Supporting the engagement of climate science across a range of humanitarian, development and community users

Emma Visman, HFP/KCL

Strengthening resilience through improved treatment of uncertainty in weather, climate and impacts

Wednesday, 13th-Thursday, 14th March 2013
Royal Society, London
1. Users and providers
2. Levels of literacy
3. Identifying relevant uncertainties
4. Creating space for dialogue
Turning good science into good decision making: Addressing the weakest link and enabling direct dialogue between the providers and users of science

Who are the users?

Who are the providers?
“Worryingly, the majority of NGO respondents (71%) reported that they or their organisation does not consume information related to S&T for development but there are marked regional differences.”

SciDevNet Global Review 2012, p78
How much do you need to know to appropriately apply science within life and livelihood decision making policies, programmes and projects?

How much do humanitarian and development organisations and the communities and partners with whom they work know?

What more could they do if they had deeper understanding of science and how it could be used?

Humanitarian and development organisations as users and two-way channels to disseminate to and feedback from at-risk communities
At what time frames?
At what geographic scales?
For which regions?
With what degree of certainty?

AND

What levels of decision/policy making can this usefully inform?

Which uncertainties are relevant for:
- Scientists
- Policymakers
- Communities at risk
People are used to making decisions in situations of uncertainty

‘Only God knows 100% what will happen. Right now we take chances every year and that means we are right as often as wrong. Seventy per cent means I am ahead.’ Peter Webster, Georgia Institute of Technology reporting from the CFAN Bangladesh

‘God is the one who provides, but YOUR knowledge contributes to it.’ Kaffrine district, Senegal within collaborative Red Cross Senegal, HFP and partners’ exchange
Tolerating the right kinds of uncertainty
Collaborative workshop May 2012

Key humanitarian challenges for future climate science research:

• Developing effective and timely observatory systems

• Identifying those regions and livelihoods most vulnerable to future climate variability and change

• Identifying the most relevant decision making thresholds, including the lead times and quality of forecasts, through which climate information can best support specific livelihood and humanitarian user groups. This will demand clarification of the level of probability and reliability required to trigger action through joint scientist–policy-maker–decision-taker discussion

• Assessing how reliable climate information is at different timeframe and for different regions.

• Demonstrate how improvement of forecast skill can be used in planning purposes
Partners to the exchange

**Climate scientists/Meteorologists**

- Senegal National Meteorological Agency
- Kenya Meteorological Department
- UK Met Office Hadley Centre

And the universities of:

- Liverpool
- Oxford
- Sussex

**Humanitarian and development policy makers and partners** from:

- Christian Aid
- Red Cross Senegal
- CAFOD
- Oxfam GB

+ Working group bringing in a much wider group of climate scientists and humanitarian and development organisations

+HFP linking role
Objectives: *Demonstrate how climate science can effectively inform a range of humanitarian, disaster risk reduction and development planning processes*

- **Contextualise** emerging understanding of climate science;

- Strengthen communities’ and humanitarian and development organisations’ **Access to**, **Understanding of** and **Ability to appropriately act on** and **apply** climate information

- Improve climate scientists’ understanding of the climate information needs of humanitarian and development users.
Findings from baseline

- Information provided through inaccessible channels, language and formats
- Users unaware of the range of, and levels of certainty within, available weather and climate information
- Distrust of information provided
- All climate scientists said that greater dialogue with users would lead them to target their work to better support users climate information needs

All partners welcomed the need for increased, direct, two-way dialogue
For most, engagement in exchange activity was the first time ‘scientists, development partners and some implementers were convened in the same space to talk about climate’.
Spaces for systematic dialogue and sharing learning about effective approaches

Demonstrating **tangible benefits** to create increased **demand** for climate services

*Use of weather and climate information at different timescales and for a range of humanitarian and development decision making processes*

Developing **appropriate approaches for conveying relevant uncertainties**

Beyond risk conveyance to application support (‘educate not scare’ and **ensure resources to act on information**)

Developing **integrated approach** across hazards, sectors, disciplines

**Learning by doing**, through for example exchange and joint research

**Mainstreaming** within respective roles, organisations and networks

Creating spaces to **share learning within and between regions**
Dialogues for Disaster Anticipation and Resilience
Online resource: http://www.elrha.org/dialogues
Proposed principles of a framework for dialogue between the providers and users of scientific information to support community resilience

Supporting appropriate application of relevant scientific understandings of risk is a process which needs to be:

- Founded on addressing community concerns
- Two-way
- Integrated: Transdisciplinary Contextualised within multi-hazard environments
- Allow for difference of scientific opinion/knowledge sources
- Blend academic and indigenous sources of scientific information
- Multi-scalar
- Systematic
- Include and (explain) processes to assess the reliability of the science
- Appropriately convey uncertainties/the probabilistic nature of information
- Encompass systems of accountability and, measure impact, on the part of providers and specific users
Impact and Accountability

**Impact** across:
- Communities at risk
- Policymaking
- Scientific research

Identifying opportunities to jointly develop:
- Common and/or complementary aims and objectives
- Frameworks to measure impact
- Systems to ensure accountability

Hurricane Sandy: A Shrill Lesson from the L’Aquila Earthquake
‘We acknowledge the limits of what we can know with certainty, and must then try to find a different way of knowing.’

Neil MacGregor

*A history of the world in 100 objects* (2010) pxviii