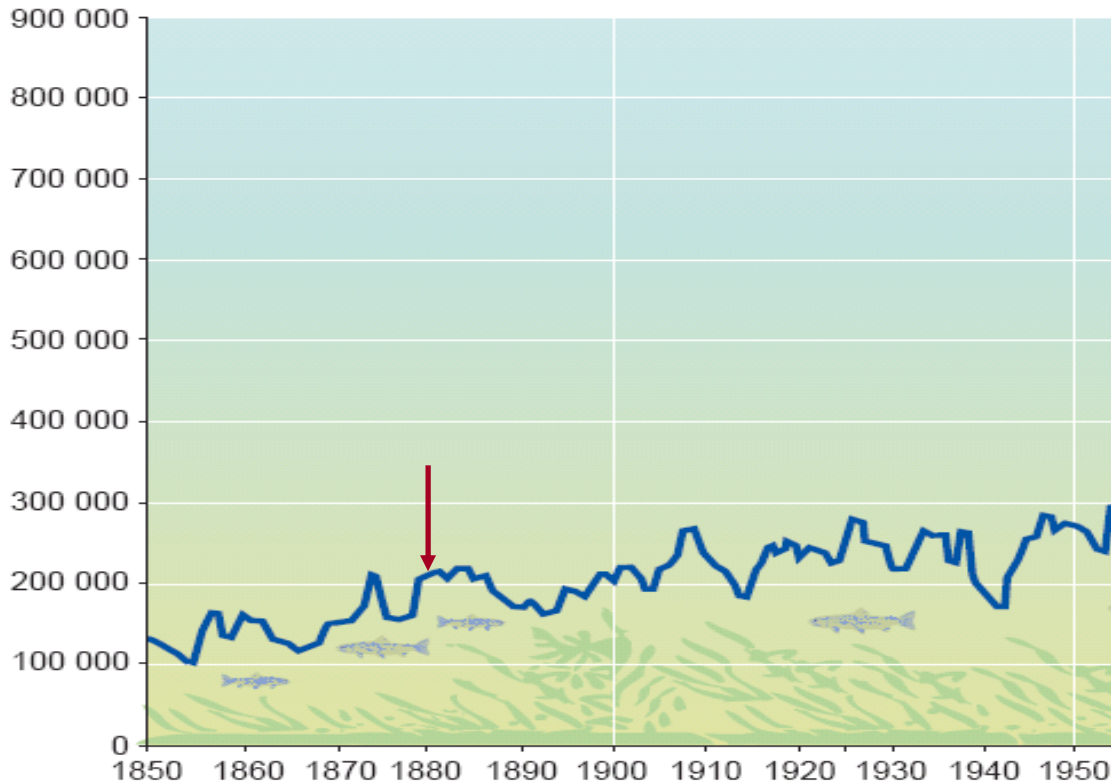
AUTHOR OF *JUST SIX NUMBERS*



Tandberg – The Age

# Ecological surprises

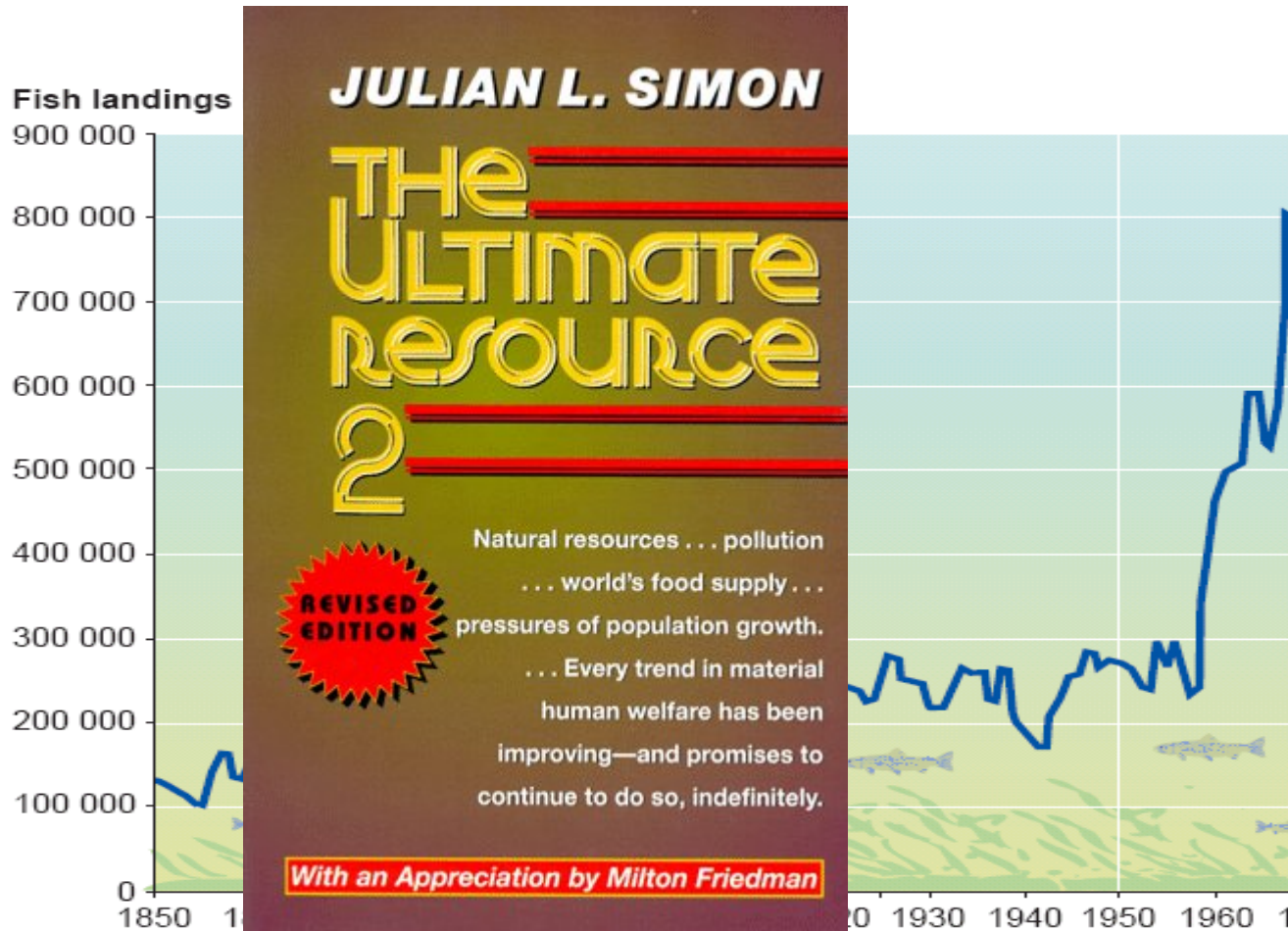
Fish landings in tonnes



“The cod fishery ... probably all the great sea fisheries, are inexhaustible, that is to say that nothing we do seriously affects the number of fish”

TH Huxley, 1881

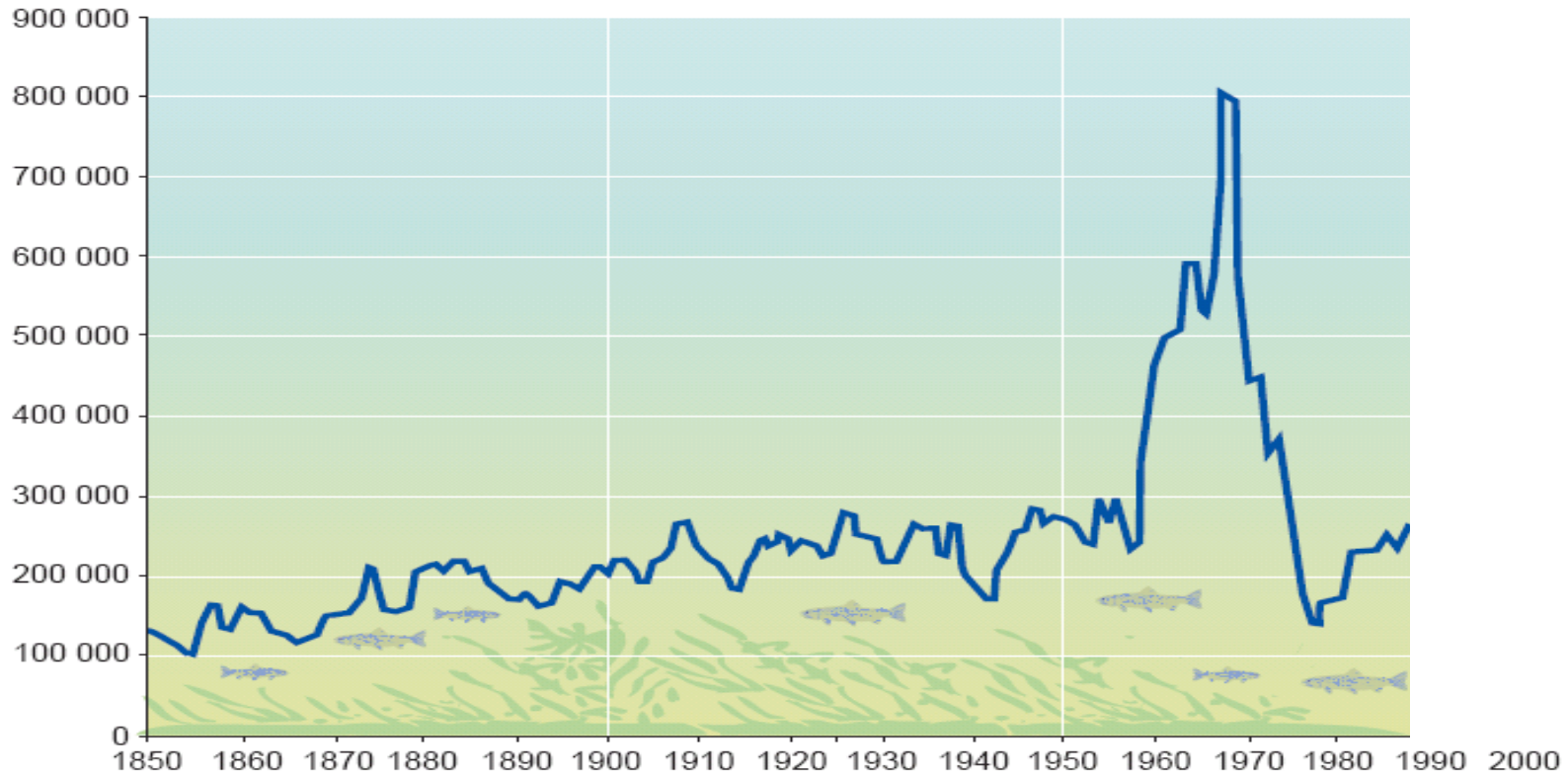
# The “cornucopian enchantment”





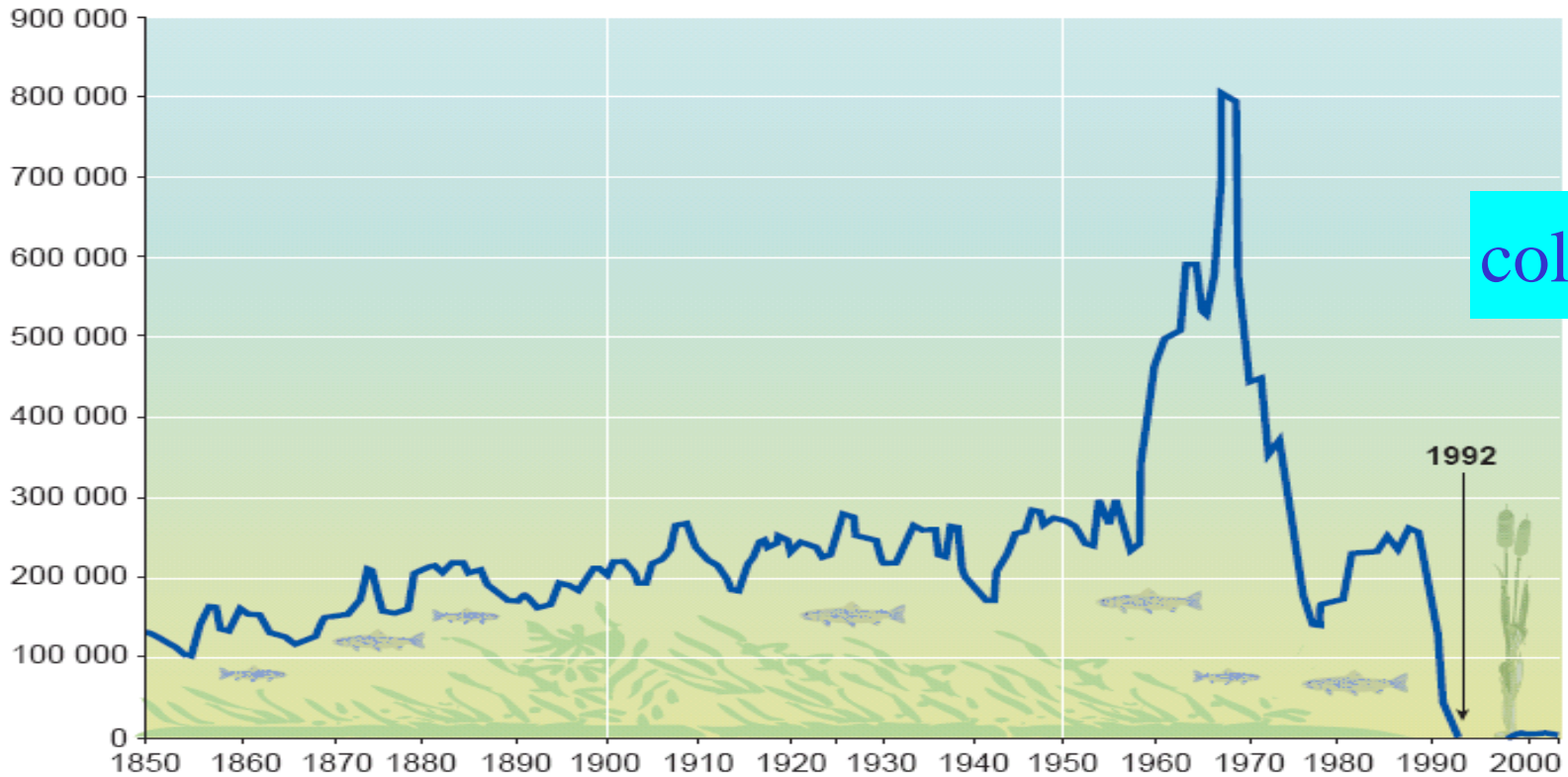
# Ecological surprises

Fish landings in tonnes



# Ecological surprises

Fish landings in tonnes



collapse

# Social (“socio-ecological”) surprises - historical

Easter  
Island  
vs  
Hawaii

1862 conflict: drift netters vs long liners

# Socio-ecological surprises - Australia

Colonisation, settlement

Rural dislocation / abandonment, despair,  
suicide

Boat people response?

# Socio-ecological surprises – overseas



Journal of Economic Behavior & Organization  
Vol. 34 (1998) 1–47

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JOURNAL OF  
Economic Behavior  
& Organization

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## Land relations under unbearable stress: Rwanda caught in the Malthusian trap

Catherine André, Jean-Philippe Platteau\*

*Centre de Recherche en Economie du Développement (CRED), Faculty of Economics,  
University of Namur, 8, Rempart de la Vierge, B-5000 Namur, Belgium*



# Not taking (ecological) precautions

- Over-clearing – salinity
- Greenhouse gas emissions – climate change
- Mad Cow Disease
- Factory farming (chickens, cattle, pigs)

**“climate change is worse than terrorism”  
(David King – UK Chief Scientist)**

**does not world-scale climate change and  
ecosystem degradation suggest the proximity  
of limits?**

**could near-limits - and the “stickiness of  
history” - produce chaos?**

**could world –scale terrorism be an early  
symptom?**

# Key challenges to sustainability

**Social incomprehension - denial, complacency, conceit (delusion) of independence from nature (urbanisation)**

**Scientific incomprehension – reductionism**

**“Tragedy of the commons”**

# Key challenges to sustainability?

**Genuine uncertainties** – especially of social consequence, lead time (long... how long?)

**Opportunity cost** (including “war on terror”)

**Risk of “entrapment”** – checkmate

Intelligent  
Design



TDS

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MAYBE IT'S  
JUST A STAGE





# What can be done?

**Ros Kelly's lament –**

**take this issue very seriously**

**look for multiple benefits (eg cycling/public transport)**

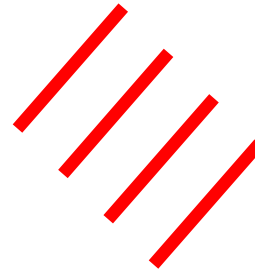
**look for allies in other parts of government?**

sustainable  
value system

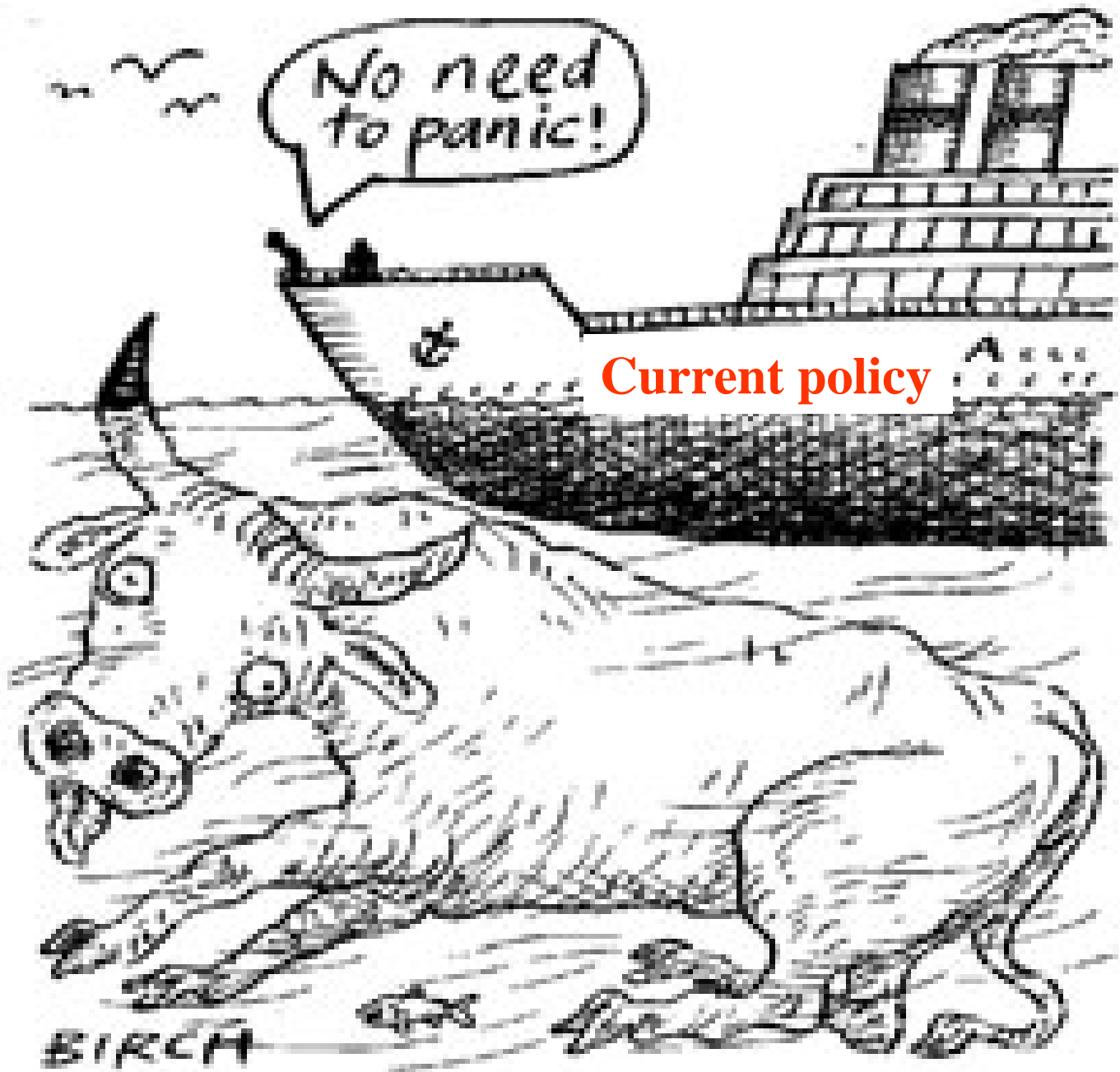
Sustainable  
global  
environment



Sustainable  
global society



Sustainable  
global  
health



Current policy