Scaling up Agriculture

Sharing Challenges and Experiences of Modernising Agriculture in Ireland and Africa

The Challenges facing Smallholder Farmers

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Why are smallholder farmers important?

- Two-thirds of population of sub-Saharan Africa work in agriculture primarily on small land holdings
- Important contributor to employment, incomes and food security
- Sub-Saharan Africa is the most food insecure region of the world where one in four are under-nourished

UNDP Africa Human Development Report 2012
- Sustainable increases in agricultural productivity and better nutrition are the drivers of food-secure growth and human development
- The knowledge, technology and resources to wipe out hunger and starvation from Africa exist but there are major challenges

- Huge potential for FDI into agro-processing sector – but to achieve broader development goals it needs to be linked-in to smallholder sector
**Key Objective: Productivity Growth**

- Agricultural productivity much lower in sub-Saharan Africa
- Increasing productivity is a crucial factor in scaling-up agriculture but can also achieve dual goal of human development

Smallholder farms → Productivity improvements →
- Integration into the supply chain
- Expansion in output and profits
- Increase in supply of food at lower prices
- Improved nutrition, living standards and access to health and education

What is needed here?
Challenge 1: Access to Markets

- Barriers include physical distance, coordination problems, information asymmetries, storage capacity

- Research is needed on appropriate response:
  - Use of mobile phones to disseminate information on markets
    - Price at different output markets
    - Price of inputs
    - Disseminating technology innovations
    - Facilitate trade in excess supply of output and inputs
  - Community-based development to help with coordination problems

- How will these barriers be overcome in the event of significant FDI into agro-processing in Africa?
Challenge 2: Property Rights

- Land rights remain insecure in many sub-Saharan African countries
  - Kenya: security of tenure undermined by corruption and violence
  - Tanzania: no formal certification of land tenure

- Increased tenure security creates the right incentives for farmers to put their land to its most productive use
  - Growing longer cycle crops
  - Selling or renting land
  - Invest in land improvements with long run payoffs
  - Increases access to credit if used as collateral

- More research needed in this area for different contexts
Challenge 3: Risk and risk-coping

- Income risks: weather, conflict, land appropriation
- Ability of households to adapt an important determinant of welfare
- Risk mitigation strategies difficult where credit and insurance markets are underdeveloped

What do farmers do?
- Diversify economic activities
- Save for precautionary purposes
  Both move resources away from most productive use

Potential solutions:
- Availability of credit - or transfers to avoid indebtedness
- Insurance – difficult as not profitable
- Potential role for private investors to underwrite risk (as part of Corporate Social Responsibility) or perhaps donors
Challenge 4: Skills and Capabilities

- Investment by government (e.g. role of Teagasc and agricultural training colleges in Ireland)

- Extension services to promote improved, viable and sustainable technologies that will increase the skills of existing smallholders
  - Research and Development – technology and innovations that are context specific
  - Extension and Advisory – understanding of appropriate ways of diffusing technology

- Incentives to encourage engagement with the sector
  - Frontier technologies, profitable opportunities, opportunities to build scale, grow and expand
Productivity Growth

Smallholder farms

Access to Markets
Property Rights
Coping with Risks
Skills and Capabilities

Productivity improvements

Integration into the supply chain
Expansion in output and profits

Increase in supply of food at lower prices
Improved nutrition, living standards and access to health and education