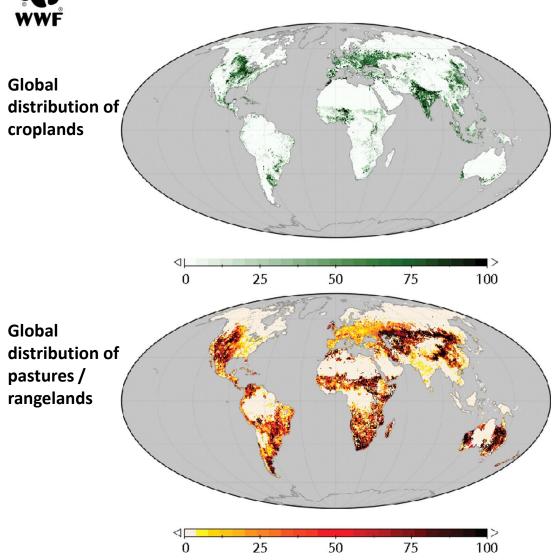


# WWF

### 1) Land Clearing/Degradation



MASSIVE CHANGES TO EARTH'S LAND

~40% of land converted to agriculture

- •~18 million km<sup>2</sup> in crops
- •~30 million km² in pastures
- ~40% of global photosynthesis in human hands

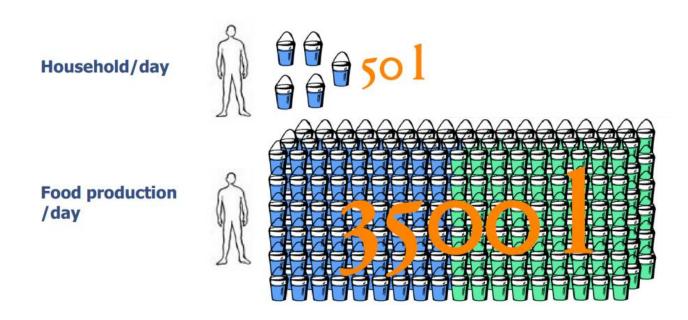
Foley J A et al. PNAS 2007;104:12585-12586



### 2) Water Degradation

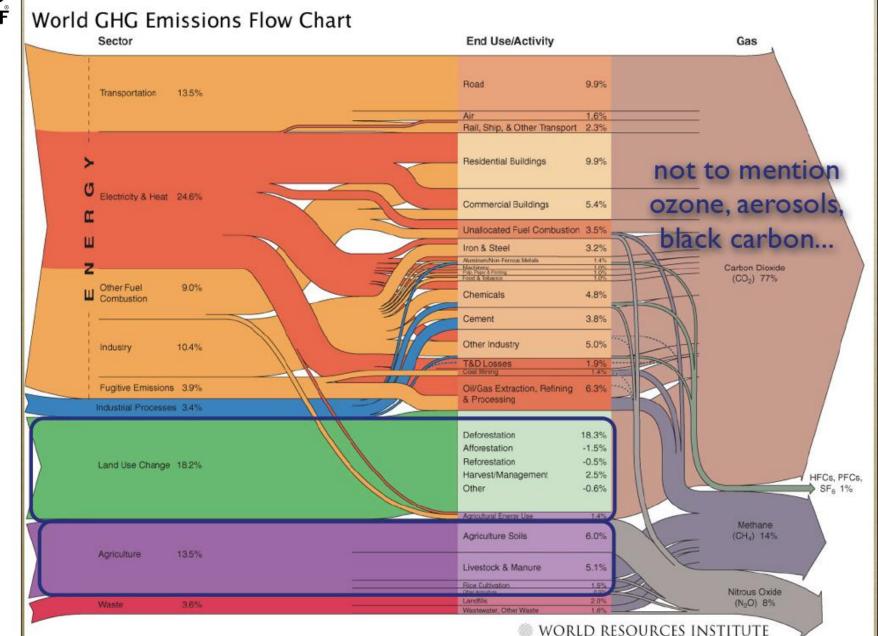
#### MASSIVE INCREASES IN WATER USE

- water use <u>tripled</u> in 50 years
- mostly due to agriculture
  - •70% irrigation, 20% industry, 10% domestic
  - •~50% of available freshwater flow already co-opted
- result: dry rivers, groundwater depletion





### 3) Atmosphere alteration





### Article

# The Anthropocene: Are Humans Now Overwhelming the Great Forces of Nature?



AMBIO (Journal of the Human Environment) 36(8):614-621. 2007



Climate Change Ozone depletion

Biogeochemical loading: Global N & P Cycles

Planetary

oundaries

Rate of Biodiversity Loss

Ocean Acidification

**Atmospheric Aerosol** 

Loading

Global Freshwater Use

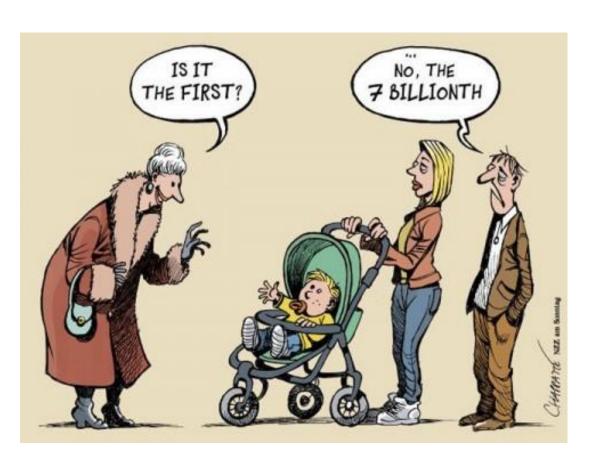
Land System Change

**Chemical Pollution** 

Rockström *et al.*, Safe Operating Space for Humanity. *Nature*, 461, 472-475, 2009



### 7 billion expectations, 1 Planet







### **Changing eating habits**

#### CHANGING EATING HABITS

Meat consumption in China per capita:

1980

2007









# Challenge 21th century: REDUCE THE FOODPRINT

#### **3 CHALLENGES:**

- 1. Meeting the needs of the world's population today
- 2. Meeting the needs of the next 2-3 billion.
- 3. Do it Sustainably!



### **WWF SOLUTIONS/ OPPORTUNITIES**

- 1. Stop expansion of agriculture, stop deforestation: the single biggest driver of species extinction in the world
- 2. Improve productivity without using more land and harming the environment
- 3. Improve resource efficiency (water, energy, fertilizer ).
- 4. Change diets
- 5. Stop food loss/waste





# Wasting food means large amounts of LAND, ENERGY, FERTILISERS, WATER been lost





# There is no single **SOLUTION**.







We need EVERYONE at the **table**.





### **One Planet Food: international program**



WORKING TOGETHER FOR HEALTHY PEOPLE AND A HEALTHY PLANET











# WWF Italy "One planet food" Program

### Agriculture and conservation project: Terre dell'Oasi



Terre dell'Oasi, un prodotto che sa di buono, ma soprattutto di utile







# WWF Italy "One planet food" Program

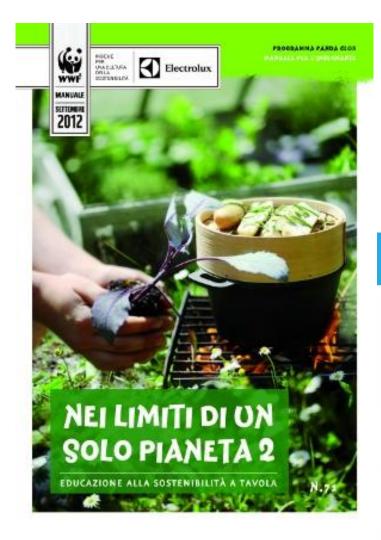
### **People awarness: Virtual Shopping chart**





# WWF Italy "One planet food" Program

### **Education: Schools kit**







#### CONCORSO DI RICETTE AMICHE DELL'AMBIENTE

#### Scrivi la tua ricetta amica del pianeta

e partecipa al concorso

#### Nei limiti di un solo Pianeta

Il concorso è la fase conclusiva del progetto Panda Club 2011-2012 sull'alimentazione sostenibile per mettere in pratica, giocando con la creatività in cucina, quanto imparato nel corso dell'anno.





#### Metti alla prova la tua creatività in cucina

Usa la tua fantasia per "rileggere" le ricette quotidiane e capire come la stagionalità

#### I premi

I migliori dieci progetti vincono libri e strumenti didattici per arricchire la biblioteca della scuola e in più

un televisore LCD 32 pollici per il vincitore

una videocamera
per il secondo classificato
una macchina fotografica
per il terzo classificato



#### Le regole del gioco Il concorso è aperto

Il concorso è aperto a tutte le classi delle scuole primarie e secondarie che dovranno inviare una ricetta, raccontata e illustrata, preparata con ingredienti sani, di basso impatto ambientale e riducendo i consumi di acqua, energia e rifiuti.

Il regolamento





# WWF Italy "One planet food" Program

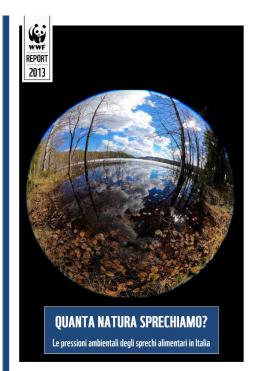
### a. FOOD WASTE PROJECT

WWF Italy is UNEP FAO Campaign's voice in Italy on food waste issue



- •"HOW MANY NATURAL RESOURCES WE WASTE"
  WWF Italy Report
- •CORPORATE ENGAGEMENT

Creation of a network of companies committed to combat food waste (*Food waste savers*)





# WWF Italy "One planet food" Program Projects

# b. MARKET TRASFORMATION INITIATIVE AND AGRICOLTURAL COMMODITIES

WWF IT works with major Italian companies to change the way key global commodities are produced, processed, consumed and financed worldwide.

Key industrial sectors are Food and Retailers.

Main agricultural commodities: seafood, sugar cane, coffee, palm oil.











# WWF Italy "One planet food" Program

### c. AGRICOLTURE AND WATER USAGE

REDUCING THE IMPACT OF HUMANITY'S WATER FOOTPRINT

WWF Italy is working with governments, businesses, citizen to improve the way water is managed.

#### This work is carried in conjunction with the:

- 1. Food loss/Foos waste special project
- 2. Water footprint of agricultural sector
- 3. Specific agricultural initiatives (eg. PAC EU Common Agricultural Policy)
- 4. Market Transformation Initiative (agricultural commodities)
- 5. Biodiversity Conservation (eg. Water Risk Filter Project).





# WWF Italy "One planet food" Program

### d. 2013-2015 ROADMAP EXPO





- 2013-2015 road-map of events and initiatives in support of sustainable food
- corporate engagement program (strategic partners on food waste and agricolture/water usage)
- awareness-raising campaign for the general public on sustainable diet/food waste
- people powered campaign: "1 million urban gardens@ 2015 Campaign"

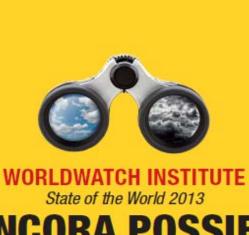


### BECAUSE **FAILURE** IS NOT AN **OPTION**.





Thanks for the attention!



# È ANCORA POSSIBILE LA SOSTENIBILITÀ?

Edizione italiana a cura di Gianfranco Bologna







Home

Report

Contributors

Communication & Outreach

**IPCC Process** 

Background

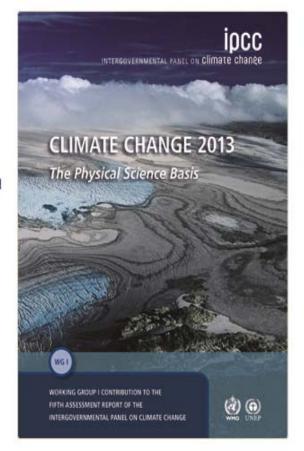
Contacts

### **IPCC WGI AR5**

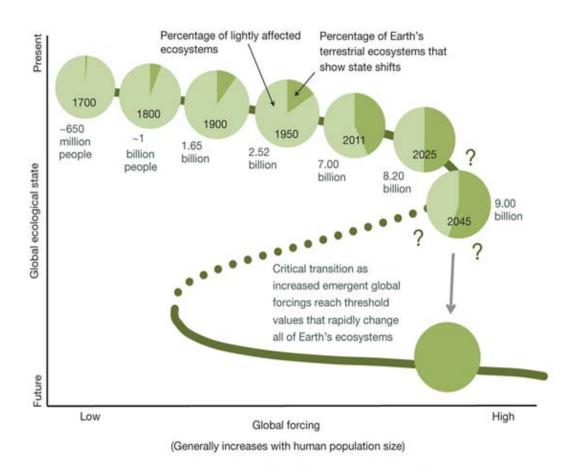
#### Climate Change 2013: The Physical Science Basis

The Twelfth Session of Working Group I (WGI-12) will take place from 23 to 26 September 2013 in Stockholm, Sweden. This Session of WGI is being convened to approve the Summary for Policymakers (SPM) of the Working Group I contribution to the IPCC Fifth Assessment Report (WGI AR5) and accept the underlying scientific and technical assessment.

The WGI AR5 Summary for Policymakers will be available here on 27 September 2013.

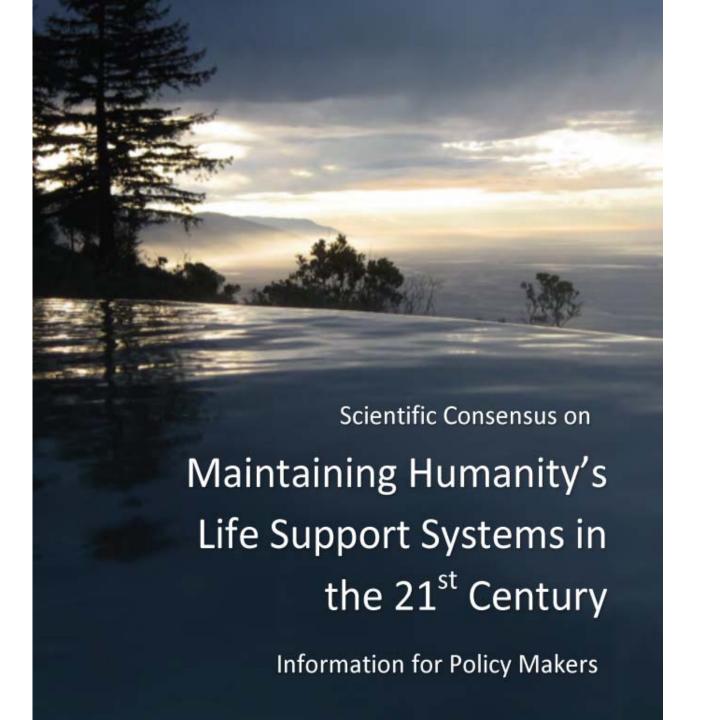


### Quantifying land use as one method of anticipating a planetary state shift.



A D. Barnosky et al. Nature 486, 52-58 (2012) doi:10.1038/nature11018







## Approaching a state shift in Earth's biosphere

Anthony D. Barnosky<sup>1,2,3</sup>, Elizabeth A. Hadly<sup>4</sup>, Jordi Bascompte<sup>5</sup>, Eric L. Berlow<sup>6</sup>, James H. Brown<sup>7</sup>, Mikael Fortelius<sup>8</sup>, Wayne M. Getz<sup>9</sup>, John Harte<sup>9,10</sup>, Alan Hastings<sup>11</sup>, Pablo A. Marquet<sup>12,13,14,15</sup>, Neo D. Martinez<sup>16</sup>, Arne Mooers<sup>17</sup>, Peter Roopnarine<sup>18</sup>, Geerat Vermeij<sup>19</sup>, John W. Williams<sup>20</sup>, Rosemary Gillespie<sup>9</sup>, Justin Kitzes<sup>9</sup>, Charles Marshall<sup>1,2</sup>, Nicholas Matzke<sup>1</sup>, David P. Mindell<sup>21</sup>, Eloy Revilla<sup>22</sup> & Adam B. Smith<sup>23</sup>





### Does the terrestrial biosphere have planetary tipping points?

Barry W. Brook<sup>1</sup>, Erle C. Ellis<sup>2</sup>, Michael P. Perring<sup>3</sup>, Anson W. Mackay<sup>4</sup>, and Linus Blomqvist<sup>5</sup>

Forum



Focus Issue: Is there a global tipping point for planet Earth?

#### On the origin of planetary-scale tipping points

Timothy M. Lenton and Hywel T.P. Williams

College of Life and Environmental Sciences, University of Exeter, Hatherly Laboratories, Prince of Wales Road, Exeter, Devon, EX4 4PS, UK

<sup>&</sup>lt;sup>1</sup> Environment Institute and School of Earth and Environmental Sciences, University of Adelaide, Adelaide, SA 5095, Australia

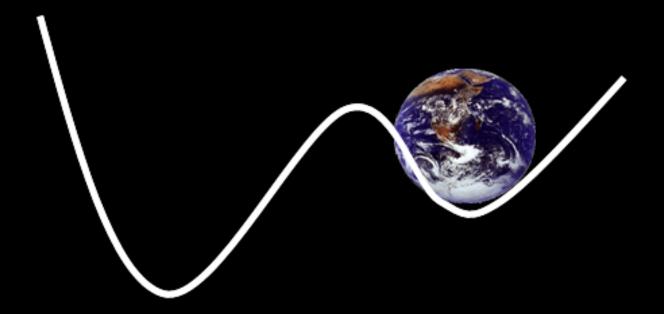
<sup>&</sup>lt;sup>2</sup>Geography and Environmental Systems, University of Maryland, Baltimore County, MD 21250, USA

School of Plant Biology, The University of Western Australia, Crawley, WA 6009, Australia

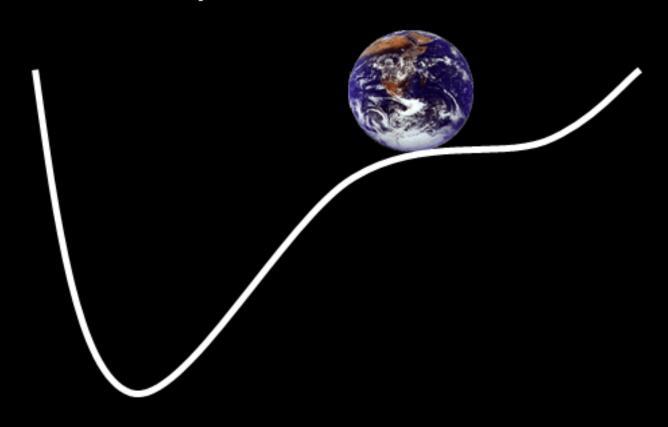
<sup>&</sup>lt;sup>4</sup>Environmental Change Research Centre, Department of Geography, University College London, London, UK

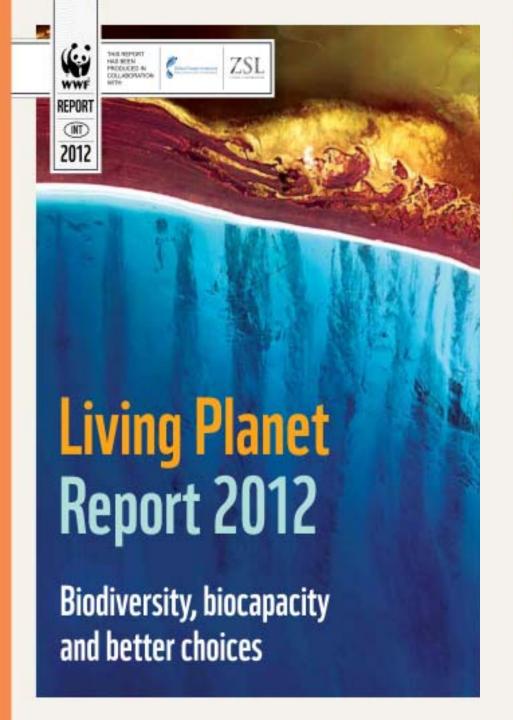
Conservation and Development Program, Breakthrough Institute, Oakland, CA 94612, USA

### A resilient Earth System



# Reduced resilience – our precarious predicament





### **LIVING PLANET REPORT 2012**

#### BIODIVERSITY

Biodiversity, ecosystems and ecosystem services – our natural capital – must be preserved as the foundation of well-being for all.





100%

It takes 1.5 years for the Earth to regenerate the renewable resources that people use, and absorb the CO2 waste they produce, in that same year.

BIOCAPACITY

#### **BETTER CHOICES**

Living within ecological boundaries requires a global consumption and production pattern in balance with the Earth's biocapacity.

### **EQUITABLE SHARING**

Equitable resource governance is essential to shrink and share our resource use.

### The Economics of Ecosystems & Biodiversity



### TEEB's approach



 Recognizing value: a feature of all human societies and communities





Demonstrating value: in economic terms, to support decision making







3. Capturing value: introduce mechanisms that incorporate the values of ecosystems into decision making











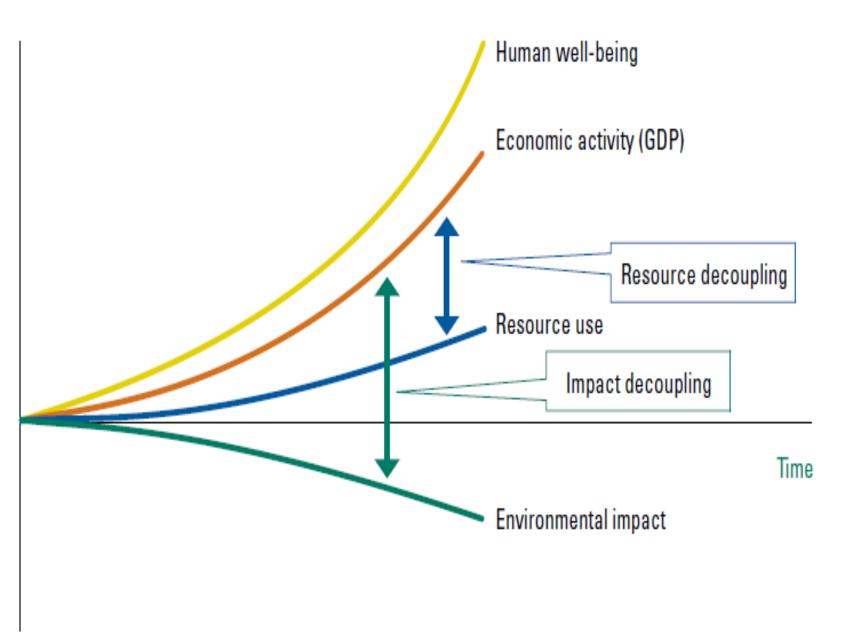








Figure 1. Two aspects of 'decoupling'





### **Priority actions**

- 1. Preserve natural capital
- 2. Produce better
- 3. Consume more wisely
- 4. Redirect financial flows
- 5. Equitable resource governance





Biodiversity conservation

Food, water and energy security