



Supporting Agricultural Research for International Development



Presentation to the APPG on Science and
Technology in Agriculture

21st March 2018

Duncan Barker, Livelihoods Adviser,
Department for International Development

UK Aid Strategy: November 2015

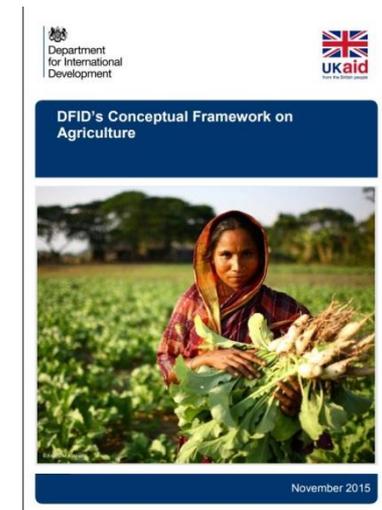
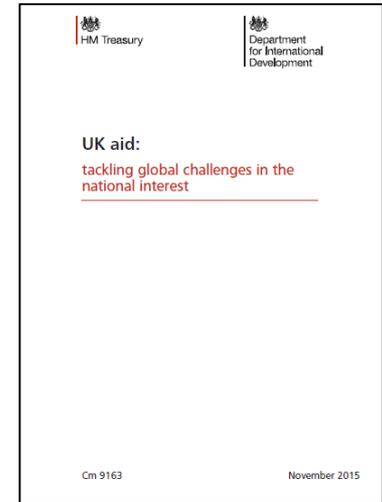
1. Strengthening global peace, security and governance
2. Strengthening resilience and response to crises
3. Promoting global prosperity
4. Tackling extreme poverty and helping the world's most vulnerable

DFID Conceptual Framework on Agriculture

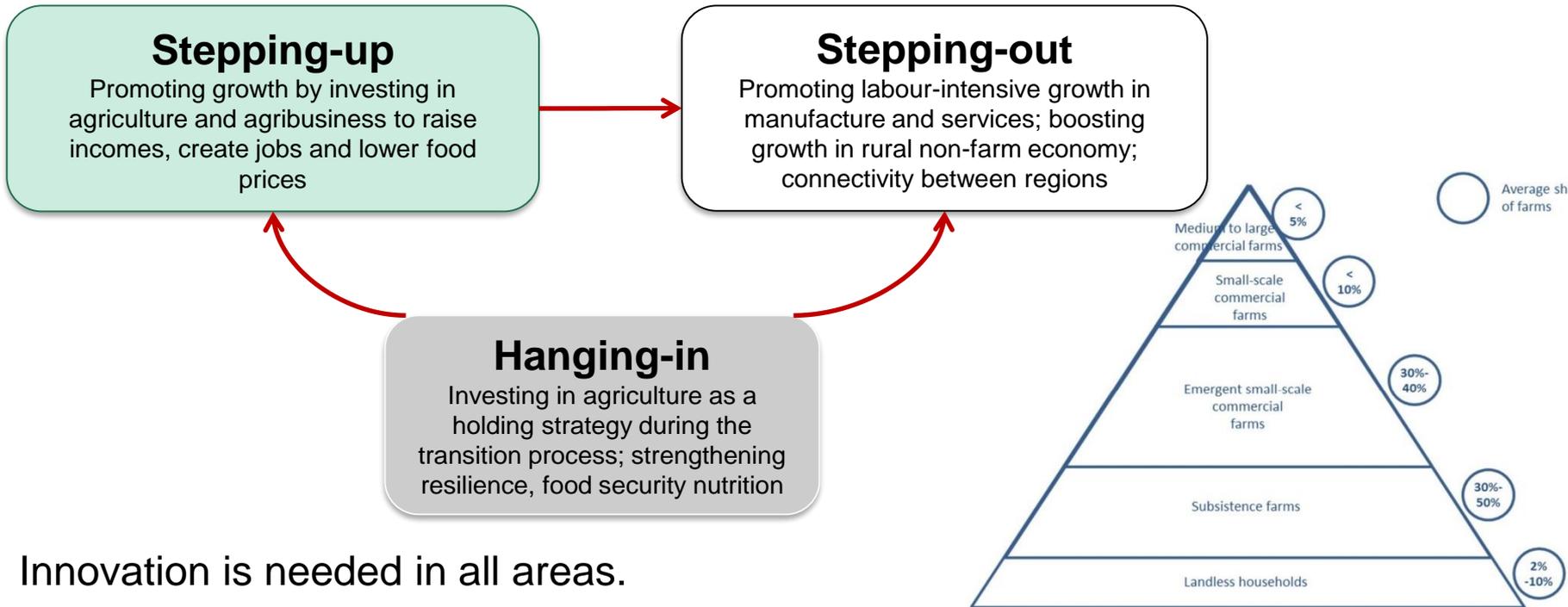
Focuses on the contribution of the agrifood sector to achieving three interconnected goals:

1. Economic growth and poverty reduction
2. Food security and improved nutrition
3. Sustainable food systems

Technology and innovation identified as a key to agricultural transformation



1. Supporting **smallholder farmers to increase their incomes**, food and nutrition security and resilience to crises by increasing their productivity and linking them to markets
2. Boosting **responsible investment in agriculture by financing agribusiness** and tackling barriers to inclusive growth such as insecure land tenure.



3. Innovation is needed in all areas.



Agriculture Research Priorities

- **Development of new agriculture products/innovations** to sustainably intensify agriculture - crop varieties, livestock breeds and more resilient and productive farming systems that will be needed in order to maintain and enhance productivity using fewer resources in the face of increasing climate change and resource scarcity.
- **Testing interventions and delivery mechanisms**, identifying what works and what doesn't work in innovation. Supporting scaled up investment in getting technology into use rapidly in order to ensure food supply increases fast enough to meet increasing demand.
- A deeper understanding of the **complex political, social and economic context that** influences the success of investments in agriculture development in delivering improved food security and nutrition, poverty alleviation and economic growth.
- We aim to be **challenge led** and are generally **technology agnostic**.



Opportunities for UK agri-science

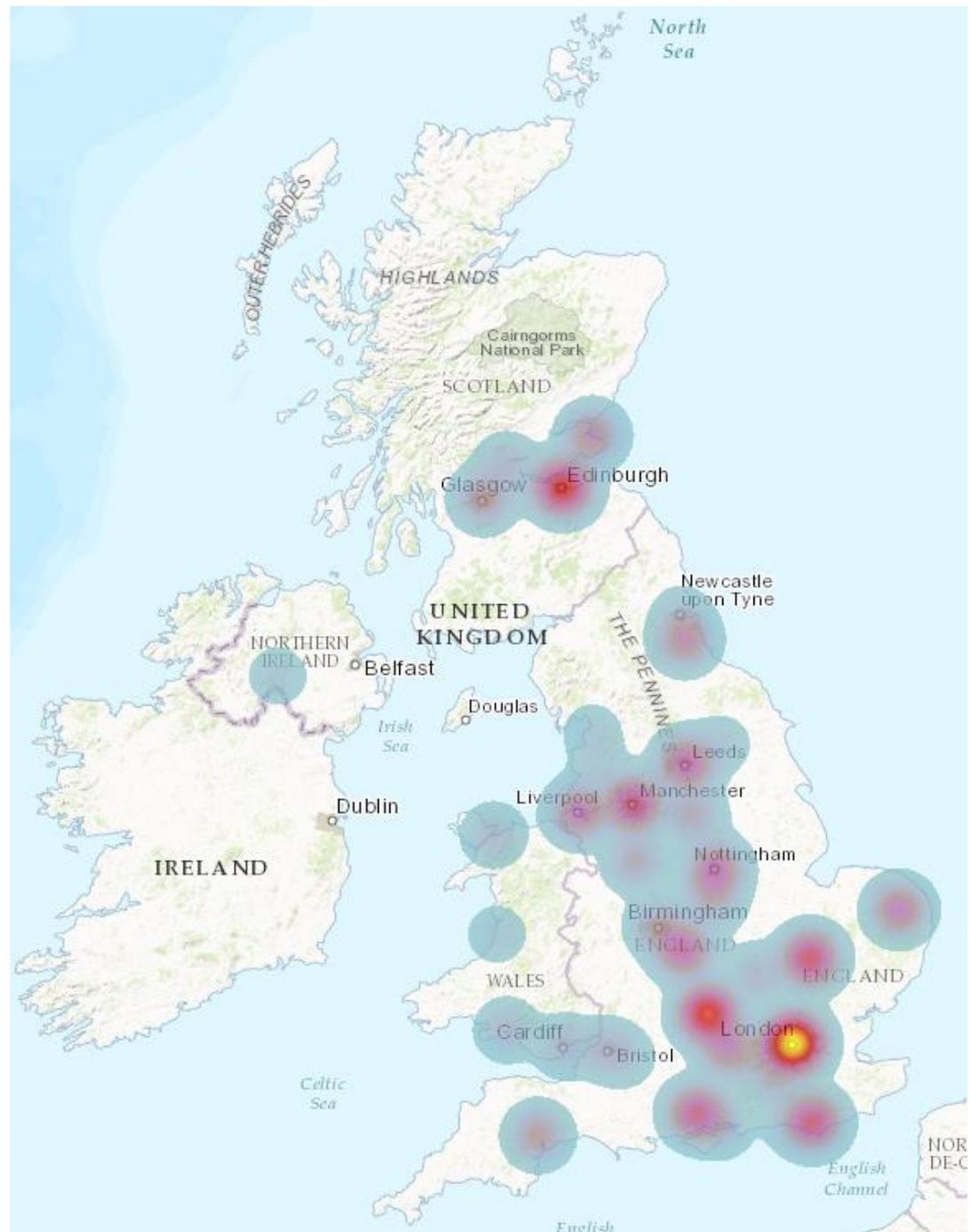
Example from the ZELS programme

- Contribute to delivering the UK's international development commitments and strategy.
- Build capacity of developing country researchers and organisations.
- Build the networks, and experience of working, with researchers and organisations in developing countries for UK researchers.
- Develop long term partnerships for the future.
- Build capacity of UK researchers on global challenges, such as zoonotic diseases.
- Protect the UK from emerging threats to UK agriculture.



Zoonoses and Emerging Livestock Systems (ZELS)
Reducing the risk to livestock and people
Research Programme 2014

UK University partnerships in Research and Evidence Division programmes





UK engagement Opportunities

CGIAR links

There are 236 collaborative research projects between UK research institutions and the CGIAR, with a value of £346m. Demonstrating strong existing linkages and influence.

[Centre for Tropical Livestock Genetics and Health](#)

University of Edinburgh, Roslin, SRUC and ILRI

[Alliance for Accelerated Crop Improvement in Africa](#)

BECA-ILRI hub and JIC

Builds on support from DFID and the Gates Foundation to African NARS¹ Scientists providing access to cutting edge technology.

[DFID Opportunities](#)

Food-borne disease call with the Gates Foundation

[Innovative Methods and Metrics for Agriculture and Nutrition Actions \(IMMANA\)](#)

UK Government Opportunities

GCRF

Newton

Prosperity

Finding the right partners

UK NGOs

Science and Innovation Network

Department for International Trade

¹ National Agriculture Research Systems.

Agri-Tech Catalyst

East Coast Fever Vaccine

GALVmed, Arecor and CTTBD¹ have improved the diluent for the existing vaccine, reducing costs by around 90%.

KASP™ technology to improve rice varieties

LGC Genomics, Bangor University, NARC² have developed new assays to select for improved resistance to rice blast and bacterial late blight

Push-Pull: Integrated Pest Management

Developed by Rothamsted Research, *icipe* and others Push-Pull manages pests in maize and has shown potential against Fall Armyworm.



Small Business Research Initiative

Solar powered irrigation pump

- Volume Production cost of £30.
- Light weight.
- Lift: 7m
- Volume: 6m³/day.
- Ability to be integrated into existing irrigation systems and cope with dirty water.
- Easy to deploy with no specialist skills.

¹ Centre for Ticks and Tick-Borne Disease in Malawi. ² Nepal Agriculture Research Council.



Thank You