



**30 October 2008 – Houses of Parliament, Committee Room 10, Sponsored  
by Andrew George MP and Alan Simpson MP**

## **AGRICULTURE AT A CROSSROADS: *implementing the findings of the international agriculture assessment***



**International Assessment of Agricultural Knowledge, Science  
and Technology for Development  
Keynote address: Prof Robert Watson**

2:00pm Andrew George MP

2:05pm Prof Bob Watson

2:35pm Dr Janet Cotter, Greenpeace

2:45pm Patrick Mulvany, Chair UK Food Group / Practical Action

2:50pm Andrew George MP

(All timings subject to variation - anticipate start of the open discussion by about 3:00pm)

3:00pm Open Discussion and debate with the Panel

4:10pm

Final comments (in order):

Bob Watson

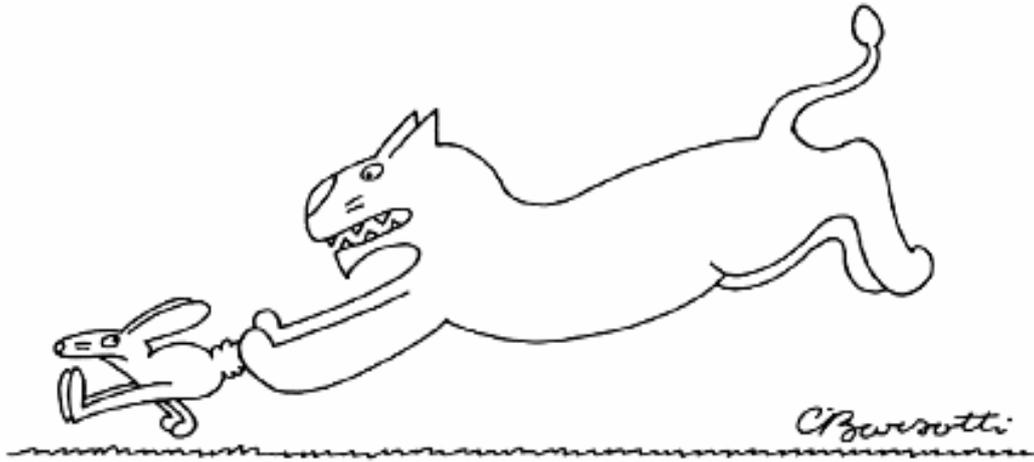
Janet Cotter

Patrick Mulvany

Final words from the Chair

4:30pm Ends

## Trade Issues – Finding #17



**What are you complaining about?  
It is a level playing field.**

**17. NEGATIVE IMPACT OF INTERNATIONAL TRADE:** Opening national agricultural markets to international competition can lead to long term negative effects on poverty alleviation, food security and the environment.

**Policy and Institutional Failure  
has limited the use of sustainable practices  
and has allowed  
Concentration of Power**

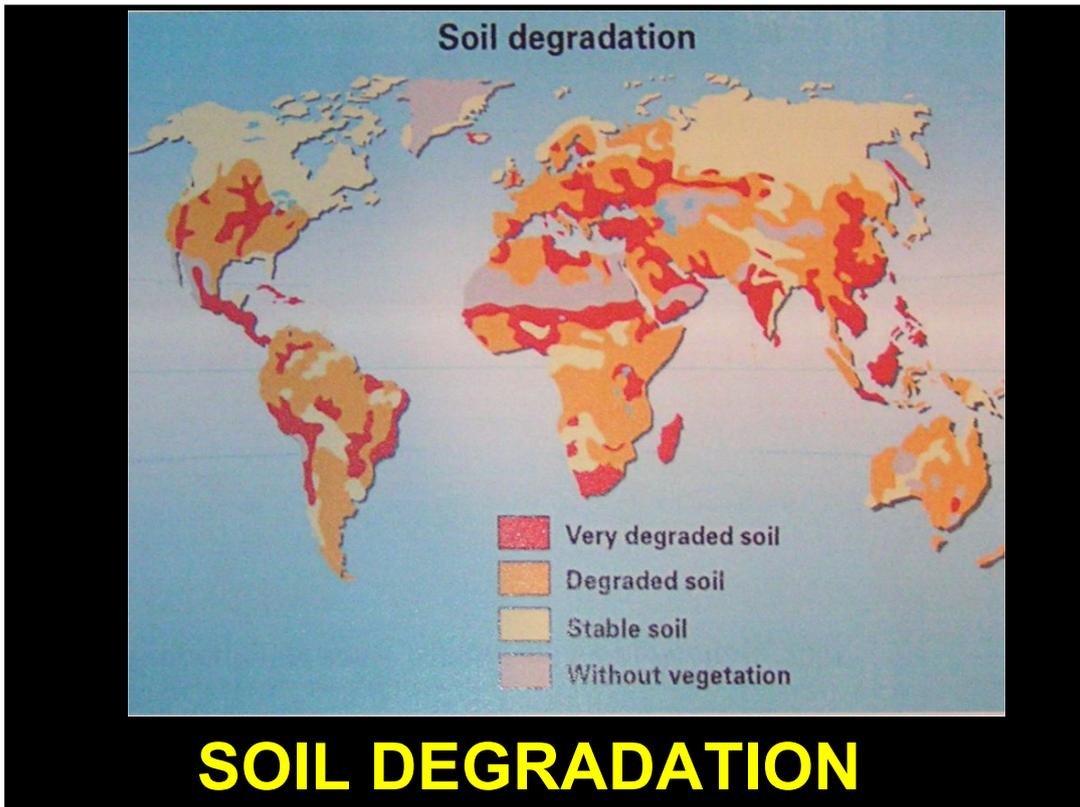
**“There is a risk that, in a context dominated by the fear of food shortages, opportunities will be mistaken for solutions, and that, in the name of raising production, the need for both social and environmental sustainability of the solutions devised will be underestimated.”**

**Olivier de Schutter  
UN Special Rapporteur on the  
Right to Food**

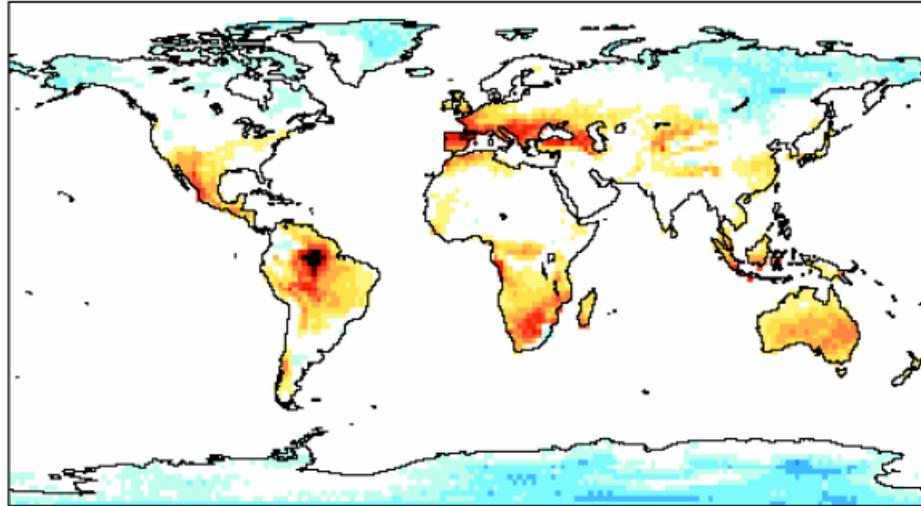
One indicator of the reality of the risk is **the almost complete silence in international discussions about the conclusions of the International Assessment of Agricultural Knowledge, Science and Technology for Development**, sponsored by the FAO and the World Bank that “the way the world grows its food will have to change radically to better serve the poor and hungry if the world is to cope with a growing population and climate change while avoiding social breakdown and environmental collapse”.

**Olivier de Schutter  
UN Special Rapporteur on the  
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IAASTD also confirms policy and institutional failure has limited the use of sustainable practices and has allowed concentration of power in the food system and speculation in food commodities. It could be argued that this is the fundamental underlying reason why people are malnourished, farmers are poor and the price of food is rising.



IAASTD is a wake up call on agriculture - soils, water, unsustainable production

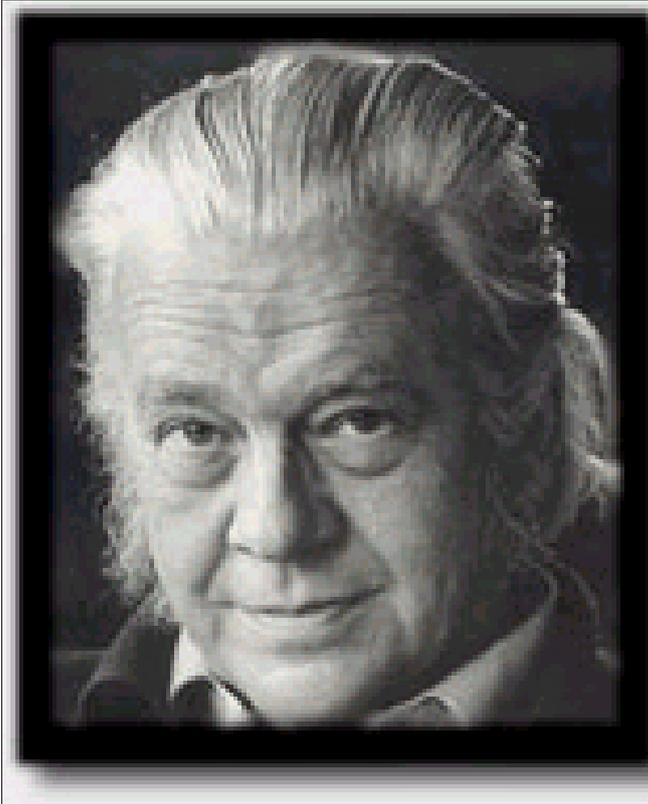


*Percentage change in average duration of longest dry period, 30-year average for 2071-2100 compared to that for 1961-1990.*

# **DROUGHT PROJECTIONS**

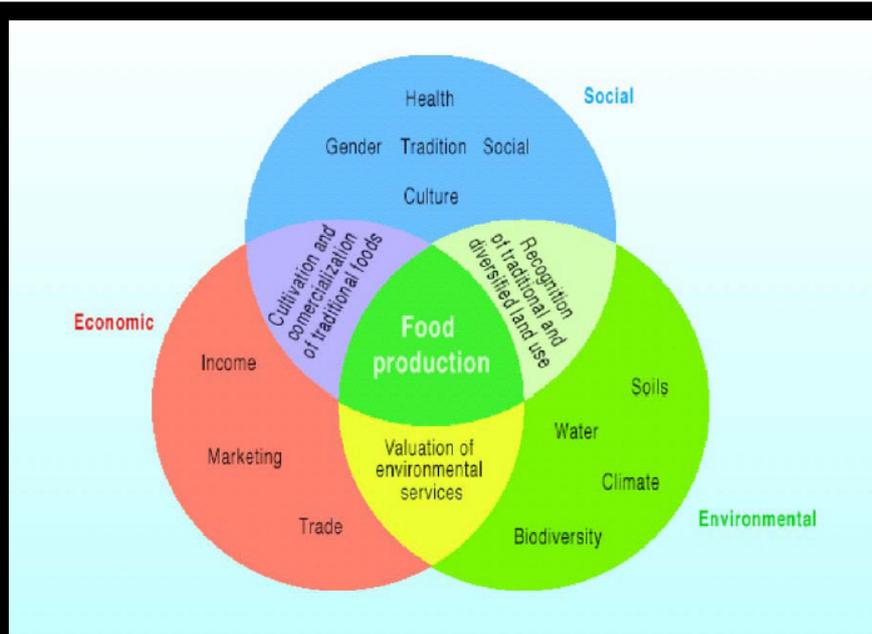
**IPCC A1B scenario**

Also ref: export and trade in virtual water



**"Modern man talks of  
the battle with nature,  
forgetting if he ever  
won the battle he  
would find himself on  
the losing side"**

**Fritz Schumacher**



**THE INESCAPABLE INTERCONNECTEDNESS OF AGRICULTURE'S DIFFERENT ROLES AND FUNCTIONS**

**Status of Agriculture:**  
**Characterized by Disconnects, both in the**  
**developed and developing world**

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**Disconnects** between **agriculture** and  
the **environment**;

**Disconnects** between **consumers** and  
**farmers** or land and cities;

**Disconnects** between **policies** and  
**expectations**.

**Do not disconnect.**

From presentation by Hans Herren, Co-Chair of IAASTD

# 22 Key Findings

**# 6. A multifunctional approach to implementing AKST will enhance its impact on hunger and poverty**

**# 7. An increase and strengthening of AKST towards agroecological sciences will contribute to addressing environmental issues while maintaining and increasing productivity.**

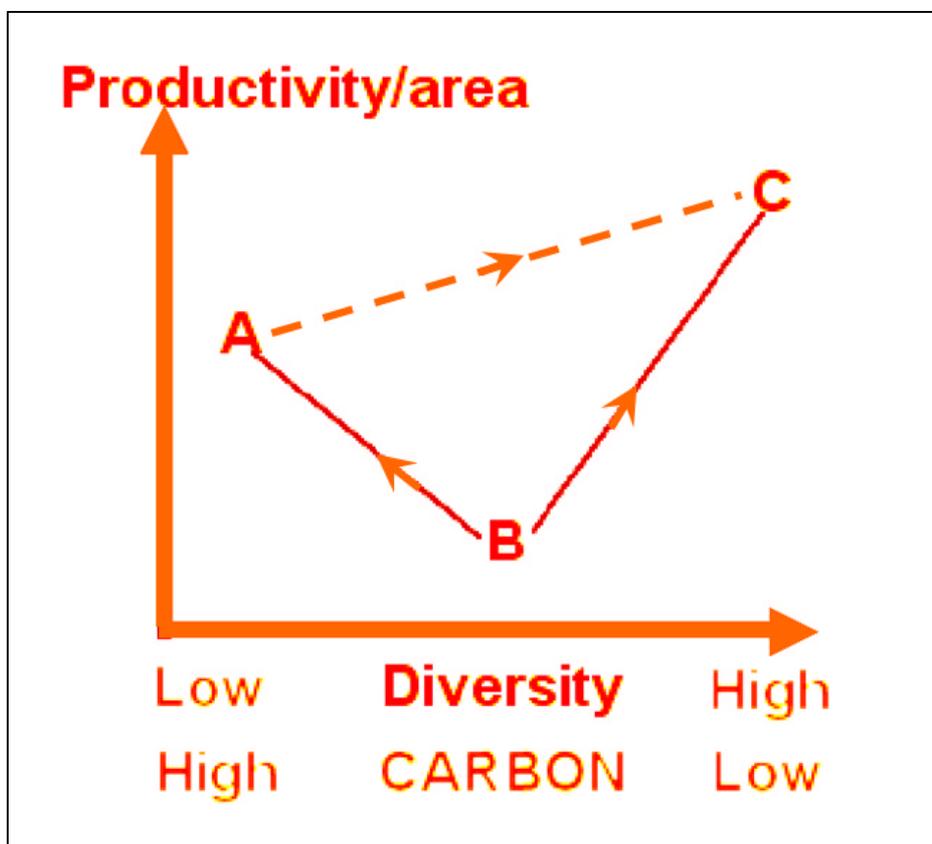
## THE 22 KEY FINDINGS OF IAASTD AT-A-GLANCE

- 1. PRODUCTION INCREASES:** Agricultural Knowledge, Science and Technology (AKST) has contributed to substantial increases in agricultural production over time, contributing to food security.
- 2. UNEVEN BENEFITS:** People have benefited unevenly from these yield increases
- 3. NEGATIVE CONSEQUENCES:** Emphasis on increasing yields and productivity has in some cases had negative consequences on environmental sustainability.
- 4. ENVIRONMENTAL DEGRADATION:** The environmental shortcomings of agricultural practice [is] increasing deforestation and overall degradation.
- 5. INCREASED DEMAND EXPECTED:** Global cereal demand is projected to increase by 75% between 2000 and 2050 and global meat demand is expected to double.
- 6. MULTIFUNCTIONALITY OF AGRICULTURE:** Agriculture operates within complex systems and is multifunctional in its nature.
- 7. STRENGTHEN AGROECOLOGICAL SCIENCES:** An increase and strengthening of AKST towards agroecological sciences will contribute to addressing environmental issues while maintaining and increasing productivity.
- 8. REDIRECT AKST:** Strengthening and redirecting the generation and delivery of AKST will contribute to addressing a range of persistent socioeconomic inequities,
- 9. INVOLVE WOMEN:** Greater and more effective involvement of women and use of their knowledge, skills and experience will advance progress towards sustainability and development goals and a strengthening and redirection of AKST to address gender issues will help achieve this.
- 10. BUILD ON EXISTING KNOWLEDGE:** [using] more innovative and integrated applications of existing knowledge, science and technology (formal, traditional and community-based).
- 11. USE NEW AKST APPROPRIATELY:** Some challenges will be resolved primarily by development and appropriate application of new and emerging AKST.
- 12. RESEARCH FOCUS ON SMALL-SCALE:** Targeting small-scale agricultural systems helps realize *existing* opportunities.
- 13. CREATE OPPORTUNITIES FOR POOR FARMERS:** Significant pro-poor progress requires creating opportunities for innovation and entrepreneurship, which explicitly target resource poor farmers and rural labourers.
- 14. DIFFICULT POLICY CHOICES:** Decisions around small-scale farm sustainability pose difficult policy choices.
- 15. PUBLIC POLICY AND REGULATION CRITICAL:** Public policy, regulatory frameworks and international agreements are critical to implementing more sustainable agricultural practices.
- 16. NEW INSTITUTIONAL ARRANGEMENTS REQUIRED:** Innovative institutional arrangements are essential to the successful design and adoption of ecologically and socially sustainable agricultural systems.
- 17. NEGATIVE IMPACT OF INTERNATIONAL TRADE:** Opening national agricultural markets to international competition can lead to long term negative effects on poverty alleviation, food security and the environment.
- 18. EXPORT AGRICULTURE UNSUSTAINABLE:** Intensive export oriented agriculture has adverse consequences such as exportation of soil nutrients and water, unsustainable soil or water management, or exploitative labour conditions..
- 19. CRUCIAL CHOICES:** The choice of relevant approaches to adoption and implementation of agricultural innovation is crucial for achieving development and sustainability goals.
- 20. MORE INVESTMENT IN MULTIFUNCTIONALITY:** More and better-targeted AKST investments, explicitly taking into account the multifunctionality of agriculture.
- 21. CODES OF CONDUCT NEEDED:** Codes of conduct by universities and research institutes can help avoid conflicts of interest and maintain focus when private funding complements public sector funds.
- 22. MULTIDISCIPLINARY APPROACHES REQUIRED:** Diverse voices and perspectives and a multiplicity of scientifically well-founded options, through, for example, the inclusion of social scientists in policy and practice of AKST.

# Implementing the Findings of IAASTD

(International Assessment of Agricultural Knowledge, Science and Technology for Development)

## Challenges for raising productivity



Point B represents current productivity levels.

Point A represents increases in production that use more carbon and high inputs and result in the simplification of production systems, reducing diversity and resilience. These systems depend on commercial and proprietary industrial technologies that are patentable and are controlled by agribusiness corporations.

Point C represents increases in production and productivity per unit area and/or per unit of water that, at smaller scales, can be higher than those achieved by the high input, carbon intensive practices represented by point A. The technologies used to achieve Point C incorporate more diversity in more complex and resilient agroecological systems that can have lower, zero or negative carbon costs and use non-appropriable technologies – those technologies that cannot be privatised and which provide maximum benefit to local food producers, who develop and use the technologies, and support the realisation of food sovereignty.

Apart from supporting more work in promoting the move from point B to point C, building on the findings of IAASTD, the significant scientific challenge is how to move from point A to point C without losing productivity in the process: the challenge is the conversion of degraded simplified production systems to diverse, agroecological, resilient, low carbon systems.

Yet, the priority of current R&D funding is not this but shifting from point B to point A, using increased fertilizer and pesticide inputs and single gene crop improvements.

The political challenge is therefore whether to allow 'more of the same' - the move towards point A - or support radical changes in research, development and production priorities towards more agroecological and resilient food production systems represented by point C.



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Beyond knowledge, science and technology per se, CSOs are urging governments to make related institutional changes. Among other things, these are to re-establish publicly controlled strategic grain reserves and supply management policies that will beat speculation; to stop industrial agrofuel production, which uses land that should be feeding people; and to implement comprehensive agrarian reforms that will ensure small-scale food providers can control the land and other resources they need to ensure sustainable food production for local communities. In short, Civil Society is calling for locally controlled food sovereignty that would avert future food crises and ensure a healthy and productive planet. IAASTD supports these approaches. Its wise findings are derived from a comprehensive scientific examination of the evidence concerning the long-term state of food and agriculture and the knowledge, science and technology needed to secure food production, ensure equity and sustain the environment.

IAASTD was approved in the thick of the food crisis but it would be a foolish (or distracted) decision maker, development worker or scientist who would now prioritise production at any cost, ignoring the findings IAASTD, and who would fail to implement the long-term, radical, technical and institutional actions outlined in IAASTD that are required to secure future food supplies, conserve the biosphere and, thereby, realise food sovereignty.