

# Making good use of science and innovation in overseas development

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## Global challenges multiple & evolving



Conflict



Population growth



Urbanisation



Poverty and inequality



Climate change &  
extreme weather events



Migrant crises



New disease outbreaks



Gender inequality



Drug resistance

# UK ODA Strategy

## 4 main objectives:

- Strengthening global peace, security & governance
- Strengthening resilience & responses to crises
- Promoting global prosperity
- Tackling extreme poverty & helping the world's most vulnerable

+ achieve value for money in investments



## What role for research & evidence?

**ODA Strategy gives a strong commitment to using rigorous evidence to underpin spending decisions**

“the government will require all departments spending ODA to demonstrate how they are using rigorous evidence to underpin spending decisions.”

Recognition that effective responses to major development challenges will require rigorous, operationally focused evidence

## DFID Research Review



- **Renewed commitment to investing in research**
- **What doing more of?**
  - Significant scale up on infectious diseases
  - Doubling research on humanitarian innovation
  - Trebling research funding on education
  - Increase funding climate, energy & water
  - New syntheses & research on migration, cities, adolescents
  - Expansion of research to MENA region
- **What doing differently?**
  - Approach to capacity building – focus on investments to support knowledge systems in developing countries
  - Supporting joined up agenda across HMG ODA research investments

December 16

Research and Evidence Division

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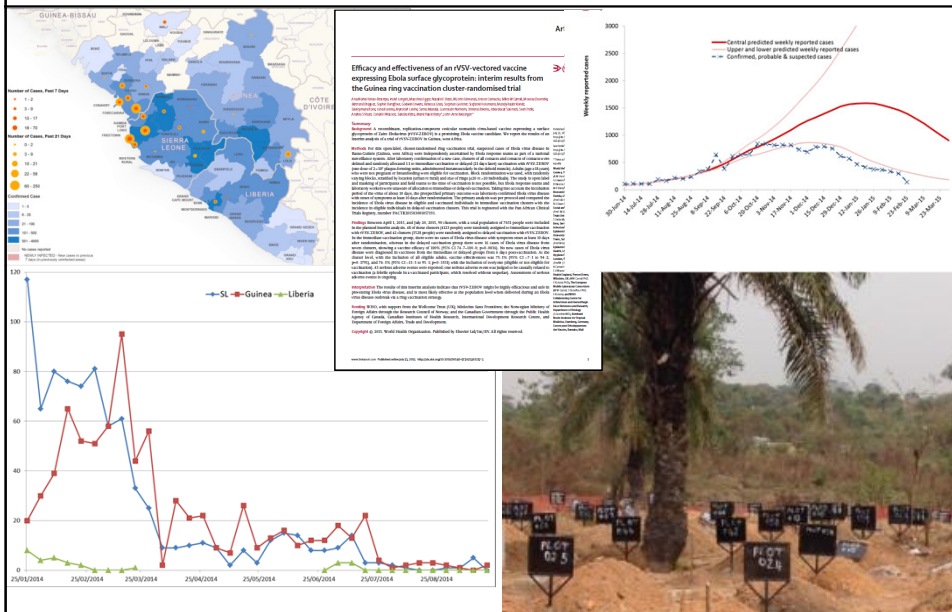
## How does DFID prioritise the research that it funds?

- **impact** does the research focus on an important and practical development challenge?
- **additionality** does DFID support address an important gap in research funding?
- **quality** will the commissioned research be of the highest quality?
- **deliverability** will the research deliver benefits within a realistic timeframe?
- **cost** does the research have the potential to deliver a high return on investment?

# 3 examples

- Science for emergencies
- Rigorous evaluations of innovative interventions
- Scaling up mobile cash and solar energy

## Multi-disciplinary Research during the Ebola crisis

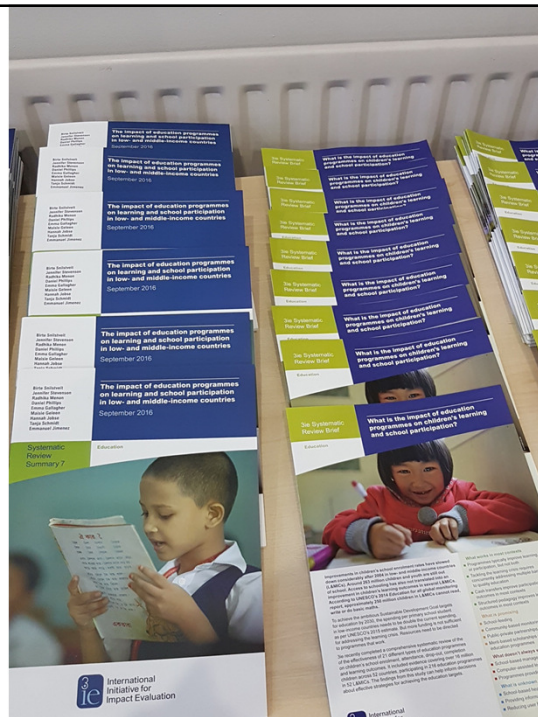


## Using satellite data to improve responses to respond to extreme weather events and disasters

- Satellite data used to support innovative, forecast based decision making processes to take early action to respond to extreme weather events and disasters;
- In response to El Niño in 2015/2016 approach allowed mobilisation of £200 million for preparation and mitigation, providing early support to > 4 million people
- Early action in Somalia supported river bank reinforcement activities, preventing many hectares of productive land from being flooded



## Rigorous evaluation of innovative interventions



## Taxation for development: nudging tax payers in Rwanda

- Large scale 'nudge' experiment involving 13,000 tax payers
- **Intervention:** groups of tax payers sent letters, email, or text
- Varying content: neutral, reminder of sanctions, or positive message
- **Result:** Positive text messages yielded best returns
- **COST: £90,000**
- **IMPACT: £7m in increased tax revenue.**
- Results changed policy and practise, and led to digitalisation of taxation system



## Improving mental health in Peshawar, Pakistan

- Mental health consequences of conflict and violence are wide-ranging and pervasive.
- Mood and anxiety disorders are especially common.
- DFID and Wellcome Trust supported RCT through the **Research for Health in Humanitarian Crises (R2HC)** programme
- Tested effectiveness of multicomponent behavioural intervention
- Delivered by lay health workers to adults with psychological distress
- Trial shows significant reduction in clinically significant anxiety and depressive symptoms at 3 months.
- Results recently published in JAMA.

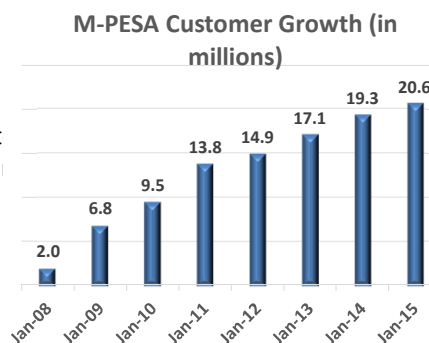


## Using digital to create impacts at scale



## Scaling up mobile money In Kenya

- 2001: DFID funded research noted that airtime used as virtual currency
- High demand for system that retained cash value in electronic form.
- Research & DFID's engagement
- with innovators in mobile industry led to pilot of mobile money transfer system in 2005: M-Pesa created.
- NOW: used by > two-thirds Kenyan adults
- Supported by > 85,000 agents, 50,000 merchants,
- Processes over 8 million transactions every day, totalling \$20 million.



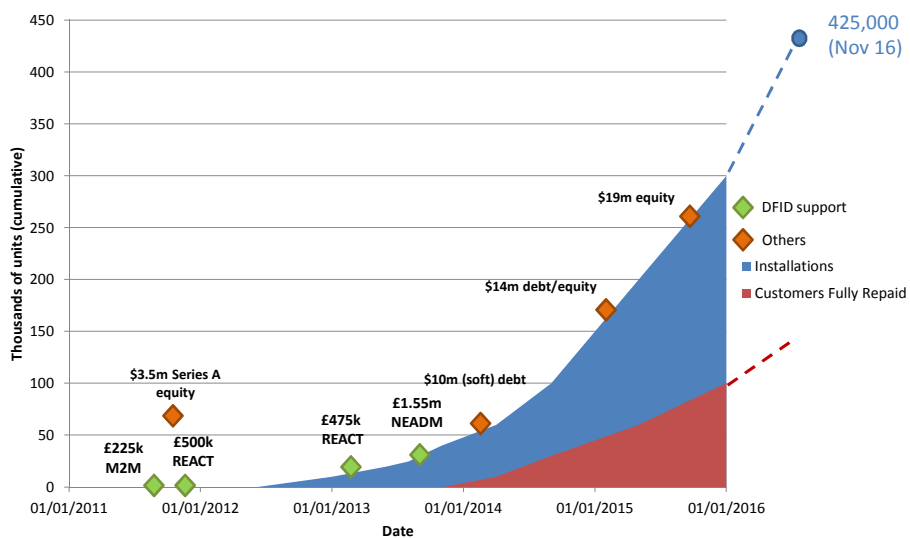


## Using mobile money to scale up access to solar lighting

- Working with GSMA, digital platform used to establish Pay As You Go systems for solar products for rural families
- Directly supported the creation of > 10 new off-grid household solar technologies
- Indirectly supported creation and development of new enterprises



## Early research investments in technology & business model led to successful scale up



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- Funding to pilot new uses in DFID programmes
- Matchmaking with innovators and entrepreneurs
- Support to work in new, agile ways



! Applications currently under review



Department  
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## Conclusions



- Science and innovation critical for development
- UK ODA supporting high quality, problem focused science and innovation
- Multiple examples of impact, delivered in partnership with academia, public & private sector
- Increasingly investing in and drawing upon digital, big data and new technologies
- Important to maintain some flexibility, ensure able to respond quickly to new challenges as they emerge