



ICTs, the Internet and Sustainable Development

Heather Creech, Don MacLean, Tony Vetter,
Maja Andjelkovic

Global Connectivity, IISD

iisd International Institute for Sustainable Development Institut international du développement durable

Better living for all—sustainably

What is sustainable development?

Integrated perspectives

Economic

Environmental

Social / Cultural

Governance

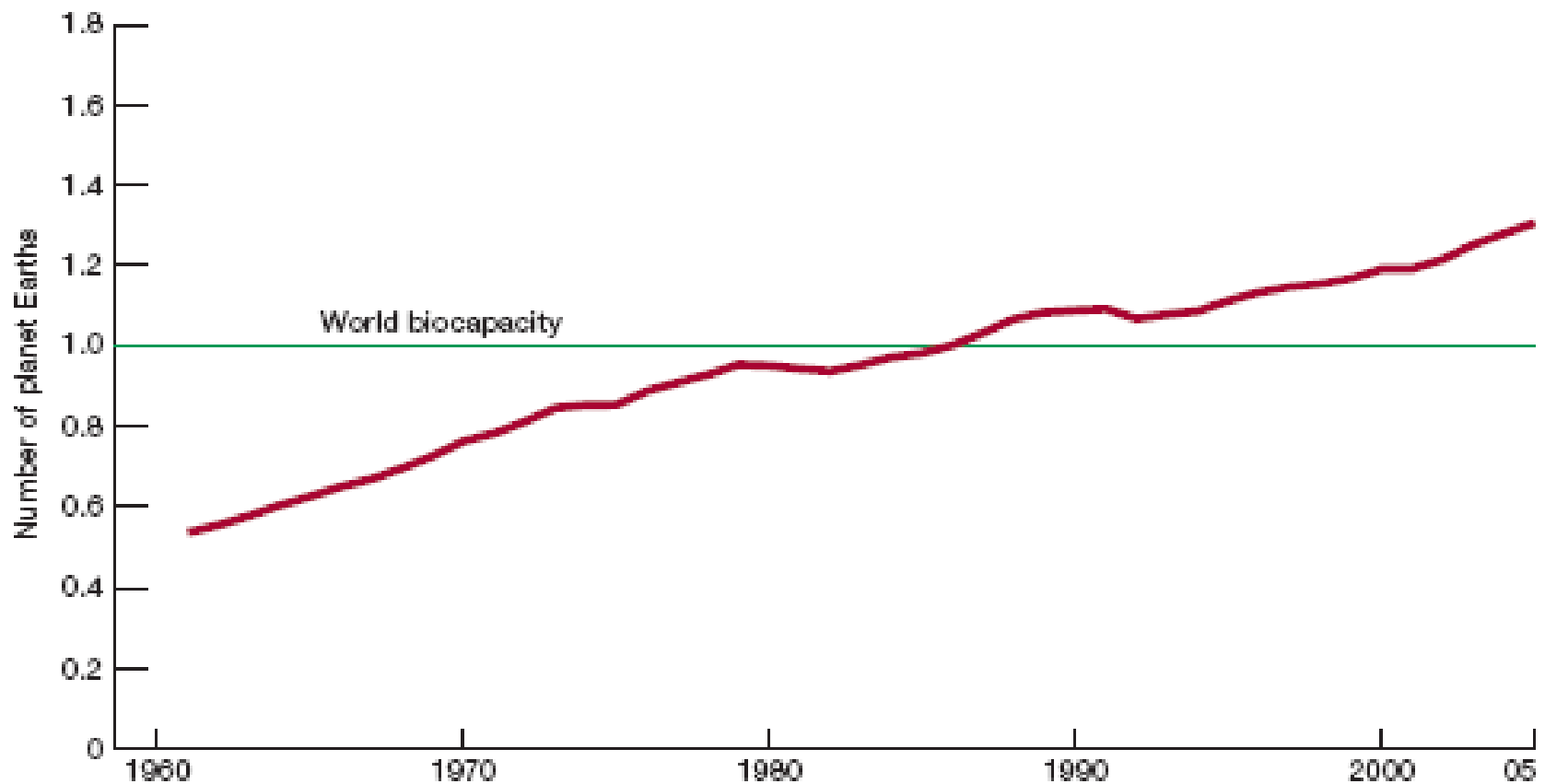
Innovation

Communications

Brundtland definition: Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

How are we doing?

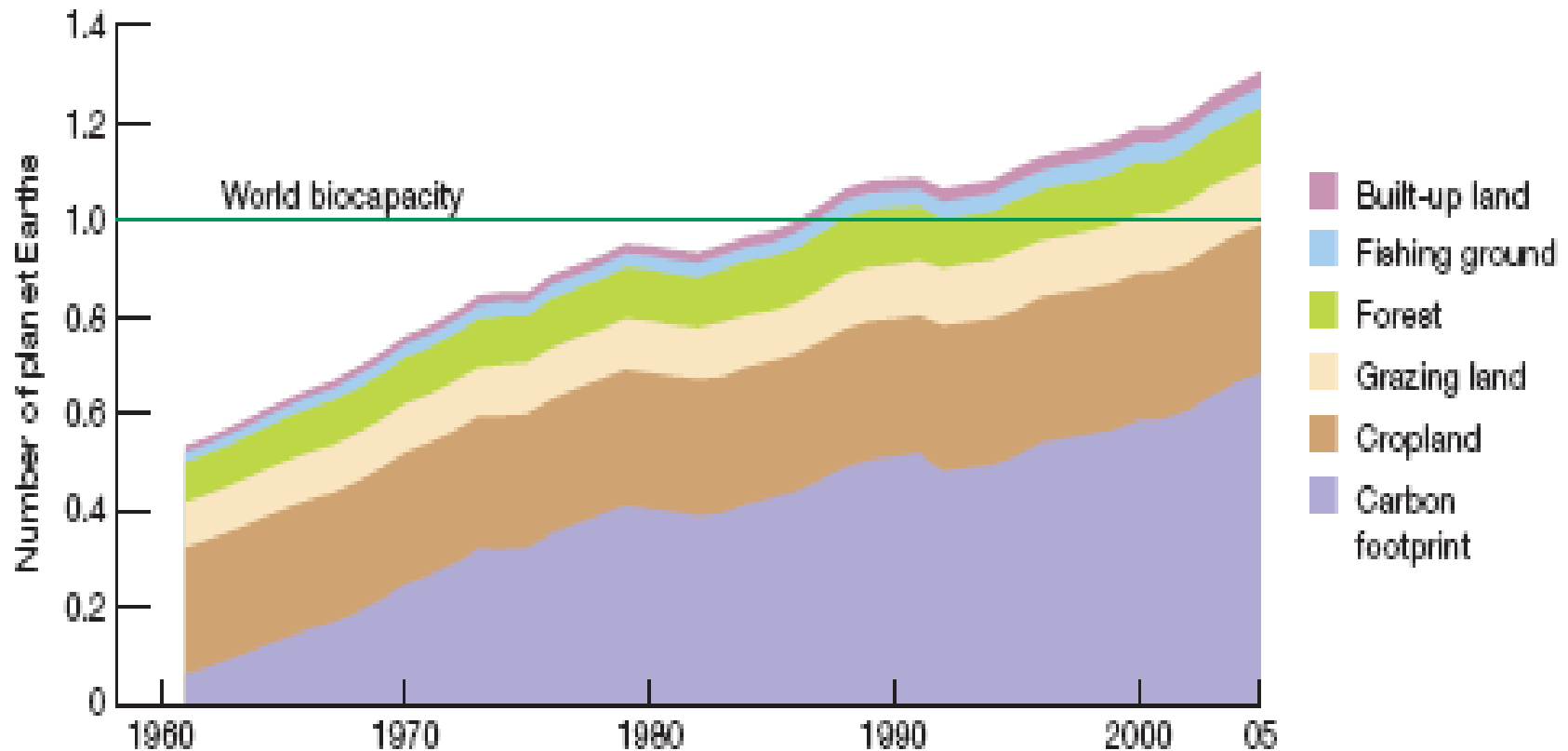
Fig. 2: HUMANITY'S ECOLOGICAL FOOTPRINT, 1961-2005



Source: WWF Living Planet Report 2008

What's the problem?

Fig. 23: **ECOLOGICAL FOOTPRINT BY COMPONENT, 1961-2005**



Source: WWF Living Planet Report 2008

ICTs and the environment....

- The Internet is the fastest growing source of CO₂ to the atmosphere...it doubled from 2002 to 2006 [Bill St. Arnaud, CANARIE]
- Materials consumption and supply chain management
- E-waste

ICTs and Sustainable Development

- First order/direct ICT effects
 - Greening ICT
 - R&D, standardization, good practices, user awareness
 - ITU Focus Group
- Second order/indirect ICT effects
 - Promoting innovation, controlling rebound effects, enabling dematerialization, and managing virtualization
 - Public and private sector engagement, incentives and regulation
 - OECD Internet economy work program
- Third order/systemic ICT effects
 - Governing economic and social transformation within environmental limitations
 - Evolving values, goals, principles, processes
 - Networked governance

The Role of the ICT sector

- Review critical issues through a sustainable development lens
- Embrace a full lifecycle approach to ICTs
- Support open network architectures and global connectivity
- Support open, uncensored, accessible, multilingual content
- Leadership on third order effects and systemic transformation: networked models, dematerialization etc.
- Recognize the importance of good governance processes for the management of the Internet



For more information, contact:

Heather Creech

hcreech@iisd.ca

[**www.iisd.org**](http://www.iisd.org)

iisd

International
Institute for
Sustainable
Development

Institut
international du
développement
durable

Better living for all—sustainably