Annex 1: Draft landscape report

Humanitarian Leadership Academy

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Contents

Executive summary

This study focuses on the Knowledge Pillar of the Academy's strategy (which is embedded in the core learning strategy), identifying gaps in accessibility and content for humanitarian knowledge in crisis-affected communities.

The study begins by exploring 'who are the local actors' and 'what knowledge do they need' for an effective humanitarian response. Local actors do not represent a single homogenous group: the term 'local' itself is a very contextual concept and it means different things in different places. While those with an official role, such as national NGOs, government officials and volunteers affiliated with official groups are the easiest to identify in the 'localisation' agenda, it is usually ordinary citizens and affected populations who are the first on the scene in the outbreak of an emergency or disaster. The World Development Report (2015) presented a broader definition of local aid workers to include charities, civil society groups, faith-based organisations, volunteer groups and the private sector.

Humanitarian knowledge is held within a complex system, which means it cannot easily be captured in a single location. Knowledge can be broken down into two forms: explicit and tacit. Explicit knowledge is the 'hard' specialist knowledge that can be documented and is found in reports, manuals and guidelines. Tacit knowledge is the 'soft' knowledge that includes indigenous experience, wisdom and values.

An effective humanitarian response requires for different types of knowledge. Background knowledge is the unique history, geography and culture of a humanitarian context. Situational knowledge incorporates everything a humanitarian must know about the needs, conditions and locations of the affected population. Functional knowledge is the knowledge needed to interpret a humanitarian scenario, and is required for planners and decision makers. Finally, operational knowledge is the principles, standards, and best practices needed to implement a specific activity or response.

The literature primarily focuses on learning and capacity building for preparedness and response, with less attention paid to developing capacity for risk reduction, and even less on

recovery. More than any other phase in the disaster cycle, the preparedness phase emphasises the value of local and indigenous knowledge for disaster risk reduction (DRR). In many disaster-prone contexts, local people communicate about how to predict and mitigate disasters using local stories and folklore.

Indigenous practices and strategies that have proven valuable against natural disasters can be transferred and adapted to other communities in similar situations. There have been some efforts to identify and share transferable local knowledge between communities. The research describes several interesting examples, such as Evidence and Lessons from Latin America (ELLA), a south-south knowledge initiative that mixes research, exchange and learning to inspire evidence-based policies and practices.

Knowledge sharing during a humanitarian response can be characterised by a 'complex' or 'adaptive' system. Knowledge moves between a myriad of actors, across multiple informal communication channels, and via feedback loops that are fluid and unpredictable. The report describes these information-sharing channels, platforms and initiatives. For example, first responders use word-of-mouth and (increasingly) social media to share information on safe access routes, early warning, protection, and needs. Information sharing pathways tend to cluster between organisations that are culturally or geographically similar, and that have learnt to coordinate closely together. National organisations communicate via their own networks, through in-person meetings, email lists and phone networks. International organisations are more likely to use the inter-agency cluster meetings, and online information-sharing portals such as the 3W databases and HumanitarianResponse websites. Language, cultural, and organisational barriers limit local actors from participating in international knowledge sharing. A plethora of studies have argued that international humanitarian actors do not live up to their rhetoric on participatory information sharing and accountability to communities.

Training and capacity building initiatives tend to focus on the staff and partner organisations of international NGOs. During the formal response, training for 'surge capacity' is ad-hoc and inconsistent but might include security management, humanitarian principles and the core humanitarian standards. At an organisational level, the quality of capacity building initiatives is variable. Recent research has emphasised the importance of national organisations conducting their own self-assessments and of supporting national actors to identify their own learning needs so that activities are demand-led. There are more recent examples of national governments and diaspora organisations supporting training and capacity building of local actors.

The study mapped the evidence for how learning and capacity building initiatives can impact humanitarian response at an individual, organisational and country/response level. It explored the five dominant forms of learning intervention: classroom-based learning, online and blended learning, simulation, coaching and mentoring, and informal knowledge sharing networks. The researchers mapped the evidence contained in 60 articles in the literature, and through 45 documented programmes. Overall, humanitarian organisations often failed to provide a rationale for the chosen pedagogy or knowledge sharing strategy, and in general, the evidence for these modalities working in the humanitarian sector is anecdotal. The strongest evidence existed for simulation and for online and offline knowledge sharing networks.

- The majority of classroom-based learning is delivered through workshops run by INGOs. There is some evidence of learning outcomes, from well-respected organisations such as RedR, but the vast majority of these programmes are not evaluated. Research emphasises the importance of designing workshops that account for different learning styles, of including local actors in design and contextualisation of resources, of providing ample opportunity for networking during training, and of follow-up activities.

- Online learning is a growing training modality in the humanitarian sector. It benefits from scalability, rigour and accreditation that are increasingly provided by academic

partnerships, and opportunities for more self-directed approaches. Research suggests that there is currently limited participation outside of Europe and north America, and that connectivity presents a challenge for many local actors. More needs to be done to improve completion rates and to reduce language and cultural barriers to learning outcomes.

- Simulations are used to replicate an emergency situation, in a condensed timeframe and controlled environment. It is widely recognised to develop technical skills in individual humanitarian aid workers and to improve organisational processes and structures. At the individual level, experiential learning, or 'learning by doing' is one of the most effective methods for training and capacity building, helping humanitarians to retain more knowledge over longer periods of time. Scenario-based learning allows organisations to test their protocols, coordination systems and equipment. There are very few examples of national actors being significantly included in humanitarian simulation exercises. The literature cites barriers such as time, cost, and staff turnover.

- Coaching, mentoring, and secondment are all forms of social learning. Social learning through on-the-job (OTJ) training, in particular, has gained significant interest across the humanitarian sector. Evidence suggests that coaching and mentoring can increase staff skills and confidence, facilitate reflection, support learning and improve organisational productivity. The most significant weakness of this modality is that one-to-one training is expensive to replicate at scale and is often perceived as time consuming. Because of this, coaching and mentoring have often been most accessible to senior staff within international organisations.

- The role of networks in learning processes has been widely acknowledged in humanitarian literature. There are many networks in the humanitarian sector, from the community to the global level, including networks of INGOs and national NGOs, cluster-based or function-specific online communities of practice, and inter-agency networks. Previous work has shown that fieldworkers often prefer learning from fellow fieldworkers because it saves time and allows them to assess the quality and operational credibility of the information. Moreover, networks are shown to facilitate social learning, support career progression, and improve sector-wide knowledge management.

The study concludes by identifying eight cross-cutting themes in humanitarian learning. Most exciting are the emergence of self-directed learning opportunities, and new and innovative mechanisms for online knowledge sharing. For example, CoPs increasingly facilitate social learning, virtual worlds enhance experiential learning, and technology is being used to access local knowledge that was previously shared only by word-of-mouth within specific locations. Nevertheless, the literature indicates than the increased focus on localisation of humanitarian responses has not yet translated into better capacity building programmes. Moreover, there are few opportunities for south-south knowledge sharing or for making use of technology to share local and indigenous knowledge.

This research aimed to provide systematic evidence to support decisions on HLA's knowledge strategy as well as identifying potential partners. The report ends with a set of recommendations for the Academy:

1. Identify target groups among the local actors
2. Develop an understanding of indigenous and local knowledge
3. Promote access to knowledge exchange for local actors
4. Strengthen the evidence-base on humanitarian learning
5. Collaborate and partner with other knowledge providers

1. Introduction

The purpose of this study is to aid in the Academy's vision of creating transformational change across the humanitarian sector by empowering and equipping local governments and communities to prepare for and respond effectively to crises.

This study focuses on the Knowledge Pillar of the Academy's strategy (which is embedded in the core learning strategy), identifying gaps in accessibility and content for humanitarian knowledge in crisis-affected communities. The study addresses three questions:

1. How effective are the currently available learning and capacity building mechanisms within the humanitarian sector (for individuals and organisations)?
2. How is indigenous knowledge most effectively captured, managed and shared?
3. What partnerships with knowledge producers and researchers exist and where are the gaps?

This research explores theoretical and practical pathways to learning and capacity building in three phases:

- A detailed mapping of 60 academic papers, research reports and other literature. This phase identified how learning is conceptualised in the sector by organisations and individuals. A detailed database of literature has been produced, coded thematically.
- An in-depth review of 45 capacity building programmes to assess the range of current approaches, with an emphasis on their strengths, weaknesses and gaps.
- Analysis of the themes, trends and gaps that have emerged from the mappings. This phase included relevant key informant interviews and a set of case studies to provide greater insight into current best practice.

These components work together to explore the theoretical pathways to learning and capacity building for local actors, how current practice in the sector aligns with the theory, and what themes, trends and gaps exist.

Chapter 2 and 3 provide the necessary theoretical background for the study. The former explores 'localisation' and the role of different local actors in any humanitarian response. The latter identified the five different types of knowledge that are vital for an effective response.

Chapter 4 explores learning during the humanitarian response cycle. It identifies the actors involved in knowledge production and sharing during each phase of the disaster cycle. The response phase is explored in detail, including the major flows of information and knowledge during a response. This chapter also addresses the role of community responders in local knowledge documentation and sharing.

Chapter 5 maps the evidence for how learning and capacity building initiatives can impact humanitarian response at an individual, organisational and country/response level. It explores the breadth of pedagogical approaches to training and learning in practice. It assesses the five dominant types of knowledge sharing: classroom, online, simulation, peer-to-peer networks, and coaching and mentoring. It reviews the role of learning and capacity building to strengthen local preparedness and resilience in disaster response.

Chapter 6 analyses the common threads and themes in how learning is conceptualised, used, and practised in the sector. It also discusses the gaps and opportunities that are emerging in humanitarian learning.

This research aims to provide systematic evidence to support decisions on HLA's knowledge strategy as well as identifying potential partners. The report ends with a set of recommendations for the Academy.

2.   Local actors in humanitarian response

This chapter provides an introduction to different types of local humanitarian actors.

2.1. Who are the local actors

As with the term 'localisation', there is no single recognised and agreed definition of the term 'local actor' (Schenkenberg 2016; Wall & Hedlund 2016: 14). The term has often been used as an 'umbrella term' to refer to a wide range of stakeholders: from government authorities and civil servants at different levels to every native individual or indigenous community (Schenkenberg 2016: 9). In a similar vein the term has sometimes been used loosely to refer to national government actors and registered NGOs. The World Bank for example, uses the term 'community' as synonymous with 'community based organisations', narrowing the definition to only those that are part of formal organisations (Wall & Hedlund 2016: 14).

The lack of an accepted definition is problematic, especially in light of the 'Grand Bargain' which saw a landmark agreement between donors and humanitarian organisations that 25% of funding would be channelled as 'directly as possible' to 'local actors' by 2020. The question of precisely defining 'who are local actors' has suddenly become a very urgent one.

However, local actors do not represent a single homogenous group. The term 'local' itself is a very contextual concept and it means different things in different places. For example, while a medical INGO may define the national healthcare system, or a certain country, to be a 'local actor', people living in rural and remote areas of the country might view the entity as distant and unfamiliar. Similarly, regional and sub-national authorities might not necessarily view national authorities as particularly local. This complexity also extends to NGOs. Ed Schenkenberg (2016: 10) explains in the MSF's 'Emergency Gap Series' report that while home-grown NGOs working locally and nationally clearly qualify under the definitions of the 'Grand Bargain,' there is no clarity around national branches of large INGO networks (such as CARE and Save the Children), which are often led by local in-country staff. Schenkengerg's report questions whether it is the nationality of the staff or the affiliation with an international network that determines the status of an NGO. There are similar ambiguities around the International Red Cross and Red Crescent Movement, which can be defined as both global and local. This is further compounded by the closeness of national red cross and red crescent societies with their Governments. Since the national societies work as 'auxiliaries in the humanitarian services of their Governments' (Harvey & Harmer 2011: 10), the role they play in conflict zones can be especially problematic (Schenkenberg 2016).

While the 'Grand Bargain' requires a more precise conceptualisation of 'local actors,' there is also a need to apply to more fluid, varied and context-specific definitions, paying special attention to the complex relationships between different cultural and religious groups. This is important in terms of impartiality, especially, but not limited to, armed conflict, as local response can sometimes be dominated by dominant ethnic, religious or political groups and may not be representative of marginalised groups.

While those with an official role, such as national NGOs, government officials and volunteers affiliated with official groups are the easiest to identify in the 'localisation' agenda, it is usually ordinary citizens and affected populations who are the first on the scene in the outbreak of an emergency or disaster. Recognising the important role that non-traditional respondents play, the World Development Report (2015) presented a broader definition of local aid workers to include charities, civil society groups, faith based organisations, volunteer groups and the private sector (cited in Wall & Hedlund 2016). The ongoing crisis in Syria has further necessitated broadening the definition to include individuals, groups and networks not bounded by geography, as it has been argued that the distinction between 'local' and 'diaspora' has blurred (Pantuliano & Svoboda 2015).

This report engages with knowledge capture and knowledge sharing for local actors in the humanitarian sector. It adopts a broad definition of local actors, including those set out in Table 1. It does not consider the role of armed groups, including those engaged in aid delivery.

Table 1: Types of local actors

Community Responders	Those closest to humanitarian crisis and therefore directly affected by the crisis. The 'first responder's' includes ordinary citizens, networks of volunteers, families, neighbours, community leaders, local faith leaders and communities.
CBOs	Groups, including charities, civil society groups, faith-based organisations and communities that are working in specific geographical communities. They are usually small in size and geographical scope of operations and are not necessarily officially recognised or registered.
National NGO staff	Formal, registered and recognised organisations composing of a workforce of humanitarian professionals. This includes large NNGOs that receive funding from international mechanisms and engage in the cluster system as well as smaller NNGOs with offices in the capital.
National staff of INGOs	National staff make-up a large proportion of international humanitarian organisations. For example, a 2014 survey of INGOs in South Sudan found that 80% of staff were nationals (reference)
Local government actors	National Disaster Management Authorities (NDMAs) Other official actors at the national and sub-national (regional, provincial) level, including local authorities, whose work is mostly focused on preparedness and institutional response capacity (Wall 2016: 32)
Diaspora groups	Professional bodies, individuals and networks with familial connections to the crisis area who use their financial, intellectual, social and cultural capital to provide emergency relief. These groups can be registered in country of origin or country of residence.
Red Cross and Red Crescent	National Red Cross and Red Crescent societies and their networks of affiliated volunteers.

3. Humanitarian knowledge

This chapter asks 'what knowledge is important' in a humanitarian response and 'where can it be found?' It presents four different types of humanitarian knowledge and provides examples of each. It also introduces the role of indigenous and local knowledge.

3.1. Introduction

Humanitarian knowledge allows individuals and organisations to interpret crisis situations and respond according to the local needs and global humanitarian principles and experience.

There are two dominant forms of knowledge: explicit and tacit knowledge. Tacit, or 'soft' knowledge is 'centred in the knower' and includes a person's experience, wisdom and values. Much of the local knowledge vital for a response is tacit. By contrast, explicit knowledge is the 'hard' specialist knowledge that can be documented and is found in reports, manuals and guidelines (de Vasconcelos et al. 2005).

In the last decade, researchers and practitioners have advocated for a 'knowledge base' that would contain a global repository of humanitarian knowledge, including case studies of disaster information, evaluations, and other documentation. They have argued that a knowledge base would facilitate future decision-making by allowing humanitarians to retrieve past experiences and apply it to current situations. There have been several attempts to create a repository (see Section 7.7).

However, humanitarian knowledge is held within a complex system, which means it cannot easily be captured in a single location. Moreover, different knowledge is useful to different people within the system. Policy makers want to see big-picture snapshot analysis of needs and response, while field personnel, project and desk officers need more detailed operational and programmatic information in order to plan and implement their programmes (King 2005). A knowledge strategy for the Humanitarian Leadership Academy necessitates capturing what knowledge is required, who needs it, where it can be obtained, and the relationships between different information (Zhang et al. 2002).

3.2. Local and global knowledge

Recent years have seen a positive shift in attitudes on the importance local and indigenous knowledge for humanitarian response. Humanitarians often use the terms 'indigenous knowledge' and 'local knowledge' interchangeably. Several of the papers reviewed for this research developed definitions for the two terms. In short, 'indigenous' knowledge is part of 'local' knowledge and refers to "local knowledge held by indigenous people, or local knowledge unique to a given culture or society" (Berkes 1999). It arises from the relationship between a specific community and its unique natural environment, and is created over multiple generations (Scott et al 2009).

Indigenous peoples around the world have used their traditional knowledge to prepare for, cope with and survive disasters for millennia. This traditional knowledge forms the basis for coping strategies that have helped indigenous communities survive natural disasters. Indigenous knowledge systems include local technical knowledge, traditional environmental knowledge and 'science of the local people' (Iloka 2016).

By contrast, local knowledge is all of the information, practices and beliefs held by a specific community. The extent of relevant local knowledge will depend on the type, frequency, and intensity of past and present disasters. Local knowledge changes constantly under the influence of local power relations and outside influences (Dekens 2007b).

Figure 1 illustrates the different 'levels' of local knowledge and how widely they are shared. Bolhassan et al (2014) categorise local knowledge in three tiers:

1. Tier 1: base knowledge, or the knowledge which is accesible for everyone in the community and serves as a foundation. This knowledge is found to be shared passively.
2. Tier 2: deeper level of knowledge shared inter-generationally. Sharing of this knowledge is pro-active, requiring active participation and practice.
3. Tier 3: sacrosanct and sacred knowledge held by a few knowledge holders. This knowledge is shared selectively.

While the depth of knowledge increases as the tier level increases, the number of knowledge holders' decreases. The number of knowledge holders reduces as the tier knowledge increased.
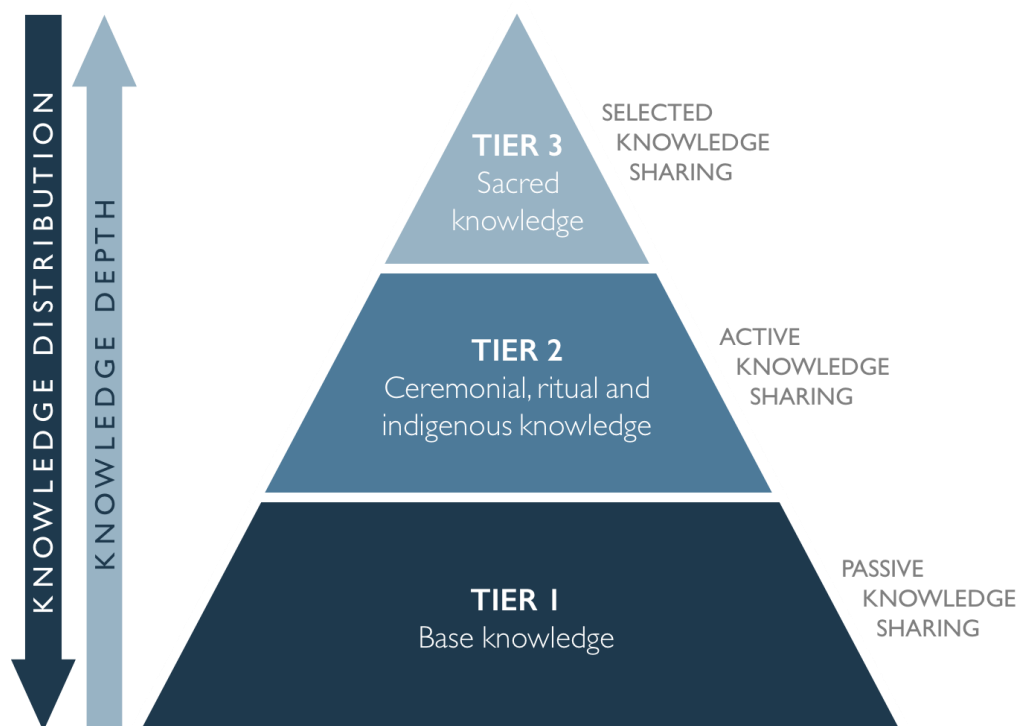

Figure 1: Types of local knowledge, adapted from (Bolhassan et al. 2014)

3.3. Types of humanitarian knowledge

Humanitarian knowledge arises through a process of interpretation and internalisation (Figure 1). It is collected in the form of 'raw' data that is processed to understand the underlying context and meaning. It becomes knowledge through application.

There have been several attempts to classify the types of knowledge required for humanitarian response. Review of these papers suggests four types of knowledge that are vital within a humanitarian response: background knowledge, situational knowledge, functional knowledge and operational knowledge (King et al. 2005; Wall and Hedlund 2016). Each knowledge type combines both explicit/tacit knowledge and global/local knowledge.

DATA	INFORMATION	KNOWLEDGE
Collection of related facts, usually organised in a particular format such as a table or database, and gathered for a particular purpose.	Data that has been interpreted, verbalised, translated or transformed to reveal the underlying meaning or context.	Internalisation of information, data and experience - this usually results in either tacit or explicit knowledge.

Figure 2: Data, information and knowledge. Adapted from Tatham & Spens (2011).

SITUATIONAL

FIELD INFORMATION

NEEDS ASSESSMENTS

SATELLITE IMAGERY

MAPS

BACKGROUND

HISTORY

CULTURE

GEORGRAPHY

FUNCTIONAL

LEADERSHIP

DECISION MAKING

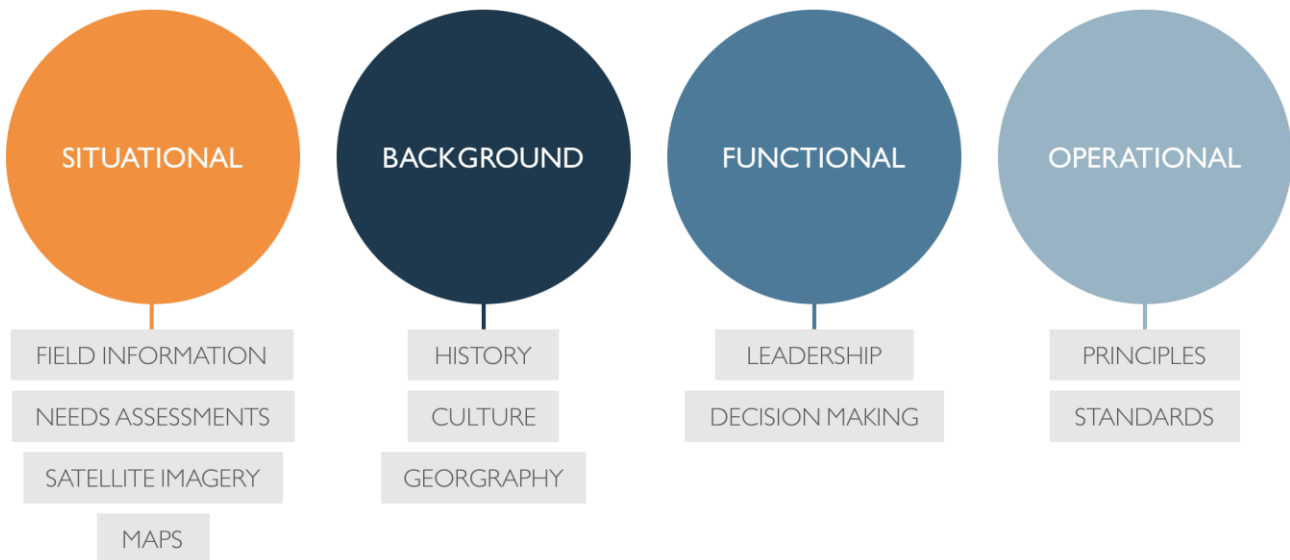**OPERATIONAL**

PRINCIPLES

STANDARDS

Figure 3: Types of knowledge, adapted from King et al. (2002)

Situational knowledge

Situational knowledge incorporates everything a humanitarian must know about the needs, conditions and locations of the affected population. It includes affected locations, the conditions there, and open access routes. At the outset of a disaster, situational information is extremely dispersed across individuals, households, community leaders and other key local actors. First responders, who are most often local actors, play an important role in gathering and sharing this information. Local actors also hold vital situational knowledge about local capacity and resources.

UN agencies and INGOs quickly attempt to document and record situational knowledge through needs assessments. This is difficult in the first days and weeks of the response: crisis areas are often inaccessible due to natural hazards, insecurity or government restrictions. Moreover, written data is often taken from estimations, which are necessarily based on convenience sampling, extrapolations of dated statistics such as census information, projected growth rates or other proxy indicators.

The most valuable situational knowledge combines explicit and locally held knowledge. Foster & Faulkner (2004) write: 'Aid workers reported the usefulness of formally shared security information and maps provided by OCHA, but they also benefited much from hearing informally from each other about where roads were safe or not safe, about the difficulties other organisations were encountering, who to contact about something, what resources could be shared, and many other such types of shared tacit knowledge that helps them to conduct their own operations.'

Background knowledge

Background knowledge is made up of the unique history, geography, and culture of the affected country. A diverse array of background knowledge may be relevant in different humanitarian response scenarios. In protracted conflicts, important background knowledge will include an understanding of the history, culture, socio-political context and ethnic makeup of the location. In a natural disaster, geographical and environmental knowledge will be important, as well as an understanding of risks. Background knowledge on agriculture will also be needed for humanitarians involved in planning the response and recovery.

Functional knowledge

Humanitarian planners and managers need functional knowledge to assist them in leadership and decision-making. This is the ability of humanitarian actors to interpret background and operational information in the specific disaster context, and relate it to other experience or information. It would include the following questions (King 2005):

- What are the causes and contributing factors in an emergency?
- What are the constraints to providing humanitarian assistance?
- How effective are humanitarian assistance programs and responses?
- What are the future impacts of the emergency?
- What are the options and recommendations for action?

Analytical knowledge is often undocumented and derived from field experience, collaboration and leadership skills. Simulations are an important way of building functional knowledge, described in Section 5.4.

Operational knowledge and best practice

Operational knowledge incorporates all the information that humanitarians need to design and implement a humanitarian project. It is the best-documented form of knowledge and includes principles, standards, and best practice. It is the information that is used to design and implement a humanitarian response.

The humanitarian sector is characterised by the co-existence of multiple disciplines: medicine, public health, engineering, agriculture and anthropology, to name just a few. Each has its own frameworks, concepts and terminology (ALNAP, 2013). The accepted wisdom on standards and best practice is formed differently in each: the scientific method is applied more strongly within some disciplines than others.

Operational knowledge can also be locally held. For example, humanitarian responders benefit from knowledge on local methods of construction, materials, health risks and protection concerns.

4. How and when does knowledge capture and sharing happen?

This chapter asks 'when is information needed during a humanitarian response?' It presents the disaster response cycle, provides examples of the knowledge that is captured in each phase. It focuses on the 'response' phase, and identifies the information flows, important actors, relevant sources, repositories and portals.
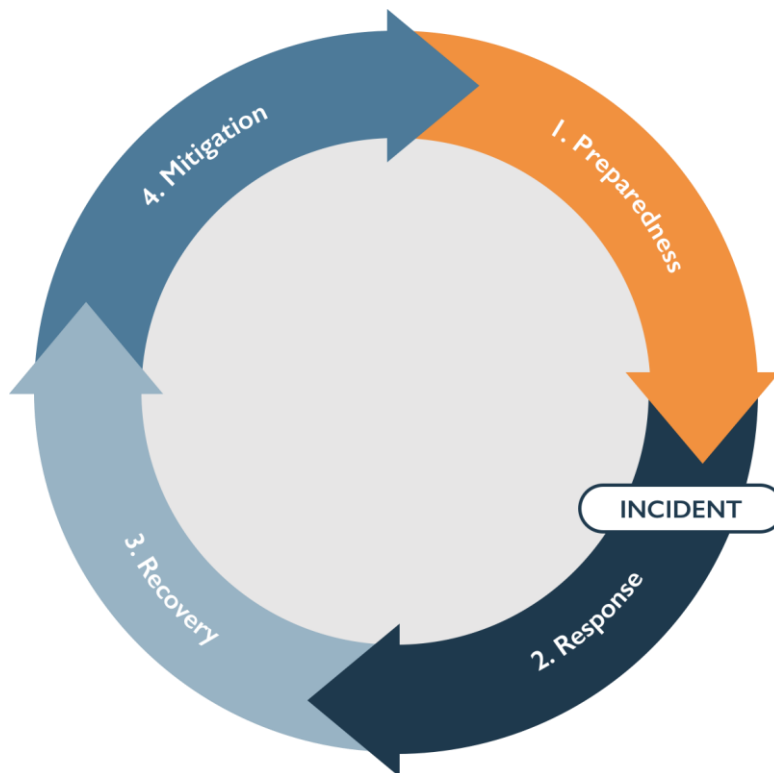
4.1. The disaster response cycle

Figure 4: Knowledge sharing in the disaster response cycle

Different types of knowledge are required during the four phases of the disaster-response cycle: preparedness, response, recovery and mitigation.

This section draws on the 2008 ALNAP Review of field-level learning, which describes knowledge transfer during different phases of the disaster-response cycle. It also explores research and recommendations made by the ICRC at the World Humanitarian Summit (WHS). The ICRC conducted a major two-year, six-country research programme on National and Local Capacity-Building for Disaster Risk Management (Carpenter 2015). The study concluded that there is a dominant focus on preparedness and response, with less attention paid to developing capacity for risk reduction, and even less on recovery. Furthermore, the research found that capacity development is generally narrowly conceived as the provision of equipment and training aimed at enhancing technical knowledge rather than developing functional capacity.

It is important to note that the disaster response cycle does not explicitly reference the development work that happens alongside preparedness and mitigation programmes in many places. Much is made of the divide between development and humanitarian activities. There

are legitimate reasons from both sides for maintaining the distinction. However, while the distinction is not artificial, it is also inadequate to describe the reality of people's lives (ref D'Arcy). The distinction between development and humanitarian work, and the distinction between the phases of the disaster response cycle, can be less marked for national staff.

4.2. Preparedness

Preparedness refers to activities undertaken to 'predict and, where possible, prevent disasters, mitigate their impact on vulnerable populations, and respond to and effectively cope with their consequences' (ICRC).

More than any other phase in the disaster cycle, the preparedness phase emphasises the value of local and indigenous knowledge for disaster risk reduction (DRR). In many disaster-prone contexts, local people communicate about how to predict and mitigate disasters using local stories and folklore. For example, inhabitants of the Damodar River in West Bengal, India, used markers inscribed on trees and the observation of ants moving their eggs to higher ground as warning systems against floods.

Formal DRR programmes increasingly include a component that is designed to strengthen local knowledge systems. There are four arguments for capturing local knowledge in DRR literature (Mwaura 2008):

1. Indigenous practices and strategies that have proven valuable against natural disasters can be transferred and adapted to other communities in similar situations.
2. Incorporating indigenous knowledge into NGO and government policy and practice encourages the community to participate and lead in DRR activities.
3. The information contained in indigenous knowledge can help improve project implementation by providing valuable information about the local context.
4. The non-formal means by which indigenous knowledge is disseminated provides a successful model for other education on DRR.

Dekens (2007) provides a description of processes for improving community-level knowledge preparedness. He argues that support for knowledge preparedness should be tailored to the community's capacity to observe their local surroundings, anticipate and monitor of environmental indicators, adapt (including access to assets), and to communicate about natural hazards within the community and between generations. By way of example, he describes the process of supporting knowledge preparedness for communities at risk of flooding. First, the community must be able to describe their previous experience of flooding and to identify and interpret early warning signals. They discuss where and when to run (or stay). Next, they agree various technical and structural adjustments to mitigate future floods. Finally they share this information related to past floods through songs and proverbs. The success of the local community response relies on them identifying innovators (eg. farmers testing new ideas and techniques) and using their knowledge, materials and skills within the communities.

> **Examples of South-South local knowledge sharing**
>
> There have been some efforts to identify and share transferable local knowledge between communities (a table of initiatives is provided in Annex 2). One notable example is Evidence and Lessons from Latin America (ELLA), a UK-funded south-south knowledge initiative that mixes research, exchange and learning to inspire evidence-based policies and practices. The project includes an online portal, where members can access research and evaluation, most of which is collaboratively written by 'paired' African and Latin American research partners. It also has an online and offline Learning Alliances, which combines virtual online learning, CoPs and face-to-face workshops and study groups

(Harvey, 2013). The online CoP brings together between 200 and 450 professionals from the global South, to follow a structured open learning programme, lasting between three and six months. Through the private interactive platform, course moderators post discussions and reference material on each topic. Participants engage in peer discussions, comparing Latin American, Asian and African experiences, in order to support learning between the regions.

A second example is the Indigenous Knowledge and Disaster Risk Reduction International Network, which is an international network and CoP for indigenous and non-indigenous scholars, to integrate indigenous knowledge into policy-making related to natural and human-made hazards and disasters. The initiative includes researchers, faculty and indigenous persons working in New Zealand (earthquakes, Maori people and resistance), Brazil (hydroelectric dams, climate change and indigenous people), South Africa (climate change), Nigeria (flood events and rural development in Nigeria), United States (Seminole groups and hurricanes in Florida) and China (landslides, climate change and indigenous people in Tibet). The network facilitates knowledge sharing through case-study research outcomes in different countries and online webinars, workshops and events at the University of Florida, and videos that document cultural exchange between indigenous communities (Athayde et al. 2015)

[Inset infographic]

Unfortunately, preparedness activities are relatively ad-hoc in regions prone to protracted conflict or civil war. One challenge is that local resilience mechanisms are often depleted by many years of on-going conflict. However, the IFRC study on national and local response capacity also notes that capacity development programmes do not tend to be adapted for conflict-affected areas. Instead, the presence or absence of conflict is simply seen as a risk or an enabler for capacity development (Carpenter 2015). Moreover, agencies that are willing to provide direct humanitarian response in conflict-affected areas may be less willing to take the same risks to undertake capacity building activities.

Documenting indigenous knowledge

Indigenous knowledge is most often shared orally or is embedded in old religious cultural works. In most humanitarian contexts, local people communicate about past natural disasters from one generation to another and from place to place, using local stories, songs, and proverbs. This knowledge is dynamic, invisible, complex, diverse and context specific.

The oral tradition, however, is weakening and new ways need to be found to capture and transmit folk memory. Academic Nmandi Iloka has worked with the Nsukka community in South East Nigeria and argues that long-held local knowledge on DRR is at danger of being completely lost. Community-led DRR initiatives, for example, used bamboo trees to prevent flooding. He explains that young people consider indigenous knowledge out-dated and unfashionable, as they look to technology and 'modern' ways of tackling hazards (Nnamdi G. Iloka, 2016, interview).

The literature on knowledge management has largely neglected indigenous knowledge management (Akinwale, 2012). Nevertheless, the concept of indigenous knowledge management has gained global attention. In her description of indigenous knowledge management, Hunter (2005: 113) explains that 'Communities and organisations around the world are realising the value and significance of indigenous knowledge and the

importance of preserving it for future generations. Indigenous Knowledge Centres (IKCs) are being established globally, but particularly in Australia, Africa, Latin America and Asia'.

Technology provides new ways to transmit and embed knowledge across geographical and linguistic boundaries. Digitising indigenous knowledge is primarily seen as a way to develop digital libraries and to preserve memory and cultural heritage (Akinwale 2012: 4). There have been several attempts to mainstream indigenous knowledge into DRR. For example, Scott. et al (2009) describe a 7-step path produced at an Indigenous Knowledge workshop that took place at Kyoto University in July 2008. However, to date, there are few examples of indigenous knowledge being digitised to improve humanitarian preparedness or response.

Outside of the humanitarian sector, notable digital recording of indigenous practices includes:

- The Indigenous Digital Excellent initiative (http://idx.org.au/), a partnership between the National Centre of Indigenous Excellence (NCIE) and the Telstra Foundation. It is providing digital skills training for Aboriginal and Torres Strait Islander peoples.
- 'Indigital' which uses virtual and augmented reality to share knowledge from remote communities in the Northern territory of Australia. Indigenous communities learn to use the Digital Rangers app to tell their cultural stories in new ways that create economic opportunities for them.
- 'Photovoice' used in Canada to allow indigenous groups to photograph scenes or objects in their environment alongside a vocalised narrative giving the reasons and purpose behind the photograph choice (described in Castleden *et al*. 2008).

Capturing indigenous knowledge has been shown to strengthen community identities (Appadurai 2012) and improving development processes (APDAI 2011; Kiplang'at 2008). However, programmes to document indigenous knowledge should consider risks around cultural sensitivity, privacy, protection and intellectual property right (Nakata et al. 2014; Adkins 2010; Kastellec, 2012)
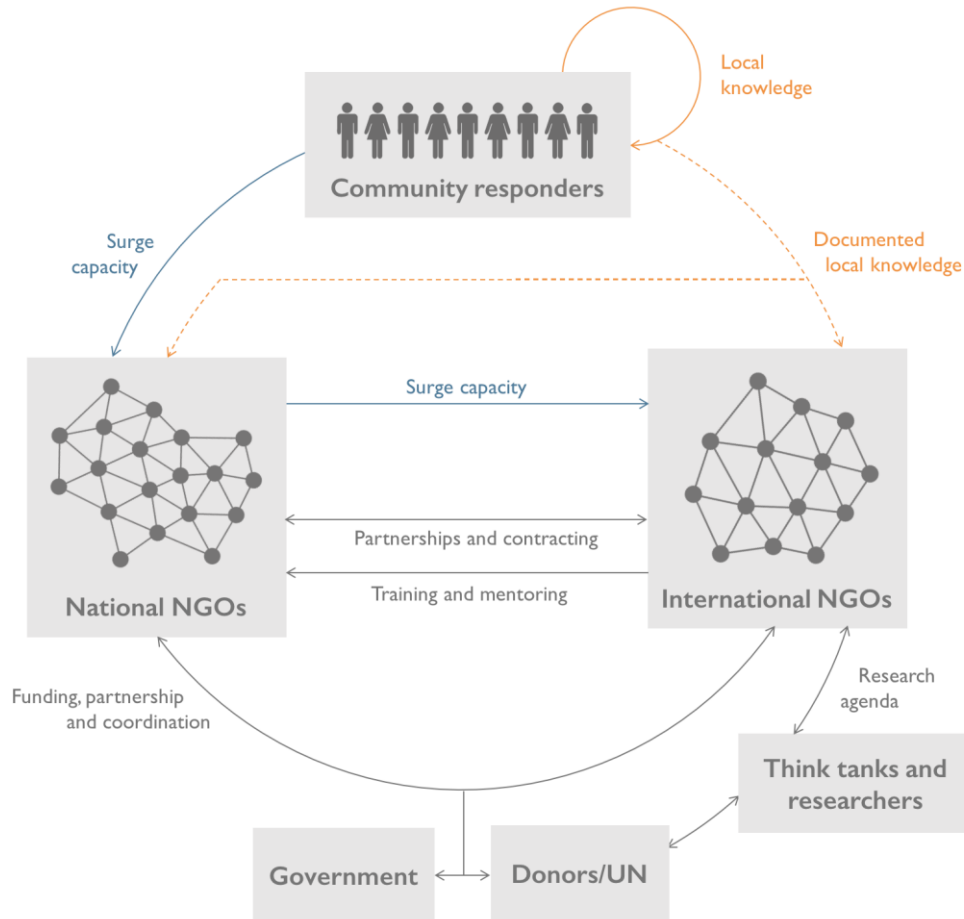
4.3. Response

Figure 5: Major information flows in humanitarian response. Weak relationships are indicated by a dotted line.

The humanitarian response system is designed to fill the gaps in national capacity to respond to natural or man-made disasters. It is described as a 'complex' (Ramalingham 2013) or 'adaptive' system (Seybolt 2009) that involves a myriad of actors, communication channels, and feedback loops. The term 'complex' characterises the fluidity of the crisis environment, the influx of actors within an unregulated operating environment, and the unpredictable impact of interactions between the system and these actors (Altay 2011).

Knowledge flows between actors via a myriad of formal and informal channels. Figure 5 illustrates the major information pathways through the system. These pathways tend to cluster between organisations that are culturally or geographically similar, and that have learnt to coordinate closely together. Weaker pathways (not shown) are undermined by the 'workload of a crisis environment and a lack of trust' among actors (Seybolt 2009).

The links between actors and organisations in the network represent:
- Informal and documented local knowledge sharing (orange)
- Movement of local actors, with the knowledge they hold, as 'surge capacity' (blue)
- Informal and formal knowledge sharing through personal and organisational networks (dark grey)
- Formal knowledge sharing relationships (grey)

Community responders, local knowledge, and platforms for exchange

The literature is heavily skewed towards disasters in which an international response is mobilised. However, the majority of disasters are small scale, in which local actors provide the full humanitarian response: digging people out of rubble, administering first aid and providing protection. Even in the largest disasters, first responders are normally local actors. Knowledge of local response is generally shared informally or held in reports by local and national organisations.

First responders share information on safe access routes, early warning, protection, and needs. Mobile technology is increasingly used to rapidly share crisis information across informal networks. The role of social media in increasing the capacity to organize and coordinate has facilitated a notable growth in ad-hoc volunteer groups emerging within hours of a crisis: a phenomenon seen in the current European refugee crisis.

Local background knowledge and a strong awareness of the situation are particularly vital for first responders. However, the literature indicates that the gap in information coordination and sharing remains large: the local knowledge and experiences of disaster practitioners continue to lie, untapped, at the individual or local level. There are several prominent reasons for this gap. Firstly, local knowledge is often difficult to identify by outsiders, because it is closely embedded in local people's livelihoods and worldviews. Secondly, most NGO teams are characterised by short field missions, a communication hierarchy, and high staff turnover (de Vasconcelos et al. 2005). Thirdly, Dekens et al (2007b) argue that the absence of an explicit connection between local knowledge and disaster management in the literature reflects the lack of linkages between poverty reduction and disaster management, and, more generally, the dominance of a sectorial approach to disaster management. Finally, there are cultural and organisational barriers: local knowledge tends to have a low prestige value and mainstream institutions prioritise technical information to solve their problems.

Nevertheless, Wall and Hedlund (2016), Corbett (2010) and Simon et al (2015) describe some innovative approaches to accessing communities' own data. For example, during the Paung Ku Nargis response, international humanitarians tracked the work of community-based organisations (CBO) to triangulate the data collected in their own needs assessments. They recorded the proposals from hundreds of small CBOs applying for micro-grants to build a picture of changing needs.

Similarly, community responders would benefit from stronger knowledge of humanitarian principles, first aid, evolving situational knowledge, and technical knowledge of risks and responses for the particular disasters they face.

Social Media and messaging apps provide a new avenue for communication, which has proven valuable in the humanitarian context. As internet-connected mobile devices have become more ubiquitous among affected communities, the emergence of grassroots uses for these tools has highlighted the importance of communication for security and access to resources in humanitarian crises. A new report from the ICRC entitled 'Humanitarian Futures for Messaging Apps' documents examples of how local people and organisations affected by armed conflicts around the world are using messaging apps such as Facebook Messenger, WhatsApp and Snapchat, will be launched on 30 January 2017. There are examples of how twitter and Facebook were used by Syrian refugees and internally displaced persons for information sharing and management.

Google's web application Crisis Info Hub[1], launched in 2015, also provides refugees with

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[1] For more information on Google's Crisis Info Hub see: https://refugeeinfo.eu/

information on transport links, medical facilities and available accommodation. The application is currently available in several European countries, including Greece, Serbia and Germany, and is being developed for other regions (Maytom, 2015). Similarly, ClinicFinder,[2] launched by Doctors of the World, is a mobile web application that specifically assists refugees in finding free healthcare clinics by mapping available services (Doctors of the World 2016).

Frontline staff and surge capacity

Most national and international organisations aim to initiate their response within 72 hours of a disaster. In the humanitarian context, surge capacity is the "ability of an organisation to rapidly and effectively increase [the sum of] its available resources in a specific geographic location", in order to meet increased demand to stabilise or alleviate suffering in any given population" (Austin & O'neil 2015).

The Transforming Surge Capacity Project is collaboration between INGOs and Donors to strengthen the increasingly complex surge environment. It has been acknowledged for some time that guaranteeing that local communities and civil society are involved in surge responses will ensure that response efforts are more rapid.

During a humanitarian response, fieldworkers acquire large amounts of information, which they combine with their existing knowledge in order to find appropriate ways to design, manage and implement an organisational response. The processes for recruiting and training surge staff are generally ad-hoc and are rarely standardised across an organisation or sector. INGOs will often engage local surge sources from local NGOs, which means that surge teams have some relevant experience, but also depletes the capacity of civil society organisations to respond. Formal training of volunteers or local surge capacity most frequently consists of one of the following elements:

- Security management
- Information on the humanitarian principles
- Core humanitarian standards
- IASC Code for Protection from Sexual Exploitation and Abuse of Women and Children in Humanitarian Response

Agencies within the 'Transforming Surge Capacity' project are working to improve surge capacity to safeguard humanitarian standards, and improve training. CAFOD has undertaken a cross-agency surge capacity survey and mapping that is designed to inform a multi-agency training programme for national and regional rosters (which are also being established through the project). Almost 60 people from 19 humanitarian agencies completed the survey, with 63% from the Global South. The report concluded that there is no standardisation of training for surge staff. It also recommended that surge training should include both technical and 'soft' skills that are vital to forming relationships and delivering humanitarian relief within a crisis setting (ref).

The 2015 'Transforming Surge Capacity' report concludes that there is also a major gap in regional surge deployments, which can mitigate the need for international staff being deployed in some scenarios and facilitate a *more* localised response (Austin & O'neil 2015). It cites the IFRC, which has some experience of regional teams through the National Red Cross/Crescent Regional Disaster Response Teams (RDRTs) that are deployed to neighbouring countries during disasters. RDRTs must complete a standardised training course prior to deployment, which includes humanitarian principles and security management. The ICRC has reported economic, cultural and linguistic advantages to deploying regional surge capacity.

Frontline staff in humanitarian organisations have noted the benefits of in-person knowledge

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[2] For more information on ClinicFinder see: http://www.clinicfinder.org/

sharing over documented information (see Box 3). Fieldworkers require a mix of situational and operational knowledge that is tailored to their specific needs. By contrast, most operational knowledge is held in evaluation reports. The length and format of manuals is a problem, but many reports also argue that frictions between head office and local staff and a perceived lack of relevance can limit uptake (ref).

National organisations and networks

Research from Syria and other conflicts has found that overall, organisations in the formal humanitarian sector finds it very difficult to establish inclusive partnerships with national and local organisations (Pantuliano and Svoboda 2015). A variety of relationships exist between international and national organisations, from partnerships that share information equally to sub-contractors paid to deliver a specified response in a specified way. However, simple sub-contracting relationships provide little space for learning or organisational capacity building and leave local actors unequipped to respond to future crises.

A recent literature review from the 'Local 2 Global' consortium noted new ways that humanitarian agencies are supporting and strengthening local responses (Wall and Hedlund 2016). ADESO, a southern-based network has adopted the term "accompaniment" to emphasise that local and international organisations should work alongside each other. Some INGOs now use "subsidiarity" to communicate the idea that the international organisation should perform only those functions that cannot be completed at the local level. For example, the Ebola Crisis Fund provided small grants directly to local organisations alongside mentoring in funding applications and programme implementation.

The inclusion of local organisations in the humanitarian knowledge system is important because it determines the extent to which the response *can* be "locally led". There are strong examples of local knowledge sharing and "locally-led" responses within the protection sector. The Local to Global Protection programme has documented the ways that vulnerable communities protect themselves and their communities. In Sudan's Nuba Mountains, for example, community-based organisations have provided four-day protection training indirectly to 400,000 people (Konda et al. 2016). A 2014 evaluation of their programme found that 80% of 640 randomly selected households knew about all the protection messages.

National organisations that wish to participate in the formal humanitarian response typically seek out opportunities for partnership, training and capacity building. A description of the different positions of INGOs on capacity building is provided in a paper to the 2011 International Review of the Red Cross (Audet 2011). Capacity building approaches use a variety of modalities that are analysed in Chapter 6. During a humanitarian response, these activities should be demand-led and targeted to specific capabilities. A review of capacity building activities at CAFOD emphasised the value of NNGO self-assessments and supporting national actors in identifying their own learning needs.

Knowledge sharing between NNGOs is typically strong. National organisations such as the Red Cross and Red Crescent Societies, NNGOs and civil society, and religious groups can often mobilise quickly. In the initial hours and days after an emergency, relevant information is spread via word of mouth and, increasingly, social media. The Humanitarian Forum Indonesia (HFI), for example, has set up informal whatsApp groups through which all 15 members share situational information in real-time. During their response to the December 2016 Acheh earthquake, member organisations shared situation reports within two hours of HFI's request for information. Member organisations responded to these reports in real time, with their own reports, or suggestions on coordinating response. The Secretariat of the HFI compiles the information and shares it with the Badan Nasional Penanggulangan Bencana (BNPB, the Indonesian NDMA), as well as to the Ministry of Social Affairs and coordinators of Clusters (Dear Sinandang, 2016, Interview). The Humanitarian Forum in Yemen similarly reports using a whatsApp group to share needs assessments and coordinate responses in different

governorates (Hilal Bahri, 2016, interview).

There are strong national NGO networks in the majority of disaster-affected countries. For national and local NGOs there are many benefits to be associated with a network: from increased access to information, capacity to access funds, expertise and financial resources, solidarity and support, increased visibility of best practice, increased credibility as well as a multiplier effect which has the potential of increasing impact (Liebler and Ferri, 2004). NNGO networks organise themselves in different ways and have different membership criteria. However, the clustering of relationships and information sharing mean that NGOs networks are well placed to build the organisational capacity of their members. The efficacy of networks for knowledge sharing is discussed in Section 5.6.

International organisations and networks

INGOs operating in a disaster collect large quantities of situational and operational knowledge. Data and information is gathered through documented needs assessments, household surveys and monitoring assessments. Most agencies have their own bespoke formats for data collection during an emergency. In order to make-use of this data larger INGOs must organise it in a systematic manner. The "Speed Evidence" data aggregation and decision-making aid tool piloted by World Vision proved a relevant test case for using technology to automate this process. Once processed, data may be shared bilaterally between organisations or via cluster coordination meetings and portals. Needs assessments and Situation Reports are often published on ReliefWeb.

There are no established channels for sharing local or background information during a disaster response. During the 2010 Haiti response, international organisations faced particularly acute challenges in gathering and sharing information. A review of information management and exchange found that available information was not augmented by local knowledge, because agencies started with the assumption that no local data was available (Altay 2014).

Large INGOs coordinate in a hierarchical structure where information flows vertically. Information is gathered at the local level, distilled by desk officers at the national or regional level, and passed to donors who response with policy decisions at the international level (Schofield 2002). The thematic chapter on monitoring in the 2003 ALNAP Annual Review showed that the upward flow of monitoring information from the field, to national capital, to international HQ, is rarely supportive of organisational reflection and learning.

The lack of comprehensive information for international staff at the field level diminishes their ability to 'make sense' of the crisis environment (Altay 2014). Day et al. (2009) have elaborated eight impediments to information flow that are found in many disaster settings:

- Inaccessibility of data
- Inconsistent information and data formats
- Inadequate stream of information (both shortages and overloads)
- A low priority on information by organisations
- Lack of knowledge about what information is needed and where to find it
- Multiple storage formats
- Unreliable data and/or low perceptions of data reliability (the unreliability of data will be addressed in a forthcoming good practice guide on rumour tracking and management by the CDAC network)
- Unwillingness to share data

Despite these challenges, INGO staff participate in a range of formal and semi-formal networks of agency staff who group around a particular sector or theme, such as health. These include the formal information networks such as the Humanitarian Practice Network (HPN), the Emergency Nutrition Network, LA RED in Latin America, and Duryog Nivaran in South Asia.

International staff can also access information from platforms such as the Development Aid Workers Network (DAWN), a managed internet peer exchange.

Coordination and system level sharing

Effective inter-organisational coordination is believed to be vital for successful disaster response (Christopher and Tatham 2011). At the system level, the pathways for information sharing vary according to the scale of the crisis. During a large-scale (level 3) emergency, humanitarian organisations coordinate their work using the 'cluster system', introduced in 2005 as part of a major reform of the humanitarian system to enhance coordination, accountability and partnership. Clusters take responsibility for distinct aspects of the response, such as shelter, food or health and are the major hubs for inter-agency knowledge sharing (the focus is operational and situational knowledge). Other information management resources include:

- Who does What Where (3W) databases
- HumanitarianResponse websites for the disaster response community to share, find, and collaborate on information to inform strategic decisions.

Following the Haiti 2010 response, the inter-agency standing committee conducted a second-phase evaluation of the cluster response. The evaluation concluded that information management remains problematic and that information sharing improves where local or cluster-specific solutions are adopted (Steets et al. 2010).

A summary of local and cluster-specific portals is provided in Annex 1. Cluster-based websites to share information are largely tailored to international actors, written in complex English and communicated through text-intensive reports which risks excluding national and local community non-English speakers. For example, ENN, focussed on Nutrition, was the only site to actively simplify content for local and national actors and practitioners. Moreover, the published content is often aimed at senior-level personnel with a formalised coordinating role.

Furthermore, technical support for practitioners is often administered in a top-down way from a centralised organisational source or from members of one agency, rather than promoting ways to engage the experience of multiple actors. Membership for forums and contributions can require a certain level of expertise before being allowed to access some discussions, which could exclude newer national and local organisations and individuals emerging in response to recent crises with relevant and current contextual experience. Making content accessible by mobile phone is not usually an explicit aim (only one of these websites, ENN claims to make its content accessible by mobile phone) which suggests that actors with limited sources of technology may be find this difficult to access.

There is a limited understanding of how to 'learn from communities' at the system level. Clusters often lack critical background knowledge on local customs. For example, in Haiti, the WASH cluster was unaware of traditional sanitation habits associated with accessing drinking water (Altai 2014). A plethora of studies have argued that humanitarian actors do not live up to their rhetoric on participatory information sharing and accountability to communities. Examples of learning from communities include:

- The Disaster Mitigation Insitute (DMI) in India
- Groupe URD (including through its work on the ALNAP Global Study on Participation by Crisis-affected Populations in Humanitarian Action)

The lack of local knowledge at a system level may, in part, be attributed to the limited involvement of local actors. A study conducted by Foster & Faulkner in 2004 observed that international staff participate more regularly in group meetings where tacit operational knowledge is exchanged (such as workshops, country teams, networks, evaluation exercises). The authors found that 'international staff accessed approximately 10 times more explicit knowledge assets from their organisations than the national staff. International staff also

attended co-coordinating structure meetings at approximately 10 times the rate of national staff.' (Foster & Faulkner 2004).

The situation does not appear to have improved significantly in the last decade. Research conducted as part of the 'Missed Opportunities' series has found that today's crisis-level coordination systems struggle to facilitate inclusion of national civil society actors, such as the national NGOs (Tanner & Leben 2016). There are a number of reasons for this, including a lack of understanding of the system on the part of national actors; limited incentives for national actor participation; concerns that national actors may not act impartially; the location of coordination meetings and the language used at these meetings; and unclear membership criteria for Clusters and HCTs (Clarke & Campbell, 2016).

Government coordination

A seminal paper on Humanitarian Coordination published by ALNAP argued that there should be a larger effort to work more closely with line ministries or other parts of government, even where the government is engaged in internal conflicts (Clarke & Campbell 2016). The authors noted the new 'default' model of coordination should be one that is led by the government of the affected state.

National Disaster Management Authority (NDMA) is referred to as the state entity mandated to manage and respond to disasters. In order to fulfil their responsibilities, the function of NDMAs include:

- management of administrative and procedural issues;
- development of policy and legislation; and,
- institutional support and resourcing.

At an operational level, NDMAs are responsible for coordinating preparedness, relief and recovery. Of growing importance to NDMAs is the subject of this study: evaluation of disaster responses, both for public accountability and to strengthen future policy and practice.

States have organised different ways of planning and managing disasters. In centralised models, the NDMA offices are located in government - either in the prime minister or president's office (such as India, Indonesia and Pakistan) or split across a number of Ministries (such as Kenya and the Philippines). In decentralised models, such as in the UK, the responsibility is devolved to local government. All three models have advantages: NDMAs situated in the PM/President's office tend to have greater authority; those that are split allow for greater participation of other ministries; and decentralised models benefit from great local level resourcing and participation (Featherstone 2014: 11-12).

NDMAs use a range of approaches to promote learning and knowledge management. Regulatory requirements mean that NDMA learning initiatives are often well documented and provide a good knowledge base. Moreover, due to their location within government, NDMAs make viable partners for long-term strategic partnerships in natural disaster management.

NDMAs organise knowledge through capacity assessments and online knowledge repositories. Many NDMAs have developed their own information portals, hosted on their own websites or through the national disaster management institute. These portals can offer an important knowledge resource, especially for personnel at a local level. There are also some regional initiatives to develop web portals and host online knowledge repositories.

- The South Asia Association of Regional Co-operation's (SAARC's) Disaster Management Centre makes many of its own publications available online as well a range of country profiles and disaster management information. It also hosts the South Asian Disaster Knowledge Network (http://www.saarc-sadkn.org/about.aspx).
- The Jakarta-based ASEAN Coordinating Centre for Humanitarian Assistance has real-time disaster data for ASEAN (Association of Southeast Asian Nations) countries

(http://www. ahacentre.org/) and contains a wide range of regional documents on disaster management. It also includes information on regional training activities and links to training manuals (for example: ToT manuals for 'Damage and Loss Assessment and Recovery Planning' training).

- Caribbean Disaster Information Network (http://www.mona.uwi.edu/cardin/home.asp) has a virtual disaster library, which includes documents, presentations and maps directly related to the Caribbean region. (Featherstone, 2014: 32)
- The AHA centre (ASEAN's coordination centre for disaster response) which holds a repository of knowledge on local leadership in disaster response.

There are impressive examples of knowledge being shared through disaster management institutes, peer-learning and e-learning initiatives. The disaster management institutes in Indonesia, India and Pakistan, for example, are key for transferring knowledge from national to district and regional level officials.

Diaspora groups

The role of diaspora groups in humanitarian crises has been documented, most significantly in the context of the crisis in Syria (Pantuliano and Svoboda, 2015), the Ebola response in Sierra Leone (Chukwu-Emeka 2015), and to a lesser extent in Somalia. Diaspora communities can play an important role in gaining access and addressing issues that international aid actors cannot. In an armed conflict situation, the WHS including the potential of negotiating access with local militias as well as mitigating causes and effects of radicalisation (WHS Synthesis Report, 2015). There are particularly notable medical diaspora groups. For example, Pantuliano and Svoboda (2015) explore the role of the Syrian British Medical Society (SBMS), established in 2007 by British-Syrian medical professionals, who focused initially on fostering academic links and promoting standards, but are now active in providing medical training and relief in Syria. Chukwu-Emeka (2015) writes about four types of resources deployed by diaspora groups in disaster management: financial capital (often in form of remittances); intellectual capital (professional, technical and humanitarian skills); social and cultural capital (contextual knowledge). Defining this kind of help as 'brain gain' or 'brain circulation', Chukwu-Emeka explains that diasporic groups 'temporarily, permanently or virtually...strengthen knowledge production in their countries of origin.'

The Diaspora Emergency Action & Coordination (DEMAC) recommends forging closer partnerships between diasporic groups and the formal humanitarian systems to encourage open dialogue on humanitarian principles. Diaspora groups often lack operational and functional knowledge and the capacity to link up with formal humanitarian structures (DEMAC, 2016: 12). Training and community workshops organised by DEMAC in 2016 (for Somali, Syrian and Sierra Leonean diaspora groups) provide examples of well-documented and participatory activities designed to improve capacity and coordination of diaspora responses. Reports can be found for all the different events can be found online.

4.4. Recovery and Mitigation

There is little attention paid to capacity for recovery and mitigation in the literature. At an organisational level, the focus turns to gathering evidence and learning through strategic reviews, evaluations, case studies and 'best practice' examples. Many INGOs hold internal After Action Reviews (AARs), which are discussions focussed on challenges, performance, strengths and weaknesses of the organisations response. There are also some examples of inter-agency AARs, such as those conducted by the Start Fund. UN OCHA or the inter-agency standing committee (IASC) conducts some system-wide evaluations.

Internal programme-level monitoring and evaluation (M&E) activities make up 72% of reported evidence from humanitarian actors and approximately 0.26% of humanitarian funding (Development Initiatives 2014). However, these reports constitute organisational property and

are not usually shared widely with fieldworkers or with other organisations. Those evaluations that are published are held in several repositories, including ALNAP's HELP portal, ID21 (operated from the Institute of Development Studies in the UK) and the World Bank's Development Gateway.

Indexing requires documents to be described, labelled (to make items useful in a variety of future situations and concrete enough to be easily recognizable), and linked (to establish connections between relevant information from the same disaster or using the same type of intervention). This taxonomy plays an important role in balancing contradictory demands of maximising the information held within a given system, while allowing individual users to access the right information for the task at hand (Tatham & Spens 2011).A major challenge is making these databases useful in the midst of a humanitarian response, when time is critical, and data and information is not well structured for re-use.

NDMAs also generate a considerable amount of knowledge through evaluation, AAR and formal and informal processes of reflection. Some countries, such as Pakistan and India have a statutory requirement to conduct reviews after national disasters. Joint AAR's, mostly commissioned by the UN, have also been conducted (e.g. Indonesia, Kenya, Mozambique, Nepal and Philippines). Many NDMAs have developed their own information portals, hosted on their own websites or through the national disaster management institute. However, NDMAs generate lack the resources to consistently capture learning and it is rarely shared at the local level (Featherstone 2014).

5. Evidence of knowledge sharing

This chapter asks 'what are the effective modalities for knowledge sharing in the humanitarian sector?' It describes the types of evidence that are available and explores the strength of evidence for five different modalities.

5.1. Introduction

Learning is a process, not an event. During a humanitarian emergency, field workers embark on an intensive learning process that is enhanced by the combination of time pressures, practical challenges and the fluid context (ALNAP 2004). This chapter describes five different learning modalities that are used to augment informal knowledge sharing prior to, or during, a humanitarian response:

- Classroom-based learning
- Online learning (including blended learning)
- Simulation
- Coaching, mentoring, and secondment
- Networks (including peer-to-peer learning)

The chapter explores the evidence of learning outcomes at the individual, organisational, community and system levels (see Figure 6). Each intervention is scored weak, moderate or strong, according to the quality of the available evidence for learning outcomes at that level. A 'strong' grade indicates that there is credible and attributable evidence of the intervention being used to achieve learning outcomes across the sector. A 'weak' grade indicates that the intervention is used within the sector but that the learning outcomes are largely undocumented.

	INDIVIDUAL	ORGANISATIONAL	COMMUNITY	SYSTEM
CLASSROOM BASED LEARNING	WEAK	WEAK		
ONLINE LEARNING	WEAK	WEAK		
SIMULATION	MODERATE	MODERATE	WEAK	MODERATE
COACHING, MENTORING AND SECONDMENT	WEAK	WEAK		WEAK
NETWORKS	MODERATE	STRONG	WEAK	STRONG

Figure 6: Summary of evidence of humanitarian learning outcomes.

There is significant variation in the quality of the evidence on humanitarian learning. Humanitarian organisations often fail to provide a rationale for the chosen pedagogy or knowledge sharing strategy, and in general, the evidence for these modalities working in the

humanitarian sector is anecdotal. There is very little evidence on informal forms of knowledge sharing and their associated outcomes.

The study records the type of research evidence that is available for each intervention. The literature and programme maps explore both primary (experimental, observational, conceptual, participatory, cases) and secondary (systematic, non-systematic) studies. Overall, the best-documented impact tends to come from programmes aligned with academic institutions, while free online courses are unlikely to be evaluated at all.

There are a myriad of approaches to assessing individual and collective learning outcomes. The New World Kirkpatrick Model is a widely used scale of the four levels of training evaluation:

- Level 1: Reaction/satisfaction
- Level 2: Learning/learning outcome
- Level 3: Behaviour/application of knowledge/knowledge transfer
- Level 4: Result/impact on the organisation/context

Overall, the majority of evaluations and research reports focus on level 1 or level 2 outputs – such as the number of people trained, their immediate reaction to the training, and, what they think they have learnt. Very few studies document learning outcomes or humanitarian impact. This means there are few examples directly attributing specific learning activities to confirmable changes in behaviour (OECD 2001). Annex 3 provides an overview of developed frameworks for assessing learning outcomes from leaders in local training and capacity building (PACT, CAFOD and RedR).

This study adopts the PACT capacity building continuum to assess different spheres of learning:

- Individual: local or expat humanitarian
- Organisational: national or international NGO
- Community: informal groups or networks of community representatives/responders
- System: networks of NGOs, UN agencies or government coordinating bodies

Organisational rationale & contexts	Practices, norms & policies	Actions	Results
Triple loop learning Change overall organisational rationale and context	Double loop learning Change practices, policies and norms	Single loop learning Change actions and correct mistakes and errors based on practices, policies and norms	
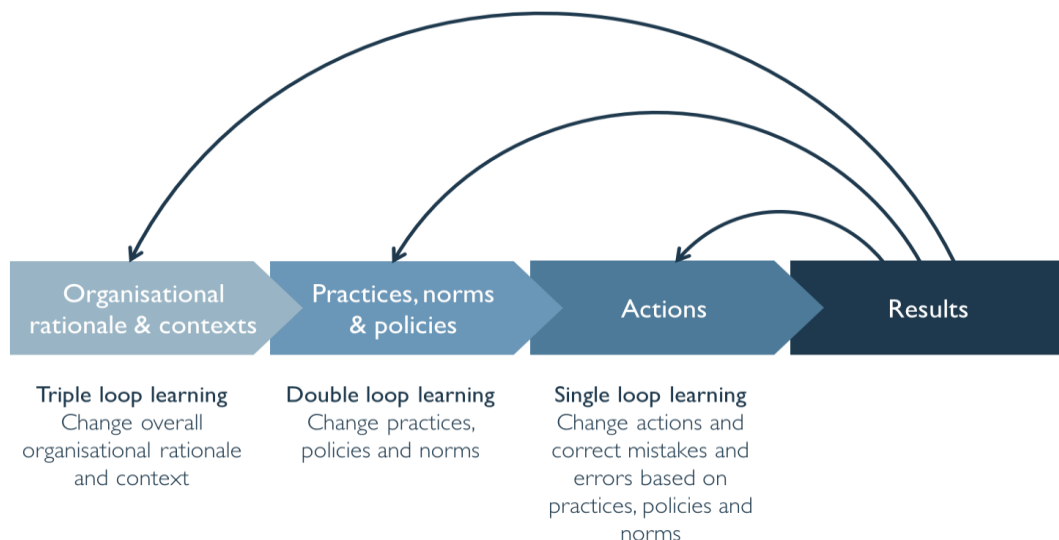
Figure 7: Single, double and triple loop learning

At an organisational, system or network level, the literature emphasises three types of learning outcome (Figure 7). Single loop learning describes changes in an actor or organisation's actions. Double loop learning results in changes in practices, for example, in which activities undertaken during a response (O'Brien G et al. 2010). Triple loop learning changes the organisations rational or purpose, for example moving it from a direct response

model to a partnership model.

In his book 'Aid on the Edge of Chaos', Ramalingham (2008) provides a critique of organisational learning by international aid agencies. He argues that double loop learning that challenges organisational norms is very rare in large aid agencies. A detailed review of organisational learning processes is beyond the scope of this study. However, where present, examples of double or triple loop learning in humanitarian organisations are highlighted in the sections below.

This study also assesses the types of knowledge being shared (see Section 5), which can be thought of as capacity to access and use background, situational, functional or operational knowledge. The majority of training and capacity building activities are found to prioritise operational or situational knowledge sharing.

5.2. Classroom-based learning

Evidence in the literature			Evidence in the programmes map		
WEAK	MODERATE	STRONG	WEAK	**MODERATE**	STRONG

Types of evidence

EXPERIMENTAL	**OBSERVATIONAL**	CONCEPTUAL	**PARTICIPATORY**	**CASES**
SYSTEMATIC	**NON-SYSTEMATIC**			

Documented learning outcomes

INDIVIDUAL	**ORGANISATIONAL**	COMMUNITY	SYSTEM

Overview of the evidence

Classroom-based teaching approaches are an important element of humanitarian knowledge sharing. This section focuses primarily on the workshop model that is popular in the humanitarian sector.

Evidence for learning via classroom-based workshops and other face-to-face training comes primarily from the programme map. The majority of workshops identified through the programmes map delivered technical content via INGOs. In addition, the literature review identified three key papers that discuss outcomes of classroom-based learning in the humanitarian sector.

Description

Most INGO-led capacity building programmes focus on formal face-to-face knowledge sharing in classroom settings, such as trainings, workshops and briefings. Face-to-face learning is dominated by the 'workshop' model: local humanitarian actors travel to the capital or another city and spend a few days being trained on a particular topic, then return to their organisations expected to implement what they have learned.

The workshops tend to emphasise technical and operational knowledge over collaborative problem solving. A review of workshops for humanitarian actors suggests the content most frequently covers security, core humanitarian standards, and cluster-specific content. RedR, one of the largest providers of face-to-face workshops provide a range of off-the-shelf training packages in humanitarian essentials, information management, and leadership, as well as

sector specific courses.

Face-to-face learning is the modality that is most frequently combined with others. Research indicates that face-to-face learning is most effective when coupled with other training methods such as simulation, coaching or mentoring (UNEP 2006). As technology evolves and becomes more ubiquitous, face-to-face learning is increasingly being blended with online learning.

Evidence of learning outcomes

There is documented evidence of learning outcomes at the individual and organisational levels.

Individual level workshops tend to focus on technical rather than functional skills. One exception is the Consortium of British Humanitarian Agencies (CBHA, now the START network), which ran three training programmes for its members and national partners during 2011-12[3].

The programmes combined a mixture of 'trying-while-doing' workshops, coaching, peer support and other forms of on-the-job learning. The curriculum was designed around the core humanitarian competencies framework developed by CBHA agencies. During the evaluation, researchers interviewed the programme staff, trainees, their line managers and coaches. The evaluation found that the programme improved participant confidence, enhanced assertiveness to take on new responsibilities and enter new fields of work, and rendered participants 'less inclined to rely on bureaucratic rather than principled approaches'. The evaluation also stated that the programme 'made participants feel able to provide leadership' and turned them into more 'rounded' humanitarians who were able to consider the broader humanitarian context, rather than just their own specialist areas (Cosgrave and Polastro 2012).

Evaluations of classroom-based learning tend to emphasise individual participant's confidence and satisfaction with the training. RedR go several steps further in comparing organisational self-assessments before and after training. Arguable the most thoroughly evaluated RedR programme is the 'Safe and Effective Programs through Fully Integrated Security Management' (FISM) programme. RedR and the Harvard Program on Humanitarian Policy and Conflict Research (HPCR) implemented the programme over an 18 months period that involved face-to-face training in combination with e-learning that was designed to enhance humanitarian safety and security. The quality of the project delivery had varied over time and between components. However, as a result of the training, many of the participants implemented security reviews of their organisations. An evaluation (Price & Macey 2015) captured outcomes of the project by comparing baseline and endline organisational self-assessments. It identified changes in organisational processes, procedures and even structure. All the organisations that received training are reported to have made improvements to their security procedures, with some appointing Security Focal Points and incorporating security in their staff on boarding and appraisals. The evaluators noted: "We have seen multiple examples of significant organisational change in participating organisations. The integrative approach has repeatedly been cited as crucial to organisational changes implemented."[4]

A second example of documented organisational learning can be seen in RedR's 'Improving the effectiveness of the delivery of humanitarian programmes in Sudan' programme. It set out to enable organisations to operate effectively and safely in hard-to-reach areas. The programme delivered 514 face-to-face workshops in Khartoum, El Fasher, El Geneina, Nyala and in deep field locations. The topics primarily covered technical information such as Safety and Security,

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[3] The three programmes were (a) the Humanitarian Leadership Development Programme, a 12 month traineeship for sector entrants; (b) the Core Programme, a 6 month programme for junior level humanitarian professionals, and (c) the Management and Leadership Programme, a 9 month programme for mid-level humanitarian professionals.

[4] Further details are available here: http://www.alnap.org/resource/5830.aspx

WASH, Logistics and Technical Support, Staff Welfare, Project Management and Disaster Risk Reduction. The training targeted senior, middle and junior humanitarian staff representing approximately 500 national NGO staff and 80 INGO staff. In an evaluation (desk review, semi-structured interviews, focus group meetings), the participants reported an increased feeling of confidence and professionalism. The evaluators acknowledged the difficulty of identifying a clear causal link between RedR's activities and improved delivery of humanitarian programmes. Nevertheless, they reported a standardisation of operational processes across NGOs that had participated in the training, which led to safer working practices, and 'a more effective working environment'. The training also facilitated development of an informal network of Sudanese humanitarian workers. Finally, evaluators argued that the training of training model increased internal capacity to deliver training (Hopkins 2014).

Strengths and weaknesses of classroom-based learning for local actors

Despite the dominance in classroom-style teaching and knowledge sharing in the humanitarian sector, the evidence is weak. A step-change is needed, so that training is evaluated not on participants' assessments of whether or not they enjoyed the training experience, but on objective measures of the extent to which the learning is actually transferred to better organisational and humanitarian outcomes.

Despite its ubiquity, classroom-based learning has some disadvantages compared to other learning modalities. The most significant is the cost of scaling when compared to e-learning or digital peer-based learning. The majority of training costs provide per diem payments to participants, which are normally covered through donor funding. One approach to reducing costs is the 'training of trainers' model. In this model, a small group receives training that they are expected to pass on to others. Research into this model emphasises the importance of trainees having the support and structures necessary to facilitate further training. It is normally insufficient to participate in a single ToT session (United Nations Environment Programme (UNEP), 2006).

As with other modalities, the programmes identified in this study demonstrate that many local actors struggle to access training opportunities. The majority of programmes are delivered by INGOs and target their own staff or local partner organisations. This excludes local actors that are not part of these networks.
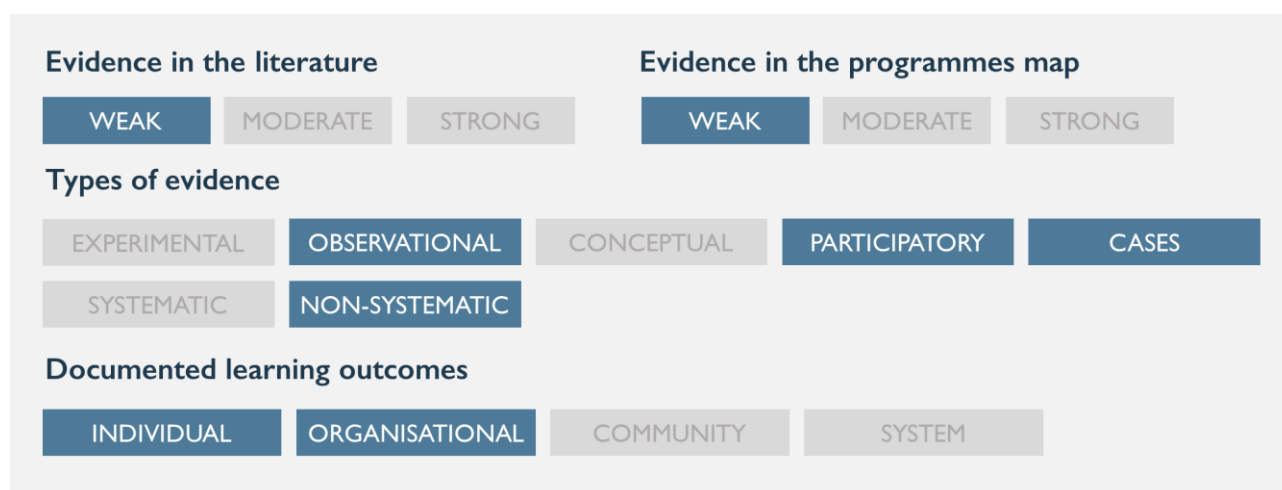
Well-designed interventions have several properties in common. First, they include other forms of learning to engage students with different learning styles. de Leon and Killian (2000b) note the importance of this: "Though learners can rely primarily on one learning style, they learn most effectively when they are able to use a combination of various styles. Learners commonly use different styles for different purposes". Social learning activities might include group discussions and team-based activities. The most effective programmes also incorporate simulation or other active learning activities (Cohen and Gingerich 2015).

Second, they facilitate informal networking, allowing local actors to increase their personal networks through which they can access additional knowledge in future. Evaluations and internal reviews of RedR programmes have repeatedly noted the value of networking through its current training models. For example, the final project review for the RedR Fully Integrated Security Management (FISM) training commented on the interagency group-work in strengthening inter-agency peer networks and relationships (Consulting AB 2014).

Third, local actors are involved in content design, contextualisation of resources, and exchange of local knowledge. For example, face-to-face workshops can give local actors the opportunity to challenge the information that is delivered and discuss how it can be made relevant to their context. For example, an evaluation of RedR training in Sudan described how participants received manuals and training on technical subjects such as WASH or logistics. Participants then used discussion sessions to identify how the skills could be applied in the local context. Unfortunately, the "contextualised" knowledge was not documented for dissemination.

Finally, face-to-face training is best delivered as part of a broader programme that includes follow-up activities. Literature from the teacher education sector provides instructive insight. Recent evaluations show that teacher education programmes should be long-term, cumulative, and move participants through a process of change that models the behaviours and competencies participants are supposed to demonstrate (ref). The most effective professional development models bring teachers together in a process of shared inquiry and collaborative learning and practice (ref). There are numerous context and culture-specific models for this, including 'learning circles' and 'communities of practice'. Adopting a collaborative model appropriate for each country context encourages implementation of agreed-upon best practice within the school itself, and means the types of changes promoted by teacher training and professional development efforts are more likely to be sustained (Frisoli 2014, BouJaoude 2013, Dimock 2013).

5.3. Online learning

Evidence in the literature

| WEAK | MODERATE | STRONG |

Evidence in the programmes map

| WEAK | MODERATE | STRONG |

Types of evidence

| EXPERIMENTAL | OBSERVATIONAL | CONCEPTUAL | PARTICIPATORY | CASES |

| SYSTEMATIC | NON-SYSTEMATIC |

Documented learning outcomes

| INDIVIDUAL | ORGANISATIONAL | COMMUNITY | SYSTEM |

Overview of the evidence

This section focuses on online forms of learning including distance-learning, e-learning, and blended learning, an important component of the HLA core strategy. Distance learning refers to the delivery of an online course where learning takes place in a physical location separate from where teaching is conducted. Distance learning is sometimes referred to in the literature as e-learning, distance education, online learning, or distributed learning (Bollettino & Bruderlein 2008).

There is limited evidence in the literature of the benefits of online learning to the humanitarian sector. However, the number of available programmes indicates that the humanitarian sector has embraced online learning and its potential to provide access to critical knowledge at scale. Many international humanitarian organisations have adopted some form of distance learning into their training, however, few have evaluated its effectiveness. The programme map identified a wide array of programmes using online learning. Nine programmes met the inclusion criteria and were reviewed in the map. Of these, 88% were targeted at individuals, with the remaining 12% focusing on organisational learning. Only three included evaluations, all of which involved academic providers. There is therefore limited evidence for the impact of learning.

Description

Chen (2014) defined online learning, also known as e-learning, as "the use of electronic multimedia technology to deliver education, information skills, knowledge and individual learning programmes to large audiences, using the internet, intranet and other technology

based systems".

Online learning in the humanitarian sector takes many different forms, and is situated on different levels of the self-directed learning (SDL) spectrum (Figure 8). SDL refers to individuals taking responsibility for managing their own training, such as selecting content, timing and delivery. Gibbons (2002:2) defines it as 'any increase in knowledge, skill, accomplishment, or personal development that an individual selects and brings about by his or her own efforts using any method in any circumstances at any time'. The self-directed learner takes the initiative to understand his/her individual learning needs and seeks out satisfying resources and methods.

SELF DIRECTED LEARNING SPECTRUM

HIGH DEGREE OF SDL

Self directed learning
Courses or programmes in which students choose the outcomes, design their own activities and pursue them in their own way.

Self planned learning
Courses or programmes in which students pursue course outcomes through activities they design themselves.

Self managed learning
Courses or programmes presented through learning guides that students complete independently.

Teaching students to think independently
Courses or programmes that emphasise the personal pursuit of meaning through exploration, inquiry, problem solving and creative activity.

Incidental self directed learning
The occasional introduction of SDL activities into courses or programmes that are otherwise teacher-directed.

LOW DEGREE OF SDL

Figure 8: Self directed learning spectrum, adapted from Gibbons (2002)

Massive open online courses (MOOCs) have gained popularity as a means of facilitating self-directed learning online. MOOCs are broadly defined as courses designed for large numbers of participants, that can be accessed by anyone anywhere as long as they have an internet connection. They are open to everyone, have no entry requirements, and offer a complete course experience online for free (OpenupEd, 2015). MOOCs rose to prominence in 2011 when Stanford University provided online courses that were similar in format and content to campus based lectures, and received over 100,000 enrolments. A multitude of companies dedicated to offering MOOCs such as Coursera, edX, NovoEd and Udacity, have since emerged (Bonk et al. 2014). Today, universities in North America and Europe offer more than 100 graduate-level degree programs in humanitarian assistance. NGOs and private companies also provide certification courses. Furthermore, INGOs (e.g. Médecins Sans Frontiers, the Red Cross movement, UNHCR, WHO) provide their workers with required pre-deployment training. There are also a few military-sponsored training programs in humanitarian response and civil-military interaction (Johnson et al. 2013). There is the concern that this has created an overwhelming information overload and disparate content.

The Cornerstone OnDemand Foundation's DisasterReady.org portal is one of the largest online training portals for the humanitarian sector. The courses cover core topics such as Humanitarianism; Programmes/Operations; Protection; Staff Welfare; Management and Leadership; Staff Safety and Security; and Soft Skills. It also includes e-learning courses from leading humanitarian agencies such as the IFRC and Sphere. DisasterReady.org was set up to address the professional development limitations for humanitarian workers that exist because of the financial and time cost of training.

Similarly, Kaya Connect is an online training platform that has 10,000 registered learners. It will combine self-directed learning and MOOCs with coaching and peer-support. Users can select the training most relevant to their work in their own time. Courses are available in English, French, Spanish and Arabic. An innovative example is the Kaya Connect package for Red Cross and Red Crescent volunteers, which engages national societies in creating and codifying content.

Other notable online learning platforms are included in the programme map.

Evidence of learning outcomes

Research and evaluations have highlighted online learning outcomes at the individual and organisational levels.

Research suggests that SDL online courses are particularly useful for professionals who are already established in their careers and want to bolster their skills and knowledge. The increase in portals is helping individuals and organisations navigate the array of available courses, is making SDL online more accessible, and is increasing uptake. The DisasterReady portal, for example, includes over 600 training resources and has been accessed by over 80,000 humanitarians across the world.

Remote learning enables participants to learn while they work and address challenges relevant to their professional responsibilities. For example, the Centre for Education and Research in Humanitarian Action (CERAH) provides accredited interdisciplinary courses targeted at individuals working in the humanitarian sector. Three courses are provided through the Humanitarian Distance Learning programme:

- Designing Strategies and Projects in Humanitarian Action (DSPHA) - Blended
- People Management in Humanitarian Action (PMHA) – Blended
- Communication in the Midst of Humanitarian Action (CMHA) - MOOC

Both online and blended learning are used to increase flexibility for participants. As an example, the Designing Strategies and Projects in Humanitarian Action course, is conducted over 8 months and is almost entirely online, with the exception of 10 residential days spent in Uganda. CERAH's pedagogical approach emphasises individualised learning and problem solving. Participants determine and reflect upon their own learning pathways (designated 'self-directed on the SDL spectrum). Participants also engage in team activities and receive coaching throughout the course. Participant surveys collected during an evaluation found that the combination of SDL and supported learning led to acquisition of competencies that had direct impact on the participants' organisations (CERAH 2015).

Online platforms may also be used for organisational learning. They can be used to widely share organisational mandates, mission, vision and values more coherently and at little cost (Bolletino & Bruderlein 2008). A salient example is that of the International Federation of Red Cross and Red Crescent Societies (IFRC), the world's largest volunteer based humanitarian network. Through their Learning Education and Training (LET) Hub, staff, volunteers, partners and the wider public are able to access free, multi-lingual courses on a range of topics such as Community-Based Health and First Aid (CBHFA); Volunteering Basic Course; Project / Programme Planning (PPP); Influenza Pandemic Preparedness; and Introduction to International Disaster Response Laws, Rules and Principles (IDRL). Learning can take place

individually or in national societies. The IFRC encourages national societies to customise the platform and provide relevant courses to their teams. This process may include translation and localisation, and can potentially mitigate the omission of cultural context that may otherwise occur in online programmes. National societies are also able to track team progress and maintain online training records. Learners from all 190 National Societies consistently achieve completion rates of above 50% across all the courses, a much higher percentage than the industry average (IFRC 2013). However, there is limited evidence of humanitarian outcomes.

Several of the NDMAs have established online courses to strengthen disaster management at a system level. For example, India's NIDM offers an introductory six-week course on disaster management; when completed, it can be followed by eight specialised courses targeted at central and local government officials. Successful candidates receive certificates jointly issued by the NIDM and the World Bank. Unfortunately there is limited documentation of outcomes for these programmes.

Strengths and weaknesses of e-learning for local actors

The research indicates that e-learning offers huge potential in terms of scale and accessibility. By making information readily accessible to local actors, it offers opportunities to bridge the knowledge gap between ex-pat and local humanitarians. It also facilitates continuous learning: people can access learning materials anytime and anywhere there is an internet connection.

The specific benefits of e-learning for the sector include (Bollettino and Bruderlein 2008):

- Location: Humanitarian staff are dispersed across multiple locations and often located in remote or hard-to-access locations
- Standardisation: distance learning can be used for disseminating standardised information on humanitarian principles and technical skills
- Cost: It is expedient in reaching a large number of geographically dispersed staff members cost-effectively
- Self-paced: Distance courses are available to participants that would not otherwise have the time to participate in synchronous discussions or lessons.

Although the majority of online programmes are free and open-access, local actors can face some barriers. Research suggests that there is limited participation from outside North America and Europe (Liyanagunawardena, et al. 2013). Increased mobile penetration and cheaper internet enabled smartphones have increased access to the internet globally. However, many disaster-prone locations continue to face limitations in access, cost and speed. Videos are popular in online learning provision, but take a long time to download on slower connections. Some providers have tried to mitigate these challenges by providing mobile-accessible offline versions of their courses (for example, HHI).

A second major challenge is participant retention and motivation. In courses higher up the SDL spectrum, the learner is expected to maintain personal motivation to complete the course. However, a study of MOOCs found an average completion rate of 13% (Liyanagunawardena, et al. 2013). This is attributed to the absence of an instructor to track progress, provide feedback and reinforcement (NovoEd 2015). Indeed, research suggests that providing some minimal direction and guidance through a mentor or team, can significantly increase the effectiveness of online learning. A Stanford based study on the effect of social learning shows that collaboration in online classes significantly improves learner engagement and course completion. Students who participate in virtual teams are 5 times more engaged and 16 times more likely to complete an online course (Easley 2014). This feeling of social obligation that arises when learners are accountable to others is most likely to be applied in institutional and organisational online learning.

The ease of use of the online platform is also critical to e-learner satisfaction. Systems that are easy to use allow learners to devote their attention to learning the content instead of spending

effort learning the system (Chen & Yao, 2016).

One approach to this is "scaffolding". Scaffolding refers to the process of responding to the learners' needs and to adjusting the learning experience to make it more or less difficult. Learners also need to adapt to the new teaching environment, to understand who else is participating in information exchanges and to understand the information landscape that they are working in. Scaffolding therefore requires that different parts of any new course be clearly linked together. E-learning can also signpost the learner to related topics, and opportunities for further reading, self assessment or communities of practice. The Academy is exploring how scaffolding can be used to enhance and tailor learners' experience.

Professional development of teachers is heavily dominated by e-learning activities. An interesting study in 2013 explored the factors affecting dropout rates. Unsuccessful participants were more likely to believe that teachers should be trained on-the-job and spent less time attending web-conferences (Rienties et al. 2013). Interestingly there was no correlation between retention and teachers' previous experience (or lack thereof) with technology. Success-factors for online learners include self-motivation followed by time-management and the capacity to learn with limited support (Beaudoin et al. 2009).

Online learning courses can be expensive to maintain and update. Some providers have developed alternative revenue generating models such as paid enrolment, a small commitment fee, or payment for the certificate on completion. DisasterReady.org, for example, has added a DR+ platform that allows organisations to customise and manage their employee's learning for an annual fee.

As in other modalities, providers living outside of humanitarian contexts typically develop online courses. There are limited examples of content being developed collaboratively with local actors. The majority of courses are also in English, with some also provided in French, Arabic or Spanish.

Finally, online learning tends to focus on sharing of technical knowledge. There are opportunities for providers to use new technologies to develop courses that can also help learners develop situational and functional knowledge as well as soft skills.

Box 2: Blended learning

There is broad consensus that blended learning provides new opportunities for knowledge acquisition, sharing and organisation (Meier 2016; Picciano 2014).

Saliba, Rankine, and Cortez (2013) refer to blended learning as a strategic and systematic approach to combining times and modes of learning, integrating the best aspects of face-to-face and online interactions, using appropriate ICTs. A blend might include (Saliba et al. 2013):

- face-to-face and online learning activities and formats
- traditional timetabled classes with different modes, such as weekend, intensive, external, trimester
- well established technologies such as lecture capture, with social media or other emerging technologies
- simulations, group activities, site-based learning, and practical sessions

Throughout the programmes and literature there are multiple examples of mixed methods approaches - those that combine different modalities, and blended learning approaches - those that intentionally incorporate online learning as part of their pedagogy. Core examples are the CERAH programme (online learning section) and Deakin university (simulation section) distance learning programmes.

Research suggests that learners find blended learning approaches more effective than face-
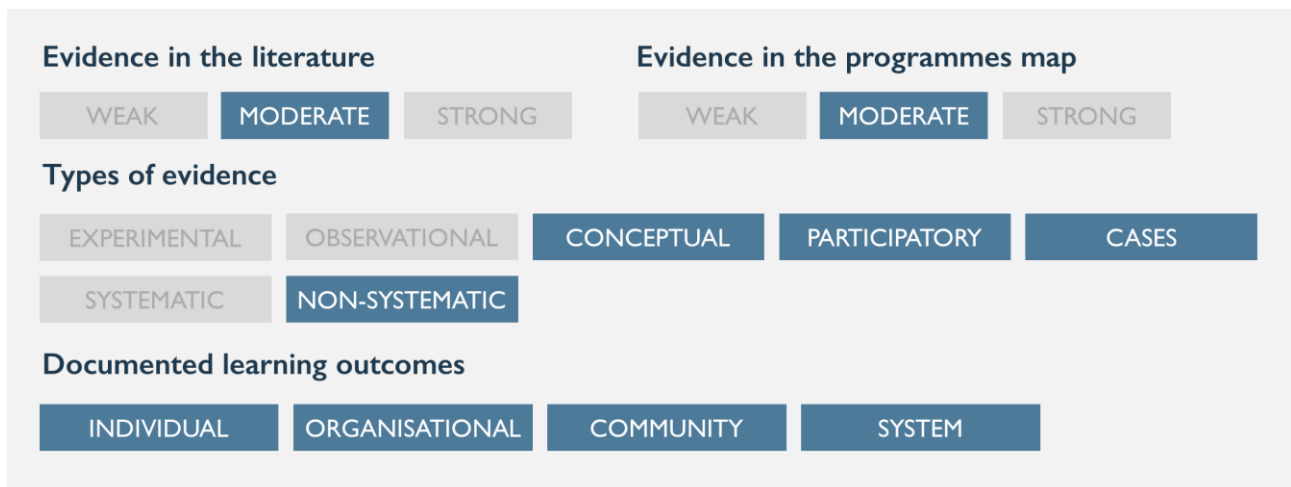
to-face or e-learning activities in isolation (Chen & Yao 2016). Blended learning allows instructors to personalise learning for any participant. This is particularly valuable for leadership training programmes (Hilliard 2015) and other forms of functional knowledge sharing.

Second, blended learning courses tend to differentiate between participation and attendance. Learners are required to actively participate in online discussion boards and collaborative activities.

Well-designed programmes typically provide significant participant feedback (often this can be automated) and make use of online spaces for collaboration, for example through discussion boards where students can share their experiences, challenges and debate issues. Other digital tools to support blended learning can include (Saliba et al. 2013):

- Online learning journals
- Group blogs and collaborative authoring
- Discussion boards and social media spaces
- Live internet streaming with guest speakers, demonstrations, poling or live Q&A
- Web/video conferencing, screen capture, collaborative experiments
- Open education resources (OERs): anchored instruction; digital storytelling; expressive dimension; prediction

5.4. Simulation

Evidence in the literature

| WEAK | MODERATE | STRONG |

Evidence in the programmes map

| WEAK | MODERATE | STRONG |

Types of evidence

| EXPERIMENTAL | OBSERVATIONAL | CONCEPTUAL | PARTICIPATORY | CASES |

| SYSTEMATIC | NON-SYSTEMATIC |

Documented learning outcomes

| INDIVIDUAL | ORGANISATIONAL | COMMUNITY | SYSTEM |

Overview of the evidence

In the humanitarian sector, simulations are used to replicate an emergency situation, in a condensed timeframe and controlled environment. The emergency scenario is played out, and teams must respond as they would in a real-life situation (Hockaday & Lumsdon 2012).

There is a broad body of evidence on simulation in training, workshops and professional development courses for humanitarians (including seven key papers). It is widely recognised to develop technical skills in individual humanitarian aid workers and to improve organisational processes and structures. However, there is limited analysis of demonstrable impacts on humanitarian outcomes.

Simulations are often used in combination with other learning modalities, such as workshops and lectures. 13 of the 45 mapped programmes use simulations and eight include some form of documented impact, with four directly attributing learning outcomes to the simulation

activities.

Description

The number, scale and professionalism, scale of humanitarian simulations has significantly increased in recent years. There are four categories of simulation exercise, each designed to test well-defined core competencies (Austin & O'Neil 2015; Hockaday et al. 2013:

1. Table-top: Discussion-based exercise in which participants view a fictional scenario from their own or others' perspectives. Injects[5] are used to stimulate and challenge thinking.
2. Functional or 'live-exercise': Participants practice their own role, team functions or processes in a holistic simulation. This tests logistics, communications and physical capabilities, and helps participants to develop confidence in applying skills.
3. Skills drill: A basic exercise to test a particular skill or process, such as evacuation, radio procedures or GPS usage.
4. Field exercise: A combination of skill-drills and functional simulations, carried out in a 'field' setting to verify actual functioning

Simulations typically develop multiple forms of knowledge. They test situational knowledge of a fictional event, operational knowledge for decision-making, and analytical knowledge to successfully complete the exercise. A range of simulation packages now exist for use of the humanitarian community, including (further examples of each are presented in Annex 5):

- IASC simulation roster, described in Hockaday et al. (2013)
- Inter-Agency Emergency Simulation (IAES) package, for testing and training a whole Country Team staff simultaneously, e.g. (UN agencies, INGOs, Red Cross)

Simulations can also use Virtual Worlds platforms. This allows participants to model real environments, share key documents and knowledge, practice delivery, and engage in social interactions. OLIVE (Online Interactive Virtual Environment), for example, allow customers, partners and developers to create persistent virtual worlds where users can collaborate over networks to communicate, train, rehearse, analyse, experiment, socialise and entertain (Chen, 2014). Chen (2014) argues "as a second generation of e-learning, the use of virtual worlds further facilitates learners' learning outcomes by using highly interactive online technologies and reflective exercises."

Evidence of learning outcomes

The major strength of simulation exercises is that they can combine traditional, social and experiential learning in one activity. Simulations can be used to train humanitarians at all levels, from large INGOs, to national governments, to civil society or local communities. They are increasingly valued for their ability to assess and develop multiple aspects of response capacity including individual skills, organisational preparedness, local capacity, and internal and external coordination. Simulation can also be used to build trust in teams, to diagnose capacity gaps in a consortium, or to assess leadership or management styles in a crisis (Hockaday & Lumsdon 2012; Hockaday et al. 2013).

At the individual level, experiential learning, or 'learning by doing' is considered to be one of the most effective methods for training and capacity building (Experience Based Learning 2005; Hockaday & Lumsdon 2012; Featherstone 2014). Evidence suggests that simulation exercises can help humanitarian workers test their skills, achieve deeper understanding, boost confidence, retain knowledge over longer time periods, and apply learning better than those

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[5] Definition

exposed to more conventional training methods (Hockaday & Lumsdon 2012).

For example, HHI hosts a three-day field simulation of a complex humanitarian emergency in the north Boston forests.[6] Up to 100 participants are assigned roles and must work collaboratively through multiple scenarios, such as rapid assessment, shelter and site planning, security awareness, programming and budgeting, NGO coordination, media skills, first aid, rights-based and ethical decision-making, teamwork and leadership. The simulation is designed to reflect field situations and uses both offline communications as well as emerging technologies such as GPS, GIS mapping, digital data collection, crowd sourcing and SMS technologies. An evaluation of the programme found participants 'felt prepared' for disaster response as a result of the simulation (Hockaday et al. 2013).

Similarly, the Humanitarian Leadership Programme at Deakin University uses simulation to improve the quality of senior leadership in disaster response. The course combines e-learning with two one-week residential units in Australia and Indonesia. During the e-learning component, students participate in virtual simulations that incorporate a fictional scenario (which incorporates detailed demographic and geopolitical information). A live simulation is then used to allow participants' to practice leadership and to test decision-making skills. An evaluation of the programme found that participants not only applied their learning, but also tried new approaches they felt unable to execute in the real world. The evaluators conclude that simulations increased participants' self-awareness, teamwork skills, overall capability and confidence to successfully lead humanitarian operations in complex settings (Connors & Perreard 2014).

Simulation can also be used to assess individual competencies. The World Health Organisation (WHO) and Humanitarian Training Initiative (HTI) devised SimEx, a public health pre-deployment course simulation exercise in Tunisia. A detailed competency-based framework was used to assess participant skills during the simulation and to develop a "roadmap" for developing new skills. The tool also allowed WHO to assess participants' suitability for deployment using an evidence-based approach (Cranmer et al. 2014).

Scenario-based learning allows organisations to test their protocols, coordination systems and equipment, identify essential, but weak, individual skills, and adjust processes (Djalante et al. 2013; Hockaday et al. 2013). They also improve organisational preparedness and contingency planning, and build trust in relationships and networks promotes. This supports double-loop learning processes (see Figure 2), which are crucial for building organisational resilience.

At a system level, joint inter-agency response simulations (among country-level consortia) can be significant for the *transparent exchange of ideas, experience, documents and resources that were once closely guarded'* (Baker 2014). For example, the Emergency Capacity Building Project (ECB 2003-2013) used single-agency and inter-agency simulations to build the capacity of national-level responders, enhance coordination and test preparedness. The simulations included participants from INGOs, NNGOs, UN agencies and government officials. In Bangladesh, the Emergency Response Protocols simulation (ERP 2011) revealed an over-ambitious ERP, which led agencies to create a more focused plan. In Indonesia, a simulation was used to refine the Disaster Response Engagement Protocols (DREP). The data indicated that all participants 'highly valued' the simulations. Participants committed to using the simulation guide for their own agencies and stated that it built intra- and inter-agency relationships (2011 Bangladesh simulation) and joint needs assessments (2011 Niger simulation) (Hockaday & Lumsdon 2012).

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[6] The HHI simulation is housed within Harvard University and is included on a range of courses including the Humanitarian Response Intensive Course (HRIC) and Concern Worldwide's Program on Humanitarian Leadership (PHL)

There are also notable examples of Governments (including NDMAs) using simulation for sharing knowledge, building trust, promoting learning, and revising national contingency plans (Featherstone 2014; Hockaday et al. 2013). The Asian Cities Climate Change Resilience Network (ACCRN), for example, used simulation to help stakeholders discuss climate adaptation. A paper by Reed et al. (2013) evaluated the exercise and found that the methodology helped "re-frame discussions on climate change away from predict-and-prevent and towards a greater appreciation of complexity, uncertainty and institutional challenges associated with climate change. It sparked experimental technical and governance innovations for responding to these challenges."

This research only identified two examples of simulation exercises (skills drills) at the community-level. First, the Coastal Area Disaster Mitigation Efforts (CADME) in India conducts regular emergency rescue, medical and evacuation drills in coastal villages. Communities receive practical training that makes use of local knowledge, such as building improvised stretchers and floating aids from bamboo sticks, blankets and pots. Subsequent skill drills allow community members to practice and adapt acquired skills, roles and responsibilities.

Strengths and weaknesses of simulations for local actors

Simulations are increasingly used to develop the preparedness of the humanitarian system. The literature suggests four elements that contribute to successful simulation exercises (Hockaday & Lumsdon 2012; Hockaday et al 2013):
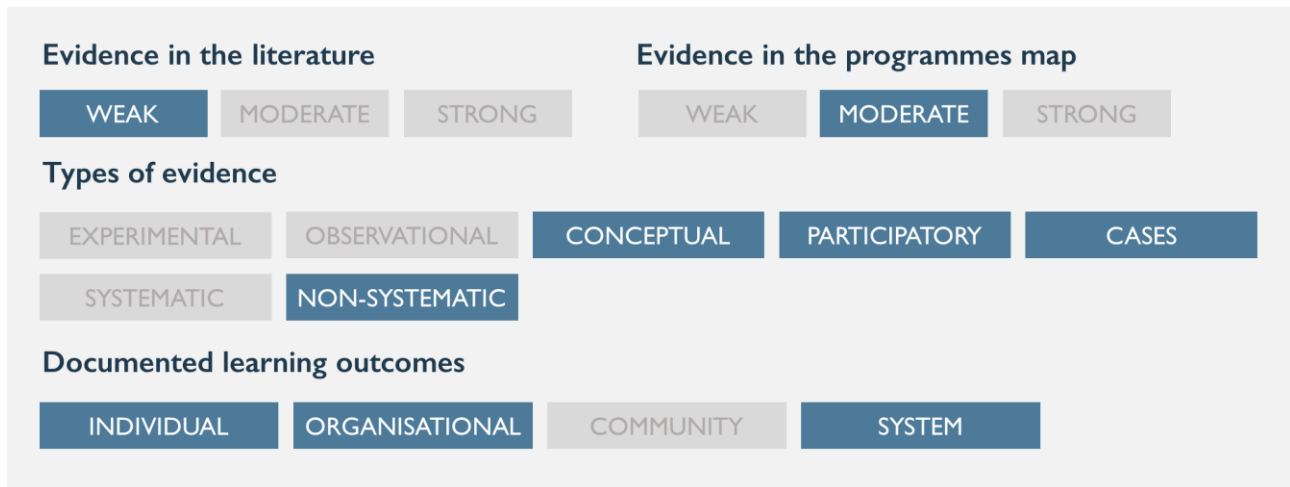
1. Injects to develop the fictional scenario and test different components of planning, preparation, and coordination;
2. Debriefing sessions to capture key lessons from the event and allow teams to reflect on what worked well and what needs to be improved;
3. Individual and organisational action plans to outline how the capacity or skills gaps identified in the simulation will be addressed;

High levels of collaboration between developers, academics and end-users also improve simulation design. This prevents oversimplification of the scenarios (which is sometimes necessary because of the cost and complexity of implementation).

There are very few examples of national actors being significantly included in humanitarian simulation exercises. The literature cites barriers such as time, cost, and staff turnover. In addition, simulations (including virtual simulations) often require travel to specialist centres. Nevertheless, field-based exercises can encourage active learning and improve coordination and trust with local counterparts. The Norwegian Red Cross and IFRC facilitated a 2-week field based training model that simulated the physical and psychological stresses experienced in the early stage of deployment to major disasters. The mix of international, regional and local participants from a range of backgrounds was cited as one of the most highly rated aspects of the course (as cited in Featherstone, 2012).

Virtual environments and virtual world technologies are expected to transform personalised learning. Research suggests that virtual learning contributes to knowledge gains, skill performance, participant satisfaction, critical-thinking and self-confidence (Jeffries 2012). The OLIVE Virtual World simulation tested by Chen (2014). The results of learning outcomes, however, demonstrate a couple of controversies. Most of the participants agreed that they had learned something about the virtual environment (91%), but only a few learned the skills required to respond to emergencies (27%). When they compared the OLIVE platform with a traditional table-top exercise, most of them agreed that they learned more on traditional exercises (91%). Although participants had passive attitudes towards learning outcomes, they found the OLIVE platform could be one of the desirable online learning environments for emergency response exercises and training (91%) and 45% of them felt strongly that the OLIVE platform has considerable potential to become one of the better methodologies to run emergency response exercises and training.

5.5. Coaching, mentoring and secondment

Evidence in the literature

| WEAK | MODERATE | STRONG |

Evidence in the programmes map

| WEAK | MODERATE | STRONG |

Types of evidence

| EXPERIMENTAL | OBSERVATIONAL | CONCEPTUAL | PARTICIPATORY | CASES |

| SYSTEMATIC | NON-SYSTEMATIC |

Documented learning outcomes

| INDIVIDUAL | ORGANISATIONAL | COMMUNITY | SYSTEM |

Overview of the evidence

Coaching, mentoring, and secondment are all forms of social learning. Social learning describes the process in which individuals observe the behaviour of others, and allow it to influence their own actions. Social learning through on-the-job (OTJ) training, in particular, has gained significant interest across the humanitarian sector. In OJT, training takes place an individual's place of work, whilst the trainee is doing their job. This can be formally - through coaching, mentoring and traineeship or informally - by capturing and learning from the experiences of others through informal conversations or other peer-to-peer learning processes (see Section ☐).

The evidence for learning through coaching, mentoring, and secondment comes primarily from the programme map (seven evaluated programmes). It is increasingly being used to complement standard training, particularly alongside distance learning. For example, CERAH (discussed within Online Learning) and Deakin University (discussed within Simulation), both use coaching and mentoring as a core component of their academic courses. International and national organisations have also adopted social learning approaches.

There is extensive academic research on social learning within the fields of organisation management and human resource theory. However, to date, there is little evidence of the effectiveness of social learning in humanitarian literature. Two key papers discuss coaching, mentoring, and secondment for humanitarian actors.

Description

This section explores three types of social training: coaching, mentoring and secondment/traineeship.

Coaching: Rosinski (2003) defines coaching, as 'the art of facilitating the unleashing of people's potential to reach meaningful, important objectives'. Coaching goes beyond sharing of facts and ideas to support the personal growth of the coachee (Grant, 1999). In the humanitarian sector, most coaching programmes target executives and senior organisation managers. Additionally, companies such as The Humanitarian Coach provide packages for one-to-one coaching with humanitarian experts at a (normally prohibitive) cost.

Mentoring: The terms mentoring and coaching are often used interchangeably. In fact, mentoring differs from coaching in that mentors give advice, whereas coaching facilitates the

individual to arrive at their own decisions (People In Aid[7] 2007). However, as in coaching, mentors provide motivation and individualised professional development (ALNAP 2003).

Traineeship: Traineeship programmes are targeted at entry and junior level staff. There are a wide array of traineeship, internship and secondment programmes in the development sector, such as the World Bank's Young Professionals Development Programme. At a smaller scale, international humanitarian organisations also provide similar opportunities (most often for ex-pat staff). These programmes incorporate on-the-job training, rotations within the organisation, mentorship and coaching.

Evidence of learning outcomes

Social learning is key for sharing tacit knowledge that may be difficult to articulate or to transfer through other modes of training. It is particularly valuable for trainees developing analytic knowledge, which requires assessing information quickly and responding to changing needs and constraints.

There are few studies specific to coaching and mentoring in the humanitarian sector, however it is believed to be a valuable support mechanism for people operating in high-stress situations. Evidence suggests that coaching and mentoring can increase staff skills and confidence, facilitate reflection and support learning (People In Aid 2007).

Benefits of coaching for humanitarian organisations include improved vertical and horizontal relationships, an improved ability to connect to the organization's vision and lead others in fulfilling it, confidence in exercising leadership, clarity of decision-making, roles and responsibilities throughout the organization, and better teamwork, cooperation, communication and productivity (Genis, 2008).

Leadership coaching can have added benefits for the entire organisation (Curran, 2008; Weimers et al. 2013). A study of leadership training modalities found that training leaders can lead to a 28% increment in productivity, whereas training combined with coaching led to a further increase in productivity by up to 88% (Genis 2008). This author suggests that coaches can help leaders to sustain momentum to apply what they have learnt in practice, particularly when there is some resistance. Coaching therefore helps achieve 'triple loop learning', which occurs when learning first leads to changed processes and shifts in the organisation's rationale.

For example, the International Center for Humanitarian Affairs (ICHA) is an autonomous knowledge management and capacity building platform established by the Kenyan Red Cross Society. The ICHA collaborated with Caplor Horizons to establish The Effective Humanitarian Leadership Programme (EHL), targeted at senior leaders of African National Red Cross Societies. The first EHL cohort (2014 to 2015) brought together 26 leaders from 13 countries. Participants were selected from National Societies at different stages in their development. The programme took place over one year and consisted of two short intensive residential modules in Nairobi, along with remote coaching and mentoring. It addressed leadership, strategy and management and provided leadership master classes and structured peer-learning activities such as group reviews and peer feedback.

Participants undertook a self-assessment at the beginning of the programme to determine their professional goals. Coaching focused on short-term objectives and day-to-day activities. The programme was evaluated according to Kirkpatrick's 4 levels of learning, which measure individual outcomes and organisational results. Outcomes of the programme included a better understanding of effective leadership, increased self-awareness and self-control, improved communication, more confidence in strategic thinking, decision-making and analysis (Turnbull 2015). Participants found the coaching helped explore their everyday challenges at a depth

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[7] now CHS Alliance

that had not been possible during the workshop modules. Changes in management and organisational processes were directly attributed to coaching. These changes facilitated funding, government backing, and development of regional strategies.

There are also similar examples of successful coaching and mentoring at the system level. Two notable programmes reviewed in this study are provided by the ACBAR network and the Capacity Development Initiative on Economics of Adaptation, Water Security and Climate Resilient Development. Similarly, the Kings Sierra Leone Partnership response to the Ebola virus in Sierra Leone (see Case Study) provides an example of how coaching and mentoring of local staff by international clinicians, helped allay fears, build confidence to work in high-risk environment, and build capacity to run Ebola Holding Units independently (Johnson et al 2016)

The Agency Coordinating Body for Afghan Relief and Development (ACBAR) is an Afghan NGO network comprised of over 100 international and national NGOs. Launched in 2015, ACBAR's Humanitarian Twinning Programme pairs NNGOs with INGOs that provide guidance and support for organisational management and strategy. This programme includes on-the-job mentoring, joint field visits and technical advice. ACBAR also regularly reviews the NNGOs policies and systems and provides complementary training for topics identified by the NNGOs through SWOT analysis. The programme has not been evaluated but anticipates that it will increase the capacity of NNGOs to meet donor accountability requirements and to subsequently secure funding.

Coaching and mentoring programmes have implemented by a wide range of INGOs and NNGO networks. Bilateral capacity building programmes often include a mentoring component within their capacity building programmes. For example, Jayawickrama (2011) describes Care USA's Transformational Leadership Programme, which supported peer-coaching among CARE country leadership (directors and assistant directors). National NNGO networks are also encouraging coaching and mentoring between organisational leaders to strengthen national level organisations.

Strengths and weaknesses for local actors

There are very few rigorous studies of this modality in the humanitarian sector. Studies that exist tend to focus on ex-pat rather than local humanitarians (Loquercio et al. 2006). The exception is a Tufts University research project, which interviewed local organisations working cross-border between Turkey and northern Syria. It found that local organisations preferred to learn from specialist focal points within international organisations (such as specialists in M&E, finance or with sector-specific experience) who could provide on-going mentoring and support (Chudacoff 2015).

Overall, the findings on learning through mentoring and coaching are very positive, including that mentoring can increase staff retention, support organisational development and address high stress levels. Mentoring can also support transfer of tacit knowledge and can increase analytical and functional knowledge and skills. Leadership coaching, in particular, tends to address management skills and can build trust, improve collaboration and impart knowledge on emotional intelligence, self-awareness, empathy and relationships (Jayawickrama 2011).

The most significant weakness of this modality is that one-to-one training is expensive to replicate at scale and is often perceived as time consuming. Because of this, coaching and mentoring have often been most accessible to senior staff within international organisations. Several studies have also described additional cultural barriers for coaching and mentoring. Alidou (2008), for example, studied mentoring programmes in Benin and Mali and argued that seniority created distance from junior staff, which led to a resistance to organic mentoring.

Several conditions are required for successful coaching and mentoring programmes (Bonnan-White & Issa 2016):

- Active support of senior management

- Structured mentor-mentee agreements that clarify expectations, involvement, and meeting times
- Development of clear action plans, to ensure application of newly acquired skills (such as management and leaderships skills)

5.6. Networks

Evidence in the literature

| WEAK | MODERATE | **STRONG** |

Evidence in the programmes map

| **WEAK** | MODERATE | STRONG |

Types of evidence

| EXPERIMENTAL | **OBSERVATIONAL** | **CONCEPTUAL** | **PARTICIPATORY** | **CASES** |
| SYSTEMATIC | **NON-SYSTEMATIC** |

Documented learning outcomes

| **INDIVIDUAL** | **ORGANISATIONAL** | **COMMUNITY** | **SYSTEM** |

Overview of the evidence

In recent years, considerable attention has been given to the role of networks in humanitarian learning. This emphasis on creating effective knowledge and collaboration networks is a key theme in both theory and practice. The humanitarian system is made up of a diverse set of actors and learning networks are often informal. However, recent publications have focused on ways to systematise these networks, whether at the organisational, system or local level.

The role of networks in learning processes has been widely acknowledged in humanitarian literature. There are 18 key papers on the subject included in the literature map, and the subject is widely referenced in other relevant publications. There is strong evidence of learning through formalised organisational networks, however there is relatively little documentation of informal knowledge sharing through networks and in keeping with many learning interventions in humanitarian aid, there is little rigorous evidence on associated learning outcomes.

Description

Literature on collaborative learning and networks emphasises their role to document, mobilise and manage information and knowledge. Networks can arise informally or via formal processes. They 'facilitate the sharing of working-level data, information and knowledge through instant messaging, expertise directories, calendars that announce upcoming briefings, online webcam meetings and threaded discussions on specific topics and issues' King (2005).

Scriven (2013) synthesised definitions of successful networks, finding the following common features:

- Presence of dynamic, on-going mutually beneficial relationships between actors
- Multidimensional nature of the exchanges that take place
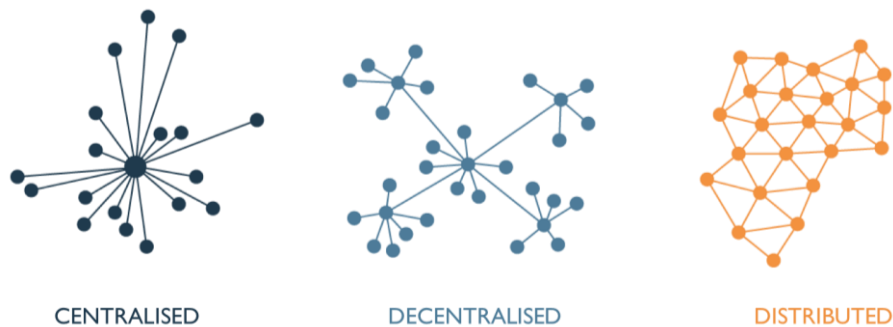- Voluntary nature of the links between autonomous actors

Figure 9:Types of networks, adapted from Scriven (2013)

Relationships between people in networks can be formed in three different ways (see Figure 9). A centralised network may provide a stronger, more empowered supporting entity that is often coordinated by a single member. Decentralised networks are similar in structure, but allow actors to share information in clusters. Distributed networks have no supporting entity, and are governed by the members themselves. They can be formal or informal, with either regular meetings or uncoordinated efforts.

There are many networks in the humanitarian sector, from the community to the global level. In addition to the myriad informal networks there are several important types of formal network:

- Networks of national and/or international NGOs (typically centralised networks grouped by geography)
- Cluster/sector-specific online communities of practice (multiple structures)
- Function specific CoPs, such as the CHS Alliance CoP for HR professionals
- Inter-agency networks operating at the headquarter level, such as the START network

At the global level, there are two additional major CoPs for individual humanitarians:

- The Aid Workers Network, a managed virtual peer-exchange that links humanitarian and development staff in order to share support, ideas and best practice as well as guidelines and checklists.
- PHAP, established in 2009 after a series of focus group discussions showed strong demand for a humanitarian professional association (Walker & Russ 2010). PHAP aims to foster peer-exchange on humanitarian goals, strategies, and methods.

Evidence of learning outcomes

Networks provide a platform for knowledge sharing. They are therefore arguably the most important structure for knowledge sharing in the humanitarian system. There is evidence of learning via networks at all levels of the system.

Networks provide two major advantages for individual humanitarians: first, they facilitate social learning, which allows humanitarians to build skills within a community of peers (see p2p learning in Box 2); and, second, they support the individual in expanding informal networks, which is argued to be important for mid-career professionals to develop strategic and managerial skills, and to deepen their understanding of policy, analytical, and operational frameworks.

Pendry and Salvatore (2015) ask whether social learning online can be personally and socially transformative. Their research demonstrates that online interaction can foster offline engagement at the same time, counter-intuitively, as it fosters individual well-being. Drawing on social identity theory, they demonstrate that identification with other forum users plays an influential role in both these processes. They contend that this value accrues at both the

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individual level (well-being) and the society level (civic engagement). Their research demonstrates that users of discussion forums may find themselves with improved well-being and may also find themselves empowered and galvanised to work for the forum cause offline.

At an organisational level, networks are important for successful management of its own and inter-agency projects. An organisation may significantly improve its knowledge and capabilities (including leadership skills) by leveraging the skills of individuals of its own and intra-organisational networks (Easterby-Smith et al., 2008, as cited in Darby, 2014).

The ECB project is an example of a large inter-agency network that was designed to improve knowledge sharing and to facilitate joint programmes. In a review of the project, Baker (2014), describes the development of needs assessment tools to start constructive engagement with national governments, which proved to be a catalyst for ongoing inter-agency collaboration during successive phases of the Project. In Bangladesh, for example, where governments have traditionally viewed the role of international NGOs with a certain amount of distrust, there was a significant change in attitude once officials saw that NGOs were organising joint assessments that produced timely and useful results. Consortium members played a critical influencing role when the government passed its Disaster Management Act in 2012. Bolivia and Indonesia also offer examples of their consortium working together to improve the delivery of humanitarian assistance and accountability, including incorporating accountability mechanisms into project design in pilot field sites, including community information and complaints mechanisms and testing accountability indicators. The consortium in the horn of Africa, however, faced a number of particular challenges, including trying to cover several countries with very different operating contexts and identifying a niche where the ECB consortium could add value amongst all the other inter-agency initiatives based in Nairobi.

More typical, are sector or function-specific virtual or in-person Communities of Practice (CoPs). These are widely seen as the ideal environment for groups to come together to exchange existing knowledge, create new knowledge, and facilitate improved knowledge management across the sector (King 2005, Suijit et al. 2004). Importantly, CoPs offer a way to access tacit knowledge, which is not easily be captured, codified and stored.

Communities of practice can also be established at the local level. Nightingale (2012) describes an example from a DRR project in the Philippines. The project supported the establishment of an ongoing DRR learning circle between local partners and community representatives that supported continued DRR learning, awareness raising and peer-support.

National NGO networks also have significant benefits for organisational and system level learning. Since networks enable NGOs to be independent, self-confident and effective organisations, there is potential for individual and organisational level learning. For example, belonging to a network has created access to new donors and led to additional funding opportunities in Yemen, it has allowed smaller NGOs to benefit from expertise of larger NGOs in Bangladesh, Indonesia and South Sudan. There is also potential for system level learning and potential that NNGO networks can be used to build the capacity of national level responders and enhance coordination. For example, the Humanitarian Forum in Indonesia was instrumental in the Indonesian response to the 2015 Nepal earthquake. Badan Nasional Pengelola Perbatasan (BNPP), the Indonesian NDMA, invited the HFI to the Joint Mission for Nepal, and the Forum and its members were able to rapidly mobilise and provide urgent rescue and relief work in Nepal (Interviews with Dear Sinandang, Head of Knowledge Management at HFI and Tomy Hendrajati, Director of member organisation PKPU).

Strengths and weaknesses of networked learning for local actors

Social learning approaches can be particularly useful for humanitarian actors. ALNAP's 2003 study on field-level learning notes that fieldworkers often prefer learning from fellow fieldworkers because it saves time, enables them to assess the quality and operational

credibility of the information, and allows interrogation in order to understand the information that is being conveyed (ALNAP 2003). Moreover, it takes time for field officers to identify, access, read and apply written knowledge before turning it into personal learning.

Networks appear to be the most accessible learning forum for many national actors. NNGO networks in Bangladesh and South Sudan, for example, have designed peer-support working groups, and match national and local NGOs for peer-mentoring (Taj Ul Islam, 2016, Interview; Hafeez Wani, 2016, Interview). NNGO networks are also using technology to create assessable information portals that include tools for Capacity Assessment and Needs Assessment as well as valuable operational and situational information. For example, the South-Sudan Knowledge Platform collates relevant academic research and policy documents. The Yemen Humanitarian Forum (YHF) has also created a knowledge-sharing portal in partnership with UNDP.

Scriven (2013) cites the Philippines for their use of knowledge networks. Notable examples include advocacy and campaigning work by civil society groups that have shaped legislative and policy structures in relation to disaster management, notably the DRR and Management Act of 2010. These networks play an important role in humanitarian and disaster response nationally, primarily in advocating for policy changes, but also in response activities. When asked why networking has emerged as important within humanitarian and disaster response, a recurrent theme in Scriven's interviews was the wider culture of networking in the country.

The education and development sectors also provide valuable information on the use of networks for learning. The Solution Exchange is a particularly notable example. The initiative arose from the United Nations (UN) Agencies in India and a collection of 13 other countries. It was created to harness the tacit knowledge of practitioners across India. This is a distinctive example, because the communities are not simple group mailings. They undertake collective action and research in response to issues that are raised by members, and the knowledge that is generated is consolidated and published. One success story from this initiative involves members of one of the community forums, the Information Communication Technology for Development (ICT4D) community, informing a government-led project to integrate ICT service delivery with existing infrastructure to make it sustainable, both socially and financially.

Whatever power dynamics exist in physical space will be replicated in virtual spaces. Local knowledge is often undervalued by incoming disaster-response teams. This is exacerbated by high staff turnover and language differences. Nevertheless, Reed et al (2013) also argues that social learning can allow humanitarians to tap into tacit and localised knowledge that has historically been uncaptured or ill-documented. This type of learning crosses boundaries of sector, discipline and scale to foster knowledge and experiences from groups, local practitioners and residents.

Finally, limited access to technology will exclude many volunteers, first responders and affected communities from accessing virtual networks. Even when technology is available, an online community might be perceived as a relatively distant medium for field staff (Hartog et al. 2015). Simple platforms accompanied by training are needed to make virtual networks attractive and relevant for the daily work of most field staff.

> **Box 3: Peer-to-peer learning**
>
> Globally, organisations and businesses are facing increasing pressure to develop a 'learning culture' in order to stay competitive. This has led to an emphasis on peer-to-peer (p2p) learning, which encourages open sharing of knowledge and skills between colleagues (Versal Group 2016). This can happen via informal peer-exchange or via formalised processes for networking and sharing. Thomas (2007) suggests that peer *learning occurs best through 'in - time' experiential exchange with respected and trusted colleagues and*

peers around issues of immediate operational importance'.

The evidence for organisational p2p learning comes primarily from organisational theory. But the importance of peer-exchange is also articulated widely throughout relevant humanitarian literature. This is consistent with many other social learning approaches: they are discussed with enthusiasm by agencies, but there is little documentation of the associated outcomes.

An MIT study cited in Loquercio (2006) found that people are five times more likely to consult a co-worker than the Internet, database or company computer system. This resonates for humanitarians: research indicates that even when documented knowledge is available, field staff often find it preferable to access knowledge via informal conversation with fellow field staff or mentors (Thomson 2007). Similarly, ALNAP's (2003) study on field-level learning found field workers tend to turn to peers and colleagues to support their learning.

One of the core benefits of p2p learning is that it is inherently participatory. Learners must ask colleagues with experience in certain activities to assist them, via a systematic 'learning before doing' process (Ramalingam 2006). In a case study in Sri Lanka, Thomson (2007), fount that interviewees 'valued approaches that facilitate opportunities for teams or people with similar professional interests to share experiences, reflect on lessons learned and consider applications of learning in the future'.

Systematic p2p learning can also promote organisational learning. The Versal Group (2016) describe 15 ways in which intuitive p2p learning tools help organisations be more competitive, collaborative and nimble. The research attributed p2p learning to enabling agile workforces by erasing knowledge silos, preventing 'institutional memory lapse' during staff turnover (which is particularly high in humanitarian organisations), improving productivity through rapid training and retraining, and reducing the cost of developing training materials.

Technology is facilitating p2p learning outside of organisational boundaries (Versal Group 2016). This might include structured discussions or virtual communities of practice (Section 5.6). Instant messaging tools like Slack are also facilitating free-flowing exchange of knowledge between peers. However, ALNAP (2003) also argues that inter-agency competition may prevent p2p exchanges from occurring freely. The paper also warns against an overreliance of organisations on p2p learning via social encounters that are inevitably limited in reach.

South-South learning activities typically rely on p2p modalities. Featherstone's (2014) study of NDMA learning interventions (discussed in Section 4.3) considered p2p as one of the best ways for NDMA staff to learn. Featherstone argued that to be most effective, p2p exchanges should be based on capacity assessments and should have objectives and targets. He cited the BNPB's conference following the Padang Earthquake (an ASEAN initiative to discuss lessons from Cyclone Nargis) as an innovative model of facilitated p2p learning.

Finally, Featherstone (2014) describes the value of p2p exchange for organisational strengthening. He describes a series of exchanges between Nigeria and Gambia to support Gambia's launch of its NDMA in 2012, supporting capacity development in the areas of monitoring and evaluation, programme implementation, planning and search and rescue.

6. Themes and opportunities

This chapter discusses the major themes in humanitarian learning and emerging opportunities

for using digital, organisational and peopled networks to improve knowledge capture and sharing in the humanitarian sector.

6.1. Major themes in humanitarian learning

Humanitarian capacity has been of growing importance in the past two decades. The demands placed on humanitarian organisations increased dramatically during the 1990s and 2000s. Disasters in Rwanda, Bosnia, Sudan and Syria have, in turn, stretched the response capacities and paradigms of the global system. This has been accompanied by demands for more rigorous standards.

The humanitarian system has evolved significantly since 2000. That decade saw major efforts to support capacity building and professionalisation of INGOs and coordination systems. The ECB project initiated in 2004 and the Independent Evaluation Group (IEG) at the World Bank in 2008 are two prominent examples.

This study has explored literature and programmes on humanitarian capacity building from the last decade. It has identified eight major themes in the way that agencies, governments and other actors in the system are approaching knowledge sharing and capacity building.

First, there has been a shift in language from 'training' to 'learning'. Until recently there was a reliance on traditional, individual workshop based approaches. The emergence of self-directed online learning, simulation, and peer-to-peer networks has led to more innovative ways of sharing knowledge. In particular, the ability to learn is now recognised as a foundational capability that is essential for all other aspects of sustainable capacity building. This suggests the need for more processes that support learning itself (Berlin Statement, 2008; Baser et al, 2008; Ramalingam et al., 2008). Learning is not something external actors can do for, or to, individuals, organisations or systems: ultimately the outsider's role can only be to support the emergence of learning" (Pearson). For learning to be effective, the individuals and agencies involved need to understand the processes (Helyer 2015) and decide the focus and form of capacity building (Wall and Hedlund 2016). For example, in a study of field level learning in Sri Lanka, training providers stressed the importance of active learning and the learner taking responsibility for his/her own learning (Thomson 2007). Supporting people and organisations to reflect on their own learning processes and capacity is therefore seen as central to assisting people and organisations to learn (Ibid).

Second, it is well known that individuals have different learning styles and training needs. The research suggests that the most effective types of interventions *combine* different key ingredients via traditional, social and experiential activities.

1. Traditional learning: via reading or in-person transfer of knowledge
2. Social learning: through peer-discussion, coaching or mentoring
3. Experiential learning: via on-the-job support, simulations or virtual world technology

A review of evidence in the literature suggests that within humanitarian response, much of the understanding and practice of training and capacity development trails behind other sectors. Nevertheless, INGOs interested in localisation are increasingly focussed on long-term partnerships and supporting complex change processes: coaching and mentoring internal change 'champions' and facilitating dialogues. Similarly, some researchers are now measuring capacity as a set of "capabilities and sense-making skills" that expand the possible actions and outcomes of an individual or organisation.

Third, the evidence of learning and capacity building outcomes is largely anecdotal or case-based. There are two competing popular theories about how data on outcomes could be improved: experimental research and complexity aware research approaches. Experimental research compares learning outcomes between randomly assigned 'intervention' and 'comparison' groups which allows for strong evidence of the impact of a training intervention

(for example, comparing online and blended approaches). By comparison, complexity aware research methods (such as outcome harvesting) explore broad open questions about the learning process without imposing presupposed outcomes. However, the research arising from complexity-aware research is highly contextual. Other approaches to evidence also available, as described in Annex 4.

Forth, the 'north-south' model of capacity building remains dominant. In particular, decisions about the knowledge that is important and how it is used are made by outside actors. For example, a study of humanitarian evidence in East Africa found that the research system operates independently of host governments and local actors at all levels, and is driven by donors (Development Initiatives 2014). Moreover, local actors have little say over when and how learning should be shared. There is very little research on what assistance local actors want from international organisations. One study of local actors in Iraq and Syria found that local actors requested assistance in leadership and management skills, assessment and proposal writing skills, financial capacity and knowledge of internal documentation systems, and mentoring (Chudacoff et al). The growth of SDL suggests the emergence of more demand-driven learning opportunities for local actors. Online providers will hold valuable data on the knowledge and learning opportunities local actors choose to access, and when. Good examples of this are the ELLA platform for South-South knowledge exchange and the Kaya Connect package for Red Cross and Red Crescent volunteers that engages national societies in creating and codifying content.

Fifth, the increased focus on localisation of humanitarian responses has not yet translated into better capacity building programmes. The sector does not generally invest heavily in building organisational capacity or government capacity at the local level. In particular local actors and national NGOs are often marginalised from the most sophisticated learning and training opportunities that address leadership, management and coordination (for example high-level coaching or simulation). Featherstone (2012) argues that increased localisation will require a scale-up in formal training to provide basic messages on humanitarian architecture and coordination (with a focus on learning-by-doing) and a commitment to expanding the range of training materials that are available.

Sixth, demonstrating capacity has been a long-standing issue for local humanitarians and local organisations. Accreditation is a vital means of demonstrating simple (level 2) learning outcomes and supporting higher levels of motivation during online courses. The new PHAP Credentialing Program combines the established and rigorous international standard for professional credentials – the ISO/IEC 17024:2012 standard for personnel certification – with solutions that meet the specific needs of the humanitarian sector. Outside of the sector, the BCS (the chartered institute for IT) is an example of how a central organisation can drive professionalisation of a sector. The BSC has a membership process, accredit qualifications within a framework, and regional groups that provide regular meetings and training and peer-to-peer learning.

Seventh, the costs and benefits of capacity building are best viewed at the system level. Humanitarian organisations experience very high staff turnover. However, many of these staff move between organisations rather than leaving the system altogether. Networks and CoPs are a useful learning mechanism because they share knowledge between agencies. Darby (2014) and others argue that CoPs can therefore be viewed as an important shared organisational asset that minimises institutional knowledge loss and that should be used more effectively.

Finally, technology is changing the way that all forms of knowledge are accessed and shared. CoPs facilitate social learning, virtual worlds enhance experiential learning, and technology is being used to access local knowledge that was previously shared only by word-of-mouth within specific locations. New platforms and providers can therefore support and increase organisational capacity. However as with all training, the application of tech-based learning is

heavily dependent on how far participants are supported by their own organisations. This makes it necessary for developers and providers to understand the broader context of training delivery.

7. Recommendations

The Academy's approach is designed to 'utilise the power of collaboration to build networks of knowledge and experience'. This landscape report has identified opportunities for building learning from grassroots humanitarians to enabling them to access and share established wisdom. This section provides five recommendations under the knowledge pillar.

7.1. Identify target groups of local actors

Only a handful of papers specifically address humanitarian learning for local actors. Moreover, there is no literature that addresses the learning needs and approaches that are appropriate for the different types of local actors.

A better understanding of the unique learning needs and styles of different local actors would lead to better learning interventions. The Academy centres are well placed to identify the micro-level factors that impact learning. The OECD paper on best practice for capacity building provides helpful questions that can guide a discussion:

- Is the background environment currently conducive to learning?
- What enabling factors will support or constrain learning and change? For example, power dynamics, resource availability, or gender issues.
- What types and sources of learning are valued in this culture and context?
- What are the blocks to learning in this culture and context?
- What are the limits of learning in this culture and context?

At a global level, the question of how local actors want to access and share knowledge could also be answered by generating user profiles/stories and using (online and offline) surveys to identify the needs, constraints and influences that these actors have to contend with on the macro (socio economic, political and technological factors), meso (institution-level) and micro-levels (every day), and the impact that these factors have on learning experiences.

It is recommended that the Academy take a bottom up approach, led by the in-country Training Academies, to analyse the skills, practices and attitudes of local actors and their motivations to learn (which depend on a variety of social, cultural, psychological and economic factors)*.* Such understanding will allow the Academy to align its knowledge decisions with the learning priorities of local actors. The categories of local actors presented in Table 1 of this report provide a useful starting point. It is recommended that the Academy pay special attention to learning needs and styles, especially of non-traditional humanitarian actors, such as community responders who make up a big percentage of the response (the learning profiles presented in Annex 7 provide some examples of potential user profiles/stories). Knowledge about the ways in which the different types of local actors learn will help guide the Academy in developing suitable and context-specific learning interventions.

7.2. Develop an understanding of indigenous and local knowledge

The localisation agenda promises to channel greater funding through national actors. However, local and indigenous knowledge is primarily shared by word-of-mouth and confined to specific geographies. Moreover, documented indigenous knowledge is generally confined to the academic literature. Examples of South-South knowledge sharing are ad-hoc and largely driven by international organisations

The Academy should develop its approach to indigenous knowledge by conducting research on indigenous knowledge, including:

1. How to develop a knowledge base of indigenous (mainly background/situational) knowledge for local actors.

2. Work with local actors to provide access to contextualised information for surge capacity, including security practices, humanitarian principles and standards

3. Exploring case study examples of south-south knowledge sharing on risk reduction (see Annex 2 for an initial list).

4. Exploring opportunities for crowd-sourced knowledge

5. Identifying opportunities to support local actors in sharing indigenous knowledge more widely, through communities of practice, networks, and platforms.

6. Promotion of different forms of indigenous and local knowledge, as time-tested, locally relevant and accepted sources of valuable information.

7.3. Promote local access to knowledge exchange

This report has highlighted the value of networks and informal knowledge exchange. The Academy should:

1. Support online platforms for knowledge exchange on background and situational knowledge, humanitarian best practices, lessons learned, feedback, and needs

2. Encourage access and sharing by local actors, particularly on local knowledge innovation

3. Partner with local networks to achieve 1) and 2), such as:

   - National NGO networks in each disaster-affected country
   - Networks formed through the WHS consultation process
   - Cluster-specific communities of practice

7.4. Strengthen the evidence base on humanitarian learning

The research highlights clear opportunities for the Academy to play a unique role in generating better evidence of the causal links between humanitarian learning and capacity building and the effectiveness and impact of humanitarian programmes.

The academy should focus its work on four categories of evidence, generated through both primary research and evidence from MEAL of the Academy's own programmes:

1. What is the evidence of learning for local actors, particularly in online, blended and simulation modalities?

2. What are the higher-level (> level 2) learning outcomes? This will require longer-term studies that explore the organisational and humanitarian outcomes of different learning interventions.

3. What are the effective learning modalities at the community level? In particular, what evidence exists for effective knowledge Does this evidence already exist in other languages?

4. What experimental, observational or systematic evidence can be created? For example what are the differences in learning outcomes when randomly assign learners to two different learning interventions or courses.

7.5. Collaborate and partner with knowledge providers

The Academy should develop collaborative partnerships with key knowledge producers and sharers in the sector, to generate knowledge and amplify the Academy's work on knowledge, including:

- Knowledge producers and networks, such as ALNAP, CERAH and 3ie
- DRR knowledge producers, such as the Start Network's Disaster Emergencies and Preparedness Programme and the International Recovery Platform
- International networks, such as the DAWN network and BOND

There are additional opportunities to scaling learning for first responders, surge capacity, and other local actors by working with the following groups:

- The ICRC RDRs
- The Transforming Surge Capacity Project
- NDMAs in each disaster-affected country
- Diaspora group who provide knowledge of local operating environments but have limited humanitarian training