

# **Future of the AgriFood Sector in an Increasingly Globalised World**

**Symposium organised by  
OECD Trade and Agriculture  
Directorate, 30-31 March 2009**

**Summary presented to the  
OECD Committee for Agriculture  
1 April 2009**

# Main messages from the Symposium

- Emerging challenges for agriculture are of unprecedented magnitude and seriousness
- Growing scarcities (land, energy, water, micro-nutrients) → urgent need to **get prices 'righter'** (= 'less wrong', by internalising externalities)
- Sharpened efficiency/equity trade-offs will have to be addressed as part of any policy package
- Need for a holistic, system-wide approach to the new challenges

# Plenary: Global economic developments

- **Analysis of the cause of the current macroeconomic crisis**
- **What are the challenges for the recovery phase?**

# Plenary: Competing claims: Resources and Climate Change

- How can agriculture reduce greenhouse gas emissions whilst producing more food and biomass?
- Misleading signals due to double counting of land as carbon sink

# Main conclusions of 2<sup>nd</sup> plenary paper

- Need for a system-wide comprehensive climate change accounting framework
- Positive scope from: closing yield gaps, reducing high global levels of food waste, biotechnology developments, livestock intensification
- Causes for pessimism: approaching limits to irrigation, climate change effects, declining yield trends

Appropriate policies require

- global approach
- consistency across sectors
- use of cost-effectiveness criteria when examining technical options

# Reflections on first two plenary papers

- Current preoccupations focus on the credit crisis and world recession. However, within a few years, the world economy will somehow be back on course
- Behind this crisis another global crisis is looming that appears less tractable, potentially more threatening to global well-being

The following slides summarise some of the ideas and opinions expressed during the panel discussions

# Panel 1: Innovation

- Key areas: water use efficiency, utilisation of wastes, aquaculture, potential of algae, biotechnology (going well beyond GM)
- Innovation pipeline - very long in relation to policy-makers' horizon
- Linkages in this chain need improvement
- Most innovations relevant to state-of-the-art technology in 2030 have already occurred
- Public acceptance of innovation crucial
- Precautionary principle may constrain innovation, is a better balance between risk and benefit needed?

## Panel 1: Innovation (cont'd)

- Intellectual property regulation and data protection significant for incentivising investment in innovation
- Need to renew the skill base in science, attract young entrants

Policy responses need to be

- longer term
- less superficial
- cross disciplinary, interlinked

## **Panel 2: Scarcities and resource constraints facing agriculture**

- Need for increased total factor productivity in the food and agricultural system, and for ecological, economic and social sustainability

Key aspects of the issue are

- role of technological change
- generation and diffusion of new technologies
- role of institutions
- balance between markets and regulation

## Panel 2: Scarcities and resource constraints (cont'd)

Variety of delivery mechanisms:

providing policies are mutually consistent

- bottom-up (community, local) and top-down (national, international)
- individualism and collective action
- public/private partnerships for both creation and diffusion

Developing countries, stronger effort for knowledge transfer, human capital and good governance

Assignment of property rights over scarce resource crucial for getting prices to reflect scarcities

## Panel 3: Links between agriculture and other sectors

Growing links between agriculture and the energy sector, due to increasing demand for biomass as biofuel feedstock

Future drivers:

- price of oil relative to biomass prices
- biofuel policies
- developments in biomass technology
- rate of innovation in alternative renewable fuels (solar and wind)

Increasing energy price may change agrifood trade flows → relocalisation of production

## Panel 3: Links between agriculture and other sectors (cont'd)

### Developed/developing countries differences

*Energy sector*

*Financial markets* - in many dev'g countries, private banks **NOT** lending to agriculture: implications for innovation uptake

... whereas strong input of both agricultural credit and risk management tools in developed world

*Vertical integration* - very weak in dev'g countries,

... whereas in developed world, concerns about

- structure of chains
- slow response, increased vulnerability, of highly integrated chains at times of rapid innovation

## Panel 4: Consumer expectations of agriculture

- evolution of consumers' food demands (food sufficiency → efficiency → safety, differentiation, 'process' attributes) is very similar across countries world-wide
  - pure market solutions for consumers' preferences in the third stage are only possible when the majority become citizen-consumers
- ...as long as consumers react mainly to price, markets will not transmit consumer concerns as represented by the food lobbies to producers

**Is this a dilemma for policy makers?**

## Panel 4: Consumer expectations (cont'd)

- demand for traceability ...a role for governments  
*Either* technologies will develop to allow traceability through global food chains  
*or* return to local product sourcing will remove the need for this
- gradual return to local food supply systems, in the limit to individual household supply systems!
- doubts about the sustainability of global food chains in the future

# Discussion of the panel reports

- Did they take on board the GHG message? – sounds too much like business as usual, whereas a fundamental shift is needed
- Greater emphasis on efficiency/equity issues
- Innovation should focus not only on new products and services, but on issues of **uptake, availability, acceptance, necessary skills**
- Relative priority of looming energy and micro-nutrient scarcity – is the second even more urgent?

## Discussion of the panel reports (cont'd)

- Need for more holistic thinking ... an integrated approach to the whole system is needed → need for multidisciplinary studies and approaches spanning the different OECD directorates
- Agriculture and agricultural policies cannot solve all issues... need for behavioural changes also

# Wrap-up messages

Current agricultural policy analysis/policy settings

- take as given **endowments, prices and preferences**
- assume that **non-agricultural policies** will take care of equity issues

Insights emerging from the symposium stress that

- endowments are not only given, but are **more finite than we thought**
- many prices are *not right* and **should not be taken as given**
- **distributional consequences** of improving resource use policies have to be addressed when designing resource policies