Recap of Some Issues Raised in the Meeting and the Policy Agenda for OECD Countries

David Blandford
dblandford@psu.edu

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Content of this overview

- The challenge that we face in adapting AKS to future needs in food and agriculture
- Responses in three areas:
  1. Improving the effectiveness of existing AKS
  2. Changing institutional design
  3. Altering the balance between public and private sector activities
- Major constraints to meeting user needs
- Some memorable “approximate” quotations
- Policy coherence – four key issues

The Challenge

- Rapidly growing demands upon agriculture and land-based industries
  - Population and income growth
  - Bioenergy
- Supply constraints
  - Land and water resources
  - Climate change
  - Shift to low carbon economy

The Challenge

- General slowdown in productivity growth in agriculture
- Lack of investment in R&D despite high rates of return
- AKS “locked into old paradigms based on linear approaches and conventional assumptions”
- Aligning research with emerging needs
- Transform AKS into AIS: Knowledge to Innovation
- How to achieve this?

The Challenge

- Securing public resources for AIS
  - Long-term commitments and continuity essential but difficult to obtain
  - Levy funding where high private benefits?
  - Difficult to generate support among farmers or local funders where large non-private or non-local benefits
  - Farmers may have incomplete information on what innovations will be needed (e.g., climate change)
  - General public may not understand benefits of research and resist spending in certain areas
  - Bottom line – severe resource constraints likely

Needed Responses - I

- Increase the effectiveness of existing public sector activities – some examples
  - Australia – increase private sector involvement to leverage public resources (matching funds); focus on public resources on public good elements; system rationalization (centers of excellence)
  - Brazil, China and India – keep strong focus on agriculture, develop and exploit new technologies (e.g., agronomic and information technology)
  - But there can be major resource challenges, e.g., Africa (financial and human capital)

Needed Responses - II

- Change institutional design/operation of AKS
  - Encourage farm and industry level development of technology (e.g., no-till, energy saving in processing)
  - Encourage development of learning and innovation networks
  - Develop public-private partnerships – consortia
  - Develop international partnerships
  - Enhance system performance – e.g., performance evaluation, competitive grants, research/higher education clusters, strengthen link between research and application

Needed Responses - III

- Expand the role of the private sector
  - Incentives must exist for private sector to generate, develop, and diffuse new technologies – must be profit opportunities
  - Protection of Intellectual Property Rights a key issue - but how much protection?
  - Public may not understand benefits of private sector involvement and public good provision/social concerns may not be met
  - How much regulation is needed and what criteria to apply?

Meeting the Needs – Major Constraints

- Institutional inertia as the greatest barrier to progress in AKS?
- Enabling the enablers of change (“innovation brokers”)?
- Sectoral involvement (not just farmers) may be critical – but how to secure this?
- Networks as a facilitator or barrier to change?
- One size fits all “solutions” may not work but how to develop tailored alternatives that are not prohibitively expensive?
- Success requires a range of difficult issues to be addressed (e.g., human capital, infrastructure)?

Some “approximate” quotations

- “R&D turns money into knowledge; innovation turns knowledge into value”
- “We don’t have the luxury of stopping and sitting back to do strategic thinking and to reorient our activities… we need a continuous process of adaptation and reorientation”
- “We need effective communication strategies with urban constituencies and key interest groups on the benefits of R&D”
- “We can’t afford to wait to change things in AKS… time is running out… **we need to act now**!”

Policy Coherence and AKS

- Agricultural policy in OECD countries has been changing – but still a protected sector
- Some reduction in support and shift towards public goods (e.g., environment) and other objectives (e.g., rural development)
- R&D continues to be part of agricultural policy
- But a number of critical questions now arise as a result of the changing economic environment facing the agriculture and the food system – how to ensure policy coherence?

Policy questions (4) and AKS

- Should the emphasis shift towards productivity enhancement rather than other objectives?
- Will it be possible to reconcile pressures for agriculture to perform a range of functions with the need for higher productivity?
- Will it be possible to meet the needs for funding AKS given other demands on public resources?
- How should the international dimensions of productivity enhancement be managed?