



**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

Outline

- IISD
- What is sustainable development?
- How does it link to ICTs?
- The role of the ICT sector in sustainable development

The International Institute for Sustainable Development (IISD)

- Founded by Canada in 1990 in response to the Brundtland World Commission on Environment and Development
- Non-profit, non-governmental research and policy institute working on:
 - Trade and investment
 - Climate change and energy
 - Natural Resources Management
 - Measurement and Assessment
 - Reporting on International Negotiations
 - Global Connectivity
- 150 people located in more than 30 countries

iisd

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.

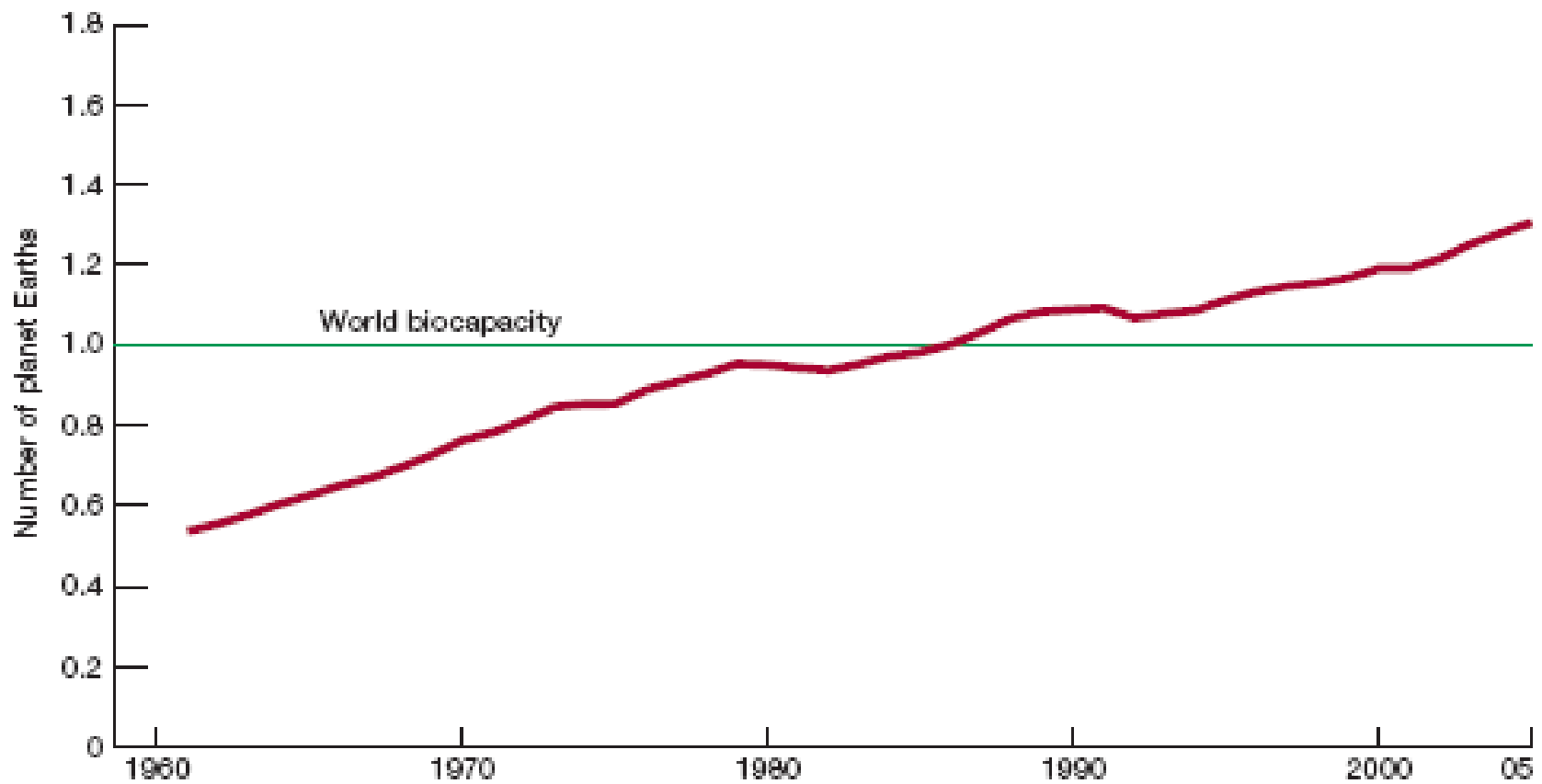
Sustainable development and technology

Two concepts: Limitations and possibilities

- the limits that the world's ecosystems may reach as a result of the state of technology and social organization
- the possibilities for sustainability that result from changes in technology and social organization

How are we doing?

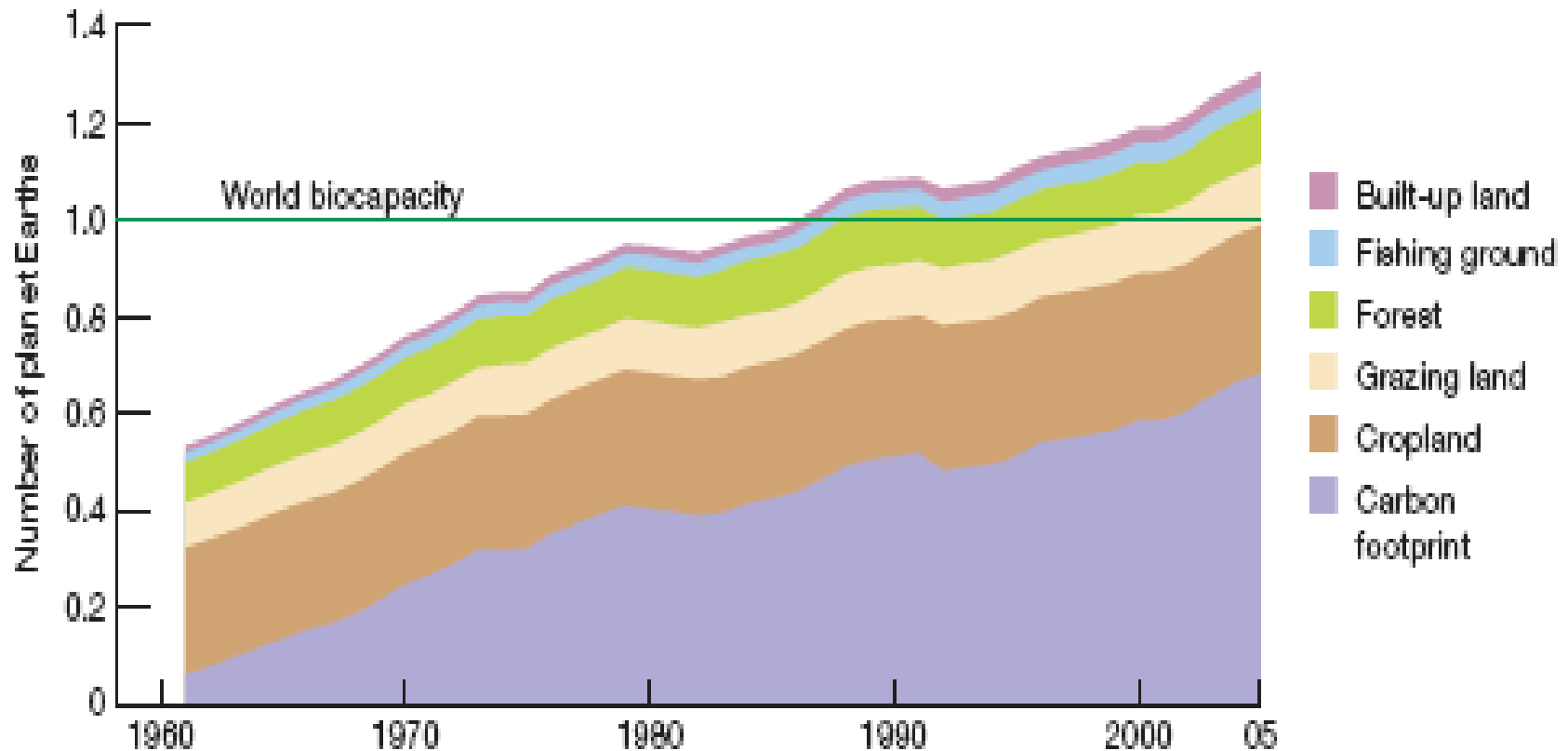
Fig. 2: HUMANITY'S ECOLOGICAL FOOTPRINT, 1961-2005



Source: WWF Living Planet Report 2008

What's the problem?

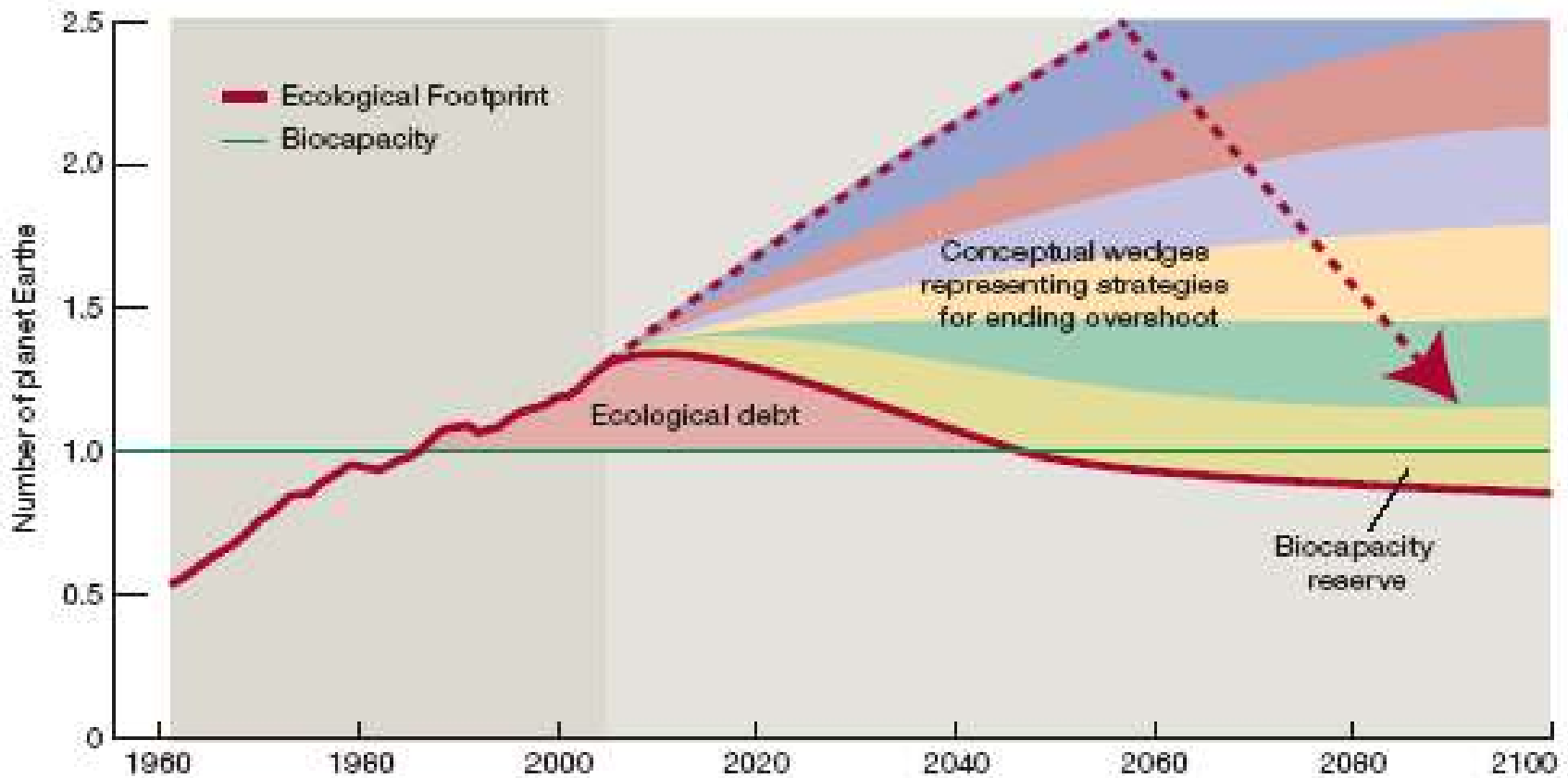
Fig. 23: **ECOLOGICAL FOOTPRINT BY COMPONENT, 1961-2005**



Source: WWF Living Planet Report 2008

How can ICTs help achieve environmentally sustainable development?

Fig. 34: SUSTAINABILITY WEDGES AND AN END TO OVERSHOOT



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

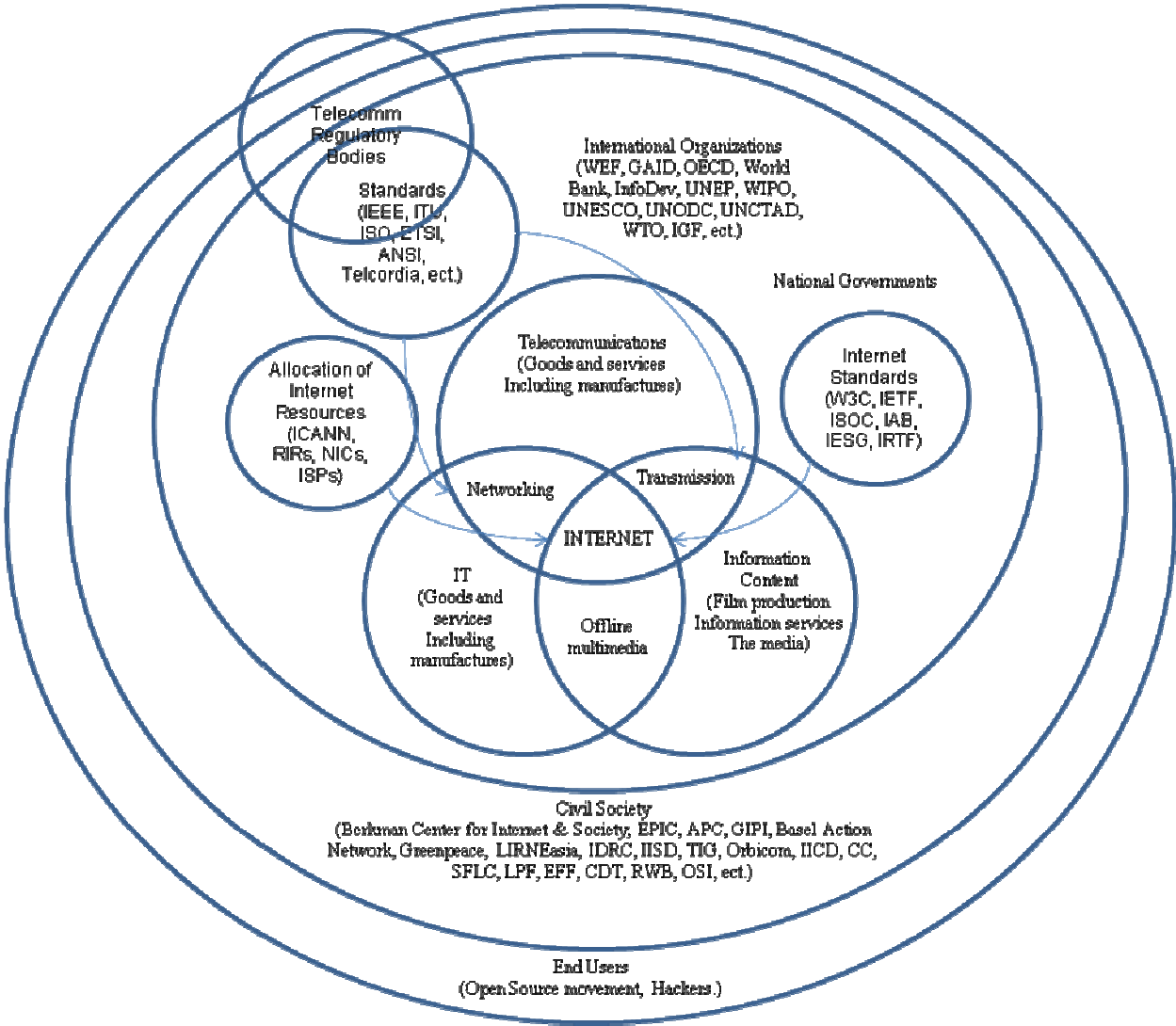
ICTs and Sustainable Development

- 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

What is “Networked Governance”?

- Emerging patterns of ICT-enabled interaction that are transforming
 - Economic, social and government structures (the information economy and society, wikinomics, etc.)
 - Communication among individuals, groups and communities (social networking, web 2.0, etc.)
 - Interactions between natural and artificial environments (the Internet of Things, ubiquitous networks, etc.)

The role of the ICT sector



The Role of the ICT sector

- Review critical issues through a sustainable development lens
- Review corporate social responsibility and corporate environmental and SD reporting
- Remove the “firewalls” between suppliers and end use and 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