Building the channels and approaches to develop integrated community-based climate services:

An exchange demonstration in Mbeere, Kenya

christian aid

University of Sussex

HUMANITARIAN FUTURES PROGRAMME
planning from the future

Authors:

- Richard Ewbank, Christian Aid;
- Eston Njuki, Christian Aid;
- Samuel Mwangi, Kenya Meteorological Services;
- Dominic Kniveton, University of Sussex;
- Emma Visman, Humanitarian Futures Programme, King's College London

Partnerships to develop community-based climate services

- Meteorologists and climate scientists from the National Meteorological Services in Kenya, Senegal and the UK
- The Universities of Sussex, Liverpool and Oxford
- Humanitarian and development organizations – HFP, Kings College, Christian Aid, CCS MKE
  - work with communities at risk of drought and flooding

Objectives

- An exchange developed in 2009 to address the current divides between the providers and users of climate science to support community resilience
- Demonstration case studies (Kenya & Senegal) to assess how climate science can better support humanitarian, disaster risk reduction and development planning


Turkana
Marsabit
Mandera
Wajir
West Pokot
Samburu
Trans Nzoia
Elgeyo Marakwet
Bungoma
Baringo
Uasin Gishu
Busia
Isiolo
Kakamega
Laikipia
Nandi
Meru
Vihiga
Siaya
Kisumu
Tharaka Nithi
Nyandarua
Kericho
Nakuru
Nyeri
Garissa
Homabay
Kirinyaga
Embu
Nyamira
Kisii
Bomet
Muranga
Migori
Kiambu
Narok
Nairobi
Machakos
Kitui
Tana River
Kajiado
Makueni
Lamu
Kilifi
Taita Taveta
Kwale


MANYATTA
SIAKAGO
GACHOKA

Context of Mbeere

- Total population of 200,816 people ~ 38,000 HH (2006) and an area of 2,093 km².
- ASAL
- The long rains March - June, and the short rains Oct - Dec.
- Poverty level stands at 56%; whilst absolute poverty in rural areas is 42.38%.
  - The coping mechanisms employed are adverse

SALI Program

- Strengthening agricultural innovations to boost sustainable food security since Aug ‘11
- Implementing partners; CA, KMS, ADS MKE, Traidcraft and Anglican Diocese of Mbeere
- Programming aspects
  - Access to climate information
  - Enhancement of crop production systems
  - Enhancement of linkages leading to market access
  - Drawing lessons for up-scaling

Exchange methodology and dialogue approaches

- Supported the creation of channels and approaches through which farmers groups working in drought-prone areas could access, understand and appropriately apply seasonal and sub-seasonal information within a range of agricultural decision making processes
- Focused on seasonal and sub-seasonal time frames with the aim of strengthening capacities to cope with longer term climate variability and change

Access to Climate Info

- Facilitating access to, understanding and use of climate and weather information
- The farmers and KMD interface process;
  - Regional Climate Outlook Forum
  - National Climate Outlook Seasonal forecast dissemination
  - Technical forum dissemination at the sub-counties level (district)
  - Farmers and technical teams engagement
  - Farmer groups technical engagement

KMD and Farmers Interface

- Seasonal forecast SMS
  - Engagement with representatives of farmer groups to compare notes and ideas
- Monthly forecast SMS
  - Feedback through the channels developed by the program
- 7 day forecast SMS
  - Informs the management of crops and production systems eg. when to plant, weed or spray

Sample sms

- Light rains expected btw.Tue and Wed.Rains to intensify slightly btw. Wed and Sat. No heavy rainfall expected
- Moderate to heavy rainfall is expected for most of this week. A slight reduction is however expected towards the weekened. Total amount of rainfall in april is expected to be above average. 03/04/2013

christian aid

Impact of the exchange approach

- Created demand amongst farmers
- Farmers attributed significant yield improvements to their ability to change key agricultural decisions based on improved access to and understanding of seasonal and short-term forecasts - Approximately two thirds of farmers felt that the resulting increase in their crop production was greater than 15%. *(Strengthening Access to Climate Information, SALI Kenya (Evaluation, Oct 2012), Richard Ewbank, Climate Advisor Christian Aid*

- Importance of creating district level meetings which bring together expertise from across the range of relevant service providers

- The scale-ability of developing community-based climate services

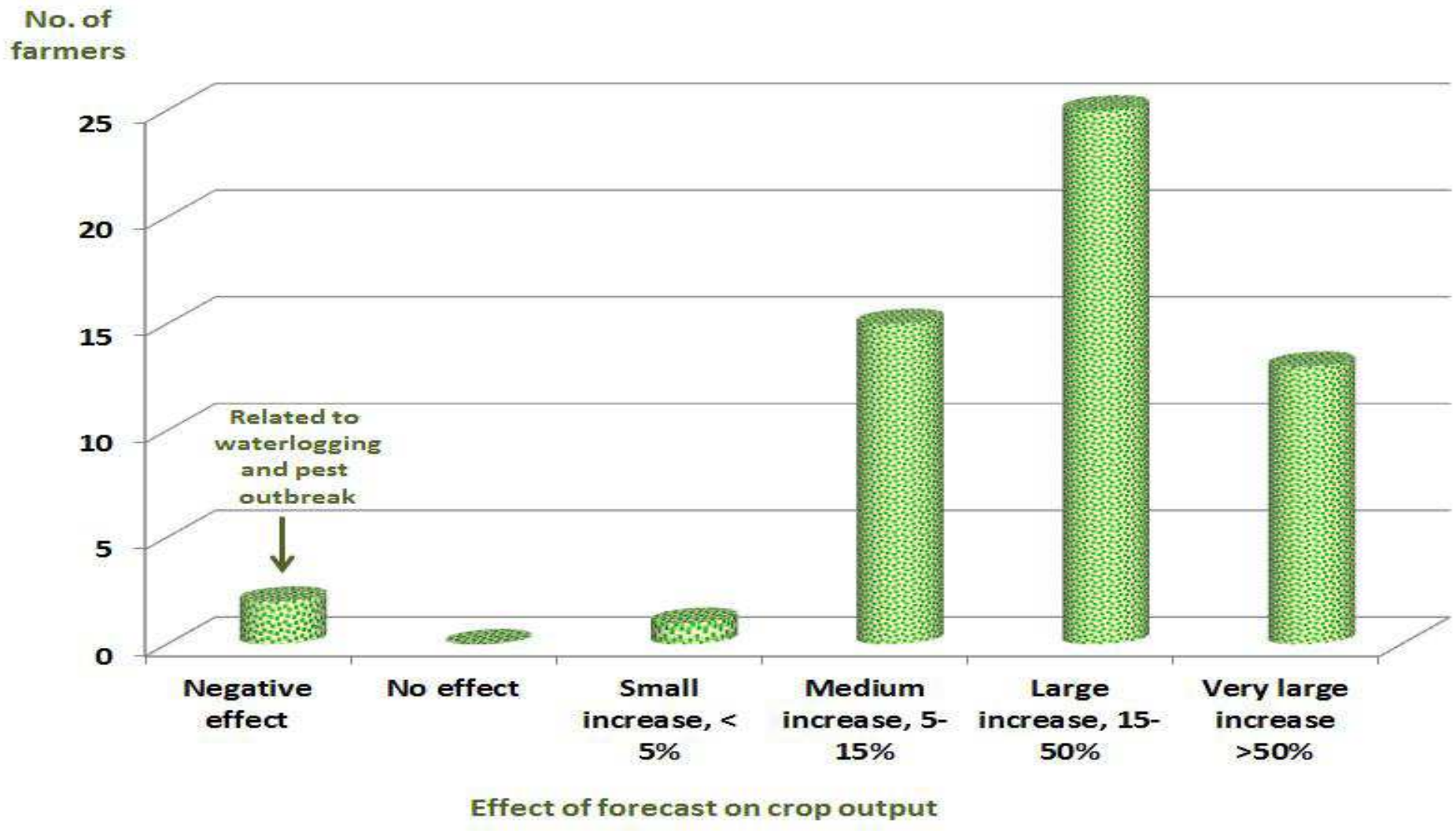
Type of forecast	Agricultural decisions based on the climate information
Seasonal	o What crops to grow o What varieties to grow o Soil moisture conservation strategies to adopt o Modification of grazing strategies o Use of conserved forage o Purchasing feed before prices rise o Livestock breeding and sale o Renovation of flood protection measures
Short-term	o Application of fertiliser/manure o Use of irrigation/rationing of irrigation resources o Weed and pest control measures o Movement of livestock o Forage conservation

Video; Justin's Family

http://www.youtube.com/watch?v=hZjO7Rd5m40

- Where were we!!!!!!

Farmer attribution of increased yield to decision change made, based on forecast information – Oct 2012



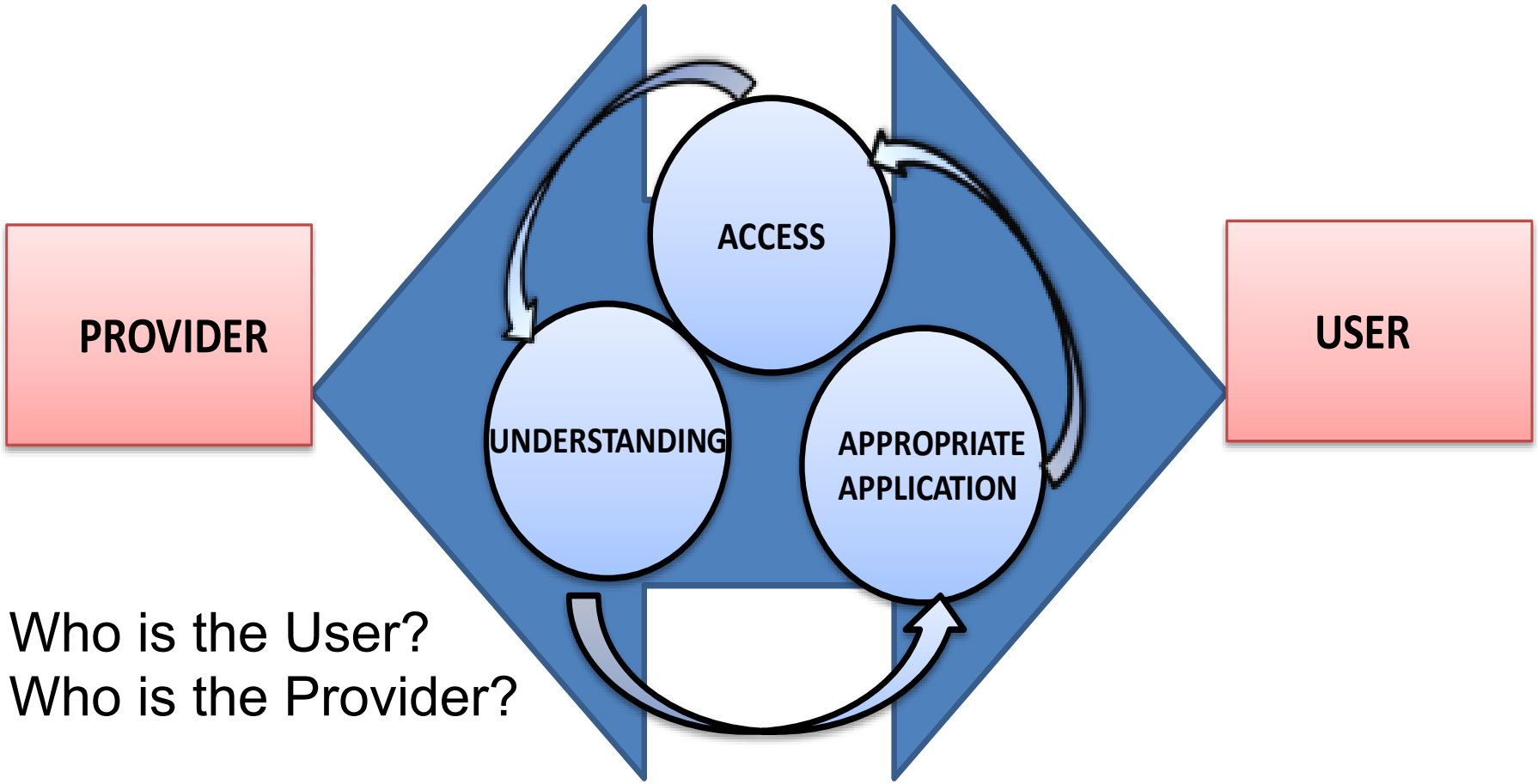
Challenges

- Large scale
- Interpreting the uncertainty
- Applying probabilistic information to decisions
- Credibility, past performance
- Communication
- Access to the right kind of inputs and knowledge

Lessons Learnt

- Sustained feedback mechanisms
- Delay in receiving the SMS
- Heavy reliance on the climate information by those who have used the same consistently
- Up scaling the same to cover other areas (the ADA+ consortium work)

The *Process* of Making science useful



Who is the User?
Who is the Provider?

Whose knowledge counts?

Thank you very much