Promoting innovation and evidence-based approaches to building resilience and responding to humanitarian crises:

An Overview of DFID's approach

November 2014

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Figures, information and annexes

The virtues have gone mad because they have been isolated from each other and are wandering alone. Thus some scientists care for truth; and their truth is pitiless. Thus some humanitarians only care for pity; and their pity (I am sorry to say) is often untruthful. *Orthodoxy* GK Chesterton, 1911

Executive Summary

Background and overview

Every year, the lives and livelihoods of millions of people are pushed to the brink by war and natural hazards.

In 2013, 14 million people were affected by Typhoon Haiyan, which plunged a part of the Philippines that was already poor further back into poverty. The economic costs of the crisis are estimated by the Asian Development Bank to be in the region of $12-15 billion, equivalent to five percent of GDP[1]. In the 20 years to 2012, disasters caused US$2 trillion of damage in the developing world, more than the total of development aid given over the same period[2].

Meanwhile, conflict in Syria has driven more than one in every fifteen people from their homes, with more than 3 million refugees and a further 2.4 million people displaced internally. There is no sign of an immediate respite to the crisis, or to the potential for regional spill-over. Syria joins a list of countries where conflict threatens to deprive children, women and men of safety and opportunity, perhaps for a generation.

In Africa, thousands of lives and livelihoods have been affected by the current Ebola outbreak. Some experts predict that the virus could infect up to 1.4 million people by January if left unchecked. The conflicts in South Sudan and Central African Republic remain unresolved, continuing to displace large proportions of their populations. Across the whole of Africa some 11 million people are of significant concern to the UN Refugee Agency due to displacement.

Humanitarian action is designed to support individuals, communities and countries when their own capacity to cope with shocks and threats has been exceeded, to enable them to survive, to protect them from fear and violence and to provide the starting point for recovery. Humanitarian assistance has saved millions of lives, and provided comfort to those living in the most difficult environments.

A major review of the UK's humanitarian work – the Humanitarian Emergency Response Review (HERR) argued that a convergence of trends will make disasters more commonplace, increasing the demand for humanitarian action. Specifically, the combination of climate change, urbanisation, population growth and political instability means that more people are likely to become critically vulnerable[3].

Disasters further impoverish people who are already poor and marginalized. Recent analysis suggests that by 2030, 325 million extremely poor people will be living in the 49 most hazard prone countries, the majority in South Asia and Sub-Saharan Africa[4]. At the same time, conflict is persisting in large areas of the world, creating further vulnerability and undermining

[1] Tsang, A., (2013), 'The economic cost of Typhoon Haiyan', FT blogs, available: http://blogs.ft.com/the-world/2013/11/the-economic-cost-of-typhoon-haiyan/
[2] Government office of Science (2012) 'Reducing risks of future disasters: priorities for decision-makers", available at: www.gov.uk/government/publications/reducing-risk-of-future-disasters-priorities-for-decision-makers.
[3] HERR, (2011), Humanitarian Emergency Response Review, available at: www.gov.uk/government/uploads/system/uploads/attachment_data/file/67579/HERR.pdf.
[4] Shepherd, A., Mitchell, T., Lewis, K., Lenhardt, A., Jones, L., Scott, L., and Muir-Wood, R., (2012) "The geography of poverty, disasters and climate extremes in 2030", Overseas Development Institute, London.

the very institutions that are needed to address crises. Demand for humanitarian assistance, therefore, is likely to increase significantly.

The HERR recognised that in order to address this growing risk a number of measures would be required. These included, enabling community and national systems to withstand shocks, and more investment in anticipation and preparedness: in other words, building disaster resilience.

It also acknowledged that this would not be enough. To address the emerging gap between humanitarian risk and the capacity to respond, it will be critical to find new and better ways of protecting women and men from violence, delivering humanitarian assistance and building disaster resilience. We must also ensure that our existing interventions are delivering the best results at the lowest cost. The report therefore recommended that the UK increase its investment in building the evidence base and catalysing innovation in the humanitarian sector.

In February 2012, the UK Department for International Development (DFID) published a strategy outlining how it would do this. The strategy represented the first, and to date only, systematic effort by a bilateral donor organisation to define a clear agenda for research and innovation in the humanitarian field. In the period since then, the DFID has developed a wide-ranging portfolio of projects, designed to build a more firm evidence base for humanitarian work, to find and to test new approaches to crisis response.

Globally, this period has seen many agencies placing greater attention on the need for investment in humanitarian innovation, with a growing array of initiatives designed to catalyse invention, experimentation and change.

This paper provides an overview of DFID's work to date and provides a roadmap as to how it will continue to deliver a prioritised, relevant and timely contribution to more effective humanitarian action.

The previous strategy outlined four big problems around which DFID would corral its efforts. These were:

- Decision-makers do not have access to good information about the multiple dimensions of risk;

- Little is known about which interventions are most effective, and there is a reluctance to try new ways of working;

- In a context of rising climate-related stress, urbanisation and population growth, the humanitarian systems' capacity to design and deliver humanitarian assistance is overstretched and will soon be overwhelmed; and

- The right capacity, systems and incentives are not in place to ensure that high quality evidence is available and used to inform decision-making.

Our assessment is that these remain the four big challenges on which we should concentrate, building on our current investments and extending them further. This paper reports on progress against the strategy and plans for the immediate future in continuing to work across DFID and with partners at country level and internationally.

Cutting across the updated strategy are three key concerns.

- The importance of increasing the quality of evidence in the humanitarian sector, so that we can be more confident that what we are doing really does deliver good

outcomes and that we understand why it delivers good outcomes. Hence a concern with **method,** including for age and sex disaggregated data to provide for more appropriately designed and targeted response.

- A concern to reframe humanitarian policy debates from a focus on international humanitarian action, to a greater emphasis on **enabling disaster affected communities and their governments**, reserving international action for where there truly is no local alternative.

- The imperative of bringing **evidence closer** to the places in which humanitarian crises occur. The concern that evidence should be generated, owned and understood by local, national and international actors at close proximity to disasters.

1. Introduction

In April 2011, the Humanitarian Emergency Response Review (HERR), called for a transformation in the way in which the UK Government and the wider global community approach the humanitarian agenda.

It set out how a range of environmental, demographic and political trends are converging, posing an increasing threat to life and to long-term development opportunities, particularly in poor countries. It argued for a step change in the way in which the UK Department for International Development (DFID) understands and responds to this changing risk environment.

In addition to encouraging a fundamental review of the way in which the Government anticipates and responds to crises, it argued that increasing resilience should be a fundamental objective of all of DFID's work – developmental, as well as humanitarian.

The High Level Panel report on the post-2015 development agenda included '…build resilience and reduce deaths from natural disasters by x%' as one of four top targets to end poverty[5]. The inclusion of this new target reflects the growing recognition that natural disasters constitute a real threat to long-term development, as well as to the lives of millions of people around the world. In the 20 years to 2012, disasters caused US$2 trillion of damage, more than the total of development aid given over the same period[6].

Recent research indicates that up to 325 million extremely poor people will be living in the 49 most hazard-prone countries in 2030. Evidence from Ethiopia and India, for example, shows that in arid and semi-arid areas, drought was by far the most common factor pushing people deeper into poverty. Of the countries considered to have a high hazard burden, more than two thirds have a very limited capacity to manage the risk of disasters that they face[7].

Poor people are most vulnerable to the immediate effects of natural disasters, and research suggests that disasters can have long-term economic impacts for the poorest[8][9]. Evidence has shown that shocks and disasters are associated with poor child growth and development, which in turn has impacts on future earning potential and the ability of those affected to escape the intergenerational cycle of poverty[10,11,12].Children born in a drought year in Zimbabwe and Niger, for example, are highly likely to be stunted with knock on effects to schooling and lifetime earnings[13]. The risk of impoverishment from disasters is further compounded by the lack of access to markets, land and capital; weak social safety

[5] HLP, (2013), 'A New Global Partnership: eradicate poverty and transform economics through sustainable development. The Report of the High-Level Panel of Eminent Persons on the Post-2015 Development Agenda', available at www.post2015hlp.org/wp-content/uploads/2013/5/UN-Report.pdf.
[6] Government office of Science (2012) 'Reducing risks of future disasters: priorities for decision-makers", available at: www.gov.uk/government/publications/reducing-risk-of-future-disasters-priorities-for-decision-makers.
[7] See Shepherd, A., Mitchell, T., Lewis, K., Lenhardt, A., Jones, L., Scott, L., and Muir-Wood, R., (2012) "The geography of poverty, disasters and climate extremes in 2030", Overseas Development Institute, London.
[8] Dercon, S., (2004), 'Growth and Shocks: evidence from rural Ethiopia', *Journal of Development Economics,* 74(2), pp 309-329.
[9] Carter, M., R., Mogues, T., and Negatu, W., (2007), 'Poverty traps and natural disasters in Ethiopia and Honduras', *World Development 35* (5), pp 835-856.
[10] Silventoinen, K. 2003. Determinants of variation in adult body height. Journal of Biosocial Sciences, 35:263–285.
[11] Fuentes, R. and Seck, P. 2007. The Short-Term and Long-Term Human Development Effects of Climate-Related Shocks: some Empirical Evidence. New York, UNDP
[12] Victora,C et al. (2008) Maternal and child undernutrition: consequences for adult health and human capital. Lancet, 371: 340–357.
[13] UNDP, (2007), *Fighting Climate Change: human solidarity in a divided world,* United Nations Human Development Report 2007/2008. New York: United Nations Development Programme.

nets; limited access to insurance and risk transfer finance; and high concentrations of people living in scattered and informal settlements. Ensuring effective mechanisms to enable people to survive and protect assets when shocks strike is critical. These can include both humanitarian and longer-term social protection approaches.

The combination of natural disasters, conflict and fragility exacerbates the vulnerability of the poorest. Over the period of 2005-2009, more than half of the people affected by natural disasters lived in fragile and conflict-affect states[14]. No fragile or conflict-affected state is on track to meet the Millennium Development Goals. This convergence of hazards poses significant challenges for governments and agencies seeking to achieve development progress in insecure environments and puts strain on the humanitarian system.In these fragile and conflict-affected countries, humanitarian assistance is often the only form of assistance and is required for many years. Protracted crises limit the ability of affected populations to settle and to maintain a sustainable livelihood. Since 2002, long-term humanitarian assistance (more than 8 years of consecutive aid) has accounted for over two thirds of humanitarian spending – 66% in 2012[15].

Timely and appropriate humanitarian response to crises can make an important contribution to meeting immediate needs, supporting the resilience of households and communities, as well as poverty eradication. Research from Bangladesh shows that effective and timely response to shocks can avert the impoverishing effects of crises, so averting disease, death and destitution[16]. Wider literature attests to the human costs of late response in circumstances when environmental, political or other conditions deteriorate. A repeated finding of research is that it can be very difficult to get timely decisions to scale-up humanitarian funding in the face of uncertainty about the scale of a crisis.

Conversely, in protracted crises which extend beyond traditional humanitarian funding cycles, longer-term solutions are required where political and security conditions limit the use of conventional development instruments and people remain highly vulnerable. Ensuring more integrated approaches between humanitarian and longer term approaches remains a pressing issue.

Improving understanding and management of disaster and conflict-related risk, as well as ensuring that we respond well if and when crises strike, is an increasingly important part of poverty eradication. At present, however, we do not have sufficient evidence about the scale and nature of disaster risk, nor about which elements of humanitarian response are most effective.

Furthermore, there has been remarkably little innovation in humanitarian response and disaster risk management over the past twenty years, limiting efforts to increase coverage, quality and value for money in the sector.

The HERR recognized the need for more evidence informed humanitarian action and the need to promote greater innovation. As part of its response to the HERR, in June 2011 the Government agreed:

- to make research and innovation a core part of DFID's research and evidence work; and

[14] Harris K et al (2012) "When disasters and conflict collide", Overseas Development Institute, London: http://www.odi.org.uk/sites/odi.org.uk/files/odi-assets/publications-opinion-files/8228.pdf
[15] Development Initiatives (2014), *Global Humanitarian Assistance Report 2014,* Development Initiatives: Bristol.
[16] Baulch, B (2012) 'Poverty transitions, shocks and consumption in rural Bangladesh, 1996-7 to 2006-7' in Baulch, B et al (ed) *Why Poverty Persists: Poverty Dynamics in Asia and Africa* Edward Elgar Publishing: Cheltenham.

- to use innovative techniques and technologies more routinely in humanitarian response[17].

In 2012, DFID published a strategy setting out how it would deliver on these commitments. Since then, DFID has laid the foundations of a diverse portfolio of investment in evidence and innovation.

The Humanitarian Innovation and Evidence Programme (HIEP) is the main mechanism for funding this investment, but other parts of DFID are also increasingly investing in building the humanitarian evidence base. This paper provides an overview of DFID's work (through the HIEP and more broadly) to build the evidence base and catalyze innovation in the humanitarian sector.

It comprises three parts. Section 2 sets out the aims and objectives of the strategy, locating it within the wider context of DFID's humanitarian policy. Section 3 identifies the four big problems around which we are concentrating our efforts. Section 4 describes how DFID's interest in this area is delivered.

[17] HERR, (2011), Humanitarian Emergency Response Review, available at: www.gov.uk/government/uploads/system/uploads/attachment_data/file/67579/HERR.pdf.

Figure 1: **Summary of DFID's humanitarian evidence and innovation portfolio**

	Project description	**Partnerships**
Problem 1: Enabling decision-makers to access and use evidence about risk	**Project 1: Improving the application of risk assessment for disaster risk management** Working with the Pakistan National Disaster Management Authority, DFID is supporting the World Bank to pilot a new participatory approach to integrated risk assessment and risk financing. The pilot includes robust monitoring and evaluation that will be used to assess the success of this approach, and inform the potential scale-up in five additional countries.	Global Facility for Disaster Reduction and Recovery (GFDRR) of the World Bank
	Project 2: Building the evidence base on the risk to urban populations in Sub-Saharan Africa This research programme, led by Professor Mark Pelling of Kings College London, and co-funded by the ESRC, aims to generate stronger evidence on the nature, scale and distribution of risk in urban areas in Sub-Saharan Africa. The research will generate both qualitative and quantitative data on the contribution of different hazards and vulnerability to levels of risk in towns and cities. This data will support public and private sector actors to target risk management strategies more effectively, as well as developing and testing new research approaches.	Co-funded Economic and Social Research Council (ESRC) UK. Lead research organisation: Kings College London
	Project 3: Strengthening the quality and use of humanitarian evaluation This project aims to strengthen the evidence base on building and managing resilience in fragile and conflict-affected states through an evaluation of a number of DFID's multi-year humanitarian programmes. The purpose of this thematic evaluation is to generate learning and evidence on whether and how a multi-year humanitarian funding approach has enabled DFID programmes: to ensure timely and effective humanitarian response; to build disaster resilience; and achieve better value for money. The evaluation includes DFID's programmes in the Democratic Republic of Congo, Ethiopia, and Sudan, and will draw findings from a sister evaluation looking at similar questions within DFID-Somalia's programme.	Lead research organization: Valid International
Problem 2: Building resilience and improving response: finding out	**Project 4: Shock responsive social protection systems** The aim of this research study is to strengthen the evidence base on efficient and effective shock-responsive social protection, particularly in slow-onset and protracted crises contexts. The focus of the study will be on low income countries and fragile and conflict-affected states, particularly in the Sahel. A research partner for this research project is currently being identified.	Under procurement.

what works and innovation	**Project 5: Is cash transfer programming "fit for the future"?** This research study led by CaLP investigated whether the international humanitarian community is well placed to deliver emergency cash transfer programming in the future. The study sought to understand how the changes in the humanitarian landscape may evolve in the future (up to 2025) and how these changes might shape emergency cash transfer programming. The research affirmed the growing acceptance of the use of cash in humanitarian contexts, but found that it is rarely considered as a major tool but rather as an additional approach for more traditional, in-kind assistance interventions.	Lead Research Organisations: Cash Learning Partnership (CaLP) and Humanitarian Futures Programme, King's College London.
	Project 6: Research on food assistance for nutritional impact The aim of this intervention is to strengthen the evidence base for food assistance as a mechanism to prevent acute under nutrition in humanitarian emergencies. The research will conduct a number of randomised trials in emergency contexts to test the impact of food, cash and complementary interventions on acute under nutrition. The study will explore the pathways between food assistance and nutrition outcomes. Findings will be used to enhance understanding and to develop guidance for designing emergency food assistance programmes in a way that goes further to prevent acute under nutrition.	Research organisations: Action Against Hunger, Concern Worldwide, Emergency Nutrition Network, and UCL Institute for Global Health
	Project 7: Protection of civilians: building the evidence base on what works The aim of this intervention is to broaden and deepen the understanding of the behaviour of combatants, with a particular focus on respect for International Humanitarian Law (IHL). It is a two year-initiative comprising of: a literature review; study-design; material preparation; field and desk based data-gathering, writing and dissemination. This work will directly build on previous research a decade ago by the ICRC, which looked at the social-psychological factors that predicted past violations of IHL and intentions to respect IHL in the future, among combatants in four contexts that had experienced armed conflict (Bosnia-Herzegovina, Colombia, Congo-Brazzaville and Georgia).	Lead research organisations: ICRC (using consultant researchers led by Dr Emanuele Castano
	Project 8: Education in emergencies literature review The review will bring together evidence on what works when implementing education in emergency responses. In doing so it aims to; establish a strong evidence base forforthcoming policy on education in emergencies and for technical guidance to inform operational decision-making, and identify priorities for future investment and innovation by DFID and more broadly through those involved in the Building Evidence into Education network (BE2). In doing so it will: inform our understanding of the scope and quality of the current evidence base; identify the knowledge gaps on the benefits and challenges of implementing education in emergencies; and inform the development of a new research area on emergency response by DFID and others.	Lead organization: INEE. Lead Researcher: Professor Dana Burde at New York University, Steinhardt

	Project 9: The Moving Energy Initiative: Improving evidence and testing of innovative humanitarian solutions to increase access to sustainable energy for displaced people. The Moving Energy Initiative will generate knowledge products from desk and field research, and from pilot projects ('learning by doing'): all addressing the issue of sustainable energy access and management in humanitarian interventions. Evidence will be gathered by engagement with actors currently involved in camp operations, and with other partners who have specialist skills and insights to offer. This evidence will be used to design and test new approaches to provide energy access in camp and informal settlement situations – with innovations potentially relating to technologies, institutional arrangements and modes of private sector engagement, for example, private-public partnerships.	Global Village Energy Partnership (GVEP) in partnership with Chatham House, UNHCR, the Norwegian Refugee Council, Practical Action, UNEP, and the Ashden Trust.
	Project 10: Impact appraisal for sovereign disaster risk financing and insurance: towards better evaluation and evidence Currently there is limited evidence as to which disaster risk finance and insurance strategies provide the most cost-effective impact for disaster-affected countries. This project, led by the World Bank, aims to develop a methodology to evaluate a range of disaster risk financing and insurance programmes, and provide quantitative results based on five country case studies – Bangladesh, Philippines, Niger, Ethiopia, and Jamaica. The evidence generated by the project will help to better target and prioritize future investments from national governments and international donors in sovereign disaster risk finance and insurance.	Research organisation: Disaster Risk Financing and Insurance (DRFI), a joint programme of the World Bank and Global Facility for Disaster Reduction and Recovery (GFDRR).
	Project 11: Support to the Humanitarian Innovation Fund to test and pilot innovations in the humanitarian sector, particularly in the Water, Sanitation and Hygiene sector. This project provides support through the Humanitarian Innovation Fund (HIF) to operational agencies, private companies and research organisations to develop new ways of responding to humanitarian crises. The Fund provides grants of up to £150,000 to develop and test new ideas to proof of concept stage. These include the use of text based and digital solutions to child reunification, aid delivery in insecure environments and knowledge management. It has also delivered new products, such as a specially designed wheelchair for use in emergencies. The Fund has also launched a number of specific challenge fund window targeted at difficult, hard to solve problems in the WASH sector.	Lead organization: Enhance Learning & Research for Humanitarian Assistance (ELHRA)
	Project 12: Mapping the international humanitarian system This research study is being led by Howard Rush at Brighton University Centre for Research on Innovation Management. The objective of the study is to apply a systems approach to understand how innovation is currently manifesting within the humanitarian sector, and how in future it could be further supported and stimulated.	Lead organization: Brighton University Co-managed: UNOCHA

	Project 13: Research for health in humanitarian crises The aim of this project, co-funded with the Wellcome Trust and managed by ELHRA, is to improve the evidence base for humanitarian public health interventions in rapid onset and complex emergencies. Through open calls for research proposals, the project works to bring together academic institutions with humanitarian agencies to produce high-quality, operationally relevant research. In addition to long-term research studies, the project has launched two rapid research calls on the humanitarian response to typhoon Haiyan and the current Ebola epidemic in order to generate immediate learning and evidence on "what works".	Co-funded Wellcome Trust Managed: ELHRA Research organisations: numerous
	Project 14: Improving outcomes for people displaced by conflict for long periods This research study led by ODI is investigating how policy frameworks, institutional arrangements and humanitarian assistance could improve the livelihoods and self-reliance of people who have been displaced by conflict for long periods. The objective of the study is to map and analyse the evidence on the scale and nature of protracted displacement globally; assess the impact of national policy frameworks, institutional arrangements and international assistance to improve self-reliance and livelihoods in protracted displacement contexts; and identify innovative opportunities to promote better self-reliance and stronger livelihoods pending durable solutions.	Co-managed: World Bank and the UN Refugee Agency (UNHCR) Lead research organisation: Overseas Development Institute (ODI)
	Project 15: Raising the quality and rigour of evaluation in humanitarian contexts This project led by 3ie will establish a platform to commission impact evaluations in humanitarian emergencies. The platform will start to build a body of experimental studies on a particular thematic area that will inform understanding of what works in humanitarian contexts. Through the application of (quasi)experimental evaluation methods, 3ie will develop knowledge and learning on how the logistical and ethical challenges in humanitarian crises of using these rigorous research methods can be overcome.	Co-funded: USAID, UN OCHA, WFP (pending) Co-managed by: International Initiative for Impact Evaluation (3ie)
	Project 16: Development of technical guidance for DFID humanitarian advisors to improve practice This project aims to turn findings from the wider DFID humanitarian research strategy into practical guidance for humanitarian advisors in DFID. To date guidance has been developed on: • health interventions in humanitarian crises (cholera and mental health), • approaches to address violence against women and girls in emergencies; and • cash-based approaches to programming in humanitarian contexts.	DFID
Problem 3: Capacity to	**Project 17: Secure assess in volatile environments** Led by a team in Humanitarian Outcomes and GPPI, this research project aims to improve the delivery	Lead research organizations:

promote resilience and ensure effective humanitarian capacity	of humanitarian aid in insecure environments. The study focuses on four country case studies in Somalia (Northern Kenya), South Sudan, Afghanistan, and Syria. The research will strengthen quantitative data on the presence and access of humanitarian actors in these countries, as well as generating evidence on what works best in delivering quality humanitarian assistance and protection in highly constrained contexts. The study will also develop a monitoring and evaluation framework for humanitarian practitioners to support the measurement of humanitarian aid in insecure contexts.	Humanitarian Outcomes and GPPI
	Project 18: Improving the evidence base on how to work with national and local authorities to improve disaster risk Oxford Policy Management in consortia with Dr Roger Few at the University of East Anglia are leading a research team to investigate which approaches are most effective at building the capacity of national and local organisations responsible for disaster risk management. Focusing on seven countries – Liberia, Myanmar, Philippines, Haiti, Mozambique, Malawi and Bangladesh – the research will document the different approaches to capacity development in these contexts and analyse their relative effectiveness. The study will investigate both what works and why it works in these different countries. The study will also develop a monitoring and evaluation framework for practitioners to measure the future effectiveness of disaster risk management capacity building programmes.	Co-funded: Swedish and Canadian governments Managed: International Federation of the Red Cross Lead research organization: Oxford Policy Management, University of East Anglia
Problem 4: Decision-makers lack the incentives to use evidence in their work and find it difficult to access	**Project 19: Humanitarian evidence synthesis and communication programme** The aim of this project, led by Oxfam GB and Tufts University, is to provide humanitarian decision-makers and practitioners with access to a wider range of new and existing research, providing them with an improved evidence-base that they can draw on their decision-making. This will be achieved by commissioning and producing evidence synthesis products (e.g. rigorous literature reviews and systematic reviews) and will package, present and communicate these to the humanitarian community in formats that are useful to practitioners and policy-makers.	Lead research organisations: Oxfam GB and Tufts University
	Project 20: Improving the quality of data used in decision-making by the international humanitarian system: the Humanitarian Data Exchange The aim of this project led by OCHA is to make operational data easily available and accessible for humanitarian decision-makers. The project does this by bringing together multi-country, multi-source humanitarian data onto one repository platform. Tools for analysis and visualization targeted at decision-makers can then be applied allowing for comparison across countries and crises.	Lead organization: UN Office for the Coordination of Humanitarian Affairs (OCHA)

	Project 21: Strengthening the capacity of Southern institutions to use and generate evidence The purpose of this project is to conduct two scoping studies which will map and provide a political economy analysis of the humanitarian research and evidence systems in East Africa and South Asia. These studies will be an important step in allowing DFID, and other research actors, to identify the institutions and research groups that are commissioning, conducting and brokering humanitarian research activities in East Africa and South Asia, as well as how decision-makers interpret and use evidence. These studies will inform DFID's understanding of the humanitarian research and evidence landscape in East Africa and South Asia, and identify potential opportunities for DFID to support the strengthening of research capacity in the region.	Lead research organisations: Development Initiatives (East Africa); to be identified (South Asia)
Cross-cutting	**Project 22: independent evaluation of the DFID Humanitarian Innovation and Evidence Programme** In 2013 DFID commissioned an independent evaluation to investigate how the portfolio of research and innovation projects as a whole have contributed to strengthening more evidence-aware humanitarian policy and practice.	Lead research organization: ITAD consultants

2. Evidence-informed humanitarian action: what do we mean?

2.1. Evidence-informed humanitarian action: where are we now?

DFID believes that the effectiveness of development and humanitarian interventions will be increased if they are based on sound evidence. Delivering evidence-based policy and practice requires more than simply investing in research. It means building *systems* that will enable decision-makers to access the right type of evidence in the right way at the right time, and to have the skills to understand it and incentives to use it.

Davis and Nutley[18] have described the four elements that need to be in place to support evidence-based approaches to public policy. At present, all of these elements are only weakly developed in relation to humanitarian action.

2.1.1 Agreement on methodology and ethics

The **first** element of evidence-based policy (EBP) is *agreement on research methodology.* In some areas, such as medicine, there is growing consensus about the methodologies that can be used to test the effectiveness of different interventions, with randomised controlled trials becoming the gold standard. This agreement on method has provided the foundation for what has become an increasingly integrated system to deliver evidence-based medical practice.

Within the humanitarian sector, it is difficult to agree a common set of methods that should be used to model, analyse and gather rigorous data, and test hypotheses, on humanitarian problems. Because of the diversity of types of intervention – from provision of food, to advocacy efforts to strengthening protection – a range of methods, qualitative and quantitative, is likely to be needed.

The difficult conditions under which humanitarian action is delivered mean that there is a constant tension between what is possible and what is desirable in terms of the veracity and rigour of evidence, and between the desire of implementers to adapt interventions on the fly and the need for researchers to have consistency of inputs to be able to measure statistically significant changes.

In addition to questions regarding the practicality of research in emergencies, there have also been some concerns regarding its ethics. There is a fear that investment in research takes away resources that would otherwise be used for response, and concerns that research can be an imposition on those already suffering while not really benefiting them. The counter view is that it is equally unethical to deliver interventions that are, at best not proven, are ineffective or, worse still, do actual harm. In common with all research that involves human subjects, humanitarian research requires an ethical framework that has the well-being of those being studied at the centre and that does no harm.

Dijkzeul et al[19] make the case that evidence needs to be both **methodologically sound** *and*

[18] Nutley S and H Davis (2000) *What works: evidence-based policy and practice in public services*, Policy Press, Bristol.
[19] Dijkzeul, D., Hilhorst, D. and Walker, P. (2013), Introduction: evidence-based action in humanitarian crises. Disasters, 37: S1–S19. doi: 10.1111/disa.12009.

fit for the purpose for the end user. Field observations by aid agencies may be fit for purpose, but methodologically unsound, whereas data from scholarly studies may be methodologically rigorous, but either too complex to use or not presented in a timely fashion. So, we need to make sure that our choice of method is appropriate to the type of decisions that need to be made.

An important task, then, is to strengthen agreement on modelling, research methods, and on what constitutes acceptable and actionable evidence in different contexts. Sometimes, anecdotal evidence may be all we can have as a basis for decision. In other contexts, we will want to rely on evidence that uses more formal methods[20].

Over the last couple of years, DFID has been working to promote greater understanding of the scope and limitations of different methods. For example, DFID's collaboration with the International Initiative for Impact Evaluation (3ie) is designed to test whether and how impact evaluation methods can be used in humanitarian crises (figure 1, project 15).

Similarly, working in collaboration with the Wellcome Trust, DFID has also been examining the ethical framework for conducting research in these difficult environments (see box 1). This programme has also established a window to conduct research in the immediate aftermath of disasters. This idea is that preapproved funding should allow research teams to investigate how best to respond in the early days of a sudden onset crises, a period about which we have little robust knowledge. In response to the Ebola outbreak in West Africa, DFID and the Wellcome Trust launched a rapid research call aimed at producing robust evidence that can contribute to the effectiveness of the response to the current outbreak, and help to draw lessons for future outbreaks of Ebola and other communicable diseases (figure 1, project 13).

Box 1: **Summary of findings from a review of research ethics in humanitarian contexts**[21]

The research team conducted searches using academic databases to identify substantive literature focused on ethical considerations surrounding health research in humanitarian settings. Key informants were contacted to identify other journal articles and published literature. The review found that:

- The earliest references to research, ethics, policies or standards around health interventions in disaster and humanitarian settings date to the late-1980s.
- The literature identified usefully discusses the broad ethical issues involved in health research in humanitarian crises. But overall, papers presented inventories of ethical principles, drawing references to general sets of codes and statutes that underpin wider ethical norms.
- Systematic processes or structures which could be used by the humanitarian research community and research ethics boards were largely absent.
- Supplementary interviews with the humanitarian, health and development practitioner and researcher communities indicated that the ethical norms around research were largely accepted, but without systematic processes or structures to inform efficient and effective use.

[20] Knox, C., P., & Darcy, J., (2014), *Insufficient Evidence? The quality and use of evidence in humanitarian action,* ALNAP/ODI: London. Available: www.alnap.org/resource/10441

[21] Curry, D., R., Waldman, R., J., Caplan, A., L., (2014), *An Ethical Framework for the development and review of health research proposals involving humanitarian contexts: project final report,* available at:www.elrha.org/uploads/FINAL%20R2HC%20Ethical%20Framework_Final%20Report_24%20January%202014_0.pdf

2.1.2 Commissioning frameworks

A **second** element is a common approach to the commissioning of research. Experience across a number of sectors suggests that investments in research and innovation are most effective when effort is targeted around addressing a clearly identified and important set of questions. For example, the World Health Organisation regularly convenes expert groups to set research priorities around particular health issues. Similarly, UK Research Councils use scientific boards to prioritise research investments. These are based on rigorous reviews of existing evidence and an analysis of where answers to key questions are most likely to yield a high return.

In relation to disasters associated with natural hazards, the scientific board of International Strategy for Disaster Reduction (ISDR) is one entity that aims to articulate a clear research agenda. The International Science Union's sub-committee on Integrated Research for Disaster Risk (IRDR) is another. The World Bank's Global Facility for Disaster Reduction and Recovery (GFDRR) offers a further important centre of excellence to consider priorities for research investment, while the Intergovernmental Panel on Climate Change (IPCC)'s Special Report on Extreme Events provides a further mechanism to identify research gaps to address vulnerabilities and strengthen resilience.

Within the UK, the UK Collaborative for Development Science (UKCDS) is playing an increasingly important role in convening the UK governmental and scientific community in the realm of disasters. The cross-government Science in Humanitarian Emergencies and Disasters project brings together expertise from the leading UK public sector science agencies to improve of our use of science in anticipating and responding to humanitarian emergencies that result from natural disasters. Much of this work has been informed by the Government Office for Science Foresight report on Reducing Risks and Future Disasters, which reviewed the latest science and set out priorities for how disaster risk reduction can be substantially improved today and into the future both within the UK and internationally[22].

In relation to humanitarian response more broadly there is, at present, no obvious place to set an agenda for evidence and innovation. To date, the clusters in the UN coordination system have lacked the capacity to set and lead the research and innovation agendas in their respective fields. Over the past two years, DFID has been investing in a number of initiatives designed to prioritise the research agenda. For example, it has supported collaboration between operational agencies, cluster leads, academics and engineers to identify the most pressing problems that need to be addressed in relation to water and sanitation in emergencies[23] (figure 1, project 11). This found that while there has been a lot of progress in improving the supply of clean water in emergencies, solid waste disposal remains a pressing issue, particularly in urban contexts. This is enabling us to focus our investment in innovation around this particular problem, which should contribute to accelerating the search for new approaches.

A major theme of this updated strategy is the importance of working with operational agencies and the scientific community to identify the most important questions, and then ensure that we can work together to apply new learning and innovation quickly and at scale. The forthcoming World Humanitarian Summit provides an important opportunity to do this.

2.1.3 Increasing the accessibility of evidence: aggregation and synthesis

[22] Government office of Science (2012) 'Reducing risks of future disasters: priorities for decision-makers", available at: www.gov.uk/government/publications/reducing-risk-of-future-disasters-priorities-for-decision-makers.
[23] Bastable, A., and Russell, L., (2014), *Gap Analysis in Emergency Water, Sanitation and Hygiene Promotion,* Humanitarian Innovation Fund, available at: www.humanitarianinnovation.org/sites/default/files/hif_wash_gap_analysis_1.pdf

The **third** element of EBP is the ability to aggregate and synthesise findings across a range of studies, increasing the power of the analysis and therefore providing decision-makers with a higher degree of certainty regarding the robustness of the findings. The most powerful form of such synthesis are systematic reviews.

Because of the relative weakness of the formal evidence and diffuse nature of grey literature, it has been difficult to use systematic literature reviews as the basis of good practice in the humanitarian sector. Within the field of medicine, where systematic reviews are widely used, the dominance of a number of peer reviewed journals tightly integrates research and practice, and research evidence is also systematically catalogued in a small number of large databases[24]. This creates a clear architecture for accessing the main body of high-quality medical research, essentially for research synthesis. Humanitarian practitioners have had to rely upon experiential learning, captured largely in uncatalogued grey literature. This has provided the basis for standard setting and definition of good practice in initiatives, such as Sphere. However, a recent review of the evidence in relation to public health noted that the evidential base for this remains weak, with only 13% of Sphere standards were supported by good evidence of relevance to health[25].

DFID has supported a systematic review of the evidence in relation to public health and nutrition in emergencies as part of its collaboration with the Wellcome Trust [26], a further review of the evidence in relation to cash is on-going[27][28]. DFID has also established a new two year initiative with Oxfam GB and Tufts University to support an on-going programme of systematic and robust reviews of the literature, and to make these more available to the practitioner community (figure 1, project 19). These reviews are being used to develop guidance for DFID staff who are responsible for our humanitarian programmes, and should be useful more broadly for training and to guide the design of humanitarian interventions around the world (figure 1, project 16).

A further problem in the sector is that while there is a lot of data and analysis, it is not well organized or accessible. Data tends to be used by individual agencies to serve particular project management purposes at a specific moment in time. There is little understanding of the veracity and utility of that data as the methodologies and modeling behind it are often obscure. This means that data is difficult to find, verify and use. The net result is that the real value of operational data is not realized fully.

DFID is working with the UN Office for the Coordination of Humanitarian Affairs on an important initiative to improve the understanding, utility and accessibility of core humanitarian data. The project is establishing a repository for large datasets, and using innovative computer coding to allow information from different agencies to speak to each other. This will help agencies and decision-makers in understanding how to move to an evidence-based methodology for planning and implementation (figure 1, project 20).

2.1.4 Incentives to use evidence

The **fourth** element of EBP is the *capabilities and incentives to encourage decision makers to use evidence*. In the UK, two important things have helped all of this to work in medicine.

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[24] Grayson, L & Gomersall, A., (2003), *A difficult business: finding the evidence for social science reviews,* ESRC UK Centre for Evidence Based Policy and Practice: Working Paper 19. Available: www.kcl.ac.uk/sspp/departments/politicaleconomy/research/cep/pubs/papers/paper-19.aspx

[25] Blanchet, K., and Roberts, B., (2013), *An evidence review of research on health interventions in humanitarian crises,* available at: www.elrha.org/uploads/evidencereviewdesignedonlineFULLpdf140109.pdf.

[26] Blanchet, K., and Roberts, B., (2013), ibid

[27] Doocy, S., & Tappis, H., (forthcoming), *The Effectiveness and Efficiency of cash-based approaches in protracted and sudden onset emergencies: a systematic review,* available at: www.campbellcollaboration.org/lib/project/323.

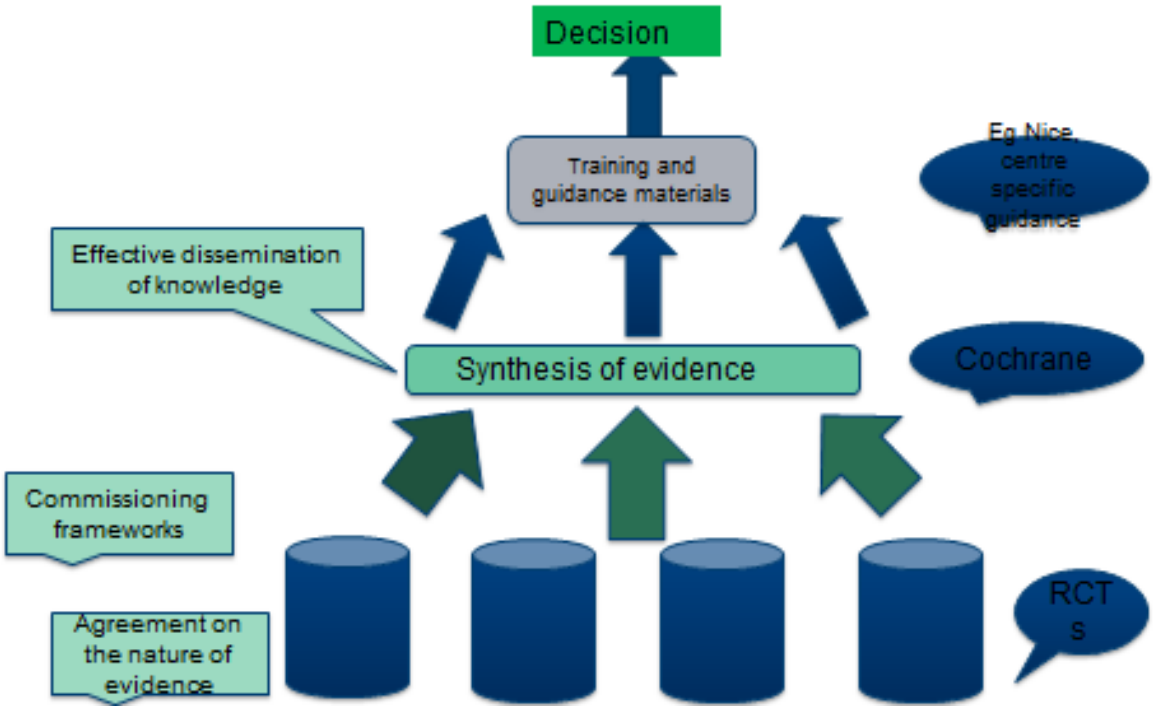
[28] Other humanitarian research synthesis literature reviews commissioned by DFID are listed in Annex A.

First, in the UK there are central policy-making bodies – particularly the National Institute for Clinical Medicine – who have formal responsibility for reviewing evidence and issuing guidance that professionals have an obligation to be aware of and to follow in line with their clinic judgment. Second there are personal incentives for individual practitioners to maintain their professional competence and requirements for them to demonstrate that they are aware of the key evidence in their respective fields (accreditation and licensing).

Again, in the humanitarian arena, this framework of professional incentives and accountability structures remains very limited in a multi-disciplinary and global 'profession' often working in very weak regulatory environments. It will be important to continue to use our position as donors and in the field to advocate for all stakeholders to produce and use evidence in their decision-making[29].

Figure 2 aims to capture these different elements and how they fit together.

Figure 2: **Elements of evidence-aware humanitarian policy and practice**



Implicit in figure 2 is that there is sufficient capacity to generate high quality evidence in this sector, and that those responsible for humanitarian delivery – national and international practitioners – are able to use access and interpret it. In practice what would all of this mean for humanitarian operations? Our vision is that in the coming years, those responsible for humanitarian action will:

- Have the capacity to produce and use evidence to inform their work;
- Be able to access better evidence about the nature and scale of risk and vulnerability, enabling them to anticipate and prepare for different risks and to ensure that the specific needs of women and girls and other excluded groups are met appropriately;

[29]Knox, C., P., & Darcy, J, (2014), *Insufficient Evidence? The quality and use of evidence in humanitarian action,* ALNAP/ODI: London. Available: www.alnap.org/resource/10441

- Have access to proven new approaches to the delivery of humanitarian assistance so improving humanitarian outcomes and reducing costs; and

- Know which are likely to be the most effective interventions to respond to crises and to build resilience.

This is clearly an agenda that extends beyond the influence of this strategy, but for which DFID is committed to playing a leading role in continuing to invest and demonstrate leadership in.

3. Four big problems… and some unknown unknowns

The DFID strategy for investment in humanitarian research and innovation was based on a wide consultation with a range of stakeholders. That process underscored that the evidence base in the sector remained under developed, and that there were four big problems that we should try to address. These are:

One: Decision-makers do not have routine access to good information about risk. Such information is a pre-requisite if we are to mobilise political attention and resources in support of building resilience and know where investments in disaster risk management should be targeted. It is important that different groups can access this information so that they can hold those responsible for managing risk to account.

Two: We don't really know which existing interventions are most effective in reducing risk and vulnerability, saving lives and rebuilding livelihoods after crises. We need to find new ways of doing business that are more effective and affordable, and that enable us to respond to new challenges, such as urbanisation and climate change.

Three: We don't have sufficient capacity to build resilience or mount responses when disaster strikes, and we are finding it increasingly difficult to reach women and men living in very insecure environments. National governments and institutions need to have the capacity to lead efforts to build resilience and respond when crises strike. How can we support their best efforts? Equally, how do we ensure that the international system can provide support when national capacities are genuinely overwhelmed, and that those affected by conflict can access an independent lifeline when all others fail them?

Four: Decision-makers are not always able to access and use available evidence to inform their decisions. This can be because staff have not got sufficient training in how to use different types of evidence; they can't find the right evidence in the right format at the right time; or they don't have the incentives to apply it.

Below we map out in more detail why we think these problems remain important, how we are currently working to address them and how we will address a number of other, newer challenges.

3.1. Problem 1: Enabling decision-makers to access and use evidence about risk

3.1.1. What is the problem?

Economic losses from weather and climate-related disasters have increased, but with large spatial and inter-annual variability. While economic disaster losses tend to be higher in developed countries, fatality rates and economic losses expressed as a proportion of GDP or household income are higher in developing countries. For example**,** during the period from 1970 to 2008, over 95% of deaths from natural disasters were in developing countries[30].

[30] IPCC (2011) SREX: Special Report of Working Group I and Working Group II 2011. Managing the Risks of Extreme Events and Disasters to Advance Climate Change :Adaptation

The latest evidence compiled by the IPCC suggests that climate change will result in more frequent, severe and unpredictable weather-related hazards such as droughts, tropical cyclones, floods and heat waves. However, it is also important to note that the IPCC indicates that the main drivers for future increases in losses due to climate extremes are likely to be socio-economic in nature – mainly the result of trends in exposure and vulnerability.

Vulnerability is often closely correlated with poverty. Individuals and communities experience different levels of exposure and vulnerability according to their levels of wealth and education, disability and health status, as well as their gender, age, class and other social and cultural characteristics. While many countries have made significant efforts to improve their disaster management capacities, they have generally not been successful in factoring disaster risk reduction into development planning. Disaster risk is generally poorly understood and therefore not appropriately considered by most stakeholders, including government agencies. Tools that help decision makers to assess options, costs and trade-offs are also limited.

There is, relatively, more research on geophysical hazards, and the Government's Foresight Programme completed a major review of knowledge in this area[31]. It concluded that more is known about some hazards than others. For example, more is known about the impact of volcanoes or tsunamis, than drought. It also remains difficult to 'layer' analysis of risk and to see how different types of hazard interact. The same applies to key aspects of exposure and vulnerability. For example, relatively little is known about who is vulnerable and how, and how in some cases girls and women may be more vulnerable than boys and men[32].

There is relatively little knowledge and understanding of extensive disaster risk, that is those with small scale impact, as opposed to large-scale events (intensive disaster risk). Data regarding disaster losses and a clear understanding of the implications of urbanisation, and of risks in urban environments, is lacking, particularly in certain geographies such as Africa[33]. Yet such data is critical for decision makers who need to be able to identify which interventions will be most effective, which investments will yield the highest rates of return, and where to target efforts.

It is equally important to be able to integrate improved knowledge and forecasting into effective disaster risk preparation and management, decision-making, strategies and actions. The Foresight report underscored the importance of pooling knowledge and resources relating to the use of science to predict hazards, in order to increase the efficiency of data collection and analysis and to share the costs of building the infrastructure required (satellites and super computers, for example). This becomes even more complex when data on political instability and conflict risk is overlaid in fragile contexts. To date, there has been limited effort to systematically combine disaster and conflict risk data to inform planning and decision-making.

DFID is particularly concerned to reduce the risks of violence faced by women and girls. One important way of doing so is to better understand the nature and scale of that risk. This will help practitioners know what types of interventions are required to prevent and address sexual and gender based violence in different contexts and the differential economic and social effects of disasters on women. For example, in the Democratic Republic of Congo it was thought that women were most at risk of being raped by armed strangers. Prevalence studies revealed however that women were most at risk of intimate partner violence, which

[31] Government office of Science (2012) 'Reducing risks of future disasters: priorities for decision-makers", available at: www.gov.uk/government/publications/reducing-risk-of-future-disasters-priorities-for-decision-makers.
[32] E.g. Gender and Disaster Network, http://www.gdnonline.org/knowledgebase.php
[33] Dodman et al (2012) Understanding the nature and scale of urban risk in low- and middle-income countries and its implications for humanitarian preparedness, planning and response. IIED London http://r4d.dfid.gov.uk/Output/191454/

requires quite different prevention and treatment strategies[34].

A corollary to developing better models of risk is ensuring that there is a shared understanding on how to apply the concept of resilience. A better understanding is needed within the development community on how resilience relates to other core development concepts such as poverty, vulnerability and sustainability. As it is important to build up models of risk that can factor in social and political vulnerability, so it will be important to further test how the concept of resilience can be applied in fragile and conflict- affected states. The prize here would be to provide a better bridge between humanitarian action and state-building and peace-building approaches in these contexts.

3.1.2 What will DFID do and what do we hope to achieve?

As part of this Strategy we are already:

- Working with the Government of Pakistan and the World Bank to build a better understanding of disaster risk and to find ways of building this analysis into government policy, planning and resource allocation (figure 1, project 1).

- Together with the Economic and Social Research Council we have established a major new research initiative to better understand the nature and scale of risk facing poor people living in African cities. This initiative is expected to provide decision-makers locally, nationally and internationally with the evidence to better target their investment in disaster risk reduction (figure 1, project 2).

- Investing in the evaluation of DFID's humanitarian programmes in four countries to see whether and how humanitarian assistance can be delivered in such a way as to build resilience as well as meeting immediate humanitarian needs in fragile and conflict affected states. The results will inform not only DFID's thinking, but wider policy debates on this difficult issue (figure 1, project 3).

- Investing in research to find better ways of preventing sexual and gender based violence against women and girls in emergency contexts.

In addition this, over the next year we plan to:

- Work to ensure that the latest approaches to risk modeling are used to inform anticipation and preparedness work. We will maintain our investment in InForm a multi-agency risk index. We will also establish the Science for Humanitarian Emergencies and Resilience (SHEAR) programme which will support the next generation of more systematic and rigorous risk assessments and early warning systems for climate-related hazards (mainly flooding, storms and droughts) in low income countries. The programme will invest in research and pilots on the integration of science into decision making at multiple scales, from local level to international aid organisations. It will also invest in the development of new innovative methods, including open data platforms and mobile data systems to enhance transparency and accessibility of risk information.

3.2 Problem 2: Building resilience and improving response: Finding

[34] Stark, L., (2011), 'A systematic review of prevalence studies of gender-based violence in complex emergencies', *Trauma, Violence Abuse,* July 2011, pp 127-134.

out what works and investing in new solutions

3.2.2 What is the problem?

Identifying what works

If decision-makers begin to take risk more seriously, then they will also need to know how to:

- Reduce exposure and vulnerability to hazards by understanding which approaches work in different contexts;
- Improve the effectiveness of responses to crises; and
- Ensure that investments help communities to recover or build back better, leaving them more able to cope with future shocks.

We still lack knowledge as to how to improve some of the most basic elements of disaster response both in acute and chronic crises. There is simply not enough data to know what works best across the different stages of the risk management cycle. And the rate of innovation and new thinking is not keeping up with the increased rate of risk. Therefore, we will continue to invest in research to help find out what works best in building resilience and managing response. We will also continue to grow our investment in innovation.

A recent review of the evidence on public health in emergencies found that only 13% of the existing 346 Sphere indicators are supported by strong formal evidence, the remainder relying on practitioner experience[35]. There is every reason to suppose that the evidence in the other five core Sphere areas is equally thin. Improving the effectiveness of humanitarian response, and ensuring that best value is achieved from finite resources will require better understanding of what does (and does not) work in terms of humanitarian response.

The number of true randomized control trials, or even the less rigorous simple control tests, carried out to understand the effectiveness and efficiency of humanitarian interventions is highly limited. Recent research on how aid agencies make decisions in operational situations suggests that needs assessment data has less influence on programming than path dependency or cash flow[36]. Similarly, a huge gap exists between what practitioners acknowledge should be the use of age and sex disaggregated data in decision making and how it is actually used[37].

Catalyzing Innovation

Humanitarian actors are constantly innovating and adapting to the difficult and diverse contexts in which they work- yet little of this is captured, fostered, embedded and rewarded. Recent years have also seen the emergence of a range of new mechanisms to support the development of new products and processes. For example, the creation of innovation hubs within humanitarian organizations and the establishment of dedicated challenge funds.

The Humanitarian Innovation Fund has become an established part of the humanitarian landscape, generating genuine and replicable successes, while many more agencies are

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[35] Blanchet, K., and Roberts, B., (2013), *An evidence review of research on health interventions in humanitarian crises,* available at: www.elrha.org/uploads/evidencereviewdesignedonlineFULLpdf140109.pdf.

[36] Darcy. J, H. Stobaugh**,** P. Walker, D. Maxwell. "The Use of Evidence in Humanitarian Decision Making." *FIC working paper*. January 2013 http://fic.tufts.edu/publication-item/the-use-of-evidence-in-humanitarian-decision-making/

[37] Benelli,P. Mazurana, D. Walker, P. "Using Sex and Age Disaggregated Data to Improve Humanitarian Response in Emergencies." *Gender & Development* Vol 20 No 2 (2012) p219-232.

now thinking about how they can enable innovation in their practice.

Experience suggests, however, that very few innovations go to scale or if they do, it takes an unnecessarily long time. At present there are major inefficiencies in the development and diffusion at scale of proven innovations. A large number of new products and processes are being tested, often in the same area. There is no space where these innovations are tested side by side which would enable both the development of minimum operating standards and/or to build confidence in adoption. This means that it is difficult to know when and whether to adopt a new approach at scale, slowing the rate of scale up.

The World Humanitarian Summit (WHS) in 2016 will have innovation has one of its themes, providing a major opportunity for those concerned with innovation in the sector to shape thinking and investment for the next decades.

As a lead investor in humanitarian innovation, DFID has been at the forefront of efforts to catalyse humanitarian innovation, and aims to remain so through its continued funding support and influence.

3.1.2 What will DFID do and what do we hope to achieve?

As part of this Strategy we are already:

Identifying what works

- Working with the Wellcome Trust to establish a pioneering research programme that brings together operational agencies with world class research teams to find better ways of delivering health and nutrition in crisis situations (figure 1, project 13).

- Partnering with the World Bank to find out how sovereign disaster risk finance and insurance policies can be used to manage disaster risk at a national-level (figure 1, project 10).

- Working with UNICEF, UNHCR and ICRC to start to build the evidence base regarding how best to protect civilians from violence (figure 1, project 7).

- Investing in testing impact evaluation methods in humanitarian contexts with 3ie. We plan to continue to support this platform (figure 1, project 15).

- Conducting scoping and synthesis in relation to further research on education in emergencies and protracted displacement (figure 1, project 8).

- Conducting research and piloting new approaches for sustainable energy access and management in humanitarian crises (figure 1, project 9).

Catalyzing innovation

- DFID was a founder donor to the Humanitarian Innovation Fund, and we will maintain our support for an open innovation window that allows for new products and processes to be tested to proof of concept stage (figure 1, project 11).

- We will support efforts to scale up the use of cash in crises where appropriate. In addition to using our policy influence, we are helping to fill critical gaps in the evidence in this area. These include:

- An analysis of the implications of cash for the current humanitarian architecture (figure 1, project 5)

- The impact of cash-based approaches on nutrition outcomes (figure 1, project 6)

- How to design social protection systems which can be scaled up when disasters strike (figure 1, project 4).

- We are supporting research to understand how the humanitarian innovation system operates, where the opportunities and blockages are to unlock its full potential (figure 1, project 12).

In addition to this, over the next year we plan to:

- Develop two more innovation challenge funds, probably in the field of education and energy.

- Experience over the past two years suggests that, in addition to investing in the development and testing of new products and processes, it is also important to invest time and effort in moderating the innovation process in particular sub-sectors. Unless this is done, there will be a proliferation of new products, but not agreement on which deliver best for poor people. Agreement on minimum standards of new products also helps to increase the efficiency of the innovation process. DFID is well placed to support these efforts to moderate innovation, to convene and to identify and address policy and institutional blockages to the diffusion of promising innovations.

3.3. Problem 3: We don't have sufficient capacity to promote resilience and ensure effective humanitarian response

3.3.1. What is the problem?

At present, we do not know the extent to which those directly affected by crises actually receive support. There is a tendency to conflate the assessed population with the population that is in need. Within any given population we often do not know who is receiving what or how they ultimately use the resource, nor how existing resources are allocated between different socio-economic and demographic groups.

The HERR made clear that the international humanitarian system is not able to meet the majority of the current demand for assistance, and that its capacity to do so is likely to become increasingly stretched. So, how can we ensure that there will be sufficient capacity both to respond to crises when they occur, and to build resilience to reduce the impact of growing risk?

The degree to which humanitarian assistance can reach those who need it is shaped by three key factors.

- **Institutions.** Do local and national institutions (governmental, religious, community etc.) have the capacity to assess, organise and deliver?

- **Security and consent.** Can different actors reach the affected population safely and will the controlling authorities allow them to intervene?

- **Resources.** Is there sufficient money available at the right time and in the right way to

pay for what's required? Are the right materials available – food, tents etc.? Is there sufficient knowledge of what to do and how to do it?

3.3.2 What will DFID do and what do we hope to achieve?

As part of this Strategy we are:

- Working with the International Federation of Red Cross and Red Crescent Societies together with the Governments of Canada and Sweden, to find out how best to build the capacity of local and national institutions (figure 1, project 21).

- Initiating a major independent study on how to ensure that aid reaches those most in need in the most insecure environments (figure 1, project 17).

3.6 Problem 4: there is insufficient capacity to produce and use high quality evidence and the incentives to use evidence in decision-making are not always strong. It is not always easy to find good evidence in the right format.

3.6.1. What is the problem?

This original strategy is underpinned by the assumption that better evidence can help to increase the effectiveness of interventions. It can help us to identify what is needed, when and why, and what interventions are likely to work. It can help us to anticipate changes in the environment and identify areas where we need to invest more and/or differently.

Good information and analysis is also important in terms of deepening upward and downward accountability; good data – qualitative and quantitative – is needed to tell us whether something worked, and whether it was delivered in the most efficient way – were the right decisions and actions taken by those responsible? Were the most vulnerable effectively reached? Good data and analysis developed with and made available to affected populations allows them to make better informed choices and provide informed feedback on the effectiveness and appropriateness of aid interventions

Many of the blockages to building a strong evidence base have already been identified, but there are also some more generic issues that relate to the way in which problems are modeled, research is designed and data is collected, analysed and used.

Also of concern here are issues relating to how decision-makers can access and use existing evidence to inform decision making. Finally this area of work tackles the question of capacity – who is collecting this data and who has the skills to analyse it.

A reliance on learning by doing

Across the cycle of disaster prevention, response and recovery there are important limitations to the existing evidence base. In the absence of a strong written evidence base, practitioners have had to rely on accepted practice of what has worked before. Such experiential learning is an important part of building good practice, but more systematic assessment and documentation of impact can help address issues of bias and help generate evidence that can reach beyond individual organizations.

The problem of data: improving the accessibility of data

High quality data is fundamental to ensuring high quality responses. Decisions must be informed by data on what exactly is needed, for whom, where, when and why and what the impact of the intervention will be. At present, data remains fragmented across different agencies, and national statistics are often weak in the most volatile situations. We have little understanding of the true quality of individual data sets.

While it is critical to maintain confidentiality of data, it is now possible to share and collect large data sets across space and time in order to generate high quality information. This can support programme design and monitoring, and help us to find out more about what is (and is not) working. Cloud computing and new approaches for the interrogation of 'big data', pioneered by companies such as Amazon and Google, provide an unprecedented opportunity to improve the efficiency of data collection and use, and to provide a framework for a data revolution[38].

At a programme-level, DFID is starting to take advantage of the opportunities of 'big data'. For example, as part of its humanitarian programme DFID-Somalia is establishing an online platform to collect and verify monitoring data from partners. This data will not only provide a real-time picture of programme activity, but will also support the generation of new evidence on 'what works. While many individual agencies are looking at how they can capitalize on these innovations, what is lacking is agreement on how the sector as a whole can work to agree data standards and rules that would enable aggregation and sharing of high quality data.

DFID is already working with OCHA to examine how the advances in digital technology could enable a quiet revolution in the accessibility and use of data in the humanitarian sector. We will build on this work to support efforts to enable the sector to move towards more open and efficient use of data in the sector.

Giving disaster-affected communities a voice

It is also important that we consider what kind of evidence counts. The experiences of disaster-affected communities are a rich source of evidence both of need, and the relative effectiveness of interventions across the humanitarian cycle. Experience in collecting this sort of evidence is increasing, but there is a strong need to systematically involve beneficiaries in the collection and use of data to inform decision making. Currently the people directly affected by crises do not routinely have a voice, which makes it difficult for their needs be effectively addressed. Those affected by disasters and crises are rarely involved in building the evidence base. Research and evaluations tend to concentrate on high profile selected crises, while others are neglected.

This element of the programme will build on existing DFID-funded efforts to enable disaster affected communities a greater voice in shaping response and recovery. For example, through innovation pilots under the Humanitarian Innovation Fund aimed at provided disaster-affected people with new mechanisms for providing remote feedback on the assistance which is offered to them.

Data and evidence is not used to inform decisions

Even when good evidence available, it is not always used to inform decisions. There are a number of reasons for this, including data not being available in the right format, not widely dispersed, not easily accessible by users, not being transmitted through training and poor information management. Those responsible for making decisions may not have the capacity to interpret complex information. Information might arrive too late to be able to influence decision-making in real time operations or may not be valued by actors who are more focused on

[38] OCHA, (2013), *Humanitarian in the network age (including World Humanitarian Data and Trends 2012),* available at: www.unocha.org/hina.

immediate action[39]. There are some important knowledge management initiatives in the humanitarian arena, but these have tended to be dogged by a lack of contributions from field staff on the one hand and a reluctance on the part of academics to report tentative findings in advance of publication in peer reviewed journals.

Aid workers under pressure have little time to reflect and analyse, limiting the collection of good data and their ability to synthesis and use it[40].Movement toward increasing investments in capacity and enhancing the use of evidence in decision-making require shifts in the way the humanitarian sector has operated to date. This includes incentives and changes to organisational culture that promotes investment in generating research and evidence, rewarding the use of evidence in planning and delivery, and promoting staff capacities. DFID hopes to develop such an approach internally by further strengthening the humanitarian advisory cadre, and in partnership with others.

Finally, a major problem is that capacity to analyse risk and assess response capacity remains concentrated in middle and high income countries. If poor countries prone to humanitarian crises are to be able to design and manage their own disaster risk programmes, it will be important to build analytical and research capacity to carry out high-quality research to generate new findings; define future evidence agendas guided by research and policy priorities; and promote the demand for research that address the needs of disaster-prone countries. There also need to be an increase in the capacity of decision-makers to access and use evidence in their work.

3.6.2. What will DFID do and what do we hope to achieve?

As part of this Strategy we have already:

- Created a new programme with Oxfam GB and Tufts University designed to increase the accessibility of high quality evidence to practitioners by producing robust and systematic reviews of available literature (figure 1, project 19).

- Established a partnership with OCHA to examine how the advances in digital technology could enable a quiet revolution in the accessibility and use of data in the humanitarian sector. We will build on this work to support efforts to enable the sector to move towards more open and efficient use of data in the sector (figure 1, project 20).

- Commissioned a scoping study on humanitarian evidence systems in East Africa to understand how evidence is produced, brokered and ultimately used in humanitarian decision-making (figure 1, project 21).

In addition this, we plan to:

- Invest in efforts to build the capacity of national institutions and individuals in disaster-prone countries to define, produce and use evidence.

[39] Knox, C., P., & Darcy, J., (2014), *Insufficient Evidence? The quality and use of evidence in humanitarian action,* ALNAP/ODI: London. Available: www.alnap.org/resource/10441
[40] Ibid.

4. Delivering the strategy

4.1 Working in partnership

DFID is well positioned to support the development of an evidence system for humanitarian response. It has significant **operational presence** – both humanitarian and developmental – in some of the poorest and most vulnerable developing countries. In addition to being able to use its programme funds to test new approaches, this presence also acts as a gateway to governments and civil society actors.

DFID also has significant **policy influence** on the global stage on these issues. In addition to its role as an advocate for resilience and humanitarian reform, it plays an important role in the financing and governance of the multilateral system. For example, DFID has strong partnerships with the humanitarian clusters and their host agencies, as well as with the World Bank and its important work on disaster risk reduction.

Finally, it also has a strong track record in the **commissioning and management** of policy-relevant research, and in promoting evidence-based approaches to development. DFID has increased its investment in research and in efforts to ensure that decision- makers are better able to access high quality evidence.

This initiative is delivered through a unique collaboration between three Divisions that house these unique capabilities: Africa Regional Division, CHASE and Research and Evidence Division. At working level, the Head of Humanitarian Research provides oversight of the Programme, working closely with the humanitarian cadre and a virtual team drawn from across the organization. Looking forward, links with DFID's Research Hub in East Africa is enabling us to build strong links with DFID's operational programme, as well as with the vibrant research and humanitarian practitioner community in that region.

Our vision of more evidence-informed humanitarian action cannot be achieved in isolation. Strong partnerships will be essential for effective and appropriate humanitarian responses. A range of important partnerships and potentially effective collaborations exist. In delivering this agenda we are already working in close partnership with the United Nations, World Bank, the Red Cross and the Red Crescent Movement, and a number of major foundations, (such as the Wellcome Trust), ESRC, the US, Swedish and Canadian Government. We have also established collaborations with a number of operational agencies – Action Against Hunger, Oxfam GB, Concern Worldwide, and Save the Children to name just a few.

In the coming years, we will expand further the range of partners with which we work, forging strong links with the forthcoming World Humanitarian Summit which has innovation and effectiveness at the core of its agenda.

Annex A: Summary of DFID funded research publications to date (to be updated regularly)

Last updated: 25th November 2014

Literature Reviews

Dodman et al (2012) Understanding the nature and scale of urban risk in low- and middle-income countries and its implications for humanitarian preparedness, planning and response. IIED London http://r4d.dfid.gov.uk/Output/191454/

Harris K et al (2013) "When disasters and conflicts collide: improving the links between disaster resilience and conflict prevention", Overseas Development Institute, London. http://r4d.dfid.gov.uk/Output/192665/

Holmes R et al (2013) Preventing and responding to gender-based violence in humanitarian contexts: Mapping and analysing the evidence and identifying the gaps, Humanitarian Practice Network, Overseas Development Institute. http://r4d.dfid.gov.uk/Output/195127/

Reinhardt et al (2013) "What works in protection and how do we know?", GPPI, Berlin. http://r4d.dfid.gov.uk/Output/192664/

Schrecter L et al (2013) Delivering aid in highly insecure environments: a critical review of the literature, Humanitarian Outcomes, New York. http://r4d.dfid.gov.uk/Output/192476/

Systematic Reviews

Roberts et al (2013) An Evidence Review of health interventions in emergencies, ELRHA/Wellcome Trust/DFID. www.elrha.org/r2hc/evidence-review

Technical Guidance

DFID

Cash in Emergencies: A DFID Technical guidance Note. CHASE November 2013

Violence Against Women and Girls in Emergencies: A DFID Technical Guidance Note. CHASE October 2013

Managing Cholera outbreaks in emergencies: A DFID Technical Guidance Note.

Other

Curry D et al (2014) "An Ethical Framework for the Development and Review of Health Research Proposals involving Humanitarian Contexts" Research on Health in Emergencies Programme, ELRHA London. www.elrha.org/uploads/FINAL%20R2HC%20Ethical%20Framework_Final%20Report_24%2

0January%202014_0.pdf

Cash Learning Partnership (2014) E-Transfers in Emergencies: Implementation Support Guidelines: See: www.cashlearning.org/resources/library/390-e-transfers-in-emergencies-implementation-support-guidelines

Cash Learning Partnership (2014) Principles and operational standards for the secure use of personal data in cash and e-transfer programmes. www.cashlearning.org/resources/library/389-protecting-beneficiary-privacy-principles-and-operational-standards-for-the-secure-use-of-personal-data-in-cash-and-e-transfer-programmes

Reports

Cash Learning Partnership, (2014), *Is cash transfer programming 'fit for the future': final report,* CaLP: London. www.cashlearning.org/2012-2014/-fit-for-the-future-

Bastable A and Russell L (2013) Gap analysis in Water, Sanitation and Hygiene in Emergencies: Humanitarian Innovation Fund, ELRHA, London www.humanitarianinnovation.org/sites/default/files/hif_wash_gap_analysis_1.pdf

ITAD, (2014), Formative evaluation of the DFID Humanitarian Innovation and Evidence Strategy, forthcoming.

Abbasi, Z.F.; Few, R.; Maqsood Jan; Usman Qazi; Scott, Z.; Wooster, K. Strategic Research into National and Local Capacity Building for DRM. Pakistan Fieldwork Report. Oxford Policy Management Limited, Oxford, UK (2014) vii + 48 +20 pp.