Chapter 3

Innovations in international humanitarian action

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Critics of humanitarian aid, many from within the sector, complain that humanitarian evaluations and other learning exercises repeatedly highlight the same problems and shortcomings, and 'tell us nothing new'. The fact that evaluations don't capture novelty and ideas does not mean that the humanitarian endeavour is lacking an innovative spirit. The motivation to extend assistance to those affected by conflict or natural calamity has driven individuals to extreme lengths – and led to considerable ingenuity and perseverance.

The starting point of this ALNAP study is that much ongoing work in the realm of humanitarian learning and accountability does not seek to *generate new and different ways of operating*. Rather, it focuses on existing practices, policies and norms of behaviour, and involves detecting and correcting deviations and variances from these standards, or finding ways in which standard operating procedure can be better implemented. The focus is on incremental improvements in practices. Much humanitarian learning arguably focuses on single-loop learning at individual and group levels – hence the frequent 'nothing new' criticism.

Questioning existing practices, norms, policies and rationales can often lead to direct conflict with ongoing organisational processes. Such 'generative learning' is also inhibited by a growing culture of compliance and the rigid contractual nature of aid relationships, both of which push agencies to deliver according to pre-defined goals, methods and targets.

In response to this, and the perceptions of continued learning failures, there are growing numbers of thinkers and practitioners within the sector who argue that agencies need to start pushing the boundaries of current humanitarian practice. If established aid organisations fail to prioritise innovations, they are in danger of losing popular support and being overtaken by new types of relief organisations.

This study aims to explore how ALNAP members and the wider sector might prioritise innovation and risk-taking in policy and practice. It does so by first reviewing experience in the private, public and third sectors to develop a conceptual model which should enable a better understanding of what innovations mean for the sector. It goes on to explore this model using evidence from five case studies, key informant interviews and desk research, and in conclusion recommends ways to promote and enable positive innovation in humanitarian action.

Key message 1

Innovation processes have the potential to stimulate positive change: successful innovations can capture the humanitarian imagination, and provide new ways of delivering assistance to those who need it most. Instead of asking, 'what went wrong?', and aiming for incremental improvements in delivery of aid, innovation demands new ways of thinking and the boldness to answer more searching questions, such as 'how are things currently done, and is this the best way to do them?'

Innovations are dynamic processes which focus on the creation and implementation of new or improved products and services, processes, positions and paradigms. Successful innovations are those that result in improvements in efficiency, effectiveness, quality or social outcomes and impacts. Although many of the factors determining the success of humanitarian work are beyond the control of humanitarians, and there are many context-specific *transactional* innovations in the delivery of aid, the sector is not capitalising on its innovative potential, and in some ways may be becoming more conservative and insular. With a few exceptions, humanitarian organisations have not made a sustained attempt to stimulate a culture of innovation. Where there are examples of good practice and good ideas, these are disconnected and have not been systematised within organisations. Consciously prioritising and managing innovations can provide an important and, as of yet, under-utilised mechanism for improving humanitarian performance.

Key message 2

Understanding the scope of innovations and bringing this understanding into organisations can help agencies to become more strategic in how they improve their work. Models such as the '4 Ps' approach are a good starting point for agencies planning to develop their work on innovations, providing a framework to understand the innovation efforts ongoing within organisations, and to elevate it to a strategic priority.

Stories of innovation include dedicated visionaries and sustained campaigning but also a great many coincidences, accidents and opportunistic adaptations. How can humanitarian organisations learn to use innovations, and plan to encourage them? According to the 4 Ps model, innovations can be directed towards improvements or

new developments of four aspects: (i) products, such as improved cooking stoves or food products to counter malnutrition; (ii) processes, such as methods for stockpiling goods, improved coordination, or improving learning and quality assurance; (iii) the position of an organisation and its work in relation to key stakeholders, for example by changing an organisation's public profile or by changing attitudes to an area of work such as shelter; (iv) paradigms or combined attitudes and beliefs determining the fundamental approach to humanitarian work, such as the calls for paradigm shifts in humanitarian business models towards beneficiary participation, local ownership and capacity development. Exploring these ideas in the context of humanitarian work gives a new way of understanding and harnessing organisations' creative potential.

Key message 3

The process of innovation is neither fixed nor linear, and depends greatly on political and organisational context, as well as chance and serendipity. However, analysis of the development of innovations across different sectors shows that successful innovation processes are proactive intentional processes, include several common elements, and progress through a number of key developmental stages.

Innovation in the private sector is often compared to evolution. Organisations, like organisms, survive and grow through variation, selecting new elements which help them to prosper in a particular environment. Organisations that innovate are more likely to thrive. Despite the complexity and unpredictability of innovation, a successful innovation process usually includes some or all of five key elements: recognition of a problem, challenge, or opportunity; invention of an idea or solution to the problem, or a way to exploit an opportunity; development of the innovation by creating practical plans and guidelines; implementation of the innovation in terms of changed operating practice (often using pilots and then scaling up); and diffusion of the innovation to ensure its wider adoption for benefits outside the original setting. This does not mean that all innovations are sequential, linear processes with clearly defined stages. Rather, these are broad and overlapping phases through which many innovations pass. Although idealised, this model is useful because it allows different processes to be understood and compared – helping organisations to 'repeat the trick' – by providing guidance on how innovations progress.

Key message 4

The theory and practice of innovation, originating from the private sector, is itself evolving, and has been adapted and re-applied to fit the different needs and realities of companies and entrepreneurs. Its relevance for humanitarian work is that it can help organisations to focus on positive and proactive approaches to improving their work.

Modern innovations theory derives from early twentieth-century capitalism, based on individual firms aiming to develop new products through investment in research and development (R&D), or exploit new markets. This 'closed' model of innovation has been central to the maturation of industrial capitalism. However, as information technology grows in importance, and users become less passive, this closed model is being replaced by more 'open' strategies based on recognition of the fact that the sources of ideas and the drivers of the process have become increasingly diffuse. In particular, open, democratised innovation models suggest that many of the most radical innovations come not from experts and specialists in R&D but from front-line staff, consumers, users and suppliers – those traditionally excluded from innovations processes.

So how is this commercial-sector practice relevant to the non-profit humanitarian sector? Many humanitarian innovations have succeeded despite a lack of willingness to change, and despite outright restrictions and inhibiting factors. A more active approach to innovation, actively searching for new ideas that improve practice is needed to free up the innovative potential in the sector. More innovations could be created and developed further if individual and organisational capacities, relationships and wider contexts were aligned in support of innovation. This model also applies to the humanitarian context, in which the increased involvement of affected people and stakeholders demands a more open and flexible approach to innovations.

Key message 5

There are many examples of innovation and change in the humanitarian sector – beyond the idea of incremental learning from the past, and towards transformational learning for the future. But many organisations still do not have strategies to manage innovation, making it likely that many ideas are not picked up. A realistic understanding of what is possible can be complemented with learning from past innovations to seek new ways to realise improvements.

Overall, the debate about humanitarian innovation is closely intertwined with the debate about the current weaknesses of humanitarian action. Some commentators have claimed that humanitarian aid has entered a period of crisis, and there is considerable cynicism about its effectiveness, others worry about its increased conservatism and risk-aversion. However, there is also good work in progress, and positive changes are under way. Examples looked at in this study include the growing acceptance and increasing use of cash-based programming, and the growing use of community-based care in cases of Severe Acute Malnutrition, the use of handheld and mobile technologies and new ways of understanding shelter work. A number of organisations have new product development processes or operational research efforts which focus on generating and assessing innovations in humanitarian response, and these should be seen as important strategic developments. Evaluations and research are of particular importance - among other things, they can help to identify and share innovations that have taken place in projects and programmes, and are essential components of effective pilot processes, in which systematic assessments can test and demonstrate the value of new products, processes or approaches to the delivery of aid.

Key message 6

Innovation processes should be supported by effective informationsharing, within and between organisations, and humanitarian agencies should aim to work in partnerships for innovation. Partners can usefully be drawn from humanitarian counterparts and from beyond the sector.

Given the limited capacity for R&D within the sector, humanitarian agencies need to consider how to draw on wider sources of expertise and ideas, from both inside and outside the sector. While there are some examples of individual humanitarian organisations linking with academics and private-sector companies to explore the development of a particular product, there is considerable scope for greater cooperation. This needs to be done on the basis of competencies, mutual learning, and, importantly, continuity. Many innovations in the humanitarian sector have begun the process from recognition to development but then faltered or stalled, often for many years, before achieving wider implementation and diffusion. More work to understand how partnerships can build on the skills and capacities of different parties would be especially useful in the humanitarian sector, and will have relevance beyond innovation. The informal networks prevalent in the sector could also support innovations more effectively.

Key message 7

A sector-wide mechanism to promote and facilitate innovation is missing from the humanitarian sector. Innovation intermediaries have been successfully used by private-sector companies and increasingly also by non-profit organisations, but there is presently no organisation taking this role in the humanitarian sector.

In their efforts to promote innovations, agencies should not restrict themselves to an institution-specific approach, and innovations must be dealt with as cross-organisational, open initiatives from the outset. A new mechanism to facilitate innovation processes could focus initially on innovation capture and exchange. Similarly, donors and senior decision makers should be engaged to champion the innovations agenda from the outset, perhaps through a sector-wide advisory coalition. The emergence of open-innovation models has led to the formation of innovation intermediaries to facilitate the exchange of new information, knowledge and technological invention. A cross-sector facility to act as an intermediary on humanitarian innovation work would fill a gap and benefit the sector overall. The ALNAP membership would be well placed to establish such a mechanism, in collaboration with other organisations, to highlight ongoing case studies of innovation, provide support to innovation processes, raise resources for R&D in the sector, and share knowledge.

Key message 8

Safe and appropriate spaces for experimenting and innovating should be found in the humanitarian sector.

While innovation in corporations may be a metaphorical survival imperative, innovation in the humanitarian sector may be literally necessary for survival. People's lives and livelihoods can depend on getting aid of the right type and quantity to the right place on time. There may well be space to encourage greater innovation in aid delivery, without compromising ethical principles or taking risks with lives and livelihoods. But the central question is how to create a culture of 'honourable risk' in humanitarian work. By definition, innovation requires new ways of thinking and new approaches to practice. Innovation, also by definition, faces a high risk of failure but can create new opportunities by doing things previously thought impossible. Finding safe spaces for experimentation, and mechanisms to promote 'honourable

risk' as a central value in humanitarian assistance is perhaps the first step to a more innovative and yet principled humanitarian response. The challenge to non-commercial innovation is to innovate in the face of complex and ambiguous rules, multiple conflicting interests of diverse stakeholders, and a variety of resource, operational and ethical constraints. The key here is to ensure minimum standards, and allow innovations which at least meet these standards while improving on performance in key areas, and without causing additional or unanticipated problems or costs.

Key message 9

A focus on innovations could help to support shifts towards proactive work to prevent disasters, rather than only reacting after the event, and towards increasing local ownership of humanitarian activities; enabling a shift from 'catastrophe-first' innovation towards 'vulnerability-first'.

The principles of disaster prevention, local ownership and beneficiary engagement require considerable shifts in attitudes and approaches to humanitarian crisis response. Some of the most radical humanitarian innovations relate to wholesale changes in the sector. At the macro level, it is more effective to prevent disasters than to respond to them, even more so as global vulnerability increases. And, as found in the tsunami response, where they exist, it is far more effective to build on and support local capacities, thereby re-orienting the system. In the medical sector, illness is seen as a normal part of life, and both preventing and treating illness is regarded as a continuous work in progress. By contrast, humanitarian disasters, whether natural or not, are somehow seen as abnormal despite their regular occurrence, which frames the response to them in purely reactive terms.

A shift in this attitude may be difficult but is essential if we are to create a culture which encourages real and lasting humanitarian innovation, and a humanitarian business model capable of meeting a complex and volatile future. The perspective that is needed is clear: aid agencies must seek to move beyond 'catastrophe-first' model of innovations, towards putting 'vulnerability first'.

3.1 Introduction: why innovations?

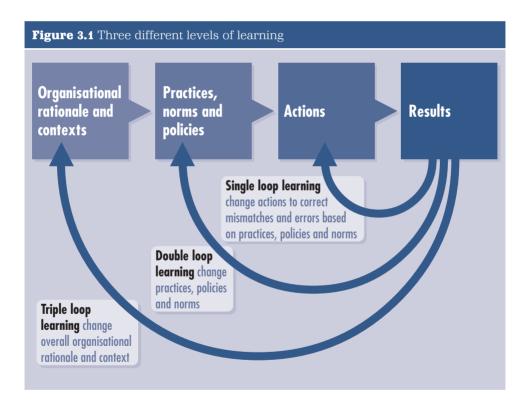
'One of the greatest pains to human nature is the pain of a new idea. It... makes you think that after all, your favourite notions may be wrong, your firmest beliefs ill-founded... Naturally, therefore, common men hate a new idea, and are disposed more or less to ill-treat the original man who brings it' (Walter Bagehot, 4869).

One of the most frequent comments heard at ALNAP meetings and discussions is that 'evaluations do not tell us anything new'. The implication seems to be that, although there is an expectation that evaluations will contribute to improving humanitarian action, they seldom deliver novel and interesting perspectives on old problems.

The fact that evaluations don't capture novelty and ideas does not mean that the humanitarian endeavour is lacking an innovative spirit. The motivation to extend assistance to those affected by conflict or natural calamity has driven individuals to extreme lengths – and led to considerable ingenuity and perseverance. For pioneering humanitarians such as Fred Cuny, adaptability and dynamism were integral to aid provision in the world's most volatile regions. But while humanitarian workers are still motivated by humanitarian goals and principles, there are growing concerns that humanitarian organisations are failing to maintain the pioneering, creative spirit exemplified by Cuny and like-minded predecessors and contemporaries.

The starting point of this ALNAP study is that much ongoing work in the realm of humanitarian learning and accountability does not seek to *generate new and different ways of operating*. Rather, it focuses on what Chris Argyris and Donald Schön (cited in Ramalingam, 2008) have called *single-loop learning*. Single-loop learning is undertaken in line with existing practices, policies and norms of behaviour. It involves detecting and correcting deviations and variances from these standards, or finding ways in which standard operating procedure can be better implemented. The focus is on incremental improvements in practices. Much humanitarian learning arguably focuses on single-loop learning at individual and group levels. Tools such as after-action reviews or project evaluations work towards this kind of learning – hence the frequent 'nothing new' criticism.

By contrast, *double-loop learning* involves reflection on the appropriateness of existing practices, policies and norms within an organisation. It differs from single-loop learning because of a conscious process of re-designing products, processes and methods to generate new ways of doing things in response to changing contexts. Often referred to as *generative learning*, double-loop learning focuses on the search for creative and inventive solutions to existing problems, which calls for mindsets, capacities and institutional space to generate and realise new visions for how work could be undertaken. Even more challenging is *triple-loop learning*, which represents the highest form of organisational self-examination. It involves questioning the entire rationale of an organisation, and can lead to innovative transformations in internal structure, culture and practices, as well as in the external context. The three 'learning loops' are illustrated in Figure 3.4



As detailed in previous ALNAP Reviews, single-loop learning is problematic in many aid agencies. But double- and triple-loop learning – questioning existing practices, norms, policies and rationales – are often in direct conflict with ongoing organisational processes. As Larry Minear argued in the 5th ALNAP RHA, "the institutional weight

of past practice is giving way all too slowly to the insights of creative practitioners" (Minear, 2005, p. 417). Such 'generative learning' is also inhibited by a growing culture of compliance and the rigid contractual nature of aid relationships, both of which push agencies to deliver according to pre-defined goals, methods and targets.

In response to this, and the perceptions of continued learning failures, there are growing numbers of thinkers and practitioners within the sector who argue that agencies need to start pushing the boundaries of current humanitarian practice. If established aid organisations fail to become more innovative, goes the argument, they are in danger of losing popular support and being overtaken by new types of 'giving' organisations. The opportunity is seen as clear-cut. In the 6th ALNAP RHA, Hugo Slim notes that:

'It remains a mystery why, in an apparently entrepreneurial and still unregulated system, so few innovative and dynamic new agencies have appeared to fill the many gaps and opportunities in humanitarian response...' (Slim, 2006, p. 24).

He goes on:

'... As the system moves towards [consolidation], it must still urgently encourage innovation and entrepreneurialism whereby humanitarian agencies can make new discoveries and risk new approaches... [humanitarian agencies] need to prioritise innovation and risk-taking in humanitarian politics and practice. If, in the next five years, the humanitarian system has only consolidated, it will have failed to take advantage of new ideas and will not have adapted to new opportunities' (ibid, p. 30).

This study aims to shed light on and respond to this eloquent call-to-arms in practice: how might ALNAP members and the wider sector prioritise innovation and risk-taking in humanitarian politics and practice? What exactly is it that humanitarian agencies should be prioritising if they want to become more innovative and dynamic? Where do new ideas come from in the sector? When new things are identified, what happens to them? Who validates or rejects new ideas and why? And following from this (and paraphrasing the Walter Bagehot quote above), what pain is caused by new ideas to the nature of humanitarian actors, what kinds of notions and beliefs are challenged, and how are new ideas and their originators treated within the sector?

This study explores these issues by reviewing the general literature and practice of innovations, looking at the private sector and contextualising this with reference to the public and social sectors, distilling key concepts and ideas for consideration within the humanitarian sector (Section 3.2). It then provides an overview of the kinds of innovations seen in the international humanitarian sector (Section 3.3), setting the stage for a more detailed exploration of specific innovation processes. Five case studies of humanitarian innovations are presented, with details on their sources, development, dissemination and take-up (Section 3.4). Broader contextual factors influencing innovations are also considered (Section 3.5). The final section (3.6) presents conclusions and recommendations on the scope of humanitarian innovations – whether and why agencies should prioritise innovations, and how this might happen.

The evidence base for this study includes over 50 interviews with key informants – policy and operational staff within organisations, as well as academic researchers, members of think-tanks, independent consultants and experts from outside the humanitarian sector. These research interviews, both general and specific to particular innovations, have been complemented with extensive desk research and literature reviews.

3.2 Introduction to innovations

3.2.1 Exploring innovations — stories, concepts and models

Stories of innovation have three common characteristics – they are widespread, they are compelling and they are often apocryphal. This combination creates numerous pitfalls for thorough and practically useful explorations of innovations – whatever their scale and scope.

Isaac Newton may have famously discovered gravity due to a falling apple in an orchard in Cambridge, but the theory was in fact the result of collective work by Robert Hooke and Edmund Halley, as well as Newton. Alexander Fleming abandoned research on penicillin after first identifying it, regarding it at best as a

local antiseptic. Although a team of researchers at Oxford University were credited by the *British Medical Journal* as the real 'authors of the wonder drug', it is Fleming who is now strongly associated with its development.

Where politics and other interests do not distort the innovation story, chance is also a considerable factor. To take three examples more or less at random – teabags, text messages and treatments for erectile dysfunction are all widespread today, but all three innovations were unintended. Teabags were used to store tealeaves during transportation, texts were an additional feature seen as next to useless by mobile phone operators, and Viagra was a heart-disease treatment with a rather unusual side effect.

Because the potential impact of innovations is often underestimated by their generators, understanding and exploring innovations as a purposeful process is even more challenging. For example, the credited inventor of the telephone, Alexander Graham Bell tentatively, and in retrospect somewhat touchingly, suggested that one day there might be 'one of these devices in every town in America'. More recently, in the 4950s, the Chairman of IBM suggested that the worldwide market for computers was no greater than around 8 machines.

In addition – and in common with other areas of concern to ALNAP, such as performance, impact, and humanitarianism itself – innovations face problems of definition. There is no single definition of innovation, not least because of the different disciplinary stances (political, economic, sociological and managerial/organisational) from which innovations are viewed. Research on innovations is complicated because they influence and are influenced by so many factors and actors, and there are multiple dimensions which deserve consideration in any systematic investigation.

This brief review will concentrate on three dimensions of innovations:

- 1 'what' the focus and scope of innovations
- 2 'how' the processes involved in innovations, both theoretically and in practice
- 3 'context' individual and organisational capacities, the relationships within and across organisations, and the wider sectoral, social, economic and political factors that either enable or inhibit innovation processes.

We will use the literature on innovations to explore each of these dimensions in more detail, aiming to develop an understanding of innovations that can be taken forward in the present study and which can also inform future work on humanitarian innovations. In order to facilitate this, this section ends with the development of a working definition of innovations.

3.2.2 The 'what' of innovations: focus and scope

Section 3.4 above provided an introduction to innovation as a generative learning process – double- or triple-loop learning, compared to the single-loop learning more commonly considered in organisations. But what exactly do we mean by this – what is the focus and scope of such efforts?

Work by leading innovation thinkers (Francis and Bessant, 2005) suggests that innovative efforts can be directed towards positive improvements or novel developments in a number of overlapping areas: from new *products* and *processes* to a new *position* of an organisation and its work in relation to markets or stakeholders, and new *paradigms* (referring to mental/business models). This is referred to as the '4 Ps' model, and has been usefully applied in a range of sectors and industries.

In terms of scope, innovations can also be framed as incremental and continuous improvements to existing products, processes, positions or paradigms which might enable either reductions in cost or improved features. At the other end of the scale, some innovations can be far-reaching and involve new and radical shifts in thinking about a particular product or service, or even an entire industry. Such radical – or discontinuous – innovations can lead to obsolescence of existing organisations, and the process of innovation is often viewed as being at the heart of the 'creative destruction' embodied by capitalist economic development. It is worth noting that the relationship between incremental and radical innovations is often unpredictable: over time, an incremental innovation might trigger more radical innovations while radical innovations (such as mobile phones) might be made up of and indeed trigger a series of incremental innovations (such as ring tones).

It is worth illustrating the 4 Ps Framework with some practical examples. Below are some examples of each of the four focus areas of product, process, position and paradigm, with illustrations of incremental and radical changes.

- 1 Innovation to introduce or improve **products or services** a change in what is offered. Bic ballpoint pens were introduced in 1957 and 16 million are now sold daily around the world; they have seen a variety of incremental innovations in materials, inks, ballpoint technology and so on. A more radical shift would be a new product concept, for example the introduction of personal computers as an alternative to mainframe machines used in the 1950s and 1960s.
- 2 Innovation to introduce or improve processes changing how a product is created or delivered. These might be incremental improvements in key performance parameters (time, cost, quality) through mechanisms such as improved supply-chain management or lean production introduced in many manufacturing industries. At the radical end of the spectrum, new processes can bring about entirely new ways for an organisation to develop products to market for example, the growing use of internet banking as an alternative to the previously dominant model of high-street branches.
- Innovation to define or redefine the **positioning** of products, organisations or sectors or a change in the context, and way in which a product or process is applied. The re-positioning of mobile phones from predominately business to social and leisure use is good example of a positioning innovation, which involved re-branding an existing product to a new set of customers. This created new segments for mobile operators. More radically, completely new markets can be created by positioning a product in a new setting for example, in the 1940s, Levi's jeans were durable work clothes, but have over the decades been repositioned and re-branded as desirable fashion items. Position innovations can often take place with little or no change in underlying products or processes, although the act of re-positioning may require incremental changes in these areas.
- Innovation to define or re define the dominant **paradigms** of an organisation or sector changes in the underlying mental and business models. Incremental change in this area might focus on the extension of a particular business in a new way for example, thinking about Rolls Royce not just as a top-end vehicle but as a luxury service for top-end customers. More radical paradigmatic change could be brought about by changing the fundamental parameters of a business for example, the transformation of Nintendo from a company making playing cards in the 1960s into a leading computer-games organisation. Paradigm innovations almost always require supporting innovations in the other areas of

position, process and product. Position and paradigm innovations can be hard to distinguish from one another in practice. However, paradigm innovations always require some form of re-positioning, whereas positioning innovations can occur without a paradigm shift.

These are not exclusive or rigid categories – organisations can work towards innovations in some or all four at the same time. For example, Amazon now dominates the global book market through a combination of massive warehouses carrying wide selections of books plus a logistics, web-based ordering, and a delivery system that keeps the prices lower than in high-street bookshops.

There are linkages between these categories: a firm using innovation to re-position itself, for example, might also introduce new or improved products, as Levi's did when adapting their jeans from workmen to fashion-conscious American youth.

Overall, these four areas offer a structure for examining space for innovation in any organisation or sector (Francis and Bessant, 2005). The concepts might be used to analyse the overall innovation portfolio of an organisation or sector. Asking questions about innovations in terms of the '4 Ps', and identifying which category gets the most attention, can help innovators to find a more balanced approach to improvements across all four categories. For example, Francis and Bessant note that product innovations tend to get the most attention in the private sector, and that this narrow view can hold back important innovations.

Use of this approach can help to establish a comprehensive view of innovation initiatives over time. This can also support the important capacity to make strategic assessments about the benefits or otherwise of specific innovations. For example, if the research and development unit of a drug company develops a new heart drug it could usefully ask: what are the implications for existing products, processes, positions and the overall business paradigm? The strategic assessment enabled by the '4 Ps' approach is especially useful in thinking through 'false positives' – bad ideas that initially looked promising because the broader perspectives were not considered – and can also be used to rescue 'false negatives' – projects that initially looked useless, but turned out to have another value not initially grasped because of the narrow way in which the innovation was considered.

3.2.3 The innovation process in theory and practice

Having considered the 'what' of innovations, it is worth looking at the 'how' of innovations. The process of innovation is often compared to the process of evolution (Bessant and Tidd, 2007). Firms, like organisms, survive and grow through a process of variation, selecting new elements which help them adapt to a particular environment and propagating these more widely. Firms that do not keep up with innovations are likely to go out of business. On the other hand, not all innovations are initially successful, and companies which stake too much on a specific innovation may also face difficulties. Even when an innovation is successful in the long term, the inventing or initially promoting firm may fail to benefit from its shortor medium-term commercial investment. And again, conversely, an innovation may be genuinely serendipitous but a well-prepared organisation can exploit it.

Where innovations processes are successful, they are often seen as proactive rather than reactive, and include some or all of the following phases.

- Recognition of a problem, challenge and related opportunity for targeted innovation at the level of product, process, position, paradigm or some combination thereof.
- **Invention** of a solution or idea which helps to address the problem, overcome the challenge or take advantage of the opportunity.
- **Development** of the innovation through creating practical plans and guidelines for products, services, processes or new organisational models.
- **Implementation** of the innovation to produce real instances of changed practice in operational settings, often using pilots and subsequently scaling up.
- Diffusion of the innovation to ensure its wider adoption for benefits outside the
 original setting. This includes the communications channels by which the
 innovation is shared, the social system within which it is disseminated, and the
 process through which innovation is continually developed and refined (adapted
 from CIA, 2007).

These five phases should not be taken to mean that all innovations are sequential, linear processes with clearly defined stages. Rather, these are broad and overlapping

phases, through which many innovations pass, whether they focus on product, process, position or paradigm. The progress is iterative and frequently non-linear – some innovations might never get past the early phases, and others might be discarded and later revived only after a fortuitous event or different application (Maddock, 2007). The model is useful because it allows different processes to be understood and compared, and can therefore help organisations 'repeat the innovations trick' – by providing an ideal roadmap of how innovations should progress.

How might this process work in practice? The literature suggests: a continuous search for new ways of dealing with old problems, or new opportunities (recognition); willingness and resources to invent and experiment or take risks in order to find them (invention); a commitment to develop inventions into practical solutions through investment of staff time and capacities (development); an operating environment flexible enough to pilot good ideas into action in the 'live' environment, and evaluate the impacts (implementation); and, finally, the scope to apply innovations to other operational settings, using evidence of success and champions to challenge those who have a vested interest in maintaining the status quo (diffusion).

The way in which this process works has changed over time. The traditional model of innovation derives from early twentieth-century capitalism and suggests that products and services are developed by firms internally. Research and development departments – with close connections to operational units – use patents, copyrights and other protections to prevent imitators from 'free riding' on their work, and market their products to customers (Von Hippel, 2005; Chesbrough, 2003). From this perspective, the five stages outlined above are in fact a linear, sequential and largely internal process – moving from research, product and process development, and production to sales and marketing. In these terms, innovation arises from a 'push' of science and technology to increase efficiency and decrease costs, in which consumers are essentially passive. This approach was exemplified by Henry Ford's famous quip about the Model T car: 'you can have any colour you want, as long as it's black'.

However, the early twenty-first century is different. Globalisation, technological change, changes in working lives and consumer expectations mean that today's firms work in ever-wider and more fragmenting, unpredictable and competitive

markets. It is increasingly recognised that stimulating entrepreneurial innovation involves far more than simply increasing investment in R&D within any single firm. Innovation is seen as a multidimensional system of interacting factors, actors and processes. As a result the closed, linear model of innovation has been replaced by more nuanced models which stress the dynamic, networked, and 'open' nature of the innovation process (Rogers, 2003; Wenger, et al., 2002; Von Hippel, 2005; Chesbrough, 2003 and 2006).

While the stages of the traditional model are still relevant, the sources of ideas and the drivers of the process have become increasingly diffuse. In particular, open, democratised innovation models suggest that many of the most radical innovations come not from experts and R&D specialists but from front-line staff, consumers, users and suppliers – those traditionally excluded from innovations processes. This demands a more open and flexible approach to innovations, with attention paid to a number of supporting and contextual factors.

Before moving on to look at contextual factors, it is worth reflecting on the ideas already presented. These dimensions of innovations can be usefully applied and have been found to be relevant across a range of different sectors. Regardless of sector: the focus of innovations can be on products, processes, positions or paradigms; the scope can be incremental or radical; the process of innovation must include some or all of recognition, invention, development, implementation and dissemination; and the approach can be closed or open. The relevance of these concepts across different contexts makes them particularly useful in this study.⁴

3.2.4 The context of innovations

Whatever the organisation, innovation can only ever be one element of its day-to-day work and is usually peripheral to its main activity. From this perspective, innovation can become a distraction, or a way of paying lip service to the need to be creative while essentially remaining as before. At best, organisations might have some designated processes or business functions where experimenting can happen, and the incubation of new ideas is permitted or encouraged, but there remains a tension between the innovative margins and the traditional operating core.

Given this tension, success or failure of innovations usually depends on individual and organisational capacities, and on wider sectoral, economic, social and political dynamics. We consider each of these below, starting with the role of individuals.

The role of innovative individuals gets special attention in the literature because of the central role that entrepreneurs play in making innovations happen. As Schumpeter put it: "Without innovations, no entrepreneurs; without entrepreneurial achievement, no capitalist returns and no capitalist propulsion" (as cited by McCraw, 2007). Successful innovation is often associated with the idea of 'iconoclasts' (Berns, 2008) – literally, 'destroyers of icons': to create something new, one also has to tear down conventional ways of thinking. This resonates with Schumpeter's idea of innovation as a process of creative destruction.

Such iconoclasts operate in every area of life, creating new opportunities by doing things others thought impossible. But in the process of innovating, iconoclasts can often face social or professional ostracism – the risk of failure and of alienating colleagues who might have vested interests in the status quo. A neuroscientist by training, Berns argues that successful iconoclasts share three cognitive functions: perception, the ability to see things differently from others and embrace novelty; fear response, the ability to cope with fear of uncertainty and of failure; and social intelligence, the ability to communicate and socialise a new idea.

The influential work of Malcolm Gladwell in *The Tipping Point* provides a useful complement to this (Gladwell, 2000). Gladwell suggests that social innovations are brought about by three types of people who help to create change: salespeople, good at convincing others of their point of view; information gatherers, who collect and categorise information; and networkers, who are able to connect with a wide range of people. These three types are seen by Gladwell as playing crucial roles in a range of different social 'tipping points', from the rise in popularity of the hula hoop and Hush Puppy shoes, through to political shifts such as the abolition of slavery and the US war of independence.

From an organisational perspective, the literature suggests that management of innovation processes involves strategic intervention intended to facilitate changes and improvements in order to achieve certain goals. Stimulating and managing innovation processes has consistently been found to be one of the most important characteristics associated with a successful company, and there is a large and

growing literature on this (CIA, 2007). The literature suggests that innovative organisations are those which seek to develop and nurture a culture in which the process outlined above, from recognition to diffusion, is acknowledged, discussed and supported. This involves effective leadership, resources, and relationships, and the right kinds of partnerships within and across the organisation (Bessant and Tidd, 2007).

Firms need to develop more sophisticated 'radar systems' for detecting new ideas, capturing information from front-line deliverers, product-users and other external sources of innovation. They may need to support different kinds of actors' engagement with innovation processes; many firms are working with the users of their products as partners to make innovative improvements which deliver mutual benefits. The boundaries between a firm and its surrounding environment are becoming ever more porous.

Successful companies will need to be able to incubate, implement or scale-up innovations which may have originated outside them, rejecting previous 'not invented here' prejudices. They can also no longer rely on intellectual property rights to 'lock up' their own discoveries, and instead have to find new ways to profit from how these are used by others (*The Economist*, 2007). This means thinking more creatively about potential new markets, as well as better servicing of existing markets. The future of innovation, according to the leading open-innovation proponents, will be through 'the breaking of silos' and exchange of ideas and frameworks between different disciplines and sectors (Wenger, et al., 2002). Such approaches often require 'intermediaries' (Box 3.1) working to create networks and markets by bringing together those facing problems which need innovative approaches with those with the capacity to solve problems in innovative ways.

Sector-specific aspects of innovations

It is also essential to look beyond specific organisations to the wider sectors in which they operate. As noted above (at the end of Section 3.2.3), the innovation concepts presented so far have been found to be relevant across a variety of sectors. However, the ways in which an organisation approaches, facilitates and supports innovation processes are profoundly shaped by the dynamics of the sector in which that organisation operates.

Box 3.1 Innovation intermediaries

Whether referred to as middlemen, brokers, or intermediaries, third parties have a long history of involvement in the exchange of innovations and technological developments. In sixteenth- to eighteenth-century Britain, for example, traders were also important informal disseminators of knowledge of technical improvements between those working in agriculture, cloth-making and the production of wool (Howells, 2006).

More recently, the emergence of open-innovation models has led to the formation of innovation intermediaries to facilitate open exchange of new information, knowledge and technological invention between 'seekers' and 'solvers'. They have been successfully used by private-sector companies and increasingly also by non-profit organisations. Intermediary organisations, such as Innovation Exchange, NineSigma and the Big Idea Group, have a number of business models, and there are myriad prizes for innovations in different disciplines. According to Chesbrough (2007, p. 43), InnoCentive perhaps exemplifies the four aspects central to the innovation-intermediary model, which are to:

- 1 stimulate and shape the problem definition, for the organisation searching for an innovation
- 2 create a process for the exchange of key information between parties
- **3** gather credible evidence of the value of an innovation
- 4 help both sides further develop the market for possible solutions.

Key elements varying between sectors include decision-making processes, degrees of flexibility and control, accountability and incentive mechanisms, and institutional culture and values.² Innovations can also vary within sectors: within the private sector, for example, innovation dynamics might differ between the construction industry and the field of telecommunications. However, some of the most significant variations arise when looking beyond the private sector to the public sector and the 'third' sector of NGOs and civil society, elements of which comprise much of the formal international humanitarian sector. We will consider these three broad sectors in turn

Given the centrality of innovation to success or failure within the private sector, it is unsurprising that considerable attention is paid to examining the factors that might drive or inhibit innovations. The literature describes internal and external 'primary drivers'. Internal drivers include:

- shareholder demands for higher performance, profitability and returns
- pressures to decrease costs
- pressure to increase efficiency and effectiveness
- · shorter product life-cycles.

External drivers include:

- increased sectoral competition, especially through globalisation and other sectoral dynamics
- rising customer and stakeholder expectations
- greater availability of potentially useful new technologies
- changing economic, demographic and social contexts
- the impact of stricter regulations
- social concerns, such as for greater sustainability and accountability (Baker, 2002).

In the private sector, the need to implement new products, processes or organisational methods is often viewed as a 'survival imperative' – innovate or fail. It is interesting to contrast this with the findings of a recent report on public-sector innovation:

'for years, officials' speeches have talked about the need for creativity, entrepreneurialism and innovation in public services, and there are plenty of innovative people working in departments and agencies. But despite the talk, innovation is very rarely taken seriously. There are few people in the public sector whose job it is to find innovations or to fund them, grow them, assess

them and spread them about. Innovation has had nothing like the focused attention paid to performance management. And, unlike in the private sector, very few people get to the top because of innovations they have pioneered' (Maddock, 2007, p. 4).

This suggests that public-sector innovation cannot really be described as a 'survival imperative', as in the corporate sector – in fact, it has traditionally been seen as, at best, an optional extra. The same report suggests a lack of individual capacities, attention and incentives for innovation in the public sector.

What about the third sector – civil society and non-governmental organisations? Social innovations have been described as accompanying, and in some ways triggered by, industrial innovations:

'The great wave of industrialization and urbanization in the nineteenth century was accompanied by an extraordinary upsurge of social enterprise and innovation: mutual self-help, microcredit, building societies, cooperatives, trade unions' (Mulgan, et al., 2007, p. 145).

The key distinction of social innovations is that they are primarily motivated by the goal of meeting a social need, and that the innovation is predominantly diffused through third-sector organisations whose purposes are social (Mulgan, et al., 2007). An understanding of social innovation broadens the motivations for innovation beyond profit and public service – social innovation can be driven by goals such as equity, rights and the alleviation of suffering. Peter Drucker, the renowned management guru, argued that for any non-profit organisation, the bottom line must be measured in changed lives (Drucker, 1992). This is complemented by work by Westley, et al. (2006), arguing that social innovation should focus on change systems within which lives are played out.

The literature emphasises three key elements specific to social innovations.

- 1 Social innovations are usually new combinations or hybrids of existing elements, rather than being wholly new in themselves.
- 2 Implementing them involves cutting across organisational, sectoral or disciplinary boundaries.

3 They create new social relationships between previously separate individuals and groups, contributing to the diffusion and embedding of the innovation, and increasing potential for further innovations.

Social innovation is also seen as building on the inherent capacities of individuals and communities, which makes the notion of open innovation especially relevant. This process is arguably long established in the social sector, but without conscious efforts to establish innovation intermediaries and networking mechanisms to support identification, scale-up and dissemination of innovations.

Leading proponents of public- and social-sector innovation have argued that it should become a core activity in these sectors (Mulgan and Albury, 2003; NAO, 2000). They also recognise that, in the absence of the profit motive, it is essential to provide other incentives for innovation. These might include the following, only some of which are to be found in the private sector, and are marginal to the profit motive.

- Support from the top to encourage an innovative culture.
- Attending to the views of all stakeholders of a particular service including users, staff members and middle managers.
- Adequate resourcing, through the creation of central innovation funds.
- Including the measurement of innovation in project evaluations.
- Providing scope for experimentation, learning from 'honourable failures' and creating 'safe' places for testing.

One vital contextual concern which applies to private-, public- and social-sector innovation relates to the limits that might be placed on innovation, not for practical or institutional reasons, but because of legal, ethical or social considerations. There may well be some specific limits on how innovative some public-sector professionals and organisations should become. Although this is certainly also the case in private-sector innovations, the literature tends not to focus on 'bad' innovations. This provides an important note of caution and also challenges the assumption that there is no down-side to the promotion of a culture of innovation. In the private sector, many innovations fail and can bring down companies with them. An innovation may

also appear successful in the short term, or bring benefits to an individual firm, but might have damaging social, economic or environmental consequences. These risks are important considerations in public- and social-sector innovations.

In general, the more serious are the perceived consequences of something going wrong, the more important it is for safeguards to be in place. Investment in R&D is recognised as essential in the field of medicine because the sector is constantly searching for new drugs and methods of treatment. For example, medical ethics translate the concept for 'first, do no harm' into a series of operational rules and requirements of practitioners. They must obtain the 'informed consent' of prospective patients for certain procedures, and the introduction of a 'medical innovation' requires trials, testing and independent review mechanisms which can take several years. The sector is also highly regulated by enforceable codes of conduct and professional associations that can and do prohibit members from practising following misconduct. As a cross-sector example, health and safety regulations specify that workers should abide by tried and tested routines, even though there may be faster and cheaper ways to get a job done.

These limits restrict the scope for experimentation with new and innovative ideas in everyday practice. Systems of checks and balances, external scrutiny and regulation may inhibit certain types of innovation, but most people would accept this inhibition as fully justified in many fields. For example, medical surgeons and fire-fighters may sometimes be forced to innovate, on the job, by the circumstances they face, but few would wish them to do this on a regular basis, out of simple curiosity.

While regulation, in whatever form, will inevitably affect innovation processes by stimulating or inhibiting certain kinds of innovative practice, this influence need not necessarily be negative. Thoughtful regulation can help to create an environment receptive to positive change. Experience from the construction sector in the UK, for example, highlights the potentially positive role of regulation that "specifies the outcome to be achieved and provides industry with sufficient lead-time to apply initiative and innovation to meet that goal in the most cost-effective manner" (BERR, 2008, p. 46).

Overall, then the drivers and inhibitors of innovation stem from the unique mandates and attributes of organisations, which are themselves shaped by the sectors in which those organisations operate. It may well be that private-sector innovation is simpler than public or social innovations, for two notable reasons.

First, the rules of the game are clearer and more coherent: corporate innovation strategies have clear and consistent goals of maximising competitive advantage and cost-efficiency, thereby improving profitability (Davenport & Prusak, 2000). Second, innovation investments can be underwritten by the profits made – the risk of failure can be more than offset by the potential successes.

By contrast, public-sector organisations may have more rigid hierarchies and a culture of little or no tolerance for the innovator. While non-governmental and civil society organisations might enjoy greater flexibility and less hierarchical structures, they might lack the resources to invest in innovations, and the institutional responsiveness to incorporate them, especially if they are focused on service delivery. The challenge to public and social innovation is to innovate in the face of complex and ambiguous rules, multiple conflicting interests of diverse stakeholders, and a variety of resource, operational and ethical constraints.

3.2.5 A working definition

How can we start to relate these ideas to the humanitarian sector? Drawing from the above review, we have developed a definition for the purpose of this chapter, and for ALNAP work on innovations going forward, synthesising elements from across the literature (Box 3.2). The next part of this review uses these ideas to explore the nature, scope and potential of innovations in the humanitarian sector.

Box 3.2 Innovation: a working definition

Innovations are dynamic processes which focus on the creation and implementation of new or improved products and services, processes, positions and paradigms. Successful innovations are those that result in improvements in efficiency, effectiveness, quality or social outcomes/impacts.

Moreover, innovation processes are not insulated from the world, but are embedded in and shaped by the capabilities of the actors in and around a given sector, the relationships between them, and wider social, economic and political contexts. These factors play a crucial role in enabling or inhibiting innovation processes and in shaping the resulting changes.

3.3 Overview of humanitarian innovations in practice

Humanitarians have been described as treating the idea of new and innovative practices "with cynicism and even a chuckle or two... in the eyes of many humanitarian practitioners, innovation refers to a commercial sector practice that takes place far from the emergency response challenges of distributing food rations, digging camp latrines and providing screening to under fives" (White, 2008, p. 4). The implication is that innovations are not feasible, or perhaps even desirable, in humanitarian practice. On the opposite end of the spectrum, it has been also been suggested that creative ideas are stifled by institutionalised approaches to the delivery of aid (ALNAP, 2004), and that humanitarian agencies should prioritise innovations (ALNAP, 2006). The reality of innovations within the sector may be located somewhere between these two perspectives.

This part of the study is devoted to exploring this reality in practice, using the three key dimensions of innovations already highlighted: focus and scope of innovations, innovations process and contextual factors. At the heart of this exploration is a case study-based review which uses the five stage process to explore specific examples of humanitarian innovation in more depth. There is also a review of the contextual and wider factors which enabled or inhibited these innovations. Before then, it is useful to get an overview of the humanitarian innovation 'landscape', which we will do so using the '4 Ps' model of products, processes, positions and paradigms.

3.3.1 Product innovation

The international humanitarian system is built on the idea of delivering goods and services to populations and communities affected by disasters and conflicts. In every sector of humanitarian relief, including health, water and sanitation, shelter and camp management, food and nutrition, agriculture, logistics, protection, early recovery and telecommunications, products have been introduced to improve the conditions of disaster-affected people. Examples include the Famine Biscuit developed by Oxfam in collaboration with a confectionary manufacturing company in the 1980s, or, more recently, the Humanitarian Drinking Straw that uses filtration technologies to enable any water – however dirty – to be drunk safely (see: www.vestergaard-frandsen.com/lifestraw).

Given the implementation focus of humanitarian work, and how it is traditionally funded, many product innovations have benefited from, and in some cases directly result from, the status of humanitarian relief as a collection of specialised subsectors of much bigger, globalised sectors with extensive research and development (R&D) capacities. For example, humanitarian health innovations can and do benefit from global health R&D efforts, humanitarian water and sanitation draws on global efforts in this field, and so on. As well as such 'direct transfers' of innovations, there are some that have diffused into the sector as a result of wider societal or technological changes. Such changes enable aid workers and beneficiaries to access new tools and approaches, which then influence the way in which work is undertaken. The use of computers and mobile technologies are perhaps exemplary here.

There are also certain contexts in which a specific humanitarian need and the external availability of a relevant product come together in a timely fashion. A good example is the so-called humanitarian stove which has been used extensively in relief operations in Darfur. Given the extent of gender-based violence in the Darfur conflict, much of which was inflicted when women would leave refugee camps to collect firewood, there was a recognition that more fuel-efficient stoves would help reduce women's vulnerability.

However, as in the private sector, there may be a tendency to focus particularly on product-based innovations in the sector, which can in some cases be detrimental. In the shelter sector, for example, relief organisations are bombarded with different designs and prototypes for shelter-based innovations. Many of these are based on the idea that one single product can work in all settings. Aid agencies themselves have had a tendency to focus on delivery of tents and other shelter products, with incremental innovations being cited as a key approach. As we shall see in more depth below (Section 3.4), this product-based view can lead to inappropriate innovations; a different approach to innovation may be part of the answer to address the failures of shelter provision.

More generally, product-based innovations can lead to delivery of inappropriate aid. Bringing local knowledge and perspectives to bear on how aid is delivered can be essential in contextualising aid delivery, which in itself can be seen as a process innovation. Process innovations are looked at next.

3.3.2 Process innovation

As with product innovations, the implementation focus of much relief work also means process innovations are prevalent in the humanitarian sector. Because so many of the products used in relief settings are initially developed for non-relief contexts, a natural focus for innovation is to consider how a product might be used in resource-poor or rapidly changing settings such as those commonly faced by relief agencies.

Almost all of the medical-sector specialists consulted as part of this study framed medical relief innovations in exactly these terms. For example, the use of antiretroviral treatment in emergencies required rethinking how these drugs were offered in developed-country settings, and establishing minimum standards for their use in developing country settings without the same level of infrastructure and resource support.

More generally, humanitarian action takes place in highly challenging and often life-threatening situations, and aid workers frequently have to operate without sufficient support and resources. A significant number of interviewees made comments such as, 'the humanitarian community is built on innovation – on just getting things done despite a lack of resources'. Delivery of humanitarian aid can encounter unpredictable logistical and bureaucratic challenges at every step, and adaptations are needed simply to deliver assistance. From this perspective, humanitarian agencies could be said to innovate on a daily basis. No two humanitarian crises and no two recipients of aid are exactly the same, and so the process of getting assistance to where it is needed, as quickly and effectively as possible, is a constant process of creative adaptation and problem-solving.

However, this abundance of innovation does not necessarily translate to other contexts as a successful innovation process. As one respondent noted, 'successful in this context [means] innovations that become widespread and enduring', and the majority of such adaptive process innovations do not appear to contribute to lasting positive change in how assistance is delivered. Although this might imply that many good process ideas in the humanitarian sector fail to gain traction and progress, there are other issues to consider. The delivery focus of relief work means that 'transactional' innovations should perhaps be added to the spectrum from incremental to radical or transformational.³ Box 3.3 illustrates these three forms of innovations:

Box 3.3 Varying scope of humanitarian innovations

- Transactional innovations might be those which are driven by needs and
 are often ad hoc, lowering transaction costs or enabling new forms of
 transactions. Because of their highly context-specific nature, there may not be
 scope to disseminate these innovations widely.
- **Incremental innovations** are distinct, scalable improvements made to existing processes, improving efficiency or effectiveness. Despite being framed as 'incremental', such innovations can generate dramatic improvements in key performance indicators such as time and timeliness.
- Transformational (or radical) innovations are long-term, strategic innovations intended to create profound transformation of organisational or industry processes, enabling and embodying new ways of working.

Transactional innovations may happen all the time in humanitarian contexts, and in certain situations might precede incremental or even radical innovations. For example, a partnership with a shelter provider in a relief context can be used to test new products, while also meeting physical needs. This can create a cadre of early adopters for that product. However, sustained R&D for new shelter solutions cannot take place during emergency contexts, but should use the experiences of the emergency to learn more about what can be applied. In this sense, the innovation agenda of relief has much in common with military R&D, and also requires a more strategic and considered approach to relationships in relief delivery – moving away from the model of 'sub-contractors for production' towards one of 'partnerships for innovation'.

Inspired partly by delivery-focused adaptations, several process innovations have been applied successfully within programming and scaled up within the aid system. Process innovations, focused on improving effectiveness and efficiency in humanitarian programming, include a range of efforts to improve preparedness, logistics and supply-chain management.

In the 1980s and early 1990s, as agencies got bigger and humanitarian case loads grew, the capacity to improve response-preparedness increased. This led to several process innovations:

- stockpiles of goods in strategic locations
- pre-made kits and service packs and, if required, the staff to manage them
- emergency-staff roster systems at international and regional levels, in order to strengthen surge capacity
- · risk assessment and contingency planning tools such as scenarios.

Several process innovations have been applied to improve coordination across relief supply chains, including most recently the cluster system which involves a lead agency coordinating sectoral efforts. However, this latter is far from straightforward. As Larry Minear (2002) has argued, one of the most important obstacles to the effective delivery of aid has been a lack of coordination by various organisations within the sector. While most accept the need for more coordination in principle, this has been hard to achieve in practice, with both UN and NGO agencies often jealously guarding their autonomy and continuing to emphasise their individual visibility during crises.

The use of information processes has been a very prominent innovation in the humanitarian system, facilitated by new information and communication technologies - PCs, laptops and most recently mobiles. A range of initiatives focus on gathering and disseminating information across the disaster cycle, such as needs assessments at the outset of an emergency and monitoring during the crisis. These approaches are being continually refined and improved. One good example of innovation in this regard is the Humanitarian Information Centre (HIC), initiated in Kosovo in 1999. HICs are now regularly deployed into the field at the onset of a humanitarian emergency, when requested by the UN Humanitarian Coordinator, and perform a number of functions for the benefit of the relief community. These include providing a neutral platform for the exchange of humanitarian information, producing orientation and operational information, collecting data on 'who's doing what where' and on the beneficiaries, developing and promoting data standards, providing advice and training in information management, supporting needs assessments, and compiling datasets from all available sources. More recently, innovations such as FrontlineSMS and Ushahidi have offered new ways to collect and disseminate information in crisis situations. These new tools are distinguished by the potential for those affected by emergencies to generate and share information – as was demonstrated in the post-election violence in Kenya, where Ushahidi was used to map outbreaks of violence by those affected.

Tools to improve learning and accountability have been among the most strongly supported process innovations. These include standards such as People In Aid (Human Resource processes), Sphere (minimum standards for delivery in five key sectors) and HAP-International (beneficiary accountability), tools to improve programmatic learning such as after-action reviews and real-time evaluations, and tools to strengthen ex-post accountability – or evaluations. This last has been an area of special interest for the ALNAP membership, with efforts made to collect examples of evaluations, to strengthen evaluation practice through quality management principles, and to use evaluations in lessons papers and syntheses of evidence.

One important dimension of accountability is to those affected by emergencies, and there are growing numbers of mechanisms to facilitate improved beneficiary engagement. The work of HAP-International and the Listening Project stand out in this regard. In particular, HAP has been promoting the use of complaints mechanism, enabling stakeholders to voice concerns that international agencies have failed to meet stated commitments. The right to complain and receive a response is seen as an especially important part of being accountable in a humanitarian context, given the power imbalances within relief work. Beneficiary surveys, which can be used both at the needs assessment and impact assessment phases of emergencies, are another important tool which saw use in the tsunami. A recent review of Tsunami Learning identified their use in the Maldives as "deepen[ing] knowledge of important qualitative dimensions of recovery, increasing accountability to affected communities... [overall] one of the most significant innovations of the tsunami response" (UNDP, 2009, p. 12).

There are also numerous approaches to improve the quality of relief processes – perhaps the most comprehensive is the Quality Compass developed by Groupe URD, which combines quality management principles with project cycle management and state-of-the-art software development. Other quality mechanisms that have been applied stem from outside the sector – one good example is the application of ISO 9000 standards of quality management to disaster-response processes – the Swiss government development agency (SDC) for instance has now been certified ISO 9000 for its rapid response work, while the NGO Medair is certified for its entire response operations. The HAP standard uses quality assurance methods to enable self-regulation of relief work in relation to beneficiary accountability.

Most recently, results-based management approaches represent an attempt to bring a results-orientated performance framework into humanitarian work. Performance frameworks are explored in more detail in a parallel ALNAP Study on humanitarian aid effectiveness and performance.

Other process innovations focus less on operational dimensions of relief, and more on supporting elements. For example, the Disasters Emergency Committee (DEC) in the UK can be partially described as a process innovation in NGO fundraising, as can newer UN approaches for pooled funding such as the Central Emergency Response Fund (CERF). Innovations can also develop through a combination of process and product innovations, and several of these are included in the case studies detailed in Section 3.4.

One important form of supporting process innovations from the perspective of this study is the development of processes which themselves focus on generating innovations and new developments. Of the organisations reviewed, a number had attempted to set up innovation funds, with mixed results not least because of a lack of clarity about the definition of innovation. Several organisations were notable for having specific resources and institutional support: *Médecins Sans Frontières*, with its operational research policy to facilitate emergency health innovations; Oxfam GB, with private-sector-supported water and sanitation innovations; and World Vision Canada, with a product and process development function.

Box 3.4 Oxfam's Innovation Priz

In the last two years, Oxfam has begun to offer an 'Innovation Prize' for developments in its water, sanitation and public health work. Ideas were initially solicited from 85 public health workers, asking them to develop short proposals to solving problems related to issues in the field. Initially, Oxfam's Andy Bastable received 35 responses from 18 staff, with efforts made to demonstrate openness to new and unconventional ideas. Staff voted for their favourite ideas, which were then awarded some funding to do additional exploratory research to move the idea forward. More recently, Oxfam received a three-year grant from an American foundation, which is to be used explicitly to develop innovations in water and sanitation. Funds are being distributed in a similar way, with 20 proposals in the first year, of which five were approved and granted \$140,000 for six month exploratory projects developing the innovations (Zollmann, et al., 2009, p. 17).

3.3.3 Position-based innovation

Position-based innovations focus on changes in how a product or process is positioned and communicated in the eyes of potential users or stakeholders. Position innovations relate to changes in the external meaning of humanitarian efforts, and include all the signals that are shared about an organisation and its work – the messaging, marketing and packaging for potential donors and recipients.

Such signals and the way in which they contribute to shared meaning and understanding is of fundamental importance within the sector. The diversity of mandates among the agencies in the sector often means that a single activity can have widely diverging different meanings depending on who is performing it. As suggested in previous ALNAP work (Ramalingam and Clarke, 2008), an ICRC water engineer and an NGO water engineer can both be working to install a pipe, but they do so for very different institutional reasons, with very different meanings associated with their work. While the ICRC takes *principled* positions, affirming the continued relevance, indispensability and centrality of humanitarian principles of independence and neutrality, the NGO might have a more *pragmatic* approach, placing a higher premium on immediate action, service delivery and cooperation with governments and other actors.

Position innovations are those in which humanitarian agencies consciously reframe the meaning of their work in order to broaden its scope or make it relevant in new contexts. Organisations may try to redefine their work in new operational and policy contexts or in response to different opportunities. For example, many agencies delivering aid in Afghanistan draw the line at using such aid for specific political aims, but may see no inherent conflict between their work and that of international militaries (Stoddard, 2003). The post-Darfur increase in protection has featured in agency communications, but some of it can be seen as a re-positioning of relief work, with a number of agencies arguing that they 'offer protection' simply by being present in crisis contexts.

By their very nature, position innovations in the humanitarian sector tend to focus on policy and marketing work, although they may in some situations lead to adjustments in the way in which work is done. The types of innovations cannot be completely separated, as the recent 'good gifts' phenomena illustrated. A number of agencies started to sell products and goods such as goats, cows and bicycles, some

of it explicitly targeted at communities in the post-disaster recovery phase. However, it transpired that these were not in fact direct purchases for specific communities, but contributions to the agency's operating budget. After complaints to the Charity Commission in the UK, the approach was adapted (Dennis, 2006).

Despite the issues raised by such activities, there may well be greater scope for position innovations in terms of marketing humanitarian work, than in the ways that it is delivered – as one analyst has suggested, it is almost inevitable that policy-level innovations are far more frequent than changes on the ground (Killick, 2005). Particular agencies will grow depending on how successful they are in raising money, and so there is an obvious incentive to invest in more innovative forms of fundraising and donor engagement. Of particular note is the increasing use of new digital media tools such as blogs and user-generated films, and most recently the messaging service, Twitter.

Aid agencies also gain credit by the dramatic way in which they are seen to be helping people, and many organisations consciously promote their own visibility during a crisis. Depending on the level of resources available for a particular emergency, this can become a rather intensive process – as the tsunami evaluation identified, agency work was characterised by a 'frenzied self-interest'. Such self-interest and the desire to 'get there first' can often mean that other kinds of innovations, most notably those which focus on quality and accountability processes, get forgotten or consciously discarded.

Work by HPG in the late 1990s highlighted another important aspect of position innovations, which relates to how humanitarian actors position themselves with regards to political processes. The 1990s saw a number of field-based position innovations to develop principled, cross-agency positions that agencies took in relation to belligerents in complex political emergencies. These positions amounted to humanitarian 'conditionalities' – namely, withholding aid in an attempt to influence the behaviour of belligerents. While there are opportunities to promote such innovations in every emergency setting, they are severely limited, and require agencies to be able to understand and capitalise upon existing processes that are already reducing the incentives for abuses among belligerents. Humanitarian action cannot substitute for political action, as the JEEAR concluded, but there may be more scope for positioning relief in relation to changing political dynamics than is currently realised (Leader, 2000).

3.3.4 Paradigm-based innovation

Paradigm-based innovations are the most challenging type, and are generally ascribed to either mental or business models. Mental models include organisational rationale, assumptions and frameworks. Business models include organisational and business strategies and designs, and the workings of the relationship between deliverers and recipients. Paradigm-based innovations can happen at the level of the overall humanitarian sector, organisations or sub-sectors (such as health or shelter).

Recent work led by a Coalition of high level leaders suggest that the humanitarian aid sector is supported by a basic 'business model' consisting of a "default response... largely driven by an international alliance of aid donors, UN agencies, international NGOs and some private sector companies" (WEF, 2008, p. 1). This alliance works to persuade donors – whether institutional or members of the general public – to give money to spend on alleviating acute suffering among those affected by crises. The humanitarian system is not subject to the same pressures as commercial markets or even Western public sectors. Work by the Global Public Policy Institute (GPPI) suggests that the sector can be described as a 'quasi-market', exhibiting an indirect producer–consumer relationship:

'In regular markets, consumers purchase goods and services. In the market for humanitarian relief, however, the consumer – i.e. the aid recipient – neither purchases nor pays for the delivered service. Rather, public or private donors finance the transaction. In other words, there is an indirect producer–consumer relationship: aid agencies are the producers, donors the buyers and aid recipients the consumers. As a result, the market is loaded with asymmetries [and] moral hazards, such as weak incentives on the part of the aid agency to deliver good-quality services efficiently' (Binder and Witte, 2007).

The draft report of the WEF Coalition has highlighted three distinct forms of this model:

the Darfur model of high international agency engagement, as was the case until March 2009 and in much of the tsunami-related work

- 2 a hybrid model in which governments play a larger role, as in the 2005 Pakistan earthquake or 2007 Mozambique floods
- **3** a government-led and national-capacity model, as with the 2008 Sichuan earthquake in China, or the Bihar floods in India of the same year (WEF, 2008).

One of the suggestions of the Coalition was that the second and third of these are more sustainable business models for humanitarian action in the future, and agencies would need to start thinking collectively about how to make these options a reality. This resonates strongly with the primary recommendation of the TEC reports (TEC, 2006). Needless to say, such paradigmatic shifts would call for a number of supporting innovations. In terms of the current study, there are new and adapted products, processes and positions that will need to be in place for such shifts.

What about paradigm shifts at the organisational level? Perhaps the most famous organisational paradigm innovation of the modern era was brought about by the desire of a group of ICRC doctors to break away from that organisation post-Biafra to create a new organisation – *Médecins Sans Frontières*. This was driven by the strong sense that the ICRC could not adapt and change to match the political realities of providing aid in conflict settings with a clear belligerent. MSF's existence can be explained as a paradigm innovation focused on the importance of independence when delivering relief in politicised contexts, and the perceived need to move beyond a principled approach to one which expresses solidarity with affected peoples. This paradigm innovation then needed a series of position, process and product innovations to be fully implemented.

Paradigm innovations can also take place within specific sectors of emergency work. For example, the principle behind the transitional-shelter approach considered in one of the case studies (Section 3.4) is that provision of shelter cannot be seen as solely delivery of a product – such as tents or kits – but as an ongoing livelihoods process supported by international agencies. This paradigm shift itself highlights the kinds of innovations that are needed in order to improve shelter – products are less important than processes.

Because of their very nature, paradigm innovations are among the most challenging to deliver, especially in the public and social sectors, where the dynamics of change may be limited by the bureaucratic nature of the work involved. For this reason, paradigm innovations will always be the least prevalent, despite frequent rhetorical

calls for such changes. Such innovations, whether in the humanitarian sector or outside, often only occur because of serious failures – what has been called the 'catastrophe-first' school of lesson learning (Ramalingam, 2008).

In the aid sector, perhaps the most obvious examples are the high profile failures of aid in Goma in 1994, which led to a number of shifts in the way aid work is undertaken. There are three forms of paradigm innovations which have been called for numerous times in the sector, usually after a major failure.

- Disaster prevention. As an alternative to response, effective disaster prevention and mitigation has been highlighted as means of saving lives and supporting livelihoods more effectively than responding to crises after they occur. The notion that the impact of disasters can be reduced or mitigated is relatively recent. It was the dramatic increase in the damage caused by emergencies in the 1980s that led to the adoption of the International Decade for Natural Disaster Reduction. This global campaign was aimed at sensitising national authorities to the importance of Disaster Risk Reduction, defined as a conceptual framework to "minimize vulnerabilities and disaster risks throughout a society" (UNISDR, 2004). Recent work led by Tearfund and other NGOs has been instrumental in shifting donor policy to bring disaster-risk reduction into their humanitarian work. As a 2005 briefing argued: "There was a time when we did not know where disasters would strike. But today we know which countries are most disaster prone. Flooding in Bangladesh and drought in Ethiopia are hardly a surprise... It is both indefensible and illogical not to help communities prepare for disasters, when very often thousands of lives could be saved by even the simplest of measures" (Tearfund, 2005, p. 4).
- 2 Local ownership and partnerships. The Tsunami Evaluation Coalition called for a fundamental re-orientation of the international humanitarian system around local and national capacities. This is yet to materialise in practice. At least part of the challenge is that such work challenges aid agencies to re-position their work among their major donors, and there is a clear sense that direct intervention is seen as more beneficial to agency profile and visibility than working through partners. Another issue is political this may be appropriate in natural disasters, such as during the Tsunami in Sri Lanka, but could the same principle be applied in conflicts or complex political emergencies, in which national 'humanitarian' actors may be active belligerents? The answers are far from clear cut.

Partnership work with national and local civil society can be an important process innovation, and can itself be the source of much innovation. At the time of writing, it is unclear whether many agencies have shifted from 'international delivery' to 'national capacity-building' when it comes to disaster response. Agencies such as CAFOD, Tearfund and Christian Aid have worked predominately through local structures for much of their existence. But even these agencies are finding it challenging to shift from 'managing implementing organisations' to 'working in partnership with local organisations'. As one interviewee put it: 'it is rare to have a local organisation turn around and say "we want to do this differently" and have that accepted.' This is a clear tension that has been highlighted in other reviews - although the success or failure of aid efforts is profoundly shaped by the extent and depth of local understanding and indigenous knowledge, this knowledge is also systematically undervalued by international agencies. This paradox has implications for how contextualised and relevant international relief efforts can become to specific emergency settings.

Beneficiary participation. One of the most important paradigm innovations called for in the sector is towards the aid recipient as an active consumer rather than a passive victim. While many agencies might support this in principle, the practice still appears to lag some way behind the accepted ideal. There is far more work in this field at the conceptual level than in practice. Recent publications on the Tsunami highlighted that "it was not always easy to ensure community participation, especially as some agencies and organisations sometimes tended to approach the issue with only limited enthusiasm. Many, it appears, tacked on consultations as a programmatic afterthought, and did not approach it as a key component of the project's success. Indeed, several NGOs have acknowledged that mistakes could have been avoided if a more participatory approach had been used earlier on. Many had to readjust along the way to respond to realities and needs on the ground" (UNDP, 2009, p. 12).

Despite increasing efforts in this area, through initiatives such as from HAP International, the CDA Listening Project, the Emergency Capacity Building project and the Fritz Institute, the recipients of aid and their perspectives remain largely outside aid debates and discourse. Aid is often too little, too late or of poor quality. Distribution mechanisms lack transparency and fairness, and methods of aid distribution often deprive people of their basic dignity. There is too much assessment of, and not enough consultation, with beneficiaries. Like Henry ('any

Box 3.5 Disaster-risk innovations save thousands of lives

Cyclone Sidr struck Bangladesh on 15 November 2007 and caused severe devastation and loss of life. The cyclone brought winds gusting to 240km/hr and a 5m-high storm surge which inundated coastal areas. Sidr's impacts on Bangladesh were immense: 3,500 dead and thousands missing, 2 million people displaced and 1.2 million homes damaged.

Sidr was the most powerful cyclone to affect Bangladesh since a storm of similar strength in 1991 killed 138,000 people. Sidr's death toll was far less than that of the 1991 cyclone because of improved storm warnings and because Bangladesh now has a much-improved programme of cyclone disaster prevention. This includes procedures for mass evacuations and the construction of concrete cyclone shelters for use by the most vulnerable communities.

A real-time warning information system known as Tropical Storm Risk provided a range of user-friendly warnings, including email alerts, for tropical storms worldwide. The warnings of Sidr's landfall time, intensity and location were widely used by Bangladeshi humanitarian and government organisations during the 48 hours before impact in deciding when to issue evacuations and to open cyclone shelters.

(Scheuren, et al., 2008, p. 10)

colour as long as it's black') Ford, as cited above, too many aid organisations still operate on the basis that their 'beneficiaries' can have any type of aid, as long as it's what agencies have to give them. This has implications for innovation, as discussed in the next section (3.4).

There have been examples of success stories which bring together each of these elements of disaster prevention, local ownership, national capacities and beneficiary engagement. Perhaps the most striking example at the time of writing was the work in Bangladesh prior to Cyclone Sidr of 2007 (Box 3.5).

Another example of national response innovations was in Mozambique, where in 2006 the government adopted a national master plan for disaster preparedness. This

involved comprehensive and wide-ranging assessment of vulnerabilities, the relocation of coordination responsibilities from the Ministry of Foreign Affairs to the Ministry for State Administration, and a determination to 'avoid running to international donors without first exhausting national capacities' (cited in Foley, 2008, p. 198). One key innovation, borrowed from the Guatemala response to Hurricane Stan and Mitch, involved a series of operation rooms in disaster zones that were the hubs for all participating agencies, improving coordination and communications (Foley, 2008).

3.4 Case studies and innovation processes

To explore the potential and limits of innovation in the humanitarian sector, research for this study included five case studies, and interviews with a range of informants at field and policy levels who have developed, used and evaluated innovations. While innovations can take place at any level, we decided to concentrate on innovations in the delivery of humanitarian assistance, rather than those focusing *solely* on support, policy or analytical approaches. In terms of our definition, this means looking at processes which focus on the creation and implementation of new or improved products and services, processes, positions and paradigms... that result in improvements in efficiency, effectiveness, quality or social outcomes/impacts.

The five-phase innovation process was the primary focus of case-study research, concentrating on the process that led to the emergence of the new idea or practice in a humanitarian context, as well as its subsequent development and dissemination. Each of these phases is explored with reference to the five case studies.

More details on the case studies are outlined below.

3.4.1 Introducing the case studies

Cash-based programming in emergencies

The provision of cash to those in need of material assistance in emergencies has a long history. Clara Barton, a founding figure of the American Red Cross, helped organise cash relief following the Franco-Prussian War in 1871, and in response to the Galveston floods in Texas in 1900 (Harvey, 2007, p. 9). However, over the last decade the perception of cash-based work in humanitarian relief has shifted dramatically – from 'radical and risky' to a mainstream programming approach. The rise of cash programming and how related practices have been diffused are of particular interest for this study.

Seen by some as the epitome of humanitarian action, food aid represents the largest proportion of relief aid, accounting for over half of all contributions to UN appeals between 2000 and 2006 (GHA, 2008, p. 27). Despite this ubiquity, or perhaps because of it, there has been longstanding and widespread dissatisfaction and critique of the large-scale distribution of food – and in-kind goods in general – as a default response during humanitarian crises. While it doubtless saves many lives, it is also perceived to have been over-used, irrespective of need and context. The drivers of food aid are political and economic as well as humanitarian, with the needs and wellbeing of food-aid recipients being just one of number of competing and often incompatible interests (Barrett and Maxwell, 2005)

The rationale for the use of cash by international agencies dealing with crises was made powerfully in Amartya Sen's work on entitlements in the early 1980s, which demonstrated that often food insecurity is caused not so much by inadequate food supply but by inadequate purchasing power (for example Sen, 1982). A few humanitarian agencies attempted to develop cash-based programming in emergencies in the 1980s; there were a number of positive efforts, but these were relatively small scale and ad hoc. Certain individuals, mainly researchers, had championed the idea in the late 1980s and early 1990s. In 2000, a groundbreaking research study conducted by the British Red Cross noted:

'the practical experience so far, limited as it is, provides evidence that direct cash distribution, in the right circumstances and with careful planning and monitoring, can be more timely, less costly and more empowering to local communities than traditional food distribution' (Peppiatt, Mitchell, and Allen, 2000, p. 3).

However, the same report noted agencies' reluctance to adopt cash distribution, attributing this to institutional incentives and inertia that perpetuated the dominance of food aid, combined with a paternalistic perception that cash was not feasible because recipients could not be trusted to spend it effectively.

Although it is difficult to pinpoint exactly when or where cash programming passed into the humanitarian mainstream, several important events and initiatives coincided in 2004 and 2005. The Indian Ocean tsunami of late 2004 led to money becoming available to implement more cash programmes, and to document them and promote learning activities to embed practice. A series of HPG reports on cash programming built on the earlier Red Cross research, using evidence from the tsunami response and elsewhere, and helped to bring cash to the top of the policy agenda. Work by the Red Cross and Oxfam provided guidance on the practice of cash programming. Building on all this, more agencies began to implement cash programmes.

The successful dissemination of cash-based programming was indicated as a key element in the re-positioning of a major actor in global emergency food aid. As the World Food Programme (WFP) strategic plan for 2008–2011 noted, the agency was seeing "a historical shift from WFP as a food aid agency to WFP as a food assistance agency" (WFP, 2008, p. 3). Cash is the broadest of all the case studies considered in this chapter. Cash programming brings together a product (cash or vouchers) with new processes (for distributing cash), and at its most innovative is also a new position (what agencies actually do in emergencies) and a paradigm-shift in how humanitarian assistance is undertaken (in relation to the perception of beneficiaries as active participants). Cash programming can also be applied within every sector of humanitarian relief – food, shelter, health, and water and sanitation.

Community therapeutic care for malnutrition in emergencies

The treatment of severe acute malnutrition (SAM) in emergencies has traditionally taken place largely through specially constructed therapeutic feeding centres (TFCs), built 'in the field' by agencies. The treatment offered by TFCs is on the whole very good for those who receive it, but there were a number of problems with the model. The centres are expensive, difficult to establish, require extensive and sustained

external support, and have been found to be inflexible in the face of diverse contexts. The highly medicalised and self-contained structure of TFCs means they offer little scope for patient involvement and they can disrupt or undermine often fragile local health structures. Because they are highly dispersed they offer poor coverage for rural communities, with mothers or whole families often having to walk long distances to receive treatment for one child. This is at best a high opportunity cost, and often simply impossible, due to conflict or culture.

Community therapeutic care (CTC) provides an alternative community-based model for the delivery of care to malnourished people, based on the distribution of ready-to-use therapeutic food (RUTF) to families, to be used for treatment within the home. It seeks to provide fast, effective and cost-efficient assistance in a manner that empowers the affected communities and creates a platform for longer-term solutions to the problems of food security and public health (Collins, 2004; ENN, 2004). CTC is relevant for those experiencing 'severe acute malnutrition without complications' – itself a new categorisation that has been described as an analytical innovation.

This approach became possible because of a new product, Plumpy'Nut, a peanut-based RUTF which met the required nutritional and calorie specifications, and was durable and flexible enough to be used in outpatient programmes. As highlighted by a number of respondents to this study, special foods designed for therapeutic feeding in emergency situations were not new. The Oxfam High Energy Biscuit for example was the first 'famine biscuit' to be specifically developed and produced on a large scale. At the time (1983), it represented a real innovation in therapeutic feeding as it overcame the problems of availability of clean water and fuel for cooking, and hygiene issues. However, at the heart of community therapeutic care was the combination of a product (Plumpy'Nut) with a community-based alternative to the TFC process, and a new definition of severe acute malnutrition, enabling greater reach and scale of treatment.

In May 2007, a Joint Statement by the World Health Organization, the WFP, the UN System Standing Committee on Nutrition and UNICEF endorsed the community-based management of severe acute malnutrition (which had been rebranded CMAM), stating that, "properly combined with a facility-based approach for those malnourished children with medical complications and implemented on a large scale [CTC] could prevent the deaths of hundreds of thousands of children" (WHO et al., 2007, p. 2). CTC programmes are now being expanded outside emergency settings, to help treat people with HIV/AIDS, and the peanut paste is being marketed as a

commercially available food product. CTC, then, is a combination of product, process- and position-based innovation. When the full community-based process is employed, this also represents a paradigm shift in how relief is undertaken.

The shelter sector and the transitional shelter approach

The provision of shelter to those affected by conflict or disaster is a much-maligned element of humanitarian response. The Tsunami Evaluation Coalition referred to it as the Achilles' heel of international humanitarian response. A recent report for OCHA noted that, in the past 25 years, "innovations in post-disaster shelter and housing have been limited" (OCHA, 2006, p. 22). This finding stands in stark contrast to the huge number of product innovations presenting 'solutions' to the problem of emergency shelter over the same period.

As one respondent observed:

'we get contacted by [would-be shelter innovators] every week or every month. And they're often very insistent or very pushy. They usually have never met a refugee and never worked for a humanitarian organisation. But they somehow have found the answer that everyone else has missed for the past decade.'

The scepticism about this deluge of product-based innovations was one of the few points of agreement among the experts consulted for this study. This stems at least partly from the widespread view, expressed by Ian Davis in 1978, that "shelter must be considered as a process, not as an object" (Davis, 1978). While this view remains pertinent today, it remains challenging to put into practice. A 2002 report by the shelter project (an informal group of physical planners and shelter specialists associated with the University of Cambridge, later the Shelter Centre) notes:

'the nature of transitional settlement response has been misunderstood throughout the evolution of the aid community as being the physical shelter needs of the individual... This, when combined with insufficient legal mechanisms to support transitional settlement as a human right, has undermined the development of the sector' (Ashmore, et al., 2003).

In 2006, a USAID-InterAction report suggested that the shelter sector was undergoing a period of change in terms of both guiding conceptual frameworks and resources (InterAction and USAID, 2006). A number of those interviewed concurred, suggesting that the 'transitional settlement approach' was an important innovation, shifting the common conception of shelter from an object (such as a tent) to an overall process and thereby bringing real improvements in how humanitarian agencies approach and implement shelter programming. The transitional settlement approach was developed and defined through a peer-review process initiated by the shelter project, with an early report in 2002 followed by detailed guidelines in 2005. The approach calls for agencies to extend beyond their traditional, limited focus on the provision of tents and camps. It emphasises the need for transition to durable settlement solutions and local development.

The transitional shelter approach was implemented during the tsunami response. This experience suggests that, if there is a wider understanding of the settlement options selected by the entire affected population, and where appropriate these are supported, "additional opportunities emerge for coordinating the transition from shelter to housing" (Shelter Centre, 2006, p. 1). The use of transitional settlement enables agencies to take a holistic approach to providing shelter assistance for those displaced by conflict and disaster. It can support both communities and infrastructure, cutting across other sectors such as water and education, and taking a broad livelihoods-focused approach. This:

'widens the understanding of shelter to include support to all of the settlement options chosen by affected populations, including host families, rental accommodation and, where necessary, camps' (ibid).

Used effectively, transitional settlement approaches provide a means of moving beyond failures as seen in Kosovo, where only the relatively small number of displaced people in camps were recognised and assisted by the international community.

The transitional shelter approach does in principle offer a new paradigm and position for shelter work, which in theory changes the processes involved and helps to shift agencies away from a short-term product focus. However, at the time of writing (mid-2009), the approach is still somewhat contested, with much confusion

about terminology and meaning. From an innovations perspective, these issues have to be considered, as do the wider dynamics affecting shelter work in emergencies.

Mobile technologies in emergencies: World Vision management of food aid

Recording information about aid recipients and the aid they receive is an important factor in programme quality and accountability. Use of mobile technology solutions that combine portable electronic devices (i.e. handheld computers/PDAs) with software applications and wireless connectivity to streamline data collection, and analysis of the information once collected, is widespread in logistics and transport companies across the private sector. For one senior manager at World Vision, using the simple barcode-based self-check-in desk at an airport led him to question why the same process couldn't be applied to food aid distributions, allowing for better data collection and a more efficient process in the 'last mile' of World Vision's food aid operations.

This led to the Automatic Identification and Data Collection (AIDC) project, a "systematic effort to leverage innovative technology and business practices within World Vision's last mile humanitarian programming" (Narhan, 2008, p. 2). This led to a hardware and software system using mobile barcode-scanners to manage the identification of recipients and the allocation of food. The technological solution was developed in close coordination and over an extended period with a private-sector partner contracted initially in a competitive tender process. After a detailed analysis of World Vision's particular and diverse needs, and the context in which they worked, the contractor developed a platform for use by World Vision field staff working in food monitoring. During the pilot, conducted in Lesotho and Kenya in 2008, food recipients were issued with photo identification cards, containing a barcode for automated recognition.

One senior manager at World Vision Canada described the benefits:

'while the manual process of identifying the beneficiary on the master beneficiary list; calculating the ration size and filling out/issuing the ration card with signatures took an average of 2–3 minutes... the same process took only 20–30 seconds by using the handheld device and bar-coded picture ID that was issued to the same beneficiaries by WV prior to the distribution. In this process, the beneficiary shows his/her card to the WV

food monitor with the handheld device; it scans it; the picture shows up of the ID holder on the screen so the monitor can verify identity; then the computer automatically calculates the ration size based on existing master beneficiary report in the database' (Farkas, email correspondence, quoted in Carr, 2008, p. 9).

The evaluation of the pilot conducted in the autumn of 2008 concluded that, while attention to outstanding technological issues was needed before further scale-up, "implementation of handheld devices by World Vision in food programming will be of significant value" (Carr, 2008, p. 48). The pilot phase has already made a significant impact on humanitarian work, with approximately 25,000 food insecure beneficiaries in Kenya and 4,000 in Lesotho benefiting from this project.

Mobile technologies in emergencies: Concern Worldwide cash distribution in Kenya

The post-election violence in Kenya of January 2008 left communities in the Kerio Valley in the west of the country without police presence to protect them from cattle rustlers, leading to the loss of livestock and livelihoods, and widespread displacement. In March 2008, Concern Worldwide began to provide emergency food support to all affected households through the Catholic Diocese of Eldoret. However, carrying and distributing food in this remote area proved to be both costly and insecure; and, as is often the case, food was available in local markets, but those in need had no money to buy it.

Mobile cash transfers were suggested to overcome the challenges posed by the terrain and the security situation. The primary added value offered by mobile technologies was that they allowed Concern to externalise the risk associated with handling large sums of cash to a private-sector partner with specific expertise in money-transfer processes and technologies. In addition, the use of mobile devices enhanced the scope for information transfer and communication with and between beneficiaries.

M-PESA is a nationwide electronic cash service in Kenya, developed by Safaricom and Vodafone, that allows people to transfer money via SMS (Short Message Service otherwise known as a 'text message') using a mobile phone. The service does not require users to have bank accounts – an important consideration in Kenya which has low penetration of financial services. Users register with an authorised M-PESA

agent by providing their mobile number and their identification card. Once registered, the user can buy digital funds from any M-PESA agent, and the recipients can redeem it for cash at any M-PESA outlet. M-PESA was designed to transfer cash between individuals, with daily transfer limits imposed on costumers for security. For the pilot, Safaricom and Concern jointly developed a system for the bulk transfer of funds to multiple recipients. The female head of each household was issued with an M-PESA-enabled SIM card.

The project evaluation found that the 'M-PESA system is particularly attractive in that it offers a solution to one of the biggest problems facing NGOs involved in cash transfers – that of ensuring security of cash while being counted and transported', and:

'it appears that the pilot had a strong impact on beneficiary empowerment and sense of dignity. Use of a process which required beneficiaries to interact with new technology transformed them from benign recipients of aid to the active participants in a process. The provision of phones, SIM cards and chargers also gave recipients an opportunity for communication that they had never experienced before' (Brewin, 2008, p. 5).

The pilot has now been scaled up and is targeting about 44,000 poor and vulnerable people; 4,220 mobile phones and 800 solar chargers have been distributed. Both this innovation in Kenya and the World Vision system in Lesotho and Kenya, described above, involved process and product innovations within existing paradigms for cash-based programming and food distribution, respectively.

3.4.2 Innovation in practice, from recognition to dissemination

Learning from each case study is presented here, in terms of the five stages of innovation process (as outlined above in Section 3.2.3): recognition of a problem or challenge and related opportunity for innovation; invention of a solution or idea; development of the innovation; implementation of the innovation, and diffusion of the innovation.

Recognition of a problem and opportunity for innovation

In all five cases, the recognition of a problem or challenge and the related opportunity for innovation arose dynamically through interactions between a variety of people working inside and outside the humanitarian sector. Usually, this recognition was in response to a particular incident, problem or systemic weakness. The recognition involved not just perceiving the problem but also re-framing it in a way which led to the process of seeking or creating possible solutions.

In the innovation of cash-based programming, there was widespread dissatisfaction with the previously dominant response models. The problems with food aid had been analysed, and previous attempts had been made to find new approaches, including the use of cash. The decision to research the feasibility of cash was an important step in the recognition of the problem and the potential opportunity, and was taken first by the British Red Cross. When consulted for this study, one of the authors of the 2000 Red Cross study report suggested that the motivation was to make the perspectives of food-insecure communities more prominent:

'much of the thinking that underpinned humanitarian endeavour in the 80s and 90s had been linked to the notion of charity and not trusting the poor. There were also compelling economic reasons linked to grain mountains and food surpluses in the US and the EU. It therefore made both good moral sense and good economic sense to feed the hungry. Everyone was happy – except the food insecure communities, who often needed cash.'4

With community therapeutic care, recognition of the problem took place over a number of different humanitarian responses in the experience of the originator, Dr Steve Collins. He had been setting up such centres for many years, and faced a particular but not unique situation in Southern Sudan during the famine of 1998, where it became physically impossible to respond to the scale of the challenge through therapeutic feeding centres. This experience triggered the sense that things could be done differently.

In the shelter sector, the major blockage preventing performance gains had long been recognised as the entrenched tendency of those implementing shelter programmes to view the problem as one of material needs, leading to the 'myopic' distribution of tents or tarpaulins, and indeed the prevalence of ever-more exotic product-based innovations (see Davis, 1978, Box 1, which also highlights the

contribution of Fred Cuny). The wider problems faced by displaced people, and their own coping strategies, were frequently ignored. The transitional settlements approach is innovative in that it not only recognises this but seeks to translate this recognition into programmable strategies building on existing capacities. The potential of the approach was identified, and the scope clarified, through the work of an informal group of sector specialists (Ashmore, et al., 2003).

In the case of World Vision, the inefficiencies of registration and aid distribution were also well known, and the maturity of mobile technologies presented a new opportunity to improve practice. This was not the first attempt by an agency to use similar technologies; World Vision was aware of this and learnt from the failures of previous efforts which had not moved beyond a pilot. As one senior manager explained:

'we should always assume that we are not the first one who came up with the idea. Instead we should rather ask the question: what prevented the others from making it happen/or taking it to the next level?' 5

For Concern, the challenge was an immediate, pragmatic one – the limitation of a particular programming environment – leading to the use of an innovation from another sector. The idea of using mobile transfers came from a poster in the staff room in the Nairobi office of Concern Worldwide, where the senior managers had been discussing the problem of emergency response in Kerio Valley. They realised that mobile cash transfers could be a way of overcoming the challenges posed by the terrain and the security situation.

Overall, the process of recognition varied considerably across the case studies. Some were more straightforward – the technology cases in particular. The cash and transitional shelter ideas had a more convoluted development. The realisation of the problems with food aid were widespread but recognition of the opportunity for cash as an alternative grew more slowly and in a dispersed manner. Similarly, transitional settlement approaches had their genesis in the 4970s, but guidelines were not published until 2005. In some cases, the recognition of the problem may be so entrenched that the problem is seen as an integral part of practice. There are also many people with the ability to recognise problems, but fewer have the latitude or resources to initiate a process of invention.

Invention of a solution to the problem

Once the problem has been recognised, analysed and interpreted, the next step is to invent a new way of doing things. This is usually through some combination of analysis, interpretation, discussion and — most importantly – the creative generation of ideas. With cash-based programming, the solution was not itself new but it was freshly articulated in terms appropriate to the framework of humanitarian assistance – challenging negative perceptions of passive 'beneficiaries' and showing the similarities between cash programming and other approaches such as vouchers. Given the inventiveness of relief practitioners, much of the invention process here was actually documentation of things already done. This was not so much an invention as the consolidation of previous efforts.

Steve Collins, then working for Concern, gradually developed an alternative for therapeutic feeding which maintained the management of severe acute malnutrition within communities. He developed the idea working as an independent consultant for a variety of agencies, implementing feeding programmes in emergencies throughout the 1990s. In 1999, with a business partner, he started Valid International in order to create a vehicle to develop the innovation further. The method combined a community-based process for delivering nutritional therapy, which placed the family at the centre of the process, with a new food product durable and nutritious enough to be effective and practical in community settings in harsh environments.

From one perspective, the process of inventing the transitional settlement approach took over thirty years, from the initial recognition that shelter should be a process, not a product, to the 2003 outline of transitional approaches and key principles by the shelter project, seen as the "first phase in the development... of field guidelines to support response to the transitional settlement needs of those displaced from their homes by conflict and natural disasters" (Ashmore, et al., 2003, p. vii). As one respondent observed, shelter provision needs 'the proper application of well-established principles' – which was central to developing the transitional approach.

Interestingly, the general attitude towards invention processes in the shelter sector was that they were highly problematic. Most respondents cited the high number of technological shelter solutions developed far away from relief contexts and with little consideration of the people who would use them. However, some technical shelter

innovations were seen as useful, especially incremental improvements in the design and delivery of immediate emergency shelters.

In the two cases involving mobile and handheld technology, a high level of specialised knowledge was required for their successful application in humanitarian response, and accessing this was a potential barrier to the innovation processes. In the World Vision case, a new technology was central to the innovation, but it did not drive the process. This is significant because of the widely cited tendency for technological innovations, especially those from the private sector, to be 'solutions looking for problems'. As one participant put it, this often means that specific humanitarian problems will not be resolved – as the old adage has it, 'if all you have is a hammer, every problem becomes a nail'.

In the invention process of using mobile technology, effort was first made to ensure that those with the capacity to invent new solutions – in both cases, private-sector specialists – fully understood the humanitarian problem in very clear terms. This is perhaps especially important with regard to mobile technology innovations because of the sheer range of their potential use by humanitarians. For both World Vision and Concern, then, reaching outside the organisation and creating partnerships with knowledgeable private-sector technology specialists was essential in progressing the innovation process, bringing in the expertise and capacities to deliver practical solutions.

Across the cases, the factors involved in the invention stage were broadly similar, and included effective networks, brave leadership, good internal capacities, partnerships with the private sector and academia or research institutes, and the availability and understanding of appropriate technologies and tools. In common with social innovations, the invention in these cases did not necessarily generate wholly new things, but instead provided combinations, compilations or hybrids of existing products, processes, positions and paradigms.

Development of the innovation, using plans, guidelines or new organisational models

Despite longstanding theory and positive field evidence, the application of cashbased programming was limited for many years. In the mid-2000s, changing environmental factors, particularly the steady rise in food prices, and the availability of funds in the tsunami response, encouraged the development of cash-based programming. Also important was the emergence of a dispersed group with field-based experience who began to explore in more detail the possibilities for cash programming, and address the particular concerns of sceptics. Many interviewees cited the work of the Humanitarian Policy Group (HPG) as crucial in providing practical information for field staff, and in persuading a number of agencies to initiate their own projects.

With CTC, the first development was driven by necessity in 2000, when Ethiopian regional authorities banned TFCs as a response to the unfolding famine; therefore malnourished children could be treated only as outpatients. This was the first incarnation of CTC, and its clinical effectiveness, at the individual patient level, was as good as if not better than that achieved in TFCs. Over the course of 2000 and 2001, Valid International worked with Oxfam, Concern and Save the Children UK to test the model in different situations. This success led to a much larger Save the Children programme in North Darfur, supported by Valid. In 2002, Valid formalised the CTC development process, and Concern Worldwide agreed to fund a three-year programme of research and development. This was explicitly framed as a partnership to provide the evidence to change international policy on severe acute malnutrition.

The development of the transitional settlements approach was partly made possible by the establishment of the Shelter Centre, which has both a convening power and a capacity to produce research and guidelines for those implementing shelter programming. In the World Vision case, the desire to adopt a technological solution meant making the space for the private-sector technology specialists to develop a process for testing with field staff, with the results feeding into the final design. In the Concern case, security concerns meant that small-scale trial runs were necessary, but risky, and again demanded good links between the field staff and local partners, and the space for creative and open discussions. In both of these technology cases, the agency did not expect to find 'off-the-shelf' technologies but was prepared to work with private-sector partners to develop tailored solutions.

Development in each of the five cases highlights that innovation processes are not linear or predictable. In each case, there was a process of adaptation and change, and solutions were not fixed but dynamic and remodelled based on testing and feedback. Development activities that involve trials and practical testing are likely to be more credible. However, the development stage is when the innovation starts to move away from those who invented it, towards those who will have to change as a

result of it. This phase might see a narrowing of the scope of an innovation, from a creative idea towards something that is practically implementable. In many situations, the development of toolkits or guidelines can be seen as the end of the innovation process – as one participant suggested, it is easier to fund a publication on a new approach than to implement that approach. This lack of continuity carries serious implications for the ability of innovations to address the issues that triggered their development.

Implementation, often using pilots and subsequently scaling up

Implementation of cash-based programming was widespread in the mid-2000s, and cash-based responses played an important role after the Indian Ocean tsunami. The Thai, Sri Lankan, Indonesian and Indian governments provided cash grants to those affected, in response to international donations that were largely in kind (Harvey, 2007, p. 7). Some cash projects were implemented as part of the international response, and some were very large – such as the Mercy Corps project in Indonesia which distributed over \$1 million a month to nearly 18,000 people at its peak (Doocy, et al., 2006). One particularly valuable mechanism was a tsunami-based cash learning initiative, forming a community of practice connecting those implementing cash programmes in several countries. Elsewhere, international responses have included cash as an alternative to food aid or to temporary shelter in camps, or as support for families hosting displaced people; large-scale cash-for-work projects and cash grants have been used to enable people to rebuild livelihoods (Harvey, 2007).

In addition to the positive early results from CTC, champions in ministries of health were also vital in its implementation. NGOs wanted to trial it, but the early projects were dependent on national nutrition experts giving permission to move away from WHO guidelines on treating severe acute malnutrition. By 2006 Valid had data for 24 programmes of CTC in Malawi, Ethiopia, and Sudan, between 2004 and 2005, and was able to publish data showing case-fatality rates of 4.1 per cent among around 24,000 severely malnourished children, with 74 per cent of these treated solely as outpatients; a death rate lower than those associated with traditional treatment models (Collins, et al., 2006).

All of these projects were documented as part of the ongoing research and development effort, so the implementation and development phases could be seen as iterative and intertwined (ENN, 2004). Over the years, Concern and Valid

meticulously recorded and documented the development of CTC. They have jointly published a field manual for practitioners (Bahwere, et al., 2006) and a supplement for the Emergency Nutrition Network newsletter (ENN, 2004). Collins has written a paper for ODI's Humanitarian Practice Network on the innovation (Collins, 2004), and crucially CTC has featured in peer-reviewed medical journals such as the *Lancet* (e.g. Collins, 2001; Collins and Yates 2003; Collins, et al., 2006).

As was the case with cash-based-programming, the 2004 tsunami led to available funds that allowed for growth in the implementation of transitional settlement, with large-scale use in Sri Lanka and Aceh, Indonesia. This programme highlighted "clear advantages in approaching settlement and shelter as a process involving the people who will use them, rather than as objects or products to be built, turned over to the recipients and left behind" (Kennedy, et al., 2007). However, it does seem that a chronic lack of capacities across the various actors in the shelter sector has slowed the wider implementation of transitional approaches. As one analyst put it:

'thirty years after Ian Davis originally espoused this notion, it is rarely implemented in the field. Instead, transitional settlement and shelter is often considered to be part of non-food item distribution, rather than as an ongoing exercise in supporting livelihoods, health and security needs. Rather than a lesson learned and accepted, it is still one to be relearned and implemented' (Kennedy, et al., 2007).

Typically, new approaches were implemented through pilot projects, which are usually extensively evaluated and further developed before they are scaled up. In the case studies discussed, some interviewees criticised the length of time spent running and evaluating pilot projects. The key lesson from the World Vision case was to keep the pilot period short and plan for rapid scale-up, to ensure momentum. From this perspective, the increased use of evaluations and programme reviews may sometimes be perceived as a bureaucratic hindrance, but does also provide an important source of new data on the effectiveness of innovations, which are crucial for further development and preparation for appropriate scale-up.

One interviewee suggested that the standards demanded of new pilots were more onerous than those used to evaluate existing projects, which involved more traditional approaches. For example, the demand for market analysis as part of cash-programme assessments was not found to the same degree with food – despite the

fact both may affect markets. Other interviewees felt that the sector had moved reasonably rapidly once the benefits of an innovation had been proved. One view criticised the continued description of projects as 'pilots' when in reality they were full programmes.

The move to wider implementation is the mark of success for the implementation stage, but this is not automatic. Even the most effective innovations tend to require further refinement and sometimes considerable improvements before moving from pilot to scale-up. For both Concern's use of M-PESA and World Vision's use of handheld technology, this has been the case. Concern is now rolling out the project across its entire Kenyan early recovery programme, and World Vision is completing requirements mapping for full expansion of the handheld system across all of its food projects. In both cases, the pilot evaluations highlighted strengths but also issues that needed re-working and areas for further development before further scale-up.

Some respondents expressed concerns about the ability of agencies to scale up projects from the pilot stage. There was a view that organisations often failed to think through the strategy of approaching and following up after pilots. One interviewee observed, 'innovation is OK at small scale under controlled conditions, but the implications of scaling up were not even being considered'.

Diffusion of the innovation beyond the original setting

In the case of cash-based programming, the work of 'headquarters personnel' was critical to its dissemination, as theirs was the only position from which the advocacy work with specific donors could be done. However, several field-based interviewees expressed some frustration with the slowness of their own headquarters staff in promoting the innovation, and the lack of support provided to those on the 'front-line'. One interviewee said:

'I have been promoted several times over the past few years and now have access to far more contacts and information than I did when I was a programme manager. [From the perspective of innovation] it would have been far more useful if I could have been brought into these [head office] discussions back then.'

With CTC, Steve Collins suggests that:

'some of the big agencies were reluctant to accept change because their model gives the agency itself a higher profile. They bring out lots of expatriate staff, put their flag on top of a big tent and get an opportunity to promote themselves'.

Others dispute this rationale, but accept that some agency staff were initially sceptical about whether community-based care could be carried out safely. Agencies that admit they were slow to adopt CTC, such as MSF, have since run advocacy campaigns to popularise adaptations on the CTC model (MSF, 2008a). According to one MSF senior staffer, the organisation decided to start implementing this approach as soon as the evidence indicated that it could be at least as effective as traditional therapeutic feeding methods in some circumstances.

In contrast to cash-based programming, transitional settlement seems to have failed to benefit from widespread dissemination, although both innovations gained ground in the tsunami response. This may be because the transitional approach is attempting a paradigm shift, which is challenging for many agencies. It may also be related to the challenge of shelter capacities, and the fragmentation, contestation and lack of common and clear terminology in the shelter sector (Saunders, 2004) has adversely affected the development of transitional settlement. In some cases, this confusion has led agencies to see transitional shelter as another product to be delivered:

'fundamental strains and deficiencies are evident. The limited presence of shelter experts within humanitarian organisations and insufficient numbers of external consultants have led to shelter decisions increasingly being made by generalists ill-equipped to do so. A lack of reference materials and resources, and the absence of agreed upon standards and definitions further undermine the capacity of the sector' (InterAction and USAID, 2006).

The capacity to collate and distribute information from experienced focal points was key to creating consensus and facilitating the wider spread and uptake of both cash-based aid and CTC; this capacity is lacking in the shelter sector. The work of the Shelter Centre and the Shelter Cluster is starting to address this, and there is a clear sense of momentum.

With the World Vision case, the evidence of success played a key role in disseminating the innovation, as it made a powerful argument for changing existing practices, based on the time savings that could be achieved in distribution. World Vision also employed a simple but powerful communication tool, using a comic strip format to show how food aid used to be, and how it was improved as a result of the innovation. The World Vision project is now completing requirements mapping for full expansion across all of World Vision's food projects, currently over 40 million beneficiaries in over 30 countries. In addition, World Vision is working with WFP to refine the existing innovation for application within targeted feeding programmes and has begun discussions on the inclusion of WFP's needs in the scale-up plans over the next few years across additional food programmes.

Concern has actively published and disseminated its use of M-PESA, and the innovation was highlighted in the *HPN Exchange*, an information-sharing publication facilitated by ODI (Datta, Ejakait, & Odak, 2008), in the IRIN email newsletter (IRIN, 2008), on *You Tube* with video documentation, in an OCHA Kenya emergency coordination meeting, and at Strathmore University's Annual ICT Conference. These together led to interest in the innovation and how it could be used elsewhere. Internal champions also played a role in marketing, as did the private-sector operators involved in designing the technical solution.

The spread of cash-based programming demonstrates a particular facet of the dissemination process: that an innovation is constantly modified and shaped as different groups adapt it for their needs or circumstances. The adoption of M-PESA, a private-sector innovation, by Concern to implement a cash programme is a striking example of this. As the innovation is scaled up, it may raise questions for agencies. Some have argued that by challenging the 'truck and chuck' model of humanitarian action, based on the distribution of goods such as food, blankets or tools, cash-based programming fundamentally challenges the business model of established agencies. This must be addressed to avoid restricting the wider uptake of cash-based approaches. Similarly, CTC and transitional shelter approaches challenge existing paradigms of humanitarian work, and require re-positioning of relief work, as well as new processes and products.

There have been projects which seem to implement the innovative approaches illustrated in the case studies, but not in ways which challenge the existing models. The use of cash programmes which do not build on effective community participation, and the use of 'transitional shelter' as a product to be distributed, are two

clear examples identified in this study. Where scaling up has happened, the capacity for agencies to advocate at an institutional level and across capitals was also seen as important in creating the momentum needed for cash programming to gain major buy-in from key actors. This highlights the fact that scale-up is an essentially political process, and requires astute policy entrepreneurs to navigate its complexities.

3.5 Reflections: contextual factors influencing innovations

The case studies above show that the wider contextual factors that supported the different innovation processes are highly variable and context specific. However, reading across the cases, some common elements stand out, and three are of special interest here: capacities, relationships, and sectoral dynamics and wider political contexts.

3.5.1 Individual and organisational capacities

We look first at capacities of innovative entrepreneurs and leaders, of field personnel and technical experts, and at organisational capacities in research and evaluation.

Entrepreneurs and leaders

The case studies highlight the importance of key individuals motivated by their specific experiences who became champions of a particular innovative approach. Sometimes this was within delivery agencies (such as with cash and the British Red Cross, and the individuals who then implemented cash programmes), and sometimes within other organisations (such as Valid, ODI-HPG, the Shelter Centre, independent consultancies and private-sector operators working with World Vision and Concern). A number of motivated individuals had to work within and across delivery agencies in order to move ideas to wider implementation and diffusion. This included individuals who were classic iconoclasts, such as Steve Collins of Valid, and those who carefully documented and captured experiences, such as with Paul

Harvey at ODI-HPG. Of particular importance seems to be the presence and engagement of practitioners with extensive field experience who are then able to step back and look at the bigger picture.

In both the technology and CTC cases, leaders willing to 'think outside the box' were essential. In each technology case, a leader made a useful connection between a technological application in a different context (an airport check-in for World Vision, and salary-payment systems for Concern). These same leaders then played the role of 'innovation entrepreneur', championing the innovation process through the mobilisation of resources and people.

Field staff and technical experts

A comparatively small number of humanitarian aid workers stay in the field for their entire careers, which can leave relief organisations over-reliant on their few most experienced staff. The turnover of field personnel is high, which can help to spread innovation and bring a constant flow of new and fresh perspectives, but also means that organisations lose accumulated knowledge. There is an interesting tension between the idea of the 'innovator' and that of the expert. Within many relief agencies, the 'experts' are those people who are trusted, who have a lot of experience, and who may well be wedded to particular approaches or ways of doing things. In a number of cases, 'experts' are disdainful of challenges to orthodoxy, and can be threatened by innovators.

For innovation processes to work effectively, both kinds of people need to be able to communicate and work together effectively. In some cases, this means that people with an understanding of the old and the new are needed to work as intermediaries. Such intermediaries have the ability to make the case to both sides and to nurture mutual trust. For example, by combining both information technology and development/humanitarian programme design skills and experience, one of the key architects of the World Vision case was able to focus the technology development on the end users and the clients (i.e. food aid recipients), while also fully understanding the strengths and limitations of technology solutions.

The mobile-technology cases also highlight the importance of 'reflective practitioners' able to work constructively with external teams and with people with different perspectives to think through the flaws in existing approaches. In the World Vision case, this consisted of teams at field level, while in Concern it was two

individuals at the director level of the Kenya country programme. Also important in the World Vision case were experts able to play a 'bridging role' between humanitarian specialists and the technological providers.

In the case of cash-based programming, a growing network of skilled and experienced individuals, who could be sent to specific field contexts, was identified as an important capacity for organisations experimenting with projects and programmes. This helped to facilitate the programmatic changes needed to implement cash responses, and also built an informal network between the individuals. One important suggestion was that agencies should avoid trying to establish rosters of 'cash experts' – which would be an example of the humanitarian organisational culture working to institutionalise a new approach. This kind of process underlies the phenomenon that 'today's problems are caused by yesterday's innovations'.

In shelter, by contrast, many interviewees highlighted the lack of adequate specialised field capacity. This was caused by, but also reinforced, the lack of institutional support for shelter: there were relatively few agencies with dedicated shelter departments or global shelter leads.

Research and evaluation

In all the case studies, research and evaluation played an important role in identifying the space for innovation, assessing appropriate innovations, evaluating pilots, and disseminating positive results. In the CTC case study, Valid International, as an independent consultancy, was able to offer a range of services to agencies as part of its R&D programme on CTC – including "project design, improved data collection instruments, and a research nutritionist working with the programme... to provide expert data analysis" (ENN, 2004, p. 41). With both cases using mobile technology, research and development played an important role in the application of external technologies to relief settings. There was less academic or research-institute involvement here, as the key counterparts were private-sector technology specialists (discussed further in Section 3.5.2).

Research was also essential for evaluating and capturing results to present the argument for change. Following the British Red Cross study on cash-based programming, HPG research was identified as important in promoting the uptake of cash use across the sector. Credible research documenting the viability of cash in

various settings both helped organisations to advocate, internally and externally, and provided an accessible resource for those attempting to implement cash and voucher programmes in the field. Valid International's ability to write up and publish research in peer-reviewed journals was seen as essential for providing systematic justification and overcoming academic and organisational resistance to CTC.

The ability to assess key outputs, outcomes and impacts from an innovation, and contrast these with previous versions, is important. The case studies show that using results in simple and powerful ways to communicate the benefits of the innovations was crucial. Effective utilisation-focused evaluations have a potentially powerful role to play in innovation processes. It has been suggested that insufficient attention has been paid to developing a more rigorous culture of independently reviewing and testing proposed innovations before they are introduced and scaled up in operations. Given the ongoing debate on randomised control trials (RCTs) (see Chapter 2), this may be one area where such rigorous approaches can be legitimately and ethically utilised. Specifically, when implementing an innovation, an RCT might be useful to rigorously compare the effects of existing practices with new, innovative approaches. This needs to be done with careful attention to the ethical limits of trialling new approaches. As one respondent put it, the 'do no harm' standard applied to humanitarian innovations should be:

'does this method achieve comparable results to a more traditional method and have the potential to deliver improvements? If the answer is yes, it should be considered for piloting and adoption where feasible'.

The work of MSF in creating and implementing an explicit operational research strategy is an important process innovation in its own right. The policy states that one of the key purposes of operational research, among others, is to "test new methods, strategies or approaches against the ones used until then" (MSF, 2008b). It also details a way of integrating research into ongoing programming, as well as into national healthcare research programmes. This was one of the few examples of such policies identified as part of this review.

3.5.2 Relationships for innovation

Several interviewees said that the innovations they had come across were the result of one person thinking that something could be done differently, and then linking with other like-minded people. At least six kinds of relationship were essential in realising the five case-study innovations, such as between international and recipient communities and between humanitarian agencies and the private sector, and each of these relationships is also a potential block to innovation.

Even more important than the relationships themselves was the approach to the relationships. Across all the case studies, there was a reiterated message: partnerships, based on clear understanding of competencies of different parties, were essential for innovation processes to work effectively. This echoes private-sector approaches, in which different kinds of actors – government, private sector, universities and knowledge institutions – work together to increase the value generated from research investments. Informal networks between people were also important, especially with cash and transitional shelter, in helping to advance new and different practices.

Between international agencies and recipient communities

Being in the front line delivering humanitarian relief, aid workers should be good at drawing on the experiences of their 'users' to improve its quality. Helping people affected by a humanitarian crisis to find innovative ways in which they can help themselves is a core task for aid workers. The boundaries between a humanitarian 'firm' and its 'users' therefore should be an extremely porous one. Aid organisations give at least lip-service to notions such as 'paying attention to the views of all stakeholders' and 'involving end-users at all stages' in the design and delivery of programmes.

Two of the case studies involved dealing with affected communities in ways that discernibly moved towards a more interactive or at least functional participation. By definition, community-based feeding therapy involves managing acute malnutrition within the community with the support of food disbursements. Similarly, giving people cash means trusting them to use it in ways which would support lives and livelihoods. In the mobile-technology case studies, the process was based on the recognition that existing waiting times for food distribution were unacceptable, and

that people in need of support would be able to receive payments through mobiles. This meant that both of these groups needed to understand and work with a new way of receiving support, and resulted in a relationship more respectful of the enduser. With shelter, the failures of the sector have been fundamentally related to the relationship with the recipients, and were also referred to as an affront to the dignity of affected people.

Ultimately, recognition of the opportunity for humanitarian innovations requires a better understanding of affected people and of problems they face that could be solved more effectively through external support. Although innovations have stemmed from re-thinking the relationship between aid agencies and the recipients of aid, the recipients themselves have not been active in these changes. Such relationships may be a source of many potential innovations in the future. Innovation partnerships established by private-sector organisations attempting 'user-generated innovations' provide considerable scope for future engagement.

Today, much beneficiary engagement seems to be narrowly defined, focusing on needs assessment with little consultation on the quality of aid, and even less participation in its design. The work of the Listening Project (www.cdainc.com) seems to be breaking new ground in this area, as does Tufts work on participatory impact assessments (Catley, Burns, and Suji, 2008). Work by southern organisations, such as OFADEC (www.ofadec.org) and Mercy Malaysia (www.mercy.org.my), have also highlighted the potential for smaller Southern-based organisations to meet accountability standards, building an effective framework for better engagement. Aid organisations need to consider how to structure themselves better to respond to these developments, which means being much better at listening to, learning from and trusting the recipients of their aid.

Between operational offices and headquarters

Agencies may also need to improve engagement and communication with their own members of staff. A number of interviewees argued that the field was more innovative than their headquarters. One participant described the field and headquarters respectively as a speed-boat and an ocean-liner, regarding innovations: the emphasis on achieving consensus in headquarters meant that it was often very slow to respond to new developments, and therefore most of the real dynamic creativity came from the country programmes and local level.

It might be expected that case-study evidence would support this but it was clear that the relationship was rather more complicated. Field staff, or those with significant field experience, clearly play a leading role in *recognising* a particular problem or opportunity – whether in the Red Cross and ODI-HPG with cash programming, Valid with CTC, the Shelter Project with the transitional approach, or operational staff at World Vision and Concern. However, the journey through interpretation, invention, development and implementation in each case highlights the crucial importance of head-office staff and senior managers at each stage. For example, in cash programming, the relationship between country staff and more globally focused staff at headquarters level was important for the process of internal organisational buy-in. Of special importance was the scope for headquarters staff to engage personally in field contexts, and then champion the cause through personal experiences.

Head office staff may be involved in the interpretation process, of working out a way to resolve the problem in a new way. They often played a significant role in mobilising resources to enable invention and development, in advocating for implementation, and especially in dissemination. Therefore, when innovations are successful, this is because of a dynamic, two-way, interaction between field and head-office personnel. Indeed one of the problems frequently cited by interviewees working in the field was that staff members with first-hand experience of the problems requiring innovative solutions are not sufficiently connected with the networks and actors who have access to latest applicable knowledge and technologies.

Across international agencies

Cross-agency relationships were also seen as vital in the case studies. Those interviewed as part of the cash-programming case study reported a number of informal relationships between agencies that led to dissemination across the sector. Phrases such as 'I heard about a programme in...' or 'I heard X were doing cash in this context' were widespread. These informal relationships were then seemingly bolstered by more formal attempts at development, implementation and dissemination. One key player in the HPG work highlighted the importance of 'facilitation and learning events' as critical to get partners to share experiences across contexts. A number of agencies, like Save the Children, Catholic Relief Services (CRS) and World Vision, began to implement similar programmes and the

success of each one convinced other agencies to adopt the same approach. These gained momentum as staff in different agencies learnt from each other's projects, and became more confident that cash was a viable approach. Sometimes this was a result of exchanges in the field, and sometimes through links at headquarter levels.

With CTC, as with cash, there was an important inter-agency learning role. A Tearfund programme in South Sudan in 2003 provides an example: before the beginning of the South Sudan CTC programme (which had previously used feeding centres) the Tearfund Nutrition Coordinator was influenced by visiting a Concern/Valid-implemented programme in Malawi. Such cross-country exchanges also helped in getting Ministry of Health approval for CTC programmes.

The shelter sector provides an interesting comparison case. The sector has long been characterised by a general lack of leadership and guidance, with many agencies' mandates overlapping in covering elements of shelter, but with no single large agency enjoying an encompassing mandate. The Humanitarian Reform process and the development of clusters was identified as having moved to change this by forcing the questions, creating an inter-agency forum and requiring one or more agencies to take a lead position. The Shelter Centre also contributed here: its role in creating a community of practice across the relief sector, and enabling shelter to move up the agenda, and therefore laying the groundwork for innovation, was recognised by many respondents.

Between international agencies and national and local actors

As was illustrated earlier, even aid agencies that encourage their local partners to work autonomously in normal circumstances set limits on the same organisations during an emergency response. One senior official noted that while the aid sector in general does provide space for innovations in development programming, it is perhaps 'more directive in helping local partners to scale up their capacity' in the immediate aftermath of major humanitarian crises.

However, there were some positive examples. In the ongoing development of CTC, the work with ministries of health has been especially important in facilitating and authorising the use of CTC. At an operational level, in the CTC pilots, it was essential that local nurses with experience of feeding centres were prepared to trust the system, experience and expertise introduced by the new approach, which required effective relationship building. Similarly, in World Vision, it was key for national staff

to support the innovation and appreciate its benefits. In the Concern case, the local police station, local administration and community leaders were integrally involved in providing a secure base and overall security for the cash transmissions.

It has long been recognised that the mentality of inter-organisational relationships between international and national actors is one of 'outsourcing production', regarding national partners as a lower-cost means of delivering aid. Significant opportunities may be missed in this mentality, especially given the greater potential of national and local organisations to understand and recognise problems from a local context, as well as to implement projects at lower cost. There was a distinct lack of examples in which international agencies had asked national partners to contribute knowledge and skills to projects, with a focus on generating new ideas and approaches. On the whole, national counterparts were treated like suppliers, and managed using a procurement approach, rather than as collaborators. Consequently, it is likely that international agencies systematically miss opportunities to use collaboration with national partners to generate, develop and disseminate innovations.

Humanitarian agencies and academic researchers and think-tanks

The role of academic and research institutions such as Cambridge University, ODI-HPG, and others is notable in the case studies. However, the evidence suggests that this kind of relationship is presently under-exploited in the sector overall. Humanitarian aid organisations spend only a tiny fraction of their resources on 'closed' R&D, and this is unlikely to change in the near future. Many respondents argued that the sector has failed to invest properly in R&D. But a lack of in-house capacity should not prevent aid agencies from drawing on innovations through more open, cross-organisational models. This can be both theoretical – as cash programming benefitted from the work of Amartya Sen on entitlements – and practical – as in the potential for sectoral innovation in humanitarian settings (e.g. medical and nutritional) to benefit from the relationship with the much larger, mainstream sectors.

Even the shelter sector, with the widely cited 'blight' of external inventions, was seen as needing to build better bridges with academia because of the challenges to the development of significant internal R&D capacities. The Shelter Centre itself grew out of the shelter project, an informal group with connections to Cambridge University. Academic and research institutes can also contribute knowledge-based

expertise on substance, and process – as in Western public sectors, where academics lend support to specific innovation processes. This may well be worth considering in the humanitarian sector, given the challenge of continuity highlighted across the cases.

The recently launched Enhancing Learning and Research for Humanitarian Assistance (ELRHA) project, designed to foster stronger links between humanitarian organisations and UK universities, is a positive example of moves to increase partnership and collaboration between academics and humanitarian NGOs. ELRHA has already highlighted the need to increase innovations as a 'core challenge' and notes that a "greater understanding of how agencies access and absorb research and innovation is needed" (see: www.elrha.org).

Humanitarian agencies and the private sector

Private companies operated in various ways in the case studies:

- as profit-making entities functioning during crisis situations, providing their core services either in-kind or for a profit to a humanitarian actor
- as profit-making companies which may or may not be present in a crisis situation but which provide a specific function or service, utilising their expertise for a humanitarian cause
- through charitable arms or corporate foundations, often providing funds and technical expertise without charge.

The CTC case highlighted the importance of being aware of private-sector developments. It was after the development of a usable foodstuff that the first out-patient programme could be implemented. The partnerships between Valid and Concern were also of importance for the development of CTC. With the shelter sector, the challenge has been to develop private-sector partnerships in a way that pays attention to the changing paradigm of shelter work, so as to minimise inappropriate inventions.

But it is the two mobile-technology case studies that feature the most extensive examples of private-sector collaboration. Both saw the creation of new

partnerships, bringing together relief agencies and private-sector operators to solve specific, defined problems. For Concern it was with Safaricom while for World Vision it was with FieldWorker, a mobile technology solutions company. These relationships were created between 'internal entrepreneurs' – those with expertise in humanitarian contexts and a thorough understanding of specific aid-delivery problems – and 'external specialists' – those with specific knowledge of mobile and handheld technologies and how they could be adapted and adopted. The partnerships then extended beyond this original relationship to take in a variety of other actors, notably field staff, members of local partners, community leaders and beneficiaries. The specific, time-bound nature of both innovations, and the explicit technological focus meant that both required effective partnerships to enable the innovations. The ability to create relationships with actors possessing these specialised skills and expertise was essential.

Entering into these relationships can be challenging because of the need to systematically identify competencies of organisations entering into partnerships, and how these competencies could add value to effective innovation processes. Recent work by the International Business Leaders Forum has identified that a core competencies approach can be used as a tool which "identifies the full range of business resources, skills, capabilities and competencies that could add value to the efforts of international agencies... and which carry a robust business case" (Warner, 2002, p. 14). Such efforts should be informed by the generally accepted principle that strategic alliances based on a limited pooling of core competencies – rather than internal development or acquisitions – offer a more cost-effective and less risky approach to innovations.

Implementing agencies and donors

In the case of cash-based programming, having an 'engaged donor' who was prepared to get out of the office and visit programmes, looking for what didn't work and what might, was identified as an important enabler for innovation. Similarly with the mobile technologies, flexibility and trust in the relationship between donors and operational agencies was seen as a key factor in developing the innovations. With a couple of notable exceptions, there is a major lack of donor engagement in shelter. This has affected the relationships between operational agencies and donors, as often neither has the specialists to communicate and engage on substantive issues, which has then reduced the scope of innovations.

In the case studies that were explored here, donors were not seen to be the 'inhibitors' to innovation that might be expected, given the usual attitude of international agencies. A number of donor representatives interviewed spoke of their willingness to see innovative responses in funding proposals – and the desire to see programmes 'evolving'. There is also a downside here: a worrying tendency was raised by some informants of 'innovation for innovation's sake' because various donor stakeholders want 'new and exciting ideas'. As one participant put it:

'Just as 90 per cent of research by the pharmaceutical industry is in order to make the same product look new, so there is a danger that donors can drive us into areas that they want to explore rather than what is in the best interests of our beneficiaries.'

3.5.3 Sectoral and wider contextual factors

Taking a step back and reflecting on the humanitarian sector as a whole, are there features of relief work and the sector that have a systemic influence on innovations? Previous ALNAP work highlights the tension between innovation and the professionalisation of the growing sector:

'innovation is the virtue of the entrepreneur, as the [humanitarian] system moves towards conformity it must still urgently encourage innovation and entrepreneurialism whereby humanitarian agencies can make new discoveries and risk new approaches' (Slim, 2006, p. 30).

A senior staff member argued that the growth of the sector has led to a 'growing conservative streak', which organisations must consciously work against.

Growth can lead to bureaucratic inertia and an inward-looking focus. Big organisations may pay less attention to scanning the external environment for new ideas and networks, and more attention to keeping the organisation ticking over. Peter Walker has spoken of how, as humanitarian agencies have grown from small organisations led by independent individuals into vast organisations, there has inevitably been an attempt to maintain order and control. This has resulted in a 'cookie-cutter' model of humanitarian assistance, unable to adapt sufficiently to context.⁶

But growth also increases the *potential* capacity of organisations to support innovation. The programmes enabled by the tsunami response – the best-funded response in humanitarian history – also enabled agencies to innovate with both cash-based programmes and the transitional shelter approach. As with the relationship between the field and headquarters, the relationship between growth and innovation is less obvious than might be initially perceived. As humanitarian organisations have grown, they have become more committed, at a rhetorical level at least, to change and improvement.

Everyone interviewed in the research for this paper accepted the theoretical need for more humanitarian innovation, but some pointed out that working in crisis response made this challenging. A high-pressured, rapidly changing field operation, often in insecure and dangerous conditions, does not leave much space for trying out 'new and exciting ideas' because it requires a hands-on approach, using tried and tested routines. The consequences of 'failure' in a humanitarian situation could be a large-scale loss of human life. Some interviewees argued that it would be irresponsible for an agency to attempt to stimulate a 'risk-taking culture' in such circumstances. The tendency of agencies to 'promote away from the field' may reinforce this – if the most experienced personnel are in head-office positions, there are fewer members of the field staff with the confidence and ability to innovate.

The evidence suggests that this may be conservatism in disguise. While some humanitarian aid is quite literally life-saving, a lot of it has a less dramatic impact, and there probably is greater scope for on-the-job improvisation that doesn't run serious risks. Obviously no organisation would knowingly distribute untested food or medicine, but there is a range of activities undertaken by different agencies in particular crises where some field-based adaptation or experimentation is perfectly acceptable. An agency may simply discover a way of delivering aid that is more cost-effective, or gives its recipients greater dignity and autonomy. Indeed the purpose of consulting affected communities about how aid should be delivered is precisely so that agencies can modify their approaches in different circumstances.

Moreover, much aid work is problematic and prone to mistakes, and there is a tendency to repeat the same mistakes in the name of following rules and procedures. One interviewee observed, 'the worst programmes I have seen are the ones which have followed every rule'. To cite possible mistakes as a reason not to innovate may be tantamount to saying, 'we prefer our known mistakes to unknown

ones'. The key here, as highlighted in different ways across the case studies, is to move to the idea of minimum standards, and allow innovations which at least meet these standards while improving on performance in other areas, and without additional detrimental costs.

Over the course of this study, several participants raised the ethical dimensions of humanitarian innovations, in terms of limiting innovations to those which are appropriate. Still more raised the issue of unwanted or undesirable innovations. There are mechanisms to deal with these issues, and each case study came up with its own version, albeit more informally constructed. The work on innovations in MSF, with an ethical board which reviews new programming ideas, may be the most advanced mechanism within a humanitarian agency identified in this study. The principle of medical ethics can be usefully applied more generally, as illustrated in the example of 'do no harm innovations' cited earlier.

In a growing sector, innovations which focus on doing things better may challenge that growth. There may in fact be few financial rewards or incentives to innovate or adopt humanitarian innovations. However, the basic culture of the sector sees altruism as its own reward, and so innovations that promote a better relief programme should be promoted on an ethical basis.

Some interviewees stated that humanitarians were often more innovative as individuals than were the organisations that they worked for. While no one felt that the sector was hostile to the concept of innovation, some interviewees had encountered obstacles within their organisation, which prevented them from taking an idea as far as they wanted. Many staff members face initiative fatigue, which can prevent a focus on innovations. This raises the question, 'what is an initiative, if it is not sufficiently innovative?' Some interviewees had left jobs in the sector, partly to give themselves more of an opportunity to be creative and innovative. Where agencies are able to take risks on innovation, the key has been to identify and use the space for innovations. This space is not always available, and often requires individual leaders who can create and protect it.

Across all the case studies, one common finding was that the innovations were not wholly new, but rather new combinations or hybrids of existing elements. This has led to ongoing debates in all the cases about whether certain approaches were in fact innovative. The lack of clear rules leads to ongoing, and often entrenched, debates about what innovations are, how they are validated and how they might be

applied, and by whom, which is consistent with the findings about public and civil society innovations more generally. Evidence becomes crucial. Rigorous impact evaluation methods which call for randomised delivery of aid have generally been viewed as unethical and unfeasible in humanitarian contexts. However, the scope to randomise delivery of different approaches to aid – say a standard approach and an innovative approach – and then assessing the comparative impact may be one area where randomised approaches may be ethically feasible and practically useful.

More worrying overall was the noted slowness and lack of continuity in innovation processes. Each of the innovations arguably took place over a long time, with continuous steps forward and back over decades in some cases. The transitional shelter principles were laid down in the 1970s, and the approach developed in 2002–2005 still has its detractors. Cash programming has been practised for over a century. CTC was argued for in some form in the 1980s, and may have been feasible then with famine biscuits.

The nature of the sector makes the potential for innovations considerable, but it also often blurs and slows innovation processes, inhibiting the implementation of innovations. The role of the tsunami response in enabling the implementation of a number of approaches more widely does raise a question. Why did it take a major catastrophe to start new forms of programming? The revolution of accountability innovations after Rwanda, and the more recent role of the tsunami in enabling cash approaches suggests that the sector may only really go through dynamic change during such crises, exemplifying what has been referred to as the 'catastrophe-first' model of learning and change.

3.6 Conclusions and recommendations

3.6.1 Conclusions

This research has highlighted some extraordinary examples of innovation and change in the humanitarian sector – beyond the idea of simply 'incremental learning

from the past', and towards 'transformational learning for the future'. We have learned about the humanitarian innovation landscape, and about specific innovation processes. We have also reflected on a number of enabling and inhibiting factors, some of which are familiar from previous work on learning. There is a lot of useful evidence about how best to think about, organise and manage innovations. There are also some clear gaps – where are the innovations intermediaries in the humanitarian sector, for example? How do we ensure that informal networks, prevalent in the sector, can work to facilitate innovations more effectively?

Overall, the debate about humanitarian innovation is closely intertwined with the debate about the current weaknesses – perceived and real – of humanitarian action. Some commentators have claimed that humanitarian aid has entered a period of crisis as there is widespread cynicism in Western countries about its effectiveness, fed by a steady stream of negative media stories (Rieff, 2002). Humanitarian workers themselves are among the harshest critics of the current system.

But there is also good work in progress and positive changes underway. As Hugo Slim (2006) argues, any view of the sector needs to be set in the context of the political expectations of what we believe 'international society' can achieve in the humanitarian sphere. This initial exploration leads us to believe that a pragmatic view of the potential of innovations in the sector is perhaps the most useful one. This means holding a clear view of the failings of the sector alongside realistic expectations for further improvements. An openness to seeking new approaches alongside more shared resourcing, some of the long-standing problems could at least be eased, if not altogether cured. Although many of the factors determining the success of humanitarian work are beyond the control of humanitarians, the sector is still not as good as it can be. Innovation processes, as articulated here, provide important and under-utilised mechanisms for improving humanitarian effectiveness. They also have the potential to mobilise positive change in a more inspiring way: successful innovations can capture the humanitarian imagination, and provide a new way of delivering assistance to those who need it most. Instead of asking, 'what went wrong and why?' an innovations perspective poses the question, 'what is going well, what can be improved, and how?'

Addressing the problems facing innovations in the sector will not be easy and many of the dilemmas that this study raises go beyond the scope of this chapter. Although there are numerous examples of successful humanitarian innovations, a recurring theme in the discussion of them was the coincidences of circumstance that made them possible. This study shows that successful innovation processes require capacities, relationships and wider contexts to be in alignment; with individual motivation and organisational capacities coming together in timely ways. This begs the obvious question about how many innovations have not occurred at times and places without all these favourable circumstances. Innovations require time, investment and focus of a kind that simply isn't possible for many working in the sector – especially those in operational settings.

With these provisos in mind, here are seven recommendations as a contribution to further work on innovations in the humanitarian sector.

3.6.2 Recommendations

1. The model of innovation used in this chapter, and summarised in Figure 3.2, is recommended as a starting point for agencies planning to promote, disseminate and evaluate innovations.

The impression gained from the interviews held as part of this study is that, with a few exceptions, most humanitarian organisations have not made a sustained attempt either to stimulate a culture of innovation from headquarters to the field or to develop mechanisms regulating this. While there are examples of both good practice and good ideas, these are diffuse and have not been systematised. Reactive, fieldbased innovation is more akin to the random mutations and lucky accidents of evolution than anything based on a conscious decision to prioritise and manage the process. There has been an increase in job titles including the word 'innovation', but it seems likely that the process is not sufficiently understood or implemented. The ideas and frameworks presented here provide an initial foundation for taking innovations-related work forward in a more considered and coordinated fashion. Of particular importance is the need for ongoing research and evaluation agendas to take account of innovations, and play an active role in identifying the space for innovation in policy and practice; highlighting existing innovations with the potential for wider application, assessing appropriate innovations, evaluating pilots and helping to adapt innovations, and disseminating positive results.

Figure 3.2 An emerging framework on innovations

Contextual factors: Relationships

- with recipients
- within organisations
- between national and international agencies
- with researchers and academics
- with the private sector
- between donors and implementers
- between agencies

Contextual factors: Capacities

- entrepreneurs and leaders
- field staff and technical experts
- researchers and evaluators
- external capacities

INNOVATIONS

Focus of innovation

- product
- process
- positioning
- paradigm

Stages in innovation process

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- culture of risk
- incentives
- financing
- codes and standards

Contextual factors: Sectoral issues

2. Innovation processes should be supported by effective informationsharing, within and between organisations.

In the public and private sectors, the development of common information products – such as case study templates and databases – has helped to capture innovations and communicate them. In the UK, case studies have been used to catalogue local level innovations leading to improved public services (Leadbeater, 2003), while many companies are keen to promote their latest innovations through common information tools (SustainAbility, 2009).

In order to replicate these dissemination tools in the humanitarian sphere, it is recommended that ALNAP pilots a series of 'innovations case studies', each of which will focus on a particular innovation, and document the innovation in a way that can aid its wider communication and dissemination. Drawing on the examples from across the ALNAP membership and more widely, these case studies should include as a minimum:

- information on the background context and rationale for the innovation
- description of the development process
- for innovations that have already been piloted, an outline of the implementation process
- risks and challenges associated with the development and piloting process
- key partnerships that enabled the innovation process
- the wider impacts and lessons learned

If and when a sufficient body of case studies has been built up, an Innovations Database may be established for the sector.

3. The humanitarian sector should establish a cross-sector mechanism or intermediary to facilitate innovation processes, focusing initially on innovation capture and exchange.

In their efforts to promote innovations, humanitarian agencies should not restrict themselves to an institution-specific approach; innovations must be dealt with as cross-organisational, open initiatives from the outset. Some agencies have created 'innovation prizes' and some have held internal discussions about other measures they can take to stimulate innovation. The creation of sector-wide knowledge hubs such as the Shelter Centre demonstrate the potential of such mechanisms to move the innovations agenda forward in the sector. While there are other examples of information networks developing in specific sectors, a system-wide approach is needed, which is consciously positioned to push the innovation agenda at a system-wide level.

The ALNAP membership would be well placed to establish such a humanitarian cross-sector mechanism, in collaboration with academic and private sector institutions. The functions of such a mechanism could include highlighting ongoing case studies of innovation, sharing ideas and knowledge, and at some point in the future providing support to innovation processes and raising pooled R&D resources for the sector. The work of innovation intermediaries should be explored in more detail in order to take this work forward.

4. Humanitarian agencies should aim to work in partnerships for innovation, drawing partners both from outside the sector and from current humanitarian counterparts.

Given the limited R&D capacity within the sector, humanitarian agencies need to consider how to draw on wider sources of expertise, from both within the sector and beyond. While there are some examples of individual humanitarian organisations linking with academics and private-sector companies to explore the development of a particular product, there is considerable scope for greater cooperation. This needs to be done on the basis of competencies, mutual learning, and, importantly, continuity. More work to understand how partnerships can build on the skills and capacities of different parties would be especially useful in the humanitarian sector, and will have relevance beyond innovation.

5. Donors and senior decision makers should be engaged to champion the innovations agenda from the outset, through some form of sectorwide 'innovation advisory coalition'.

The economic and political imperatives that drive innovation in the private or public sectors are unlikely to stimulate similar processes within humanitarian aid. While

there is much that can be learnt from these sectors, it should not be assumed that the same drivers will apply. A conscious decision will therefore be needed to prioritise the process if the current weaknesses of the sector are to be addressed. Incentives should be agreed, and appropriate guiding and advisory mechanisms established. Ethical considerations should be a paramount consideration.

6. Safe and appropriate spaces for experimenting and innovating should be found in the humanitarian sector.

While innovation in corporations may be a metaphorical survival imperative, innovation in the humanitarian sector may be literally necessary for survival. People's lives and livelihoods can depend on getting aid of the right type and quantity to the right place on time. There may well be space to encourage greater innovation in aid delivery. But the central question is how to create a culture of 'honourable risk' in humanitarian work. Finding safe spaces for experimentation, and mechanisms to promote 'honourable risk' as a central value in humanitarian assistance is a key step to a more innovative and yet principled humanitarian response.

7. The innovations agenda should have as its guiding light the idea of a paradigmatic shift in attitude, enabled by the principles of disaster-prevention, local ownership and beneficiary engagement.

Some of the most radical humanitarian innovations relate to wholesale changes in the sector. At the macro level, it is more effective to prevent disasters than to respond to them. As found in the tsunami response, in certain emergencies it is far more effective to build on and support local capacities. The paradigm of aid as predicated on international response arguably limits the kinds of innovations that are possible.

The discussion about innovations should inform the ongoing discussions on the humanitarian business model. In the medical sector, illness is seen as a normal part of life, and both preventing and treating illness is regarded as a continuous work in progress. By contrast, humanitarian disasters, whether natural or not, are somehow seen as abnormal despite their regular occurrence, which frames the response to them in purely reactive terms.

A shift in this attitude may be difficult but is essential if we are to create a culture which encourages real and lasting humanitarian innovation, and a humanitarian business model capable of meeting a complex and volatile future. The perspective that is needed is clear: aid agencies must seek to move beyond 'catastrophe-first' model of innovations, towards putting 'vulnerability first'.

Notes

- 1 John Bessant, personal communication.
- 2 Otto Farkas, personal communication.
- 3 Otto Farkas, personal communication.
- 4 John Mitchell, personal correspondence.
- **5** Otto Farkas, personal correspondence.
- 6 Comment made by Peter Walker during a plenary session of the World Humanitarian Studies Conference, Groningen, the Netherlands, 7 February 2009.
- 7 The term 'honourable risk' was coined by Nigel Timmins, of Tearfund, in an interview for this study.

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