DEVELOPING STANDARD WASH PRACTITIONER COMPETENCIES

by

J.M Cilliers

A research dissertation submitted in partial fulfilment
of the requirements for the award of the degree of
Master of Science
of Loughborough University

May 2016

Supervisor: Brian Reed BSc (Hons)(DuneIm), PGDip (Lond), MSc (N'cle), CEng, CEnv, C.WEM, MICE, MCIWEM, FHEA
Water, Engineering and Development Centre
School of Civil and Building Engineering

Acknowledgement

Dedicated to the most incredible person, Christine Cilliers.

Dankie Mamma.

Certificate of Authorship

1. I certify that:

(i) *I am responsible for the work submitted in this dissertation, and that the original work is my own *except as specified below;*
(give details if appropriate)

(ii) I have not submitted this work to any other institution for the award of a degree;

*(iii) all *laboratory work, *field work and *computer programming has been carried out by me with no outside assistance *except as noted below;*

(give details if appropriate)

and

(iv) all information (including diagrams and tables) or other information that is copied from, or based on, the work of others has its source clearly acknowledged in the text at the place where it appears.

Signed: .....

Name: Jeanette M. Cilliers

Date: 29 May 2016

To the best of my knowledge, I believe that the above declarations are true.

Signed: .....

Name of local guarantor: CARRET BROWN

Date: 27 MAY 16

Research Dissertation Access Form

Location: WEDC Resources Centre, Loughborough University

Author: **Jeanette Maria Cilliers**

Title: **DEVELOPING STANDARD WASH PRACTITIONER COMPETENCIES**

Status of access: **OPEN**

Author's declaration:

I have read the 'Terms and conditions for electronic access' and I agree to the following conditions:

OPEN This Research Dissertation may be made available within the WEDC Resources Centre, both as a hard copy and electronically, and may be borrowed by WEDC staff and students. Sections may be used for teaching purposes, and pages copied, subject to copyright regulations. It may also be copied by the British Library for supply to requesting libraries and individuals, subject to a written assurance that it will not be published in part or in full. The dissertation may also be made freely available electronically through the WEDC online Knowledge base, subject to the Terms and Conditions for electronic access described on page 7 of Assignment 3: Final Research Dissertation.

Author's signature:

Date:

29 May 2016

Conditions of access approved by:

(Project Supervisor's name)

Supervisor's signature:

Terms and conditions for electronic access:

Depositor's Declaration

1. I hereby grant to WEDC at Loughborough University a non-exclusive licence on the terms outlined below. I warrant that:

1.1 I am the creator of all or part of the whole work (including content & layout).

1.2 The work is not in any way a violation or infringement of any copyright, trademark, patent, or other rights whatsoever of any person.

1.3 That if the work has been commissioned, sponsored or supported by any organisation, that I have fulfilled all of the obligations required by such contract or agreement.

WEDC's Rights and Responsibilities

2. WEDC:

2.1 May distribute copies of the work (including any abstract) worldwide, in electronic format via any medium for the lifetime of the WEDC Knowledge Base for the purpose of free access without charge.

2.2 May electronically store, convert or copy the work to ensure their future preservation and accessibility.

2.3 May incorporate metadata or documentation into public access catalogues for the work.

2.4 Shall retain the right to remove the work for professional or administrative reasons, or if they are found to violate the legal rights of any person.

2.5 Shall not be under obligation to take legal action on behalf of the author or other rights holders in the event of infringement of intellectual property rights or any other right in the material deposited.

2.6 Shall not be under obligation to reproduce, transmit, or display the work in the same format or software as that in which it was originally created.

Software

3.1 Copyright in additional data, software, user guides and documentation to assist users in using the work shall belong to WEDC on behalf of Loughborough University and any other parties that WEDC may choose to enter into an agreement with to produce such materials.

3.2 While every care will be taken to preserve the physical integrity of the work, WEDC shall incur no liability, either expressed or implicit, for the work or for loss of or damage to any of the work or associated data.

The Abstract

Developing Standard WASH Practitioner Competencies

Does the humanitarian WASH sector need to enhance its practitioners in order to be more accountable to all stakeholders? This question is answered and methods in which to do this are explored as well as the challenges faced by the sector in its endeavour to enhance the capacity of its practitioners. Professionalisation is discussed as a structure in which the sector can develop and core competencies were identified as a cornerstone to congruent development and eventual professionalisation. Consequently, the WASH Practitioners' Competency Framework is developed and undergoes three testing phases. Feedback and adjustments are captured and discussed culminating in into a possible viable tool that can assist in the enhancement of WASH practitioners' capacity building as well as a host of other benefits and uses.

Keywords:

- Framework
- Professionalisation
- Accountability
- Capacity Building
- Career development

Distance Learning MSc

Research Dissertation

EXECUTIVE SUMMARY

Dissertation title:	Developing Standard WASH Practitioner Competencies
Author:	Jeanette Maria Cilliers
Programme of study:	MSc Emergency Infrastructure
Year of submission:	2016

Executive Summary

1.1 Introduction

The humanitarian sector was borne from altruistic people wanting to answer the call for relief from millions of people victim to humanitarian emergencies. Originally viewed as an anomaly in comparison to the private and public sector with regards to certification, standards, qualification and perhaps even accountability due to the austere environments, sparse salaries and dangerous circumstances these early humanitarians worked in. However, the humanitarian can perhaps be considered as an industry today given the amount of money, countries, politics and ultimately lives involved. Together with the growth of this industry, a greater call for accountability, standards, transparency and professionalism is being made by governments, donors and the people also known as 'all the stakeholders'.

The current trend towards professionalising the humanitarian sector in order to be more accountable to our stakeholders, most importantly our beneficiaries, have seen a humanitarian sector wide effort to establish mechanisms to manage, utilise and enhance our resources. The focus of this report is our most valuable resource – our human resource. The report explores the requirement to build the capacity of our human resources, the options and the challenges faced in this endeavour. A common thread throughout the report is the requirement for standards that humanitarians can develop against and be accountable to. The Sphere Project(The Sphere Project 2016) is a celebration of accountability and professionalism in the humanitarian sector, but those standards are for service delivery and not for those who deliver them. The report explores what standards for humanitarians entail as there are a number of clusters that have or are developing their specific core / technical standards. The focus of this project is the deficiency of standards in the Water, Sanitation and Hygiene sector and the possible consequences thereof and explores options in order to enhance capacity building of Water, Sanitation and Hygiene Promotion practitioners.

1.2 Background

There are many negative consequences due to the lack of competency standards in the Water, Sanitation and Hygiene sector, and one area where it is visible is in the human resource department. For example, a non-governmental organisation may advertise for a 'Water, Sanitation and Hygiene Promotion specialist' and they have to specify exactly what this position will entail according to their view of what a 'Water, Sanitation and Hygiene Promotion specialist' is as seen on recruiting websites and the varied profiles for the same job titles amongst different organisations. In contrast, advertising for a paediatrician, the organisation only lists additional task that will be required external to the core competencies of a professionally recognised paediatrician.

Those that apply for the Water, Sanitation and Hygiene Promotion specialist job may have done their training at an institution that the recruiting organisation have never heard of, even though it was high quality training, consequently disregarding the applicant's training. Others that apply might have done specialist courses that appear well on paper but the training cannot be applied to the local context. It is difficult for Water, Sanitation and Hygiene Promotion organisations to then be accountable to their stakeholders by not having an accredited, qualified and credibly competent WASH specialist. There is no generally accepted handrail / guiding mechanism and recipe for these practitioners to ultimately become the 'perfect' force-multiplying practitioner. A force multiplier is a practitioner who is not only competent in the tasks s/he conducts and carries out but has the ability to teach and build capacity in those around them-creating a ripple effect of capacity building.

There are university degrees that are expensive and not accessible to all. There are vocational routes but they are largely poorly validated and accredited. There is also no generally accepted and useful agreement on the different Water, Sanitation and Hygiene Promotion 'professions' and the skills required in order to fulfil the different types of Water, Sanitation and Hygiene Promotion positions (Russ 2012). This incoherent situation undermines the way in which Water, Sanitation and Hygiene Promotion practitioners are viewed and this could be one of the reasons the sector struggles to attract adequate human resources and possibly even funding.

1.3 The Objectives

1.3.1 Research Goal

The goal of this research project is to enhance the capacity of the humanitarian WASH practitioner by increasing the accountability of WASH practitioners and consequently WASH organisations to all their stakeholders.

1.3.2 Research Aim

The aim of this project is to identify and a concept or tool that will aid in enhancing the capacity of WASH practitioners. The scope of this study will be the humanitarian WASH practitioners but it can also be relevant to those WASH practitioners working in development.

1.3.3 Research Objectives

To meet the aim, two objectives were initially set out. These objectives provided the structure for the planned research project as well as a structured framework to appraise how well the aim was being addressed. Interestingly, the research objectives changed throughout this project as a result of the findings. Consequently, two additional research objectives are identified and introduced in the Results Chapter. Each objective has a series of research questions to support the process.

Research Objective 1: Investigate the need to build capacity in humanitarians, specifically WASH practitioners.: Research questions:

- Do we need to enhance the capacity of humanitarians and specifically WASH practitioners? Why?
- What are the challenges to capacity building in the humanitarian and especially the WASH sector?
- Is professionalisation a valid opportunity for the enhancement of the sector and what are its challenges?

Research Objective 2: Identify a viable tool / concept for enhancing capacity building in WASH practitioners? Research questions:

- What are the existing WASH practitioners' capacity building initiatives and options?
- Determine which option will add the most value?
- What is required in order to professionalise WASH practitioner?

Research Objective 3: Identify the inputs and develop the framework. Research questions:

- Can the structure of the framework be designed through a review of existing competency frameworks?
- Can inputs for the framework be identified? For example, essential WASH competencies, domains and levels?

Research Objective 4: Test and adjust the framework. Research questions:

- Do stakeholders agree with the framework?
- Can the framework be adjusted to consider all feedback?

1.4 Literature Review

A logical literature search method was used based on exploring the first objectives and planning on identifying literature sources and concepts for further investigation. It aimed to:

- review the knowledge on capacity building in humanitarian human resources
- review the knowledge on capacity building in water, sanitation and hygiene practitioners specifically
- identify options and initiatives for capacity building for WASH practitioners
- discover the research gaps of the topic under study

1.5 Methodology

Exploratory questions were investigated constituting objective 1 & 2 which provided the foundation for the identification of the remaining two objectives. Mostly, standard mixed methods were used, with the largest part of the methodology consisting of the three testing iterations that The Framework underwent. Data collection methods overlapped and supported each other for two reasons. The first was that was good for triangulation and secondly due to the sometimes sparse nature of data found. For example, if data was collected from literature, the practical applications were then checked through the extensive network of collaborations and/ or through interviews and questionnaires. Only in the rare occasions, where the data could not be verified through another source, (but the data came from a credible source i.e. WEDC MSc course material) was only one source used.

1.6 Results

The first objective was answered with a resounding “yes” in the Literature Review Chapter supported by reports from the International Water Association (DeVette, Williams 2014) and the Global Water, Sanitation and Hygiene Promotion cluster that show how undermanned (in quality and quantity) developing countries are in their human resources. This Water, Sanitation and Hygiene Promotion human resource gap impacts on the delivery of successful Water, Sanitation and Hygiene Promotion interventions in an aggravating context of staff shortages, funding, regulations, variable quality of training, politics and other limiting factors. Notwithstanding, with the new Sustainable Development Goals, Water, Sanitation and Hygiene Promotion practitioners will have to become even more multi skilled, versatile and competent in order to achieve these very necessary, but ambitious goals.

These standards could serve a variety of useful purposes for example; being used to measure the performance of Water, Sanitation and Hygiene Promotion practitioners; allowing recognition of their quality and competencies regardless of how they came to achieve them thus allowing for more accessibility and equity in the sector.
The second objective was achieved through the Literature Review Chapter and qualified by the valuable feedback from respondents. It was through the combination of these two objectives that the main finding was made, which was that for any organised and sustainable advancement of the Water, Sanitation and Hygiene Promotion practitioner, a form of competency standards are required.

The main finding inspired research objective 3 and the investigation into this objective allowed the conception, design and metamorphosis of the Water, Sanitation and Hygiene Promotion Practitioners’ Competency Framework. The Framework underwent three testing iterations in partial fulfilment of research objective 4. The eventual ownership, uses and essential future additions to The Framework is addressed as well.

1.7 Conclusion

Although initially, there was significant resistance to the idea and possibility of a Water, Sanitation and Hygiene Promotion Practitioners’ Competency Framework, it was created and tested with the support and collaboration with actors in the Water, Sanitation and

Hygiene Promotion and training sectors. The future of The Framework is still uncertain but it does provide a tool that can be developed upon or at least spur further research and initiatives to enhance Water, Sanitation and Hygiene Promotion Practitioners in order to ultimately move towards professionalisation as well as being more accountable to their stakeholders, but mostly – to their beneficiaries.

List of References

DEVETTE, K. and WILLIAMS, T., 2014. *An Avoidable Crisis: WASH Human Resource Capacity Gaps in 15 Developing Economies.* The Hague: International Water Association.

RUSS, C., 2012. *Global Survey on Humanitarian Professionalisation.* Cardiff: ELRHA.

THE SPHERE PROJECT, 19 May, 2016-last update, The Sphere Handbook: Humanitarian Charter and Minimum Charter and Minimum Standards in Humanitarian Response [Homepage of The Sphere Project], [Online]. Available: http://www.sphereproject.org/ [8 February, 2016].

The Main Report

Table of Contents

Abbreviations

CAWST	-	Centre for affordable water and sanitation technologies
CBHA	-	Consortium of British Humanitarian Agencies
ELRHA	-	Enhancing Learning and Research for Humanitarian Assistance
FI	-	Food items
GEF	-	Global Environment Facility's
GWC	-	Global WASH Cluster
LSTM	-	Liverpool School of Tropical Medicine
MDG	-	Millennium development goals
NFIs	-	Non-food items
OECD/DAC	-	Organisation for Economic Cooperation and Development's Development Assistance Committee
SAG	-	Standing Advisory Group
SDG	-	Sustainable development goals
WASH	-	Water, sanitation and hygiene
WEDC	-	Water and engineering development centre
UNDP	-	United Nations Development Programme
UNHCR	-	United Nations Children Fund
UNDG	-	UN Development Group

Chapter 1: Introduction

1.1 Introduction

The accomplishment of success in water, sanitation and hygiene (WASH) interventions in development and emergencies are profoundly important. When WASH fails, development is stunted, emergency relief is undermined and in far too many cases, people die. To have a positively lasting and sustainable effect on WASH, the general humanitarian human resource (HR) capacity to deal with WASH development and emergencies has to be enhanced. Accountability to all the stakeholders also need to improve in order to advance the WASH profession and consequently the WASH cause.

"*The only limitless resource is human potential*" (Fiorina, 2014) and by focusing on building our WASH practitioners' capacity we are tapping into invaluable and vast potential. How do we measure this capacity against the needs of the sector in order to build the capacity required? These standards against which to measure a WASH practitioners' competency- do not exist. This lack of standard impedes WASH practitioners becoming accredited, accountable, recognisably capable and credible WASH professionals. With a standard for WASH competencies, the professional development of WASH practitioners can be structured and they can ultimately function as a WASH force multiplier. A WASH force multiplier is a WASH practitioner who is not only competent in the tasks he conducts and carries out but has the ability to teach and build capacity in those around him-creating a ripple effect of capacity building.

Recent reports from the International Water Association (IWA) (DeVette, Williams, 2014) and the Global WASH cluster show how undermanned (in quality and quantity) developing countries are in their WASH human resources. This WASH HR gap impacts on delivering successful WASH interventions in an aggravating context of staff shortages, funding, regulations, variable quality of training, politics and other limiting factors. Notwithstanding, with the new Sustainable Development Goals, WASH practitioners will have to become even more multi-skilled, versatile and competent in order to achieve these very necessary, but ambitious goals.

> *But what is competence in the WASH sector and why, given that it is so important, are there no competency standards?*

1.2 Background

Currently, there seems to be no training or certification currency and no generalised competency standards in the humanitarian WASH sector. Lack of consistency in skills and competencies undermine the ability to deliver sustainable solutions and minimise potential harm. In addition, this lack of standards leads to service delivered to subjective standards assumed by whoever delivered that service and not to a set of acceptable standards or methods.

There are university degrees that are expensive and not accessible to all. There are vocational routes but they are largely poorly validated and accredited. There is also no generally accepted and useful agreement on the different WASH 'professions' and the skills required in order to fulfil the different types of WASH positions (Russ, 2012). This incoherent state of affairs undermines the way in which WASH professionals are viewed and this could be one of the reasons the sector struggles to attract adequate human resources and possibly even funding.

This lack of recognised WASH standards might have the following consequences:

- people without the required skills and training could be entrusted to complete tasks that they cannot effectively deliver on
- these unknowing practitioners might have a lasting negative impact due to competencies that they did not possess, or did not know to possess
- some might be technically competent but do not know how to teach or assist in the beneficiaries' (of the WASH service being delivered) understanding of the engineering intervention being completed (Hammond, 2015). Consequently, the beneficiaries of the new engineering intervention do not know how to maintain or repair it correctly
- WASH practitioners not only require hard skills but also more soft skills that incorporate, amongst others, the ability to convey knowledge to others (Global WASH Cluster, 2015). These soft skills are often missed with negative consequences.

Through feedback and conversations during the literature review, it seems that organisations have unique ideas and standards in what they require in a potential WASH employee. This varied approach does not allow for the global advancement of WASH practitioners and their 'professional' capacity building. For example, a medical aid organisation will ask for an anaesthetist with 2 years' experience. They know exactly what they require and the technical skills and competencies that the anaesthetist must possess will not need to be explained. Likewise, in the UK, a National Body awards a qualification based on agreed standards of attained skill and competency that has international recognition. This then allows organisations to be easily accountable to their stakeholders as they have assurance in their HR assets.

1.3 Research Goal

The goal of this research project is to enhance the capacity of the humanitarian WASH practitioner by increasing the accountability of WASH practitioners and consequently WASH organisations to all their stakeholders.

1.4 Research Aim

The aim of this project is to identify a concept or tool that will aid in enhancing the capacity of WASH practitioners. The scope of this study will be the humanitarian WASH practitioners but could be relevant to those working in development.

1.5 Research Objectives

To meet the aim, two objectives are set out. These objectives provide the structure for the planned research project as well as a structured framework to appraise how well the aim is being addressed. It is imperative to note that the research objectives changed throughout this project as a result of the findings, as such two additional research objectives will be introduced in the Results Chapter. Each objective has a series of research questions to support the process.

1.5.1 Research Objective 1: Investigate the need to build capacity in humanitarians, specifically WASH practitioners.

Research questions:

- Do we need to enhance the capacity of humanitarians and specifically WASH practitioners? Why?
- What are the challenges to capacity building in the humanitarian and especially the WASH sector?
- Is professionalization a valid opportunity for the enhancement of the sector and what are its challenges?

1.5.2 Research Objective 2: Identify a viable tool / concept for enhancing capacity building in WASH practitioners?

Research questions:

- What are the existing WASH practitioners' capacity building initiatives and options?
- Determine which option will add the most value?
- What is required in order to professionalise the WASH practitioner?

1.6 Limitations

The most significant limit of this research project is the number of people that responded to the initial questionnaire and subsequent testing iterations. However, although more respondents would have been valuable, the people who did respond are highly regarded, experienced and competent people. More input was also expected from the WASH community but the concept was sometimes met with cynicism and resistance that might possibly have hampered the number of respondents. The other limitations are elaborated upon in Chapter 3 and 5.

1.7 Structure of the report

Initially, there were more research objectives, however, through the course of the research it became apparent that there was an essential aspect missing and that I could not develop my research without addressing the gap. The focus of the research then shifted to address that gap, hence the revised research objectives. Therefore, the initial two research objectives are addressed in the Literature Review, Methodology and Results Chapters. The additional research objectives 3 and 4 are introduced and addressed in the Results Chapter. All the research objectives are discussed and analysed in Chapter 5 and the research paper is concluded in Chapter 6.

Chapter 2: Literature Review

This literature review aims to:

- review the knowledge on capacity building in humanitarian human resources
- review the knowledge on capacity building in water, sanitation and hygiene practitioners specifically
- identify options and initiatives for capacity building for WASH practitioners
- discover the research gaps of the topic under study

2.1 Sources reviewed

The logical literature search method (Fisher, Reed, 2012) was applied following a method whereby certain questions needed to be answered and their answers spurred further questions. The answers built on each other and completely shaped my research in the end with unexpected outcomes. Although the reasons behind using the different sources below overlap, they are roughly set out in order of the literature review aims.

Source / Type of Information	**Search Strategy**	**Justification of approach**
Expert led research	Brian Reed provided the initial bulk of documents and literature as well as recommended a number of further resources.	This bulk of resources was collected for an unrelated project regarding capacity building in developing countries. Brian Reed is very well versed in capacity building in WASH and recommended a number of key informants and further resources.
WEDC Resource Centre	The resource centre was searched for any source containing 'capacity building', it was then narrowed down to 'capacity building' + 'WASH'/ 'water'/ 'sanitation'/ 'hygiene promotion' as the initial search yielded too many results. The subsequent search terms provided more focused results. Terms such as 'career + portfolio + development', 'human + resource + development' were used as well.	I was physically present at the WEDC resource centre for my initial meeting with my mentor. As a starting platform the resource centre of one of the most renowned water engineering development centres proved a good starting point.
Electronic Library catalogue	The terms 'capacity + building' + WASH did not yield any results but 'capacity + building' + 'humanitarian' + 'worker' did. To get more specific results, a variety of synonyms and combinations of terms were used. Terms such as 'capacity + training', 'WASH + worker', 'capacity + development', 'WASH + capacity + development'.	The majority of results for 'capacity' + 'building' dealt with local capacity building/affected populations, therefore the terms used became more specific to find documents that dealt with capacity building in humanitarian workers.

Dissertation/ Theses	With the assistance of the WEDC resource centre manager, all the previous student reports were searched for topics containing 'capacity building'/ 'capacity building' + 'WASH'/ 'water'/ 'sanitation'/ 'hygiene promotion'. None were related to WASH specifically.	To establish whether the topic has been dealt with before or has been touched upon by previous students and would thus assist me in focusing my research.
Google/ Google scholar	'Capacity building' had too many hits thus the search was narrowed down to 'capacity building' + 'WASH'/ 'water'/ 'sanitation'/ 'hygiene promotion'. I also searched 'capacity building in/of WASH practitioners' as a wildcard but then had to adjust combinations of search terms as my research took shape.	The sources discovered up to this point dealt with capacity building of developing states/ people in those developing states. I wanted sources on capacity building of humanitarians/ WASH practitioners. Google scholar/ Google had a lot more relevant documents than online library searches. Another aim was to identify the need for HR capacity building as well as attempt to find literature that contradicts this. Finally, I reviewed 'capacity building gap' literature.
Personal contacts	Due to a lack of experience in the WASH sector, I wanted to understand how relevant WASH capacity building reports and publication were to those people in the field and what they considered credible documents that has had an impact in their sector.	There seem to be a disparity between documents published for a specific sector and those people within that sector actually reading and assimilating it. I wanted to gauge that disparity in the WASH sector but also use the documents/ literature sources that they were using. Whilst developing the framework, collaboration with influential learning organisation were sought to share ideas and to attempt to avoid duplication of effort.
Technical briefs (Publication type not source)	Initially, all relevant WEDC technical briefs were scanned. The search was then broadened to include briefs from the WASH cluster website and a variety of NGO websites like Oxfam. Humanitarian learning organisations' briefs were also read.	In order to establish what competencies WASH practitioners ought to have, a large number of organisational and academic technical briefs were consulted. This was also done to triangulate data. As briefs are often written as capacity building tools addressing skills gaps, they were deemed as a concrete source.
Conference proceedings (Publication type not source)	Some conferences were not planned on being discovered but did surface due to previously existing subscriptions to ICRC's webinars/ conferences, The Crises Group, The Sphere Project and Chatham House	Conference proceedings mostly deals with factual topics and during the proceedings, peer review takes place as people agree, disagree and substantiate issues. It is a credible form of brain storming by a group of experts.
WASH / Humanitarian Courses	The most pertinent points relating to the research objectives were absorbed and helped contextualise issues raised by the literature reviewed.	These courses delivered by RedR and Liverpool School of Tropical Medicine were part of the capacity building in humanitarians /WASH practitioners that the research is concerned with. Pertinent and topical concepts added to the depth of the research and framework development.
Specialised WASH databases	This search started at the WASH cluster website that led to a number of water-specific and sanitation-specific websites. The GLAAS reports were instrumental.	Mainly to find out whether general competencies exist for WASH practitioners, but other relevant information was then also unexpectedly garnered.

		These databases were also used as indirect evidence but useful for triangulation.
Bibliographies	Once a useful source was discovered, the bibliographies were scrutinised for more relevant sources.	Using sources that was used by a credible report, allows for a more confident search of credible sources
WEDC course material	The module material used was the emergency water supply and emergency sanitation as well as the 'Hygiene promotion' book by Ferron et al that was part of compulsory reading.(Ferron, Morgan et al. 2007). Using a MSc programme as the base for competencies was thought to be a dependable start	During the WASH practitioner competency search, it became clear that organisations had unique ideas of what constituted adequate skills, training and experience as seen through their HR recruiting criteria and competency frameworks or similar. I reverted back to the most comprehensive set of WASH skills and training that I knew existed and that had significant credibility in the WASH sector.
Competency frameworks/ minimum standards/ mandates of organisations	Starting with familiar frameworks like the military competency validation framework to similar frameworks in NGOs, learning institutions, sectoral organisations (CILT) and professional/ membership organisations.	To establish the status of a WASH practitioners' competency framework and if it did not yet exist, I wanted to establish what ought to be in such a competency framework with regards to domains, levels, indicators and basic content.

d

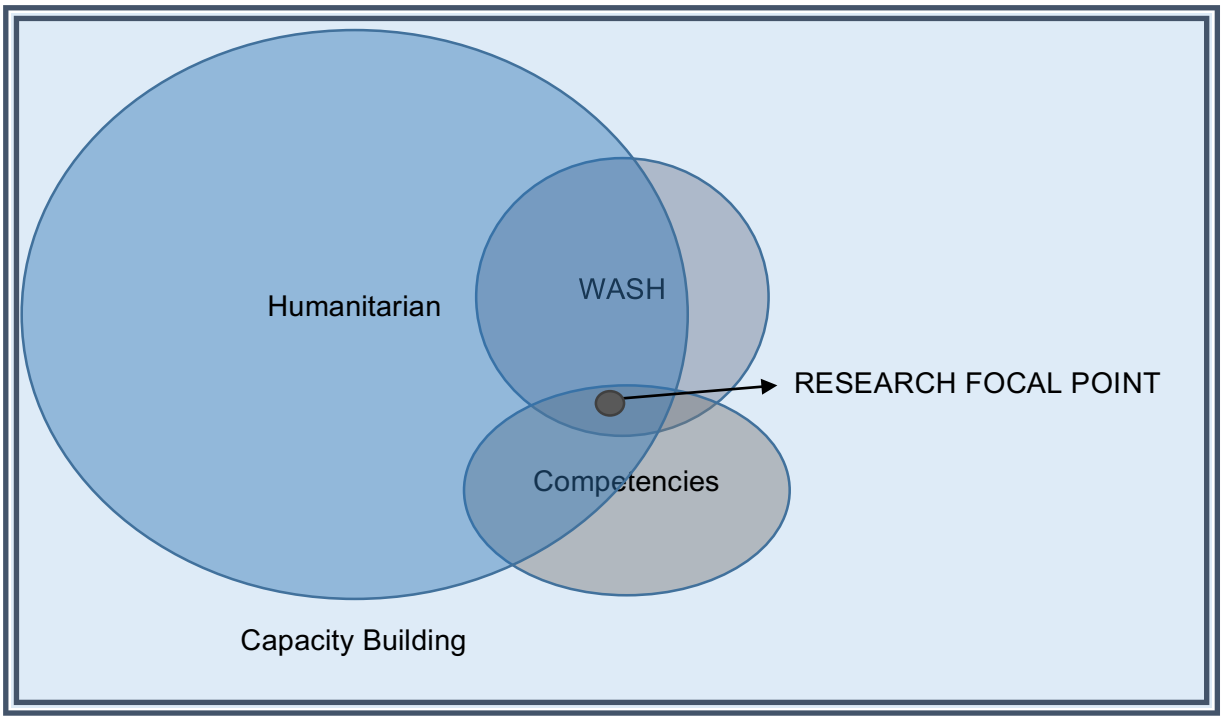

Fig 2.1 Research focal point diagram

2.2 Enhancing capacity in humanitarian workers

The literature review has two main sections. The first is a review of knowledge on capacity building in humanitarian workers generally and the second is a review on WASH practitioners specifically. The sections comprise of definitions, the current situation, challenges, options and professionalisation.

2.2.1 Definitions

2.2.1.1 Capacity building/capacity development

In the international development community there seems to be agreement that "capacity development or capacity building is the engine of human development and as such is now an officially declared key objective of international development" (UNDP 2010). Capacity building has become a catchphrase and so widely used that there is a danger of it losing potency and meaning. However, it is so essential, that all large developmental organisational aims and objectives will incorporate it. Although the English Oxford Dictionary do not have a definition for capacity development, many development and aid organisations have similar working definitions. The one common thread through all the definitions found of capacity development is sustainability. Thus capacity building "starts from the principle that people are best empowered to realise their full potential when the means of development are sustainable, home grown, long term, and generated and managed collectively by those who stand to benefit" (UNDP, 2009) .

What is capacity building / capacity development? UNHCR defines it as "a process by which individuals, institutions and societies develop abilities, individually and collectively, to perform functions, solve problems and set and achieve their goals" (ReliefWeb, 2008).

The Urban Capacity Building Network (GDRC, 2015) elaborates further and argues that capacity building is much more than training and includes the following:

- 'Human resource development, the process of equipping individuals with the understanding, skills and access to information, knowledge and training that enables them to perform effectively
- Organizational development and elaboration of processes and procedures
- Institutional and legal framework development, making legal and regulatory changes to enable organizations, institutions and agencies at all levels and in all sectors to enhance their capacities.' (GDRC 2015)

2.2.1.2 Humanitarian workers

Generally speaking, capacity building in the humanitarian sector refers to building local capacity or building capacity of those that are affected. Thus building the local capacity of the people in the developing world or in disaster affected communities. It also consists of local level staff that might work for governmental departments or local NGOs and national and international level technical professionals/ engineers/ practitioners that specialise in emergency response and/ or development.

This research project refers specifically to building capacity within the ranks of those that constitutes the human resource response to emergencies - the humanitarian worker. OCHA states that it includes *"all workers engaged by humanitarian agencies, whether internationally or nationally recruited, or formally or informally retained from the beneficiary community, to conduct the activities of that agency"* (ReliefWeb 2008). Humanitarian workers constitute a plethora of specialisations that mirror professions in the private or public sphere. Humanitarian specialisations include health, logistics, nutrition, education, shelter and non-food items, water sanitation and hygiene promotion, development, emergencies, preparedness and prevention.

2.2.1.3 Enhancing humanitarian response capacity

"Enhanced Response Capacity can be defined as a process whereby people, organisations and the international humanitarian community as a whole unleash, strengthen, create and maintain capacity to identify and meet humanitarian needs in a timely, efficient and effective manner" (ECHO EU 2010). In the majority of detailed definitions of capacity building three levels of capacity building are identified:

- *"Individuals: Their ability to learn; gain knowledge and skills that can be expanded when new opportunities arise*
- *Organisations: two sub levels are identified: local organisations (including local authorities) and international organisations and European NGOs*
- *Systems: these extend beyond the individual and organizational levels to systems of organizations, their interfaces and the institutions that guide them" (ECHO EU 2010)*.

Capacity building at organisational and systemic level are essential, but this report will focus on the individual level that ought to ultimately set the standard and basis to enhance capacity at organisational and then systemic level. Organisations are made up of people and therefore the essential building blocks are individuals. Conversely, the systemic level can also set the standards for individual capacity building in the case of professions.

2.2.2 Current situation: Do we need to enhance the capacity of humanitarian workers? Why?

The ideal situation is encapsulated in the 17 Global Sustainable Development Goals which aim to end poverty, protect the planet and secure prosperity for all in the next 15 years. (United Nations 2015). Although the emergency phase / sector is distinct from the development phase / sector they are interlinked as the one has direct and indirect consequences for the other. For example, a lack in local development of services and livelihood tends to increase a population's vulnerability to cope with disasters.

The Global Humanitarian Assistance (GHA) report 2015 demonstrates *"that poverty and vulnerability to crises are intrinsically linked and that international humanitarian assistance continues to go predominantly to long-term recipients. This emphasises the need to build resilience, address the underlying causes of crisis and meet the long-term needs of people affected by crisis. For this to happen, a shared responsibility between humanitarian, development, climate change and other actors is critical as is the mobilisation of other resources beyond humanitarian assistance*"(Swithern, Sardiwal 2015).

Therefore, although the developmental goals are ambitious and relates globally, they must be taken into account when planning an emergency intervention. That planning and implementation is done by a very small humanitarian workforce that play an instrumental part, thus enhancing their capacity is imperative in order to eventually reach these goals.

The requirement for enhancing humanitarian professionals have been echoed by many. The UK Government's Department for International Development's (DFID) Humanitarian Emergency Response Review, highlighted that "the uneven quality of personnel is a major limiting factor in humanitarian response" and that the "overall level of professionalism in the humanitarian sector needs to be raised through better investment and skills" (DFID 2011).

2.2.3 Capacity building initiatives

Capacity building initiatives and approaches were identified during the literature search for example, those initiatives born from RedR, Mango, The World Association for Disaster and Emergency Medicine (WADEM) and Professionals in Humanitarian Assistance and Protection (PHAP)(Walker, Russ 2010). Many initiatives were conceived in response to the Humanitarian Reform in 2005, especially in the setting of standards for example the 'Core Humanitarian Standard on Quality and Accountability (CHS) which was a direct result of the Joint Standards Initiative (JSI) in which the Humanitarian Accountability Partnership (HAP) International, People

In Aid and the Sphere Project joined forces to seek greater coherence for users of humanitarian standards(Walker, Russ 2010).

Initiatives aimed at enhancing humanitarian human resources range in breadth and depth as a result of the immense effort that has been put into human resource capacity building in the global development community. Many of these initiatives are frequently produced through frameworks to make the concepts and approaches to capacity building user-friendly and structured.

In **depth**, the initiatives range from globally applicable frameworks like the Humanitarian Action Qualification framework (Aardema, Muguruza 2014) which is a reference system based on learning outcomes and it acts as a translating tool for qualification levels and systems to capacity building frameworks developed and used by single issue, small NGOs or learning institutions. In **breadth**, the initiatives range from general initiatives like the Consortium of British Humanitarian Agencies' (CBHA) Core Humanitarian Competency Framework (Rutter 2011) that covers all general competencies of the humanitarian worker to specific technical capacity building initiatives/ frameworks like the Standing Committee on Engineering Capacity Building's guidebook and compendium initiative (Clinton, Wall et al. 2010) that focus on engineering human resource capacity, amongst others. The Humanitarian Leadership Academy aims to *"work with the humanitarian sector and new partners from the technology industry, private sector and universities to help communities become more resilient in the face of disaster and give them the training and skills to respond to crises in their own countries" (HLA 2016).*

Other initiatives include the Emergency Capacity Building (ECB) Project, the Emergency Capacity Building (ECB) Project and the Public Health Preparedness and Response Core Competency Development Project.(Walker, Russ 2010)

However, it also came to light that despite an impressive range of 'capacity building' initiatives, the sector lacked the professional architecture and systems that could deliver in this desire' (Walker, Russ 2010). The initiatives are implemented but not in a sustainable structure that could support it. There is no strategic framework or institution that oversees the united effort in capacity building in the humanitarian workforce. Could the professionalisation of the humanitarian sector provide this architecture and enabling systems?

2.2.4 Professionalisation of the humanitarian worker

Professionalisation is being explored as a mechanism in which the humanitarian sector can enhance holistically. Many options and initiatives do share aspects of professionalisation but

exist independently of each other with little collective effort to constructively enhance overall. Professionalisation is the architecture, not an initiative.

2.2.4.1 Defining 'professionalisation'

The English Oxford Dictionary states that a 'professional person is connected with a job that needs special training or skill, especially one that needs a high level of education, professional qualifications, professional standards and practice. There is usually an opportunity for professional development' (OED 2016). Hall differentiates between the structural and the attitudinal attributes of professions. Structural attributes include 'such things as formal education and entrance requirements'(Hall 1968). Attitudinal attributes are more concerned with the 'sense of calling of the person to the field'. A similar distinction between systems and attitudes is made by Cruess, Cruess and Johnston (2004). They argue that the core of a profession is 'possession of a specialized body of knowledge and commitment to service'. They explain that 'because knowledge is used in serving others, professions are identified as being altruistic and value laden'. They identify four main attributes of professions:

- a monopoly over the use of specialized knowledge
- knowledge used in an altruistic fashion
- autonomy to establish and maintain standards of practice and self-regulation to assure quality
- responsibility for the integrity of knowledge, its expansion and proper

As a result of the Cruess, Cruess and Johnston (2004) paper, their proposal for the definition of a profession is

"an occupation whose core element is work based upon the mastery of a complex body of knowledge and skills. It is a vocation in which knowledge of some department of science or learning or the practice of an art founded upon it is used in the service of others. Its members are governed by codes of ethics and profess a commitment to competence, integrity and morality, altruism, and the promotion of the public good within their domain. These commitments form the basis of a social contract between a profession and society, which in return grants the profession a monopoly over the use of its knowledge base, the right to considerable autonomy in practice and the privilege of self-regulation. Professions and their members are accountable to those served and to society."(Cruess, Johnston et al. 2004)

A commonality of professions is a shared set of core competencies and this topic is address in section 2.2.5.1 Core competencies below.

2.2.4.2 Is professionalisation a feasible solution?

EXHIBIT 1

Support For Creating An International Humanitarian Aid Profession Among Survey Respondents, 2008

Question/response	Percent of respondents
Do you think that humanitarian work should be professionalized?	
Yes	91.9
No	8.1
What do you think is the main advantage of making humanitarian work more like a profession?	
The quality and consistency of services delivered by humanitarian workers will go up	52.5
It will make humanitarian workers more accountable to beneficiaries	29.7
Career paths in humanitarianism will be better defined	8.4
Humanitarian work will be more independent	7.5
Accountability to donors will be better	3.6
Which of the following categories would you like to see it being possible to obtain an internationally recognized competency certificate in?	
Master's degree	51.2
Mid-career level	27.3
Entry level	21.5
What sort of professional supporting bodies would you like to see?	
International professional association for humanitarian workers	57.0
National professional association for humanitarian workers	19.5
International humanitarian studies and research association (for academics and practitioner-researchers)	11.7
International association for employers of humanitarian workers	9.1
National associations for employers of humanitarian workers	4.0

Fig 2.2 Results from ELRAH survey on the support for an International Humanitarian Profession

The findings from the first survey (Fig 2.2) and the consequential recommendations that Walker and Russ (2012) made spurred further academic research and attention was given to the development of professional systems for the humanitarian sector. In the second ELRHA study, a number of advisory groups 'hubs' were set up in different regions across the world to find out how a system for the humanitarian professional development could be achieved. This culminated in a survey designed through collaboration with these hubs and with more correspondents from Africa and Asia and field based respondents than the initial survey, making it more inclusive and internationally representative.

The findings from the second survey identified many hindrances to training and professional development and the authors called for agreement that the situation is unsatisfactory. However, they acknowledged many initiatives that are striving to improve the situation. For example, competency frameworks to humanitarian training, growth in accreditation of training courses and the development of cross-organisational capacity building. Of interest, 85% of respondents endorsed the initially proposed humanitarian competencies (these have developed and became the CBHA Core Humanitarian Competencies), a concept for a learning and development passport were developed and a potential professional association for humanitarian workers spurred great debate but requires further investigation (Russ 2012).

From the literature reviewed it is clear that many of the elements of professionalisation are in place or are developing. Training providers are seeking to make their training more

internationally recognisable and global codes of ethics and standards of competence exist in some sectors (Walker, Russ 2011). However, there are still a number of challenges that needs to be addressed in order to achieve model professionalisation and accountability in the sector.

2.2.4.3 Arguments against professionalisation

Professionalisation has become an emotive word in the sector, dividing those who view the term 'professional' as describing a 'person who does something with a high level of competence, commitment or expertise in a particular activity' (OED 2012) and those who feel that a stronger focus on the description above might sacrifice humanitarian values and the vital human connection to affected communities. Consequently, there is a fear that professionalisation comes at the expense of altruistic volunteering (Carbonnier 2015).

The two definitions do not need to be mutually exclusive and the literature quoted in the previous survey suggested that this would not be the case, as survey respondents' comments emphasise a 'belief in service' and a 'sense of calling' as key characteristics of professionals in addition to doing it to a high level of competence *(Russ 2012).*

"Although some professions (i.e. law and medicine) do exhibit tendencies of using a profession for materialistic gain, others like education do not. Walker and Russ (2011) reiterated that creating a profession does not exclude others and support staff and local volunteers are vital to the humanitarian profession' (Walker, Russ 2010, Walker, Russ 2011).

Only one explicit document was found arguing against the professionalisation of the humanitarian sector. It only *argues "that professionalisation ought to be approached with caution and he identifies three potential weaknesses of professionalisation;*

- *the distance of the relief worker from the beneficiary*
- *barriers to entry into the humanitarian sector*
- *adding to risk aversion and a decline in innovation". (James 2015)*

Professionalisation is not the answer to all problems in the sector for example, it does not necessarily address funding issues directly or tensions between humanitarian actors and state and non-state actors. It does however allow for more 'accountability and the possibility of consistently high quality aid deliver' (Walker, Russ 2011).

2.2.5 Challenges to capacity building and the professionalisation of humanitarian workers

When something needs to improve, it follows that it constitutes a challenge. Walker and Russ (2011) identifies five critical areas for advancement;

- core competencies
- systems of certification
- apprenticeship and experiential learning
- professional associations
- accreditation and accountability

Other challenges like inequality, inaccessibility, high staff turnover and lack of funding will also be addressed but the focus of this research paper is core competencies.

2.2.5.1 Core competencies

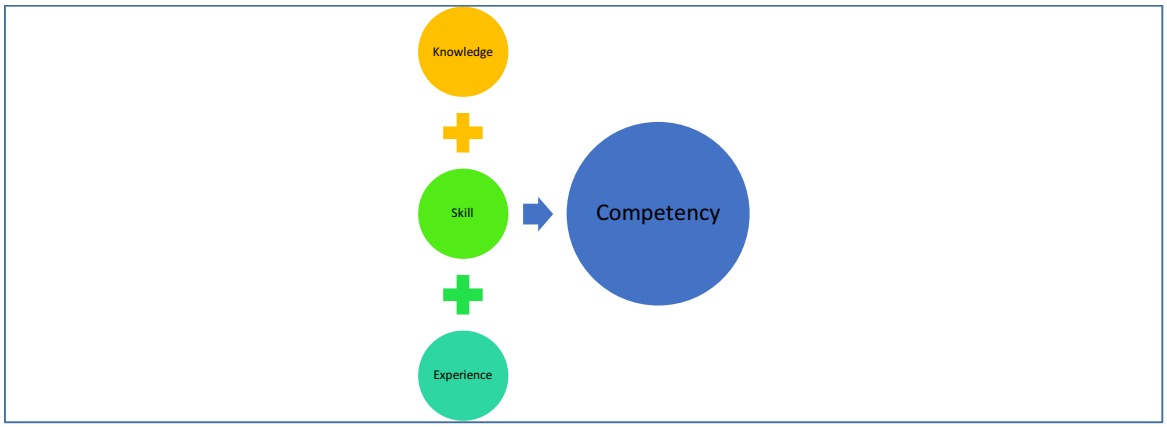

Fig 2.3 What is a competency?

Being competent involves having the values, knowledge and skills required to effectively practise your profession or trade. It is the basis of most professions and from a standard set of competencies, the other building blocks like training, certification, associations, accreditation and accountability can develop.

> *"Training should be based on comprehensive core competencies that providers must demonstrate in addition to their skill-specific competencies. Competencies specific to humanitarian sector training should be practice- and application-oriented, teachable, and measurable. Competency-based, standardised programs should be used to select humanitarian workers deployed in future crises and to guide the professionalisation of this discipline."(Johnson, Idzerda et al. 2013)*

'By establishing an internationally accepted set of core competencies on which to base training, as well as establishing an internationally accepted way of certifying training courses and accredit training institutions- the field of humanitarian training could be opened up to competent

institutions worldwide. No longer will aid workers feel compelled to seek out expensive training from traditional institutions' (Walker, Hein et al. 2010). Therefore, a set of common core competencies is required for any sector aspiring to be truly credible, accountable and professionally essential. The core competencies for the humanitarian worker in general have been developed but not those for a number of sectors of 'professions' like WASH and shelter (Rutter 2011).

2.2.5.2 Systems of certification

Training in the humanitarian sector is ultimately ad hoc, unstructured, unregulated and has no currency in the sector. Master degrees have currency but they incorporate their own interpretation of the essentials of humanitarianism as there are no core curriculum available and very few of the master programs have any practical component which is essential in most humanitarian jobs (Russ 2012). The argument against this is that every humanitarian intervention is unique and that what works in one situation does not necessarily work in another, but equipping the humanitarian workforce with as many skills and competencies as possible will allow them to more effectively assess what approaches can be applied to which situations.

A degree is very rarely sufficient and does not necessarily indicate competency. Master and bachelor degrees cannot be accessed by many people due to cost and geographic location but seeing as it is one of the few measurable qualifications, people with a bachelors or more preferably, a masters are preferred above someone with years of experience because at least a masters is relatively measurable and recognisable. This could cause the humanitarian 'profession' a lot of damage as people are put in positions that they might be 'qualified' for but are not competent in and some competent people without qualifications are undervalued for the same reasons(Russ 2012). On the flipside, some humanitarians with a lot of experience may have major knowledge gaps as they might be used to using a proven method but there have been major advances in knowledge which they do not know about and consequently cannot apply(Reed 2016).

The humanitarian sector does incorporate many different professions which in turn have their own affiliations to professional bodies that often miss *"the core competencies deemed necessary to be fit to operate in the humanitarian field. In a sector that is growing at a projected 6% per year, there is a need to ensure that its infrastructure and support systems are fit for purpose and serving beneficiaries in as efficient a way as possible"(Russ 2012).*

Having established the challenge of core competencies and systems of certification, how will these be implemented? Russ (2012) discusses the concepts and the challenges to apprenticeships, experiential learning and the possibility and use of professional associations.

2.2.5.3 Apprenticeships, experiential learning and professional associations

A challenge for all professions, is gaining experience as a newcomer. That is why apprenticeships and internships have been designed to alleviate this complication. It allows for experience to be gained in a safe environment through a well-structured programme. They incorporate a well-defined system of monitoring and have systems for correcting and assessing development. 'a very small number of humanitarian agencies provide anything similar and this might be one of the biggest gaps in the humanitarian community' (ECHO EU 2010).

> '*The reality of humanitarian interventions is often overshadowed by capacity shortcomings due to operational pressures to deal with the ongoing humanitarian responses*'. *(ECHO EU 2010)*

Professional associations ensure standards and disciplines unprofessional and incompetent behaviour. They serve as a platform for the advancement and regulation of the profession. In the absence of some form of humanitarian association with agreed standards, professionalism arises in an ad hoc manner through the best efforts of individuals and employers. Walker and Russ (2011) identify a set of functions that a possible association would have that will allow the promotion of aid worker competencies, develop their career pathways, provide professional independence and safeguard the profession's reputation'. There are associations that are professional but not humanitarian e.g. British Medical Association (BMA) and the Institute for Civil Engineers (ICE). Is it possible for them to include the humanitarian sector engineers for example as some of them are already doing to some extent? Or could they provide the structure upon which a humanitarian professional body can be modelled upon?

Some humanitarian clusters or sectors do have associations that exhibit attributes of a true professional association. These include the World Association for Disaster and Emergency medicine (WADEM), the Humanitarian Logistics Association (HLA), The International Humanitarian Studies Association (IHSA) and the Professionals in Humanitarian Assistance and Protection (PHAP) (Russ 2012).

2.2.5.4 Accreditation and accountability

Russ states that

> *"Following a decade in which the humanitarian sector has sought to develop global standards, codes and representative bodies, there is growing momentum to explore the potential for creating a unified system of professional development, accreditation and association, which could increase accountability, raise the quality and consistency of humanitarian service, open up the profession to talented new recruits, and raise the status*

of the humanitarian service provider to a level on a par with other professional groups." This would support the infrastructure for career paths with lifelong learning opportunities and support the retention of humanitarian workers over decades to come. This also prepares for the forecasted increases in natural and complex disasters where large swathes of civil society in many countries will necessarily be involved in relief work."(Russ 2012)

2.2.5.5 Inequality and inaccessibility

The five identified topics were discussed above. In addition, indicators, inequality, staff turnover and funding will be reviewed.

A general complaint from humanitarian workers in the south is that the system is biased towards candidates from the north who can access available expensive professional qualifications. Access to a system of accreditation and qualification ought to be more equitable and based more on merit (Walker, Russ 2011). Geographical location of training centers will need to be revised, especially to the more rural areas.

2.2.5.6 Indicators

Indicators in the humanitarian sector can mean donor set indicators that signify when an organisation has achieved what the donor intended the money for and can also mean indicators that show if someone is competent in their job and is exhibiting the behavioural indicators that officially prove this. Indicators thus makes competencies or results measurable. If something is not measureable, how can you credibly develop it? In the case of the humanitarian sector, there are donor prescribed or programme / project indicators but not always indicators to ensure that their staff are competent or developing their competency (Morgan 1997).

When there are no inter-agency basic indicators amongst all sectors, people develop impromptu according to a subjective set of aims and indicators. Indicators should focus on process and behavioural change and not just be inputs-outputs based(Morgan 1997). It is recognised that identification, assessing, monitoring and measuring of capacity and its ultimate impact is difficult (ECHO EU 2010).

2.2.5.7 High staff turnover

'Rapid staff turnover has been identified as one of the major constraints on both staff capacity building and organisational learning. A study undertaken for Oxfam GB (Richardson 2006) supports previous findings that traditional human resource practices in the humanitarian field,

with many staff employed on short-term contracts, have inhibited skills development and constrained programme and organisational learning'.

"*High staff turnover impedes organisational learning. It is quicker to send in experienced expatriate staff than to build local/ organisational capacity"(ECHO EU 2010).*

2.2.5.8 Lack of funding

Financing for capacity building is scarce and investments are often used to 'pilot' new approaches and ideas, implying greater risks (in terms of achieving results) than more conventional projects (ECHO EU 2010). Donor money is mostly earmarked and even though for example, we know how important 'preparedness' is, organisations struggle to secure adequate funding for it. The same goes for funding for capacity building in the humanitarian workforce as there is a lack of concrete outputs with training and long term investment.

2.2.6 Humanitarian sectors moving towards professionalisation through core competencies and establishments/ associations

'Initiatives to professionalise and identify the intellectual base of all of the different sectors in humanitarian aid (health, logistics, etc.) are surfacing in Europe and the United States. These efforts began after a series of widely publicized disaster responses (the 2004 tsunami in Southeast Asia, Hurricane Katrina in the United States in 2005, and the 2010 earthquake in Haiti) that raised questions about the effectiveness, cost, coordination, and impact of such responses' (Walker, Hein et al. 2010).

"These efforts were focused on strengthening three aspects of the aid business: institutional capacity to deliver services; governance, management structures, systems and policies; and professional skills and competencies of staff" (Walker, Hein et al. 2010).

The main contributors and developers to professionalise the sector are the Active Learning Network for Accountability and Performance (ALNAP), the Sphere Project, People in Aid, the Humanitarian Accountability Project (HAP International). They all promote notions of professionalism but through the agency of the employing institution.

(James 2015) proposes a model for understanding professionalisation. His analysis compares six other professions against the same criteria to argue that the humanitarian community already constitutes a profession.

Sectors are recognising the need to enhance capacity respectively and are using a variety of tools to achieve this. It seems that establishing a core set of competencies is one of the initial steps for these sectors. The **nutrition sector** acknowledges that

> *"competency frameworks are an important tool for human resource development and have been developed for several other humanitarian sectors. We therefore developed a technical competency framework for practitioners in nutrition in emergencies"*.(Meeker, Perry et al. 2014)

(Kovács, Tatham et al. 2012) developed a conceptual framework for skills in the field of humanitarian logistics, and evaluates the framework through a content analysis of job advertisements. The **logistic sector** now also has a "Guide to the Certification of Humanitarian Logistics" that was sponsored through the Fritz Institute and awarded through the Chartered Institute for Logistics and Transport (UK) (Kene, Pack et al. 2009).

The **health sector** has many examples of core competencies required for professional humanitarian health workers. Kene et al (2009) found through their survey of humanitarian health workers, that "*humanitarian health workers self-identify as professionals in humanitarian assistance and as technical experts. A professional organization with specific support functions would be of interest to many humanitarian health professionals*."(Kene, Pack et al. 2009)

The Standing Committee on Engineering Capacity Building of the World Federation of Engineering Organisations (WFEO) launched its first edition of a guidebook in October 2010. This guidebook sets out suggestions for human resource and capability building approaches and presents a collection of good practice, programmes and initiatives of a range of **engineering professionals** and organisations.(Clinton, Wall et al. 2010)

In their "Developing professional competencies for humanitarian engineers." paper, Reed and Fereday (2016) provides the

> *"rationale for recognising the specific skills of engineering professionals in the humanitarian field, describing current initiatives, concepts, challenges and ways that may be useful in providing a sustainable framework. Whilst a set of competencies is valuable for employers, these also enable professionals to benchmark their own level of knowledge and expertise, so they can judge if they are competent to offer expert humanitarian assistance."(Reed, Fereday 2016)*

2.3 Enhancing capacity in WASH practitioners

The sections above reviewed literature on capacity building in humanitarian workers as a whole and the initiatives and the respective challenges to capacity building. This following section aims to review literature relating to the WASH sector and those that work within that sector - WASH practitioners.

2.3.1 Defining the WASH Cluster and WASH practitioners

2.3.1.1 WASH

WASH is an acronym for water, sanitation and hygiene. The acronym encapsulates many public health related issues as the impacts of inadequate provision in these areas overlaps strongly. The WASH movement is largely about creating access for people to water, sanitation and hygiene. Success in WASH is an area that is key to ensure many areas of development can function.

2.3.1.2 WASH Cluster

“The Global Water Sanitation and Hygiene Cluster, or Global WASH Cluster (GWC) is a partnership grouping 32 partners aimed at improving the coordination and the humanitarian response in the WASH Sector. The Global WASH Cluster (GWC) was formed in 2006, building upon the successes of an existing Water, Sanitation and Hygiene (WASH) humanitarian sector working group. It is managed through a governance system designed to facilitate the achievement of the GWC Strategic Plan in a transparent and efficient manner. The primary purpose of the cluster is the delivery of water, sanitation and hygiene promotion assistance to affected populations during emergencies through improved coordination of the response at all levels” (WASH Cluster 2016). Could the WASH cluster be the beginnings of a professional association?

2.3.1.3 WASH Practitioner

A WASH practitioner is a person that works in the water, sanitation and hygiene promotion sector. A WASH practitioner is not necessarily an engineer but anyone that works towards the advancement of access to adequate water, sanitation and in mobilising communities towards sufficient hygiene for sustainability of hardware. It has been recognised the hardware (engineering structures like toilets) is not sustainable without the software (community understanding and acceptance of the hardware) (Global WASH Cluster 2015).

2.3.2 Global WASH emergency and development situation

The UN-Water Global Analysis and Assessment of Sanitation and Drinking-Water (GLAAS) 2014 report states that although advancement has been made, there is lots of room for improvement. As an overview '2.5 billion people lack access to improved sanitation, 1 billion people practice open defecation, 748 million people lack access to improved drinking water (1.8 billion people use a source that is faecally contaminated) and millions of people have no access to soap and water to wash their hands-an act that will help them to prevent the spread of disease' (UN Water, WHO 2014). Sanitation was the most widely missed MDG target and with the ambitious Sustainable Development Goal targets, a significant improvement has to be made.

The GLAAS report had 10 key findings and presents data from 94 countries, 23 external support agencies, and represents over 90% of official development assistance (ODA). An increase in capacity building would address many of the issues but key finding 6 states that the "lack of human resources constrains the sector" (World Health Organisation, UN Water 2014).

In a recent case, a WASH practitioner had to vet people to take over from her when she moved on to another position. Regardless of her recommendations the person appointed was a chemical engineer who had no experience in WASH. But seeing as 'chemical engineer' was something the HR department could measure as a concrete indicator, the wrong person was appointed to the job (Hammond 2015). This undermines the credibility of the organisation and the WASH sector as there have been no concrete measures for competency in WASH, so HR has to select the nearest measurable indicator.

2.3.3 Challenges to capacity building in WASH and WASH practitioners

Training for those in the WASH sector is unstructured, ad hoc and unregulated. In a WEDC case study, Coates (2010) noted that The Joint Sector Programme, Training for Real projects' stakeholders including senior members of government, met to discuss lack of planning and strategic direction in WASH capacity building and the predominance of "fire-fighting" and supply-led, short-term training interventions.

"They agreed that a scatter gun effect was doing little to develop a robust, multi-dimensional specialist workforce, able to support current service delivery or meet new targets in the future. Evidencing an absence of well-structured training programs, lack of accreditation for universities, poor continuing professional development options and limited training capabilities in the private sector."

The group then heard from the Chartered Institute of Water and Environmental Management, UK (CIWEM), further convincing them that accreditation and association are central to meaningful professional development". (Coates 2010)

The results are that there is a brain drain to organisations outside of the WASH sector, high staff turnover in the water supply and sanitation sectors and professionals working in temporary capacity or project linked tasks, rather than in fulltime employment. This leads to a heavy reliance on volunteers and interns to fill the human resources gaps (Global water for sustainability n.d.)

'Relevant professional qualifications for WASH professionals are varied (e.g. engineers, social sciences, environmental or public health related disciplines), thus the professionalisation of humanitarian WASH workers may be a challenge. Moreover, many of these professionals are frequently certified through other professional organisations usually at a national level.'(Johnson, Idzerda et al. 2013)

"*The information on course curricula that was analysed was limited to that available on searched websites. Therefore, it was not possible to identify and distil common points with regards to core competencies being developed and how they are being delivered. However, given the broad spectrum of relief activities that are included under the WASH acronym, it may be challenging to find a consensus with regards to core competencies in this theme.*"(Johnson, Idzerda et al. 2013)

2.3.4 WASH capacity gap mapping

There has been a variety of capacity mapping initiatives in water and sanitation respectively, some included successfully tested mapping tools that can be promulgated in other countries and sectors for example the Water and Sanitation Programme's capacity mapping tools. However, the most credible and inclusive reports were those from CAWST, IWA and GLAAS (2015).

CAWST (2015) has learned from 14 years' experience working with their 800 clients in 68 countries that a few key components need to be in place to ensure sustainability in WASH programs. In each of those components, two factors are essential for successful planning and implementation; human capacity and financing. This was not the first time the lack of HR numbers and quality have been identified as a problem. In an International Water Association (IWA) (2015) report, the gap of 787,200 WASH professionals was identified that were needed to be filled in order to reach universal WASH coverage just in the 15 developing countries studied (CAWST 2015).

IWA's publication 'An Avoidable Crises: WASH Human Resource Capacity Gaps in 15 Developing Economies' (DeVette, Williams, 2014)had 6 key findings, 5 of which heavily influence the direction and focus of this research project namely*;*

1) "Sanitation services are significantly undermined by a poor supply of professionals when compared to water services.

2) Low levels of access to and inadequate coverage of courses in tertiary education institutes is a significant bottleneck to meeting human resource demands.

3) Operation and maintenance of water and sanitation systems are chronically neglected, with human resources inadequately allocated.

4) Education and skills development requirements to operate and maintain specific technologies have not been appropriately assessed; such assessments would greatly benefit the WASH sector.

5) The dependence on communities, volunteers and semi- skilled workers in rural areas is not sustainable without adequate institutional and operational support from local government and structured, formalised support from the professional sector"(DeVette, Williams, 2014)

"All of these sustainability components hinge on having human resources in place, with the right knowledge and skills. We must therefore first tackle the massive shortage in the number of local WASH sector workers and their skills. The case for the impact of the human capacity gap on WASH sustainability was bolstered by the previously mentioned IWA report and the GLAAS report. (CAWST, 2015)

2.3.5 Applying capacity building models to WASH: The DG ECHO Guidelines

2.3.5.1 Evaluating capacity building in the WASH sector using the Enhanced Response Capacity model

The European Commission's department for Humanitarian Aid (DG ECHO) proposed Enhanced Response Capacity guidelines to increase the impact of its investments through Enhanced Response Capacity to facilitate a joint donor approach; and to provide a longer term framework. These guidelines will be used as a model to identify global response needs which ought to be tended to if real capacity building is to take place. These requirements are;

- Adequate resources: The WASH sector has always struggled getting enough funding for all resources. This could always be improved.
- Coordination and roll out of the cluster approach: The WASH cluster is young and fought hard to be recognised as a sector. However, it is gaining momentum and it has been noted that the WASH cluster are one of the more active of the 11 clusters.

- Needs assessment and related methodologies: The WASH sector generally invests heavily in their needs assessments due to the consequences and money wasted of not doing so.
- Emergency preparedness, disaster risk reduction and early warning: Although this is recognised as very important, but funding is rarely secured for this as donors want to see what their money is doing.
- Local capacity building: Many studies and initiatives are addressing local capacity building. But without building sustainable capacity in a structured framework approach based on a set of standards, how can it really be measured, compared and therefore effectively enhanced?
- Quality, accountability and respect of humanitarian principles and laws: Literature indicates that those in the sector endeavour to do this but struggles to do so due to a lack of supporting systemic architecture.
- Logistics and other needs: If the funding and coordination is in place, logistics and other needs generally is taken care of. But similar to everything else in the humanitarian sector, every situation and intervention is different.

2.3.6 WASH specific capacity building initiatives

In a review of capacity building organisations, Ngai et al found that there are hundreds of organisations that build capacity including universities, resource centres, private consultancies, foundations and development banks, yet the situation remains bleak (Ngai, Mills et al. 2013). This is a gap in quantity as well as quantity.

2.3.6.1 WASH Cluster development: Developing a strategic operational framework (SOF)

The WASH cluster is the most comprehensive form of WASH response coordination. The cluster strategic plan aims to coordinate and structure the development of the sector through core functions, outcomes and initiatives. The SOF delves into detail about operational ways of working through an adjustable framework.

2.3.7 Professionalisation of WASH practitioners

2.3.7.1 Is WASH a profession and do WASH practitioners want to professionalise?

To establish whether the WASH sector is on its way to being a profession or is one already, it will be compared with the prerequisites for a profession identified by Cruess, Cruess, and Johnston. They argue that the core of a profession is the *'possession of a specialized body of*

knowledge and commitment to service'. They explain that *'because knowledge is used in serving others, professions are identified as being altruistic and value laden' (Cruess, Johnston et al. 2004).* WASH arguably has a specialised body of knowledge. All the wider engineering knowledge that were gained in the engineering profession were significantly adapted and adjusted. It repeatedly happens that when any engineering is applied without comprehensive social engineering and consideration, it fails. The WASH sector definitely has a monopoly on hygiene promotion knowledge. This review failed to uncover any evidence of a lack of commitment to serve in the WASH sector.

Two additional main attributes of a professions are:

- the autonomy to establish and sustain standards of practice and
- self-regulation to assure quality and accountability for the integrity of knowledge, its expansion and proper use (Walker, Russ, 2011).

The WASH sector and the many WASH learning institutions are definitely trying to apply the standards set by Sphere, local government, programmes, foundations etc. But it does not yet seem to have autonomy to establish and maintain standards of practice. When that standard is lacking it follows that self-regulation cannot take place and neither can the sector assure quality and responsibility for the integrity of knowledge.

The only study found that can indicate the willingness of the humanitarian sector to professionalise is the ELRHA survey that indicated that of over a thousand aid workers questioned, 92% indicated that they supported notions of professionalising the work and structure of humanitarian aid. Literature focusing on the wishes of the WASH practitioner was not found.

"*For almost 4 decades, WEDC has been involved in research that has influenced the agenda of the water and sanitation sector. Throughout this time research partners, alumni and professional collaborators have identified the need for greater emphasis on supporting the development of institutional capacity through research programme frameworks, financing mechanisms,* ***standards setting****,* ***profession-building*** *and outreach- building network"* (Coates, 2010)

2.4 The knowledge gaps

The aims of this literature review were to assess the current state of knowledge on capacity building in the humanitarian response workforce, focussing on those in the WASH sector.
Options for capacity building, specifically for those working in the WASH sector were identified as anticipated. Nonetheless, they were found to be disjointed and no commonly agreed upon

knowledge base or guiding standards were found upon which these capacity building options could be constructed on.

It is difficult to prove that 'there is nothing there' and difficult to categorically state that there are definitely no standards for WASH practitioners that can be applied to all contexts. However, if none were found in this literature review, how should WASH practitioners find standards against which to measure themselves and against which to develop?

Although it is not clearly stated in the literature reviewed, it seems that in order to enhance the sector and develop as a whole (not in an uncoordinated, fragmented fashion that have been prevalent until now) creating a set of core competencies for each sector is the obvious starting point. It has been done my other sectors, why not the WASH sector?

2.5 Conclusion

The literature review gives a strong indication that there is a need for the enhancement of humanitarians' response capacity, especially in light of the need for accountability to all stakeholders. There is an endeavour to address that need by a number of capacity building initiatives, but the endeavour is tempered by a lack of formal architecture to support the career and competency progression in most humanitarian 'professions'.

Literature regarding professionalisation of the sector was reviewed as a potential institution that could provide the architecture for the setting of standards, competencies and formal career professional development. The challenges to professionalisation as well as how far some sectors have advanced towards professionalisation, whether intentionally or not, was reviewed. The picture painted was promising and indicated the resilience and drive of humanitarians and contributing organisations to advance the sector notwithstanding the plethora of challenges.

In the review of the current WASH sector there are some indications that it is trailing behind other sectors in the establishment of standards, core competencies and formal career development - even though the WASH cluster is regarded as one of the more active clusters. The literature reviewed gave us an indication of the magnitude of the situation in terms of how WASH human resources we need in terms of quantity, but little is mentioned of enhancing the quality and competency levels of those existing WASH practitioners. Neither was it clear according to which standards the WASH practitioners were held accountable to or validated against. Could the reason be the lack of WASH practitioner competency standards as an essential building block for WASH practitioner competency development and accountability? These questions and possibilities will be explored in subsequent chapters, but firstly the

methodology that was followed to address objective 1 and 2 will be discussed in the next chapter.

Chapter 3: Methodology

3.1 Introduction

The literature review revealed the requirement and benefits of enhancing the capacity of the WASH practitioner. Options and initiatives that could support the WASH practitioner's development were identified with significant input from Walker and Russ (2011). In this chapter the activities and methods taken to answer and address the research objectives and questions will be discussed in search of the most viable option to develop further.

Importantly, there were significant changes in the research objectives as the project matured and gaps were identified that did not allow the process to take the originally intended path. These changes are summarized in *Appendix 4.1* in the Results Chapter. Although it might have been useful to have that paragraph in this chapter, in order to stay true to the process that this project underwent, it is rightly placed in the Results Chapter as the changes were as a consequence of the results of the first two objectives.

3.2 Research design

Originally during the search of a research project topic, the author's paradigm and prior experience led to considering creating a tool to validate WASH practitioners' competencies and therefore strongly considered an action research strategy to address a perceived practical problem. It was assumed that standards existed on which to build the validation tool on but then found that they didn't. During the initial literature review it became clear that a basic element was absent. The element had to be identified and created using a variety of sources and could not be limited in any way, thus the mixed methods strategy proved more suitable for the direction the research had taken.

The nature of this research project is complex. It sometimes required unconventional resourcing methods and consistency between the various components was not necessarily achieved, as this project aims to introduce a new concept to the WASH sector, a concept that is not automatically welcomed by the WASH practitioners it is aimed at. Resistance to the concept might be from a fear of restriction of practitioner freedom, bureaucracy or lack of understanding of the practical application. Consequently, the design and methodology aims at softening resistance by increasing understanding through encouraging participation and communication during the research process from its inception through to the 'final' product.
This research builds on a constructivism and Interpretivist paradigm and it is also qualitative in nature. The purpose is to achieve a 'holistic understanding of complex reality processes' (Fisher,

Reed 2012) . The aims are of an exploratory nature and there will not be a constraint on data collection methods. The intention is to 'enhance already existing knowledge by sifting, guiding and analysing it into a practical tool that can positively alter' the professional development of WASH practitioners and WASH organisations (Denscombe, 2010).

The author endeavours to identify and develop a too l/ concept that can assist with addressing an identified problem. The mixed methods strategy places emphasis on practical approaches to research problems, it will assist the author in avoiding single method bias and optimise the accuracy of findings as triangulation by different methods is an explicit focus of this strategy (Denscombe, 2010).

Research objectives	**Action**	**Indicator**	**Output**
Goal: Enhance the capacity of WASH practitioners	Communication, implementation and feedback cycle	Recommendations from users and wider implementation and use of tool/concept	Tested and workable tool/concept = wisdom
Aim: Find a workable tool/ concept in order to enhance capacity building for WASH practitioners	Critical thinking and judgement supported by literature and research findings	Discussion and consider respondents' critical thinking	Basic tool/ concept = knowledge
Research objectives	**Data analysis**	**Analysis/ results**	**Information**
2) Identify a viable tool/concept for enhancing capacity building in WASH practitioners? 1) Investigate the need to build capacity in WASH practitioners	2) Analyse feedback from respondents and information gained from literature review 1) Sift through literature to establish the need or lack thereof	2) Option identified or not 1) Literature found in support of need	2) Explore suitable options. Methodology chapter and Discussion & analysis chapter 1) Continue with research in literature with more focus & bulk of Literature Review chapter
Data collection	**Data collection**	**Results/Inputs/ feedback**	**Data**
2) Literature review, question most WASH organisations 1)Literature review and interviews	2) Review literature and send 200+ emails 1)Extensive literature review & collaboration	2) Feedback/ recommendations/ information 1) Is there a need yes or no?	2) Option identified or not? 1) A clear yes or no

Table 3.1 Research objectives 1&2, actions, indicators and outputs (Fisher, Reed 2012)

Research Objective	***Research Questions***
1. Investigate the need to build capacity in humanitarians, specifically WASH practitioners.	1.1 Do we need to enhance the capacity of humanitarians and specifically WASH practitioners? Why?
	1.2 What are the challenges to capacity building in the humanitarian and especially the WASH sector?
	1.3 Is professionalisation a valid opportunity for the enhancement of the sector and what are its challenges?
2. Identify a viable tool/concept for enhancing capacity building in WASH practitioners?	2.1 What are the existing WASH practitioners' capacity building initiatives and options?
	2.2 Determine which option will add the most value?
	2.3 What is required in order to professionalise WASH practitioners?

Table 3.2 Research objectives 1&2 with supporting research questions

3.3 Data collection methods

A great extent of the data was drawn from correspondence with WASH organisations and WASH learning and research organisations. A number of sources were used to ensure the data collection methods were valid, including lecture notes from the University of Nijmegen (Schuurman, 2014), 'How to write dissertations and project reports' (McMillan, Weyers, 2011), 'The good research guide' (Denscombe, 2010) and 'Choosing research methods'(Pratt, Loizos, 2007). In order to maintain perspective of the consequences, the system thinking approach was considered throughout this research project as it is essential to do so 'if we are going to initiate real change' (Messina, 2015).

"*As systems thinking is about understanding the environment and complex interactions between different components in the environment – it often leads to radically different methods of service delivery*" (Selwyn, 2012).

Therefore, an effort was made for data collection methods to overlap and support each other to allows for decent triangulation. For example, if data was collected from literature, the practical applications were then checked through the extensive network of collaborations and/ or through interviews and questionnaires. Only in the rare occasions, where the data could not be verified through another source, (but the data came from a credible source i.e. WEDC MSc course material) was only one source used.

Different combinations of data collection and analytical methods were used for the different research objectives. The combinations used in each objective will be elaborated upon below.

3.3.1 Data collection methods for research objective 1: Investigate the need to build capacity in humanitarians, specifically WASH practitioners

At first the plan was to establish correspondence with key informants and conduct unstructured interviews in order to establish a rough understanding of the state of play with regards to capacity building in the WASH sector. The sample selection included representatives from the humanitarian sector, academic sector, private sector and the training provider sector. The informants included one of the capacity building experts from WEDC, Brian Reed, a former WEDC student Victoria Hammond who is currently working in the sector, Kirsten de Vette from the International Water Association (IWA) and Candice Rojanschi and Lisa Mitchell from the Centre for affordable water and sanitation technologies (CAWST).

The data gained from these key informants, together with an extensive literature search of former WEDC dissertations, the internet, textbooks, publications and published research findings provided the clarification required to start narrowing the focus. The ICRC conference was a powerful influence during this data collection stage (ICRC and IFRCRC, 2015). During this conference they discussed the idea of adding 'accountability' to the four existing humanitarian principles. That generated the query: how are we as WASH practitioners accountable to our stakeholders?

3.3.2 Data collection methods for research objective 2: Identify a viable tool/concept for enhancing capacity building in WASH practitioners?

The literature search was conducted using the WEDC library catalogues, electronic databases and the internet using Google and Google Scholar to identify reasonable options. Some sources were recommended by subject matter experts. One project led by Peter Walker and Catherine Russ (2011), was particularly helpful as their ELRHA survey's findings identified a number of workable options. The survey was the second major global survey of the humanitarian workforce that was undertaken by ELRHA.

A questionnaire *(Appendix 3.1)* was sent electronically to addressees that included people working for WASH organisations in the Global WASH Cluster (GWC), most WASH learning and training organisations, scientist and authors who published papers on capacity building in the humanitarian sector and some NGOs outside of the GWC that has a WASH function.

3.4 Research procedure

The sources and tools used for data collection is mentioned above, the process and method planned will be presented in this section.

The author's paradigm was built on a training background in a military medical capacity, during which time it was observed how much capacity increased with good structured training, resulting in competencies and being validated on those competencies. It is also a paradigm developed with the inherent belief that capacity building is absolutely essential in the developing world and for those who work within it to assist with capacity building at every opportunity. From the onset the author wanted to contribute to capacity building in WASH, but how?

3.4.1 Research procedure for research objective 1: Investigate the need to build capacity in humanitarians, specifically WASH practitioners

The research questions to research objective 1 are:

- Do we need to enhance the capacity of humanitarians and specifically WASH practitioners? Why?
- What are the challenges to capacity building in the humanitarian and especially the WASH sector?
- Is professionalisation a valid opportunity for the enhancement of the sector and what are its challenges?

These research questions were set to map out the initial research plan and process. The literature review was structured along these questions that followed logically from each other. As the review answered these questions, it ultimately achieved the first objective. Findings were also triangulated with key informant views and collaborators as mentioned above.

3.4.3 Research procedure for research objective 2: Identify a viable tool / concept for enhancing capacity building in WASH practitioners?

The first research objective was addressed and the next step was to identify a tool or concept to address research objective two. During the research process for objective two, the WASH sector was wholeheartedly engaged as well as a variety of other methods in order to identify the most viable option for enhancing capacity in WASH practitioners. ELRHA's second survey, the "Global Survey on Humanitarian Professionalisation"(Walker, Russ 2010) questioned 938 respondents and valuable options came to light. Together with the ELRHA identified options

and others identified through other literature sources, a selection was narrowed down and incorporated into a questionnaire e-mail *(Appendix 3.1)*. Over 200 emails were sent to organisations within the Global WASH Cluster (GWC) as well as learning and research establishments that are engaged in the WASH sector. Emails were sent to various people within the following organisations:

WaterAid	Water for people	International Rescue Committee (IRC)	UNICEF
Rotary	Concern Worldwide	Water and Sanitation for the Urban Poor	Terre Des Hommes
Plan	Samaritan's Purse	Strengthening Humanitarian action through evaluation and learning (ALNAP)	Global Medic
Acted	CARE International	SNV Netherlands Development Organisation	RedR UK
Oxfam	MEDAIR	World Vision International (WVI)	Merci Corps
PATH	Welt Hunger Hilfe	International Development Enterprises (iDE)	Islamic Relief
Tearfund	Save the Children	International Water Association (IWA)	Solidarité International
International Medical Corps	Norwegian Refugee Council (NRC)	Centre for affordable water and sanitation technologies (CAWST)	Catholic Relief Service
Rural Water Supply Network	Norwegian Church Aid		

Table 3.3 Organisations contacted with questionnaire

Responses came from the following sources (Less than 50% were humanitarian):

Victoria Hammond (ACTED)	John Paul (Shelter)
Kerstin Danert & Sean Furey (Swiss Resource Centre and Consultancies for Development)	Dan Clark and Blake (International Development Enterprises)
Harriet Purchas (RedR)	Regine Skarubowiz (WSUP)
Paul Knox (ALNAP)	Lisa Mitchell (CAWST)
Kirsten de Vette (International Water Association)	Manfred Arlt (NCA).

Table 3.4 Questionnaire responders

The results, discussion and analysis of these responses can be found in Chapter 4 and Chapter 5.

3.5 Data processing, analysis and limitations

The qualitative nature of this research did not allow for a singular method of data processing and analysis. The number of correspondents throughout this process were also less than would have been optimal. It is possible that if there were more respondents, there might have been more variety in WASH practitioner responses. However, this was one of the greatest struggles throughout this research project and due to the lack of optimal number of correspondents and a single method for data processing and analysis, great care had to be taken to prevent biased opinion and singular unbalanced thought, to affect the process. To combat this danger, each

directional decision and input was compared with the aim of the project as well as discussed and analysed through correspondence with the different collaborators.

3.6 External and internal validity

The external validity of this research project is uncertain due to a number of reasons. This study will not necessarily reflect similar outcomes elsewhere even if the data collection and analysis process is replicated. This is because the respondents have subjective points of view that are possibly influenced by their respective organisations and a great many other factors. Their views and experiences will potentially be significantly different from those WASH practitioners that have not sent their responses or have not been asked, but this cannot be validated. It is also very difficult to know who will participate in the next GWC meetings and what topics will be discussed. There is currently a global drive towards organisational and individual accountability and professionalism but the conversation might be redundant in a decade and then external validity of this project might be null.

However, validity can be assured through the following measures that were taken. Triangulation was applied wherever possible and results were viewed from at least more than one perspective. Participants and correspondents were sought as widely as possible and have been questioned repeatedly to ensure clarification, consequently their points of views were captured 100% accurately. Repeated e-mails and attempts were made to gather information, opinions and inputs to ensure that the most varied voices were heard. Every point of view and input received have been penned in this report and discussed in order to ensure optimal transparency and validity of this project.

3.7 Ethical considerations

Due to the benign nature of this research, there are none to minimal risk to participants pertaining to experimental treatment or exposure to physical or psychological harm. This study was judged to be one of minimal risk to participants and that the probability and degree of harm or discomfort expected in the research will not be greater than any generally faced in daily life. Care was taken to ensure that participants fully understood the nature of the study and that participation was entirely voluntary. Ethical permission was sought from the University of Loughborough to conduct data collection. Ethical clearance was given and can be found at *Appendix 3.2.* All the participants mentioned by name in the research project were asked permission in order to use their names and were explicitly asked to which extent their responses and opinions may be used in this report. However, identification of participants will not be available in any further publications of this report.

3.7 Conclusion

This research project did not follow the path that was intended at its inception. However, this is also its strength. The research methodology was adapted and tailored during the trailing of information that came to light. As a result, this research project went much further than initially anticipated and in a direction that was not foreseen. As seen from the data collection methods and process discussed in this chapter, many different methods were used and relentless collaboration allowed for a triangulated product, but there is definitely a limitation in the amount of people that responded and participated. Many alternative questions were raised as a result of the research that allowed for third and fourth order analysis of the main topics which are discussed in Chapter 4 and 5.

Chapter 4: Results

The goal of this research project is to enhance the capacity of WASH practitioners and the aims are to find the most appropriate and effective way to do so. Research objective 1 explores the validity of this goal and research objective 2 explores the options identified in the literature review. This chapter is divided into two parts, Part A will include the results from research objective 1 and two as well as the main finding that transpired as a result of these research objectives. As a result of the main finding, two additional research objectives were established. Part B will include the additional two research questions, their conception, literature review, methodology and results.

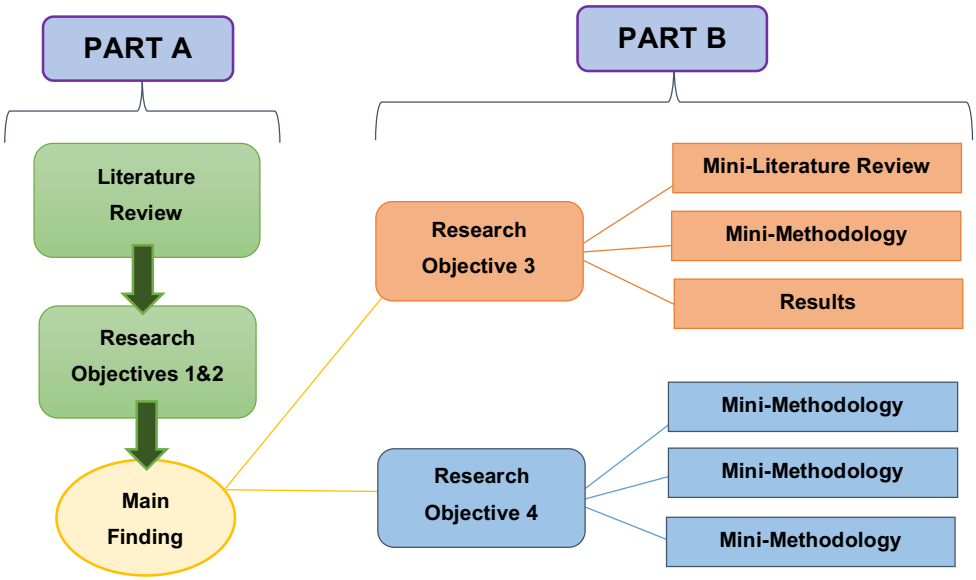

Fig 4.1 Structure of Results Chapter

Results: Part A

4.1 Results for research objective one: Investigate the need to build capacity in humanitarians, specifically WASH practitioners

Research objective 1 was addressed and the research questions answered entirely in the Literature Review Chapter. In brief the questions are recapped below.

4.1.1 Research question: Do we need to enhance the capacity of humanitarians and specifically WASH practitioners? Why?

Yes. Humanitarian emergencies are increasing in numbers and complexity, demanding much more from the humanitarian workforce (Walker, Russ 2010), especially in terms of the skills and competencies required. The requirement for enhancing humanitarian professionals have been echoed by many as seen in the literature review.

4.1.2 Research question: What are the challenges to capacity building in the humanitarian and especially the WASH sector?

With record high migration, the consequences of drought, perpetually destabilising politics and the growing rich poor divide, the humanitarian is challenged; especially in light of the new ambitious Sustainable Development Goals. A sector that was historically set up out of ad hoc professions, skill and goodwill, are now expected to function as total professionals delivering the highest level of services in the most frugal and challenging environments.

In a 2010 Dew Point report, Coates mentioned that rough estimates suggest that 2.5 million additional engineers, technicians and health promoters were needed to meet the MDG targets (Coates, 2010). How do we measure the quantity and quality of those existing WASH human resources? According to which standards? Maybe we do not need as many as 2.5 million, but just need to increase the competency and quality of those already in the sector?

The entire WASH sector can be uplifted, pragmatically generalised and consequentially be more knowingly accountable to all the stakeholders in their projects. A number of options on how this potentially can be achieved have been identified below in the results for research objective 2.

4.1.3 Research question: Is professionalisation a valid opportunity for the enhancement of the sector and what are its challenges?

The humanitarian enterprise has grown in size and complexity over the past generation. Modern systems of scrutiny and accountability demand a higher level of accountability than ever before, both to programme beneficiaries and to donors. This, we believe, puts pressure on the system to become more professional and on aid workers to consider the establishment of a formal profession of humanitarian aid. We are thus seeing an evolution of humanitarian action from an ad hoc, emotive-based, largely Western-driven system to a more global system of defined service delivery, which is increasingly pressured to define and regulate its competence, coverage, and purpose (Walker, Russ 2011).

In addition, challenges are posed by inequality, inaccessibility, high staff turnover, lack of funding; lack of core competencies; inadequate systems of certification; disjointed apprenticeship and experiential learning; lack of professional associations; accreditation and accountability.

4.2 Results for research objective two: Identify a viable tool / concept for enhancing capacity building in WASH practitioners?

All the direct quotes in this section are anonymous except for where a respondent gave permission for their name to be used in connection to the comment.

4.2.1 Research question: What are the existing WASH practitioners' capacity building initiatives and options?

The most practicable options identified in the Literature Review Chapter, mainly from the ELRHA report were:

- WASH Learning and Development passport
- WASH Competency Validation programme
- WASH Apprenticeship programme

4.2.2 Research question: Determine which option will add the most value?

In the quest to identify the most viable option from the three identified, an initial e-mail (*Appendix 3.1)* that was sent out to over 200 recipients in order the field opinions. Ten people responded and a summary of their responses are below in *Table 4.1*, followed by their additional comments in detail. This section is structured by the questions asked in the questionnaire e-mail.

Question	Response	% of total responses
Do you think there is a real requirement for a 'WASH Learning and Development passport"?	Yes No Neutral	70% 10% 20%
Do you know of a competency validation program that is used in the WASH sector?	Yes No	0% 100%
Do you think that it is best practice to have regional/national programmes instead of somehow standardising them to be utilised globally?	National Global Neutral	10% 80% 10%
Which one of the options available to me would you suggest? a) Designing a WASH Learning and Development passport	All options Only option A Only option B	50% 10% 20%

b) Designing a WASH apprenticeship programme as the base of the passport c) Create a competency validation programme to be used throughout the WASH world	Only option C Option A&C None of the options	0 % 10% 10%

Table 4.1 Initial research phase fielded responses (Electronic Mail)

4.2.2.1 Responses to question 1 in questionnaire: Do you think there is a real requirement for a 'WASH Learning and Development passport"

Responses: 90% of the respondent said that they thought there was a real requirement, with 10% disagreeing.

Additional comments in **favour** of the passport were:

- We have a duty of care to the beneficiaries to employ competent people.
- There is a requirement for a global standard
- Development pathways should be developed for WASH practitioners
- The question *"why is there not a master's degree in hygiene promotion?"* was asked
- The reverse was proposed in that the passport could set minimum standards to control the quality of training.

Other comments included that the *"way WASH practitioners are viewed and valued and the preconceived idea that you have to be an engineer in order to be a WASH practitioner is an obstacle for capacity building*". Being an engineer does give you technical skills but the transfer of this information, management of teams, HR, finance and capacity building does not always come with a degree. Serious mistakes are made by these engineers because *"they do not understand why they are doing something; they just know they should do it"*. Not appreciating the context inhibits the transfer of knowledge from engineer to beneficiary and flexibility and initiative cannot take place. The belief that you need to be an engineer is shared by HR organisations in that if you are an engineer you will be paid more and if you are not an engineer, you are automatically a hygiene promoter. This not only disrespects the skill and knowledge of the hygiene promoter but it assumes that people either have hard or soft skills. The passport could bring soft and hard skills together in a more effective WASH practitioner.

A similar argument was made by a respondent saying that there are logisticians / infrastructure professionals who 'side-step' into WASH as they have construction knowledge but who do not understand why a latrine is built the way it is, causing very basic errors. Therefore, some kind of modular accreditation from a formal/professional body would be beneficial as it could be used to 'top up' existing skills and knowledge and bridge the gap between their existing experience and WASH. Enhancement of quality would take place if WASH practitioners' learning on the job

could follow a passport system enabling them to learn the "*proper methodologies of correct WASH implementation and then less time would be spent on errors and futile attempts to reinvent the wheel"* as they would be following clear guidelines.

Respondents mentioned **challenges** to the idea as follows:

- Maybe the sector is too small and questioned whether people would invest their time in getting qualified?
- The lack of funding for research in the WASH sector to promote and evaluate trends and practices to establish whether they work or not, is limiting.
- Who would accredit this passport?
- WASH covers a wide range of activities and it might be difficult to establish a global passport. Also, it will constantly need to be updated to reflect most recent approaches etc.

The one respondent that **disagreed** with the passport option said that the existing educational system does exist for this in MScs and BScs and vocational training, and that the WASH sector is too diverse thus requiring a too diverse set of skills to certify and train as a whole.

More than half of respondents said that it would be more useful to have a competency framework first that can be used as a reference to organisations with a WASH function and to assist current and aspiring WASH practitioners to develop. Respondents did caveat this with the fact that the framework ought to be adjustable to local context, standards/ international standards and should not be limiting to people and organisations.

4.2.2.2 Responses to question 2 in questionnaire: Do you know of a competency validation program that is used in the WASH sector?

None of the respondents knew of a competency validation programme that is used throughout the WASH sector. However, CAWST has a competency validation program for certain WASH roles that is used through most of the WASH world that greatly contributes to the professional development of the people who do use it as it ensures a high standard of quality in their work. The closest concept in the UK is the Chartered Water and Environmental Manager (CIWEM) and there are some internationally agreed 'standards' in Sphere etc. The International Water Association has already started work on competency validation in researching its usefulness.

One of the responses mentioned that it all comes down to experience because experience is the only way to measure the capacity of a WASH expert and there is no exam that would be able to judge the capacity/competency of a WASH expert based on globally accepted standards.

"Interestingly, there are standards e.g. WHO, SPHERE for 'things' but there are no standards for our biggest resource-people."

4.2.2.2.1 Responses to "Do you think that it is best practice to have regional/national programmes instead of somehow standardising them to be utilised globally?"

80% of respondents said a standard for such an important sector of people ought to be global in order to have an impact on quality and enhancing accountability. 10% thought that it should be regional and the other 10% was neutral on the matter.

"WASH Practice should be similar to other careers like Chartered Accountants, thus a global organisation should have the mandate of standard setting with national organisations adopting and adjusting the guidelines according to their context without compromising on the standards."

The programmes can then be verified by a national body and members can register according to accreditation of 'Competency Agencies/ Institutions.

4.2.2.3 Responses to question 3 in questionnaire: Which one of the options available would you suggest?

a) Designing a WASH Learning and Development passport
b) Designing a WASH apprenticeship programme as the base of the passport
c) Create a competency validation programme to be used throughout the WASH world

Of the respondents 50% stated that all the options would add value. One respondent voted for option A, two for option B and none for option C. One respondent thought that none of the options would be beneficial. Below are a few additional comments made by the respondents.

The first respondent questioned the concept of choosing between the options asking *"Can you have one without the other? A programme would end in a passport; a passport would require a record of competency. Are they not all inter related? I think the validation programme is required before the passport can be designed."*

Another respondent believed that a competency validation programme would enable the identification of the characteristics needed by a WASH expert. Once the characteristics and standards are identified, the passport can be developed. The problem is that the proof is in the

results the individual receives (and competency that is developed) and not the course attended itself.

"An apprenticeship will not work, it's similar to an internship which is currently happening and there are opportunities available". Although some thought that it would work because too often the people in the sector have very fragmented knowledge and skills. However, an apprenticeship programme, if well-structured and lasting a couple of years could help. The problem is that *"development spending is currently focussed on services rather than the people who build them. This is extremely short sighted."*

"People cannot continue to study unrelated subjects at university and then consider themselves WASH experts. It is almost irritating!"

4.2.3 Research question: What is required in order to professionalise WASH practitioners?

In the struggle to answer this question and establishing where the WASH sector stood in terms of professionalising, the lack of common standards did not allow for accurate measurement of the functions and features of professionalisation. There are aspects of professionalism in the sector but they are not measurable as there are no common objectives or aims regarding our required competencies. This was the final evidence, or lack thereof, needed to realise the main finding.

4.3 The Main Finding

During the analysis of the results of research objective 1 and confirmed by the results of research objective 2, it became clear that there was no standard for WASH practitioner competencies and therefore none of the options initially identified would credibly work as there is no set standards to build either of the options on.

The additional comments by the respondents had a common thread- the lack of HR practice standards across WASH. This gap prevented the development for a WASH Learning and Development passport as there were no standard to create the passport against. It would be similar to having a passport not knowing where you need to go in order to reach your destination- a lack of direction and itinerary. The WASH apprenticeship programme as the base of the passport would be futile as a sustainable method as each organisation would value dissimilar competencies and still there will not be an increase in accountability and certification currency between different programmes, countries and organisations. A competency validation

programme would be created on a subjective vacuum as you cannot validate a competency without having a standard to validate it against. Even if you have an organisational standard, what is its credibility outside of your organisation?

Given the data, information and insight gained throughout the research project, the sensible solution to address this gap is the creation of a set of WASH practitioners' competencies. By creating these standards, the repetition of yet another ad hoc capacity building initiative would be avoided and it could possibly assist the WASH sector to advance in a more professional direction answering the call for more accountability and a quality increase in service delivery.

As a result of the findings above, especially the Main Finding, there were significant changes in the research objectives that were set out initially. These changes and the discussion can be found at *Appendix 4.1*.

Results: Part B

As a result of the main finding, the research objectives changed as discussed in the previous paragraph. The research project gained two new research objectives in order to explore the possibility of creating a viable WASH practitioners' competency framework and to test it. As these objectives were not envisaged at the project's inception, a mini literature review and mini methodology will accompany objective three and a mini methodology will be presented for objective four.

Research objectives	**Action**	**Indicator**	**Output**
Goal: Enhance the capacity of WASH practitioners	Communication, implementation and feedback cycle	Recommendations from users and wider implementation and use of tool/concept	Tested and workable tool/concept = wisdom
Aim: Find a workable tool/ concept in order to enhance capacity building for WASH practitioners	Critical thinking and judgement supported by literature and research findings	Discussion and consider respondents' critical thinking	Basic tool/ concept = knowledge
Research objectives 4)Test the tool 3) Identify inputs to the tool 2) Identify a viable tool/concept for enhancing capacity building in WASH practitioners? 1) Investigate the need to build capacity in WASH practitioners	**Data analysis** 4) Import feedback into framework 3) Use course literature and other information 2) Analyse feedback from respondents and information gained from literature review 1) Sift through literature to establish the need or lack thereof	**Analysis/ results** 4) Framework more developed 3) Framework materialising & developing 2) Option identified or not 1) Literature found in support of need	**Information** 4) Tested and workable framework 3) Developing the framework & adjusting 2) Main finding. Methodology, Results and Discussion & analysis chapter 1) Continue with research in literature with more focus & bulk of Literature Review chapter
Data collection 4)Send tool to WASH experts 3)Review existing tools and frameworks 2)Literature review, question most WASH organisations	**Data collection** 4)Three testing iterations 3)Review WASH resources 2) Review literature and send 200+ emails 1)Extensive literature review & collaboration	**Results/Inputs/ feedback** 4)Feedback/ recommendations cycle 3) Find existing tools and inputs 2)Feedback/ recommendations/ information	**Data** 4) Have more than one testing cycle 3)Existing tools available thus pool information 2) Option identified or not? 1) A clear yes or no

1)Literature review and interviews		1) Is there a need yes or no?	

Table 4.2 Research objectives 1-4, actions, indicators and outputs (Fisher, Reed 2012)

4.4 Research Objective 3: Identify the inputs and develop the framework

Research questions:

- Can the structure of the framework be designed through a review of existing competency frameworks?
- Can inputs for the framework be identified? For example, essential WASH competencies, domains and levels?

4.4.1 Mini Literature Review: Overview of competency frameworks

4.4.1.1 Why use a competency framework?

In Thompson's (2015) mind tool on "Developing a Competency Framework" she raises the questions 'How do you define the skills behaviours and attitudes that workers need to perform their roles effectively? How do you know if they are qualified for the job? How do you know what to measure?' She offers that although we formerly had many ways to measure this through education, on the job training and experience that the more complete way of approaching these questions is to link individual performance to the goals of the organisation or programme. These are a culmination of knowledge, skill, judgements and attributes that people need to perform a job effectively (Thompson, 2015).

"The quality of an organisation's staff and management is widely recognised as key to the ability of an organisation to deliver against its stated vision and strategies, yet few organisations actively create a culture and environment to enable their staff to contribute to their maximum potential. One factor that has been widely recognised as important to achieve this, is the clarification of what competencies the organisation expects its staff to demonstrate and what exactly that looks like in behavioural terms. By clarifying these, and explaining how they link to the organisation's ability to deliver impact, an organisation is able to send clear messages about what is expected to be successful and attain personal and organisational excellence." (Rutter, 2011). This resource amongst many, confirms the importance of increasing capacity through HR and that despite the numerous calls and recommendations, this is an area that is still gravely undeveloped.

4.4.1.2 Review of general inputs and structure in competency frameworks

Ten widely used and thoroughly designed competency frameworks were reviewed in order to establish if there are general essential inputs for a competency framework. In competency frameworks, the knowledge, skills and attributes needed ought to be defined. To streamline these competencies most effectively they need to be designed in line with the purpose of the organisation/ programme. The CIWEM Mandatory Competencies were mapped to those of the Engineering Council, Science Council and Society for the Environment which is useful in creating competencies similar to those of organisations with similar purposes to yours. This will help avoid duplication of effort and reinventing the wheel. (CIWEM 2012)

Generally, competency frameworks start off with establishing the context from a broader perspective. This includes competencies that equip workers to carry out an assessment, attain awareness of wider issues and understand the context that they have to function and perform in. Planning is generally the second main topic that includes the identification of what needs to be achieved and how it will be achieved and according to which standard.

The competencies involved in implementing the planned strategy or actions then follows with emphasis on evaluating progress and ability to adapt and adjust to circumstances. The competencies defined so far includes generic and technical competencies and range from **general** like the CBHA humanitarian competency guide to very **detailed** depending on the outcome that the organisation is aiming for. Some frameworks like the humanitarian action qualification framework delves into the detail of each competency by dividing each one into knowledge, skills and responsibility/autonomy. (Aardema, Muguruza 2014)

Competence in the safe execution of all tasks and adhering to health and safety standards are evident in all the competency frameworks reviewed. In addition, the ability to constantly evaluate your own performance, those that you manage and the performance of the plans/actions being implemented are essential.

There is strong advocacy for ensuring sustainability of plans/actions as well as seizing opportunities for capacity building and training. Being competent to drive your own personal development and self-awareness in order to achieve personal and professional growth is also an arising competency that is gathering importance very quickly. This links in with the growing global need for soft skills / interpersonal skills (communication, management of stress, leadership, listening etc.) for workers in all professions to enhance the overall performance of organisations.

Once all the competencies have been identified (note that these frameworks are constantly evaluated and adjusted), behaviour indicators are then developed for each competency in order to help gauge performance and level of competency of the worker. These behavioural indicators also help with identifying problem areas and limiting behaviour.

4.4.1.3 WASH Specific Competency Frameworks

Sansom and Coates (2011) informs which competencies are required for senior managers and engineers responsible for water utility change programmes. They state that competency frameworks are now seen as an "essential vehicle for achieving organisational performance through focussing and reviewing the individual's capability and potential" (Coates, Sansom 2011).

The British Army Environmental Health (EH) compendium of training delves into detail of what is expected from the respective disciplines in their EH cadre and how those competencies and skills are validated (Ministry of Defence, 2012). Although this document will not be, as legally required, reproduced outside of the MOD, it does provide a source by which the data can be triangulated. Notably, there is very little on community mobilisation due to the target population that the military cater for (Ministry of Defence, 2012).

CAWST has competency assessment forms for a number of WASH roles like water quality testing technicians, community health worker, bio-sand filter technician etc. so down to a fine level of detail. The assessment form is divided into domains (e.g. water quality) and each title is then divided into competencies (e.g. describe sanitation issues and explain different contamination ways). There is a weighing mechanism that culminates in a level achieved. CAWST works with four different levels (one being the lowest and four being the highest). The individual being assessed has to achieve at least a level three overall.

Oxfam has a very well developed essential guide known as 'MR-WASH': Minimum requirements for WASH Programmes. These requirements aim to provide clarity and support about what Oxfam does and how to do it well; it compliments but does not replace external standards such as Sphere and the 'Good Enough Guide'. The MR-WASH is divided into three parts. Part A delves into individual responsibilities of WASH staff, teamwork and working with stakeholders. Part B describes minimum requirements for technical Oxfam WASH activities, and part C details some of the essential crosscutting quality issues for WASH programmes. It does not however translate the actions into competencies and it does not have a measuring mechanism for staff performance.

4.4.2 Mini Methodology: Data collection methods

Identifying the inputs for the framework, required a more academic approach. E-mails were sent to WASH training and research organisations and participation was kindly requested from them in identifying the inputs into the proposed framework, these included Kirsten De Vette and her interns from IWA, Lisa Mitchell from CAWST, Tim Kent from Knowledge Point, Harriet Purchas and Selma Scheewe from RedR, Save the Children-Ethiopia, Regine Skarubowiz from Water and Sanitation for the Urban Poor (WSUP), International Development Enterprises (iDE), Kristie Ulrich from World Vision, John Paul from Concern Worldwide and Louis Boshoff from the World Food Programme in Syria.

A number of unstructured interviews with Harriett Purchas and Selma Scheewe from RedR took place at the inception and during the development of the framework. The literature search included WEDC course material, specifically Emergency Water Supply(Reed 2012), Emergency Sanitation(Reed, Scott 2014) and Hygiene Promotion(Ferron, Morgan et al. 2007) was extensively used as the academic back bone. It was supplemented by the RedR Training Competency Framework, CIWEM, CERAH, EUPHRA, British Army Environmental Health competencies, Consortium of British Humanitarian Agencies (CBHA) humanitarian competency framework, CAWST's competency validation frameworks, CILT frameworks, CIWEM membership requirements, Global WASH Cluster website resources, and a variety of NGOs' website resources like OXFAM's minimum requirements for WASH programmes.

These sources were used to gather data about;

- which type of competencies would be useful; functional, generic, technical
- what the competency domains ought to be; water, sanitation, hygiene
- what the competency sub-domains ought to be for example sanitation; excreta management, vector control etc.

We also needed to establish which competencies were required to achieve success in each domain/ sub-domain. Data was also required to establish what a competency consists of for example a name, competency description, competency measures/validation, behavioural indicators and which competency levels would be practicable.

A Google search for "developing a competency framework" yielded a useful document from the MindTools website (Thompson, 2015) which helped with the structured building of the framework. It was recognised through the research results that there were a number of very good competency frameworks, organisational documents and guidance documents available and that it was not necessary to create something completely new. Thus humanitarian training organisations (RedR, ELRAH, ALNAP, CAWST, IWA) were contacted asking if they were

developing anything similar and if they were not, they were asked if we could develop it as a collective thereby strengthening its credibility and potential future application. Initial literature used included WEDC course material, RedR Training Competency Framework, CIWEM, CERAH, EUPHRA, British Army Environmental Health competencies, CBHA humanitarian competency framework, and CAWST Competency validation frameworks.

4.4.3 Mini Methodology: Research procedure

Firstly, information was collected coming from all the sources mentioned above and the identification of the inputs for the framework commenced. The domains were identified and what each domain would consist of. The first attempt was to use an existing framework and then build on that. However, the initial frame of the framework was inspired by a military competency validation framework and this soon proved inadequate as the main layout was structured according to the different WASH professions and as will be discussed in Chapter 5, is not yet feasible in the humanitarian WASH sector.

Back at the drawing board, lengthy discussions with learning organisations especially with RedR took place. It was recommended to change the main layout and instead of using WASH professions as the main domain divide, to use the functions of WASH. The process then seemed to become clear and relatively straight forward. In line with academic work in the humanitarian sector with regards to core competencies, the CBHA's core competencies were used as a base to start the framework from.

Competencies "involve values, knowledge and skill. They can exist at an entry level to a profession and be expanded upon and become more expert in nature as professionals gain more experience" (Walker, Russ 2011).

The WEDC course material for Emergency Water Supply (Reed, 2012) and Emergency Sanitation (Reed, Scott 2014) and a prescribed textbook "Hygiene Promotion" (Ferron, Morgan et al. 2007) was used as the academic back bone for the framework. Each domain was then divided into the different functions that ought to take place within each domain, therefore water was broken down into programming, excreta management wastewater treatment etc. Each of them where then divided into competency areas in turn and finally competencies were identified that would enable that competency area to be accomplished successfully. The sources mentioned above were all used to build the domains, competency areas and the individual competencies.

4.4.4 Results for research objective 3

Research questions

- Can the structure of the framework be designed through a review of existing competency frameworks? Yes.
- Can inputs for the framework be identified? For example, essential WASH competencies, domains and levels? Yes.

The framework developed through 12 official versions and the intention for this framework is to keep developing and for each organisation using it to tailor it to their needs and context initially. The scope of this project is to get it to a workable state so that it can be used.

The path started with an experienced use of a military competency validation framework. This framework was used to validate each soldier's competencies in order to establish their readiness for deployment. It assisted the commanders to evaluate their soldiers individually and collectively against set competency standards. In the medical corps, clinicians underwent clinical validation and received a red, yellow or green depending on their performance during the validation exercise. Their commanders would then know which soldiers were a risk and if they were deployed, they tended to be paired with another soldier that achieved a green to mitigate risk.

From the literature and frameworks reviewed and the information gained from the WEDC course material the main inputs identified were:

- The level of staff or the function; field worker, team supervisor and manager level (Walker, Russ 2011), for engineers it will be engineering technicians, incorporated engineers and chartered engineers
- Generic requirements for a humanitarian professional. (Understanding the nuances of humanitarian work/ the humanitarian context – a lot of work has already been done in the CBHA Framework) (Rutter, 2011)
- Generic requirements for a WASH professional and hard/ technical skills required
- Identification of the competency domains (Water, Hygiene, and Sanitation), sub-domains (HWTS, waste water management, personal hygiene) and the competencies required to achieve success in each sub-domain
- Soft skills and social aspects (management, report writing, budget etc.)
- Teaching skills. The ability to transfer information to local counterparts in order to build local capacity. These teaching skills are of imperative importance when creating a WASH force multiplier
- Consider possible overlaps and coordination with other sectors.

The first framework designed for this research project was structured by 'domain' of WASH competencies required. Version 1 of the WASH Practitioners' Competency Framework can be seen in Figure 4.2 below.

	Humanitarian Generic	Rural WASH Practitioner	Rural WASH Co-ordinator	Rural WASH Advisor	Rural WASH Specialist	Rural WASH TEAM	Bio sand Filter Engineer	Rural Water Quality Technician
Competency/Skill								
Implement Organisational Principles								
Implement Environmental Health Protection	X	X	X	X	X	X		
Deliver deployed Environmental FP	X	X	X	X	X	X		
Assess health risks	X		X	X	X	X		
Integrate health risk intervention into EHP process	X		X	X	X	X		
Audit the effectiveness of EHP measures		X	X	X	X	X		
Establish environment health capabilities						X		
Provide health advice on Health and Safety issues and control measures						X		
Identify EH issues from Medical Intelligence						X		
Advise on quality of water supply						X		
Undertake water sampling from raw sources and distribution systems						X		
Carry out microbiological and chemical testing of water supplies using field test kits						X		
Interpret results of bacteriological and chemical analysis of water						X		
Implement appropriate interventions						X		
Advise on health related aspects of Force Water Plan						X		
Ensure compliance with food safety legislation						X		
Provide advice on food safety						X		
Carry out food safety audits						X		
Advise on suitability of local food contractors						X		
Manage disease outbreaks						X		
Investigate disease outbreaks		X		X	X	X		
Advise organisation on outbreak control measures		X		X	X	X		
Produce an outbreak report						X		
Implement field sanitation	X		X	X	X	X		
Conduct Field Sanitation surveys						X		
Assist with field sanitation planning						X		
Advise on field sanitary appliances						X		
Advise on waste disposal including clinical waste	X		X	X	X	X		
Advise on human and animal remains disposal		X		X		X		
Control disease vectors and pests	X		X	X	X	X		
Implement vector and pest control measures	X		X	X	X	X		

	Humanitarian Generic	Rural WASH Practitioner	Rural WASH Co-ordinator	Rural WASH Advisor	Rural WASH Specialist	Rural WASH TEAM	Bio sand Filter Engineer	Rural Water Quality Technician
Advise on vector and pest control measures						X		
Train and supervise pest control teams/ Locally employed						X		
Assist veterinary staff in the control and management of feral animals						X		
Implement health surveillance system for population at risk	X		X	X	X	X		
Provide Advice on bio security								

Figure 4.2 Version 1 WASH Practitioners' Competency Framework

Research Objective 4: Test and adjust the framework

Research questions

- Do stakeholders agree with the framework?
- Can the framework be adjusted to consider all feedback?

4.5.1 Mini Methodology: Data collection

The data for research objective 4 were collected mainly from the three iterations of testing. In addition, valuable data was also gained from two WASH related courses (WASH in Emergencies -RedR and Diploma in Humanitarian Assistance-Liverpool of Tropical Medicine) and the Global WASH Cluster meeting in Nairobi in 2015.

4.5.2 Mini Methodology: Research procedure

The final objective was centred on testing the framework's viability. Again, a literature search was conducted to ensure that if something had been developed since the initial literature review, it would be incorporated. Then the framework underwent three testing iterations during its development. The initial testing iteration included RedR, CAWST and IWA. The second testing iteration included a variety of GWC participants, ranging from WASH experts with almost 30 years' experience in the field to WASH practitioners that only had a year of experience. Twenty-four people were rallied to participate and eight people responded. It was during this time that there was a request from CAWST's Aarron Tanner for UNICEF Ghana and UNICEF Nigeria to use the draft framework and send feedback back along the way. Permission was given by the collaborators and WEDC and the draft framework version 9 was sent to CAWST to share with UNICEF Ghana and Nigeria. The third iteration of testing consisted of feedback from Dominique

Porteaud from the GWC Standing Advisory Group (SAG), Lisa Mitchell from CAWST, IWA, WSUP, Harriette Purchas from RedR. These people were chosen as they have extensive experience in either developing competencies for the humanitarian sector, in WASH or both.

A case study *(Appendix 4.2)* was conducted to observe a competency framework in a similar environment.

The following alternative methods will be used to triangulate the initial information found; interviews, electronic literature review, a collection of established frameworks from a large variety of sources, electronic correspondence, reports, conference notes, university resources (published and unpublished), electronic WASH organisation resources and correspondence.

The sample area includes all WASH cluster members, WASH research institutions, university projects, military medical cadres, WASH organisations and individuals in WASH that have published resources in WASH and capacity building.

The framework developed from Version 1, a rudimentary table that was principally divided by the different jobs/ professions in the WASH sector to Version 12, which is principally divided by the functions of water, sanitation and hygiene promotion and incorporates inputs from a vast number of sources and current WASH practitioners. During the development of the framework, close collaboration between the author, CAWST, RedR and IWA allowed for subtle testing, inputs and adjustments to be made after which the framework underwent three formal testing iterations. The results and adjustments of each of the three testing iterations will be discussed below.

4.5.3 Results: First Testing Iteration

The first test was completed by Harriet Purchas from RedR who, together with Selma Scheewe, is currently developing the RedR competency framework for their RedR membership competency criteria. The most significant changes that the framework underwent during the first testing iteration was that Harriett Purchas suggested that the framework ought to be divided according to the functions of WASH and not the respective WASH roles and jobs. Also, it was deemed more useful to add different levels (for example; technician, manager and consultant) to the framework. The framework took on a format and levels that is echoed by the CBHA's framework format. These findings and decisions are discussed in detail in Chapter 5.

The annual Global WASH Cluster (GWC) meeting was approaching and it presented a good opportunity to test the framework with the audience it is ultimately intended for. Due to a short time frame, the framework had to be developed and formatted in to a testable quality. Jeme'

Putter, an industrial engineer consultant in Stellenbosch, South Africa consulted and assisted with the format of the framework for optimal practicality. The information gathered up until the 1st of October 2015 was then incorporated and the water and sanitation parts of the frameworks was completed. Harriet Purchas examined the draft product before it was printed for the second testing phase at the GWC meeting in Nairobi, Kenya.

It is important to note that the hygiene promotion section of the framework could not be developed in time for the first and second testing phase. This was unfortunate as it meant that the hygiene promotion framework would not undergo as many testing phases as the water and sanitation sections of the framework. This is a limit and it means that the respective parts of the framework were not initially tested as a whole. This shortcoming will be minimised through the final (third) testing iteration where some of the most revered WASH specialist and WASH training organisations will securitize the framework as a whole.

First Testing Adjustments

- The framework was divided and structured according to the functions of WASH and not the respective WASH roles and jobs
- Different levels were added for all competencies for example; technician, manager and consultant that corresponded to Level 1, Level 2 and Level 3.

4.5.4 Results: Second Testing Iteration

The 2015 Annual Global WASH cluster meeting provided an excellent platform to discuss, test and develop the concept of the framework and the framework itself. Most of the pertinent points that were raised during the lectures, talks, discussions and coffee break conversations were added to the framework. Very good discussion also took place around the topic of accountability, credibility, professionalism and more. These discussions are further explored in Chapter 5.

The feedback and points gathered during the three day GWC meeting included topics from the presentations that were raised as points for development and as WASH challenges. There were a number of WASH challenges that were repeated on the majority of the presentations and those were all incorporated into the framework. The agenda for the GWC is included as *Appendix 4.3* for an overview of the variety of the GWC's meeting presentation topics. There were a number of group discussions that provided a platform for in depth discussion on topics such as 'Ensuring the quality of response; accountability and monitoring'.

During the GWC meeting many people were approached to discuss the WASH competency framework. These people included WASH experts, WASH coordinators, academics, donor representatives, governmental representatives and NGO representatives. There were ready

printed copies (*Appendix 4.4)* of the draft framework and some people did express interest in the printed version but the majority requested that the framework be sent to them in electronic format. Consequently, 24 people agreed to look at the framework (these WASH practitioners were from UNICEF, UNHCR, BIOFORCE, USAID, OXFAM, WASHnet, UNHABITAT, Word Vision, ACF, GOAL, ACTED, International Medical Corps and NRC) and provide feedback, only seven people responded officially. Thus the second testing iteration incorporated feedback from eight correspondents. The eight contributors were; the author taking points during the GWC, Charlie F-A (Acted), John Collett (World Vision), Kate Brogan and Seyd Munsoor (International Medical Corps), Jonathan Parkinson (Oxfam), Guy Mbayo (UNICEF) and Aaron Tanner (CAWST).

The discussions and input provided at the GWC meeting as well as all the feedback from the correspondents are delved into thoroughly in Chapter 5.

Before the third testing iteration, the case study (*Appendix 4.2*) was completed where a similar framework was used to train and validate medical personnel in the British Army in order to deploy on a humanitarian operation, specifically to assist with an infectious disease outbreak. These soldiers and officers have a competency framework that corresponds with their specific role/profession. They are then deployed to an austere and unfamiliar environment and they get tested in a very realistic simulation exercise. Their competencies then get validated by senior personnel thought the platform of this simulated exercise. This case study was undertaken in order to establish whether a competency framework is viable in similar circumstances. It proved successful once again and validated the reason that the military use these frameworks.

Second Testing Adjustments

One of the initial framework versions included the Sphere standards at each function in order to clarify the standard that the programmes should be aiming at. This was removed from the framework after the GWC meeting. The WASH SAG also mentioned the importance of transition in the programmes, thus knowing when to move from one phase of the disaster cycle to the next and adjusting the programmes accordingly. In the framework this has been incorporated under the Level 3 competency as it is essential for WASH practitioners at that level to be able to instigate the transitions between the different phases but more importantly how that will manifest within the programme or project. The “Markets in Crises” presentation highlighted the importance of indirectly supporting the community by supporting the markets, whether that is through cash grants or simply using the markets to distribute products through. This consideration was added to the framework, mostly in the programming domain.

The factors identified at the GWC meeting and the consequent responses from the testing participants have become essential additions to the framework. The main themes were administration / project management skills, capacity building skills, leadership skills and more 'soft skills'. The competencies that were included were; management skills, financial management, costing, hiring and developing programme staff, report writing, negotiation skills, communication, mindfulness, community mobilisation, considering sustainability, local preparedness, transitioning, leadership skills (decision making, clarifying team members' roles and responsibilities) understanding different indicators used by donors, ability to analyse data, apply health data and adjust programming accordingly, vulnerability mapping, cross sector coordination (for example using health data during programming and programming adjustments and public health).

A cover letter (*Appendix 4.5)* accompanied the second testing phase framework to aid understanding of the framework and it also defined the three current levels: Level 1, Level 2 and Level 3. There were a number of other significant points raised but that have not been fed into the framework. These are discussed in Chapter 5.

4.5.5 Results: Third Testing Iteration

The third testing iteration had a target audience as the framework has been developed to a viable standard and had to be scrutinised by the most influential and experienced WASH entities that could be garnered for participation. This audience also included the people and organisations that were collaborated with during the development stages. The target audience consisted of Dominique Porteaud (the GWC lead), RedR and CAWST. An additional four key informants were approached but did not respond.

The product of the responses, criticisms and advice from this target audience was then incorporated into the framework and Version 12 was created. Version 12 is the version submitted as part of this research project as the main output as seen in Fig 4.3 at the end of this chapter.

Third Testing Adjustments

The responses were kept in their original versions as much as possible for future scrutiny and discussion.

CAWST Response: Summary

- In the water treatment and specifically household water treatment and safe storage (HWTS) section - one of the competencies at Level 2 or Level 3 should be to be 'able

to select an appropriate HWTS technology for a specific user/ group of users' as well as a competency on 'advising or supporting users in the appropriate selection of HWTS'

- At Level 1 they should be able to conduct effective end user education, this is implied in some of your other steps, but could be missed. 'Assist in campaign' could be seen as broad social marketing whereas user education can include more of a 1 on 1 dimension. 'Assist in capacity building with chlorine' only covers one technology
- At one of the levels they should be 'able to troubleshoot problems with HWTS technologies'. The person that interacts most directly with end users or the community agents interacting with this should be able to do this
- In the water quality analysis section - Level 1 assists with core, secondary and treatability tests, should Level 2 be able to do them independently? Clarification required on what is meant by core, secondary and treatable so perhaps this is the wrong assumption, but maybe the skill set of' conducting basic microbiological and chemical tests' needs to reside somewhere

RedR Response: Summary

- Large Scale Water Storage-Is this security of water supply or safety? Or both? Safety - protection of the water quality and resource plus safe operation/physical safety of the users
- Some competencies relate to specific technologies. The framework needs to be more general so it can encompass all technical options

Mr. Dominique Porteaud Response: Summary

- There is a different structure between Water/ Sanitation and Hygiene promotion, why? There seems to be no technical component to hygiene promotion? There is no competency on capacity building for HP. Programming should not be different between the 3 different areas
- Consider Level 3, people are less and less technical and much more manager / coordinator and consequently need to have leadership skills. In addition, Level 2 need similar skills to manage a team of 10-20-100 people (mostly national staff). As CEO/CD (Coordinator / Level 3) you are required to 'develop strategy/ have a vision' which is missing. Consider the framework(UNICEF, 2014) we are using for Cluster coordinator, where most of the soft skills referred to are mentioned
- L1 and L2 are not expected to monitor the implementation of the work and quality control, this might be an oversight and should be added

- It might be good to distinguish between large/medium/small scale 'piped system design and distribution'. You would not expect L1 to design a water supply of 100,000 people but maybe 5,000 people. The same applies for sewer system and wastewater treatment.
- On water there is nothing about rain water collection: small scale (household) to major dam. Also nothing about emergency related (wind/solar/etc)
- There is nothing about WASH NFI (soap/sanitary materials) this could be in the hygiene promotion section
- One aspect that might be in the HP section, is the aspect of accountability to affected population and feedback mechanism from the design through the implementation to the monitoring and evaluation
- Programming: add 'promote cross sectorial collaboration' and 'ability to review budget and monitor it and conduct asset management' at Level 2.

Research questions for objective 4:

- Do stakeholders agree with the framework? No one disagreed and those that responded were positive, but it all depends on further implementation in the sector and if that might happen.
- Can the framework be adjusted to consider all feedback? No, the cast majority of feedback were included but some were outside the scope of this project.

4.6 Other issues raised

During this research process, a number of important questions were asked by respondents as well as questions that arose as a result of the research. These will be discussed further in Chapter 5, but it is noteworthy that although they were not part of addressing the objectives directly, they added significant value and the discussion they prompted allowed for much deeper analysis of the concepts. They are briefly discussed below.

4.5.1 Ownership

The intent is for this framework to be constantly evolving. Most importantly the question arose as to who will take ownership of this framework to ensure it reflects current best practice. Eventual ownership of the framework was a consideration from the initial data collection phase and through a variety of discussions it became clear that at some point ownership will have to be given to an umbrella/ neutral organisation. However, this was never settled and it is still being discussed but clearly organisations will only be interested to take ownership once they believe it is a workable tool. As a start, organisations can use the framework, test and adjust it to their

needs. If it does become more prominent and more widely used, the adjustments will be more concrete as it will then have been tested in the field by a variety of organisations.

4.5.2 The uses for the framework

Thompson(Thompson 2015) stated that with a framework you can ensure that;

- your people demonstrate sufficient expertise
- recruit and select new staff more effectively
- evaluate performance more effectively
- identify skill and competency gaps more efficiently
- provide more customised training and professional development
- plan sufficiently for succession
- make change management processes work more efficiently

4.7 Conclusion

In this chapter the four research objectives were positioned according to the process that took place during the research project. In Part A the first objective was answered with a clear resounding “yes” in the Literature Review Chapter, the second objective was accredited by the Literature Review Chapter and the data collection e-mail. It was the combination of these two objectives that the main finding was made.

Part B encapsulates the conception, design, metamorphosis and ‘final’ version of the WASH Practitioners’ Competency Framework. Following the structure of research objective three and four the framework underwent many adjustments and there are still many to be made if the support can be garnered to do so. The chapter concludes with practical questions that arose namely; who will take ownership of the framework and what are the uses for the framework? All of the results will be discussed further in the next chapter.

Figure 4.3: WASH Practitioners' Competency Framework

WATER COMPETENCIES

COMPETENCY DOMAIN	COMPETENCY	COMPETENCY DIMENSIONS/BEHAVIOURS		
		LEVEL 1	LEVEL 2	LEVEL 3
PROGRAMMING	CONDUCT FUNCTIONAL ASSESSMENT	Effectively assimilate information about the local context and demonstrate awareness of local cultures/ complexities	Kindle understanding of local context, cultures and situation. Exhibit effective negotiation skills	Ensure staff understand and appreciate the local context and cultures and are furnished with the necessary information
		Demonstrate ability to assist in different assessment techniques (initial and in-depth assessments)	Effectively use the organisational provided guide to conduct the assessment and use dictated standards to focus assessment and planning	Decide on the standards to be used (Sphere, governmental etc.)Provide strategic input into the assessment and expert advice.
			Incorporate assessment reports from other sectors if available	Ensure that assessments are coordinated with all stakeholders and other sectors and they are all involved in assessment and planning
		Demonstrate competency in a variety of data gathering techniques and report findings upwards. Effectively use a checklist to complete data gathering tasks	Thoroughly assess current water supply situation, identify unmet needs and identify potential future water supply options	Garner local/ governmental involvement and campaign for their eventual ownership of programmes
			Communicate effectively by tailoring language, tone, style and format to match audiences. Actively listen to perspectives of stakeholders and team members	Actively listening to perspectives of stakeholders at governmental and community leader level. Be able to make presentations and undertake public speaking with confidence
		Identify and report vulnerable groups and people	Initiate vulnerability mapping if not available. Incorporate vulnerability considerations in plan	Raise awareness of vulnerabilities to other sectors and stakeholders
	CAPACITY BUILDING	Report capacity building requirements and opportunities	Identify and facilitate capacity building opportunities, Possess quality training facilitating skills	Discuss capacity building opportunities with all stakeholders and coordinate capacity building efforts/ programmes
			Exhibit leadership through effective team decision making, healthy risk taking, self awareness and conscientious communication skills	Work effectively with people from all backgrounds and understand and consider diverse opinions and points of view
		Take initiatives by identifying sustainability opportunities and provide input	Consider and plan for the sustainability of the programme, especially how it will carry on post funding	Evaluate the sustainability of the programme and ensure necessary adjustments are made to ensure optimal sustainability
			Implement strategic preparedness training and plan	At every opportunity identify areas and methods to develop local preparedness, eventually create a strategic preparedness plan
	EFFECTIVE PLANNING	Demonstrate understanding of aspects of the planning tool being used (Ex. logical framework etc.) Participate in planning tool analysis and activity plans	Effectively use organisationally prescribed tools for planning and analysis. Implement activity plans using appropriate tool (Ex. logical framework)	Dictate to team which analysis / planning method/ tool to use to identify design activity plans (Ex. logical framework). Promote cross sectorial collaboration
		Observe planning in order to gain experience	Accurately identify objectives; activities to achieve objectives; identify time, methods and recourses to complete activities	Oversee planning phase, develop strategy and have strategic vision
			Effectively complete financial planning and constantly evaluate it. Involve beneficiaries in financial planning	Oversee financial planning and budget planning. Ensure donor guidelines are considered/ adhered to. Involve governmental/ community leaders in financial planning
		Understand role in exit strategy and effectively conduct handover according to procedures	Plan with an exit strategy in mind, set realistic deadlines and goals and meet timelines. Set clear handover procedures	Ensure exit strategies are taken into consideration when planning and all stakeholders are aware of strategy
			Consider adopting a phased approach and start identifying methods for eventual transition. Understand phases of humanitarian response	Deliver required technical support on planning approach and transitioning approach
	DESIGN AND IMPLEMENT PLAN	Display technical knowledge whilst assisting in implementation and build additional skills and knowledge	Ability to review budget and monitor it and conduct asset management	Ensure that staff and team roles and responsibilities for implementation are clear and understood
		Assist in quality implementation of plan and adhere to health and safety regulations	Implement plan, oversee quality of work being done. Ensure health and safety regulations are in place and adhered to	Oversee implementation and set health and safety regulations
		Adhere to information management (IM) policies and procedures	Implement IM policies and procedures and ensure competent IM manager is nominated	Set IM policies and procedures and coordinate IM plan with other sectors and stakeholders
		Demonstrate understanding of different material resources used	Plan the management of human resources, material and financial resources for the project	Plan the strategic management of human resources, material resources and finances overall
		Successfully carry out O&M tasks	Implement O&M procedures and processes	Ensure O&M processes are effective

COMPETENCY DOMAIN	COMPETENCY	COMPETENCY DIMENSIONS/BEHAVIOURS		
		LEVEL 1	LEVEL 2	LEVEL 3
PROGRAMMING	PROJECT MANAGEMENT	Take ownership of own development and attend facilitated training	Optimal hiring and development of staff are executed. Plan facilitated training for staff	Staff hiring and development policies are in place and facilitated. Create or oversee creation of training plan
			Applying humanitarian principles, norms, mechanisms (clusters) and subject matter	Ability to cope with pressure and adapting to change and facilitate and manage people to do the same
		Carry out productive monitoring and evaluation tasks and share gathered information	Review programme through monitoring and evaluation plan. Adjust programme if required	Oversee the monitoring and evaluation plan and set data management procedures
		Demonstrate understanding of programme indicators and report discrepancies	Adjust indicators according to current phase of the disaster cycle and adjust indicators for second and third tiers	Set indicators for evaluation of programme and adjust indicators for the second and third tiers of the programme and disaster cycles
			Provide input into the writing of reports according to the donor indicators	Assemble reports for donors and understand the different donor indicators
WATER QUALITY	CONDUCT ACCURATE WATER QUALITY ASSESSMENT	Assist in rapid sanitary survey and catchment mapping. Efficaciously involve community	Initiate water quality assessments (rapid sanitary survey and catchment mapping)	Gather information from other sources regarding the water quality: governmental departments/ historical information
		Assist in capacity building. (Ex. involve community in chlorine dosing)	Plan and initiate chlorine dosing and ensure Level 1 practitioners are competent in effectively assisting and advising the community	
		Demonstrate understanding of basic water characteristics	Effectively initiate full sanitary survey/ full assessment. Possess and cascade knowledge about microbiological and biological characteristics of water	Ensure teams can conduct basic microbiological and chemical tests
			Effectively communicate findings to users and teams and other stakeholders	Ensure other sectors and stakeholders are aware of water quality assessment findings and the impact thereof
		Demonstrate accurate identification of hazardous factors, pathway factors and indirect factors affecting water quality	Accurately direct teams on where and when to conduct testing	Set procedures on recording and reporting of data within the information management plan
	CONDUCT WATER QUALITY ANALYSIS	Ability to assist in conducting core, secondary and treatability tests	Accurately conduct core, secondary and treatability tests and consider the physical, chemical and radiological characteristics of water and its acceptability to users.management of water quality testing equipment	Share water quality information with other stakeholders and coordinate/ deconflict interventions and treatments
		Effectively gather information from community regarding acceptability of water	Effectively aggregate information from community regarding acceptability of water	Provide technical expertise to teams
WATER SOURCES & SUPPLY	SURFACE WATER		Sustainably exploit surface water sources, plan and construct intakes. Consider emergency power sources (wind/ solar etc.)	Involve stakeholders and outside stakeholders that might impact on source
		Take active part in protecting intakes by informing community and constructing fences etc. Manage risks of individual intakes	Accurately site intakes and implement measures to protect sources from contamination. Mitigate risks of individual intakes	Oversee strategic protection of sources and communicate the importance thereof to all stakeholders
			Possess relevant skill to harvest rain water effectively and distribute to households	
	GROUND WATER	Demonstrate understanding of groundwater behaviour and characteristics of aquifers	Exhibit skills to assess the yields of ground water sources. Effectively consult with local people and access local records of pumping and borehole performance	Deploy expertise and assist during source development
		Ability to assist in ground water source abstracting and developing techniques	Accurately consider the complexities for abstracting around static and dynamic water levels. Commission borehole development. Manage contracts and assist with borehole development	Ensure any plans for groundwater extraction adheres to law and are conducted with permission from relevant stakeholders
		Demonstrate locating and accessing groundwater/ accessing groundwater in emergencies	Gather and aggregate information from hydro geologists and other local people, records form existing wells, remote sensing information etc.	Assist in the sourcing of information regarding groundwater
		Active participation in the construction of spring protection, hand-dug wells and in the rehabilitating and upgrading of existing wells	Conduct on-the-ground-surveys and use findings to focus efforts	Ensure all the data are captured correctly within the information management plan
	SUSTAINABLE O&M OF WATER SOURCES AND SUPPLY		Plan, design and implement supply network/ process	Review quality control measures
		Successfully carry out O&M tasks	Implement O&M of water sources and the supply network	Oversee implementation of O&M plan of water sources and supply network

COMPETENCY DOMAIN	COMPETENCY	COMPETENCY DIMENSIONS/BEHAVIOURS		
		LEVEL 1	LEVEL 2	LEVEL 3
WATER STORAGE & DISTRIBUTION	LARGE SCALE WATER STORAGE	Demonstrate understanding and build experience with rapid installation tanks and longer term storage tanks	Assess storage needs and siting of tanks	Provide technical expertise to teams and provide input into strategic storage plan
		Partake in construction of foundations for tanks and assembly of different kinds of tanks	Construct security of service tanks and service pipes. Safety - protection of the water quality and resource plus safe operation/physical safety of the users	Source appropriate water storage resources
	PIPED SYSTEM DESIGN AND DISTRIBUTION	Take part and understand how the siting of distribution points and pipeline design is executed	Effectively site distribution points and design pipeline system	Procure required storage tanks and service pipes. Oversee pipeline system design
		Demonstrate ability to assist in implementation of pipeline system and tap stand structure	Accurately calculate required types of pipe, fittings and valves. Design taps stands and plan implementation.	Provide technical expertise if required
	WATER TANKERING AND BOTTLED WATER		Manage contracts if required and start planning for more sustainable methods	Manage strategic procurement and contracts if required for economy of scale
		Distribute bottled water in line with distribution plan	Plan effective distribution of bottled water	Ensure quality of bottled water. Coordinate with other stakeholders
WATER TREATMENT	HOUSEHOLD WATER TREATMENT AND SAFE STORAGE	Assist in campaign to inform community of effective HWTS	Plan HWTS strategy in conjunction with macro water treatment and storage system in collaboration with local community mobilisation platforms	Oversee the HWTS strategy and kindle community mobilisation through local platforms
		Advising and supporting users in the appropriate selection of HWTS by conduct effective end user education	Select an appropriate HWTS technology for a specific user/ group of users and ensure Level 1 practitioners are competent in selected technology	Oversee selection of appropriate HWTS technology with regards to sustainability and cost effectiveness for all stakeholders
		Assist in capacity building by involving community in household chlorine dosing	Design community mobilisation strategy for household chlorine dosing or other water purification methods	Oversee overall strategy and responses from local platforms and coordinate with other stakeholders
		Be able to troubleshoot problems with HWTS technologies	Ensure Level 1 practitioners are trained in trouble shooting of selected HWTS technology	Provide technical assistance if required
		Distribute HWTS resources effectively and report back on user preference and behaviours	Incorporate user preference into future cycles of HWTS strategies	Log information regarding user preferences and share across sectors
	BULK WATER TREATMENT	Actively gain an understanding of sedimentation, filtration and disinfection	Effectively design appropriate water treatment process. Accurately establish method for pre-treatment and treatment	Ensure collaboration with all stakeholders and local platforms during the design phase in order to optimise sustainability of programme
		Demonstrate ability to assist in construction of water treatment plant and plant rehabilitation	Constructively implement construction of water treatment plant or plant rehabilitation	Oversee planning phase and furnish planning team with expertise
		Take responsibility for an aspect of the O&M of the treatment system	Implement and manage the O&M of the water treatment plan	Oversee O&M and M&E plan and provide advice
		Take responsibility for an aspect of the M&E of the treatment system	Adjust and tailor water treatment plan in line with M&E results	Ensure adjustments are made to the water treatment plan according to M&E results

COMPETENCY DOMAIN	COMPETENCY	COMPETENCY DIMENSIONS/BEHAVIOURS		
		LEVEL 1	LEVEL 2	LEVEL 3
WATER STORAGE & DISTRIBUTION	LARGE SCALE WATER STORAGE	Demonstrate understanding and build experience with rapid installation tanks and longer term storage tanks	Assess storage needs and siting of tanks	Provide technical expertise to teams and provide input into strategic storage plan
		Partake in construction of foundations for tanks and assembly of different kinds of tanks	Construct security of service tanks and service pipes. Safety - protection of the water quality and resource plus safe operation/physical safety of the users	Source appropriate water storage resources
	PIPED SYSTEM DESIGN AND DISTRIBUTION	Take part and understand how the siting of distribution points and pipeline design is executed	Effectively site distribution points and design pipeline system	Procure required storage tanks and service pipes. Oversee pipeline system design
		Demonstrate ability to assist in implementation of pipeline system and tap stand structure	Accurately calculate required types of pipe, fittings and valves. Design taps stands and plan implementation.	Provide technical expertise if required
	WATER TANKERING AND BOTTLED WATER		Manage contracts if required and start planning for more sustainable methods	Manage strategic procurement and contracts if required for economy of scale
		Distribute bottled water in line with distribution plan	Plan effective distribution of bottled water	Ensure quality of bottled water. Coordinate with other stakeholders
WATER TREATMENT	HOUSEHOLD WATER TREATMENT AND SAFE STORAGE	Assist in campaign to inform community of effective HWTS	Plan HWTS strategy in conjunction with macro water treatment and storage system in collaboration with local community mobilisation platforms	Oversee the HWTS strategy and kindle community mobilisation through local platforms
		Advising and supporting users in the appropriate selection of HWTS by conduct effective end user education	Select an appropriate HWTS technology for a specific user/ group of users and ensure Level 1 practitioners are competent in selected technology	Oversee selection of appropriate HWTS technology with regards to sustainability and cost effectiveness for all stakeholders
		Assist in capacity building by involving community in household chlorine dosing	Design community mobilisation strategy for household chlorine dosing or other water purification methods	Oversee overall strategy and responses from local platforms and coordinate with other stakeholders
		Be able to troubleshoot problems with HWTS technologies	Ensure Level 1 practitioners are trained in trouble shooting of selected HWTS technology	Provide technical assistance if required
		Distribute HWTS resources effectively and report back on user preference and behaviours	Incorporate user preference into future cycles of HWTS strategies	Log information regarding user preferences and share across sectors
	BULK WATER TREATMENT	Actively gain an understanding of sedimentation, filtration and disinfection	Effectively design appropriate water treatment process. Accurately establish method for pre-treatment and treatment	Ensure collaboration with all stakeholders and local platforms during the design phase in order to optimise sustainability of programme
		Demonstrate ability to assist in construction of water treatment plant and plant rehabilitation	Constructively implement construction of water treatment plant or plant rehabilitation	Oversee planning phase and furnish planning team with expertise
		Take responsibility for an aspect of the O&M of the treatment system	Implement and manage the O&M of the water treatment plan	Oversee O&M and M&E plan and provide advice
		Take responsibility for an aspect of the M&E of the treatment system	Adjust and tailor water treatment plan in line with M&E results	Ensure adjustments are made to the water treatment plan according to M&E results

SANITATION COMPETENCIES

COMPETENCY DOMAIN	COMPETENCY	COMPETENCY DIMENSIONS/BEHAVIOURS		
		LEVEL 1	LEVEL 2	LEVEL 3
PROGRAMMING	CONDUCT FUNCTIONAL ASSESSMENT	Effectively assimilate information about the local context and demonstrate awareness of local cultures/ complexities	Kindle understanding of local context, cultures and situation. Exhibit effective negotiation skills	Ensure staff understand and appreciate the local context and cultures and are furnished with the necessary information
		Assist in conduction the sanitary survey	Conduct sanitary survey	Initiate sanitary survey either in conjunction with needs assessment or separately if required. Incorporate other sectors' assessments
		Assist in conducting a basic needs assessment. Demonstrate ability to assist in different assessment techniques (initial and in-depth assessments)	Conduct basic needs assessment. Effectively use the organisational provided guide to conduct the assessment and use dictated standards to focus assessment and planning. Incorporate assessment reports from other sectors if available	Plan, organise and lead needs assessments. Decide on the standards to be used (Sphere, governmental etc.) Provide strategic input into the assessment and expert advice. Ensure that assessments are coordinated with all stakeholders and other sectors
			Communicate effectively by tailoring language, tone, style and format to match audiences	Making presentations and undertaking public speaking with confidence
			Actively listening to perspectives of stakeholders and team members	
		Help to identify stakeholders and their needs including vulnerable groups	Conduct a stakeholder analysis and the initial vulnerability mapping	Analyse situation strategically and involve all higher level stakeholders in assessment and planning. Raise awareness of vulnerable groups
	CAPACITY BUILDING	Report capacity building requirements and opportunities. Exhibit basic training workshop facilitating skills	Identify and facilitate capacity building opportunities. Possess quality training facilitating skills	Discuss capacity building opportunities with all stakeholders and coordinate capacity building efforts/ programmes
			Exhibit leadership through effective team decision making, healthy risk taking, self awareness and conscientious communication skills	Work effectively with people from all backgrounds; understand and consider diverse opinions and points of view
		Take initiative by identifying sustainability opportunities and provide input	Consider and plan for the sustainability of the programme, especially how it will carry on post funding	Evaluate the sustainability of the programme and ensure necessary adjustments are made to ensure optimal sustainability
			Implement strategic preparedness training and plan	At every opportunity identify areas and methods to develop local preparedness, eventually create a strategic preparedness plan
	EFFECTIVE PLANNING	Demonstrate understanding of aspects of the planning tool being used (Logical framework etc.) Participate in planning tool analysis and activity plans	Effectively use organisationally prescribed tools for planning and analysis. Implement activity plans using appropriate tool Ex. Logical framework	Dictate to team which analysis / planning method/ tool to use to identify design activity plans Ex. Logical framework. Promote cross sectorial collaboration
		Understand role in exit strategy and effectively conduct handover according to procedures	Plan with an exit strategy in mind, set realistic deadlines and goals and meet timelines. Set clear handover procedures	Ensure exit strategies are taken into consideration when planning and all stakeholders are aware of their role in the strategy
		Observe planning in order to gain experience	Accurately identify objectives; activities to achieve objectives; identify time, methods and recourses to complete activities	Oversee planning phase, develop strategy and have strategic vision
			Effectively complete financial planning and constantly evaluate it. Involve beneficiaries in financial planning	Oversee financial planning and budget planning. Ensure donor guidelines are considered/ adhered to. Involve governmental/ community leaders in financial planning
			Consider adopting a phased approach and start identifying methods for eventual transition	Deliver required technical support on planning approach and transitioning approach
	DESIGN AND IMPLEMENT PLAN	Adhere to information management (IM) policies and procedures	Implement IM policies and procedures and ensure competent IM manager is nominated	Set IM policies and procedures and coordinate IM plan with other sectors and stakeholders
		Display technical knowledge whilst assisting in implementation and build additional skills and knowledge	Ability to review budget and monitor it and conduct asset management. Define individual roles and responsibilities	Ensure that staff and team roles and responsibilities are clear and understood
		Assist in quality implementation of plan and adhere to health and safety regulations	Implement plan, oversee quality of work being done. Ensure health and safety regulations are in place and adhered to	Oversee implementation and set health and safety regulations
		Demonstrate understanding of different material resources used	Plan the management of human resources, material and financial resources for the project	Plan the strategic management of human resources, material resources and finances overall

COMPETENCY DOMAIN	COMPETENCY	COMPETENCY DIMENSIONS/BEHAVIOURS		
		LEVEL 1	LEVEL 2	LEVEL 3
PROGRAMMING	PROJECT MANAGEMENT	Take ownership of own development and attend facilitated training	Optimal hiring and development of staff are executed. Plan facilitated training	Staff hiring and development policies are in place and facilitated. Create or oversee creation of training plan
		Carry out productive monitoring and evaluation tasks and share gathered information	Review programme through monitoring and evaluation plan. Adjust programme if required	Oversee the monitoring and evaluation plan and set data management procedures
		Demonstrate understanding of programme indicators and report discrepancies	Adjust indicators according to current phase of the disaster cycle and adjust indicators for second and third tiers	Set indicators for evaluation of programme and adjust indicators for the second and third tiers of the programme and disaster cycles
			Provide input into or take responsibility of writing reports according to the donor indicators	Ability to cope with pressure and adapting to change and facilitate and manage people to do the same
			Constructively assist Level 5 with remote management through effective communication	Poses remote managing skills and effectively communicate remote managing methods and tools to staff
EXCRETA MANAGEMENT	IMPLEMENT EFFECTIVE COLLECTION	Demonstrate an understanding of user considerations and different suitable immediate options for excreta collection (family and communal)	Choose effective immediate excreta collection option and ensure user considerations are taken into account. Limit negative impacts of immediate collection plan and effectively plan longer term excreta collection methods	Provide Level 3 with expertise if required and support Level 3 by coordination with other stakeholders
			Effectively manage contracts and deconflict between stakeholders	
			Limit negative impacts of immediate collection plan and effectively plan longer term excreta collection methods	
		Demonstrate ability to assist in technical implementation of immediate solutions	Implement immediate solution and coordinate responses in accordance with the agreed upon standards	Coordinate immediate solution response at higher levels if required
		Demonstrate technical ability to assist in long term collection solutions and institutional collection	Implement long term and institutional collection solutions	Ensure long term solutions effectively service vulnerable people and ensures safety of users. Garner participation from all stakeholders
	FAECAL SLUDGE TRANSPORT AND DISPOSAL	Oversee an aspect of the transport project or contract	Oversee transport project or contract and ensure adherence to agreed upon standards and procedures	Manage strategic transport and safe disposal project or contracts
	O&M AND DECOM-MISSIONING LATRINES	Take ownership of an aspect of O&M plan as directed and assist in decommissioning	Implement and oversee O&M plan and decommissioning	Design O&M plan and decommissioning plan

COMPETENCY DOMAIN	COMPETENCY	COMPETENCY DIMENSIONS/BEHAVIOURS		
		LEVEL 1	LEVEL 2	LEVEL 3
PROGRAMMING	PROJECT MANAGEMENT	Take ownership of own development and attend facilitated training	Optimal hiring and development of staff are executed. Plan facilitated training	Staff hiring and development policies are in place and facilitated. Create or oversee creation of training plan
		Carry out productive monitoring and evaluation tasks and share gathered information	Review programme through monitoring and evaluation plan. Adjust programme if required	Oversee the monitoring and evaluation plan and set data management procedures
		Demonstrate understanding of programme indicators and report discrepancies	Adjust indicators according to current phase of the disaster cycle and adjust indicators for second and third tiers	Set indicators for evaluation of programme and adjust indicators for the second and third tiers of the programme and disaster cycles
			Provide input into or take responsibility of writing reports according to the donor indicators	Ability to cope with pressure and adapting to change and facilitate and manage people to do the same
			Constructively assist Level 5 with remote management through effective communication	Poses remote managing skills and effectively communicate remote managing methods and tools to staff
EXCRETA MANAGEMENT	IMPLEMENT EFFECTIVE COLLECTION	Demonstrate an understanding of user considerations and different suitable immediate options for excreta collection (family and communal)	Choose effective immediate excreta collection option and ensure user considerations are taken into account. Limit negative impacts of immediate collection plan and effectively plan longer term excreta collection methods	Provide Level 3 with expertise if required and support Level 3 by coordination with other stakeholders
			Effectively manage contracts and deconflict between stakeholders	
			Limit negative impacts of immediate collection plan and effectively plan longer term excreta collection methods	
		Demonstrate ability to assist in technical implementation of immediate solutions	Implement immediate solution and coordinate responses in accordance with the agreed upon standards	Coordinate immediate solution response at higher levels if required
		Demonstrate technical ability to assist in long term collection solutions and institutional collection	Implement long term and institutional collection solutions	Ensure long term solutions effectively service vulnerable people and ensures safety of users. Garner participation from all stakeholders
	FAECAL SLUDGE TRANSPORT AND DISPOSAL	Oversee an aspect of the transport project or contract	Oversee transport project or contract and ensure adherence to agreed upon standards and procedures	Manage strategic transport and safe disposal project or contracts
	O&M AND DECOM-MISSIONING LATRINES	Take ownership of an aspect of O&M plan as directed and assist in decommissioning	Implement and oversee O&M plan and decommissioning	Design O&M plan and decommissioning plan

COMPETENCY DOMAIN	COMPETENCY	COMPETENCY DIMENSIONS/BEHAVIOURS		
		LEVEL 1	LEVEL 2	LEVEL 3
SOLID WASTE MANAGEMENT	ASSESS, DESIGN AND MANAGE EFFECTIVE WASTE COLLECTION AND STORAGE SYSTEM	Understand the context and attain information regarding the nature of waste	Accurately assess solid waste situation and include all stakeholders	Effectively coordinate assessment of situation in order to minimise duplication of effort
		Participate in the design and operation of a waste collection and management system	Document , implement and manage an effective waste collection and management system	Coordinate waste collection plan with other sectors and stakeholders. Ensure final deposit site / mechanism has been assessed
		Participate in plans for removal, reuse or disposal of disaster waste	Document and manage disaster waste management programme	Oversee disaster waste management programme ensuring compliance with required standards and legal considerations
	ASSESS AND DESIGN AN EFFECTIVE SOLID WASTE DISPOSAL SYSTEM	Assess technical options for solid waste disposal, reuse or recycling systems	Assess effective technical options for solid waste disposal, reuse or recycling systems	Oversee design and implementation of effective solid waste disposal, reuse or recycling systems ensuring compliance with required international and legal standards and guidelines
			Consider short and long term environmental impact of viable options and short and long term cost implications of viable options. Effectively weigh options and make selection	Coordinate with emergency and long term stakeholders to ensure long term impact has been considered and consensus achieved to most pragmatic degree
	EFFECTIVELY MANAGE AND DISPOSE OF MEDICAL WASTE	Effectively segregate medical waste according to regulations	Design process and facilities for the effective disposal of medical waste	Coherently set regulations and policy for disposal of medical waste in collaboration with other sectors
		Demonstrate ability to collect and temporarily store medical waste effectively	Implement process and regulations regarding the treatment and disposal of medical waste	Ensure processes and regulations are in line with governmental processes and regulations
		Conduct safe final disposal of medical waste	Waste disposal training of all relevant staff especially medical staff	Coordinate training of staff with medical facilities and other relevant sectors
VECTOR CONTROL	EFFECTIVE KNOWLEDGE ABOUT COMMON VECTORS AND CONTROL MEASURES	Exhibit understanding of vectors and respective control measures	Apply knowledge of all vectors and their respective control measures for information sharing	Ensure overall health and safety during vector control campaign
		Compare set standards required to current vector situation	Identify discrepancies between set standards and current situation	
	PLANNING A VECTOR CAMPAIGN	Collect information for the assessment	Initiate assessment and information collection	Incorporate all data and information available regarding vectors from all stakeholders. Ensure awareness of updated insecticed restistance
			Set objectives and strategy in consultation with level 5	Involve all stakeholders in campaign design, especially government departments and community
		Assist with information regarding the campaign indicators and feed information back to campaign managers	Design control campaign with correlating campaign indicators	Ensure campaign indicators marry with donor and other stakeholder indicators
		Assist with monitoring and evaluation campaign by feeding information to managers	Implement monitoring and evaluation process. Assess resulting evaluation findings and adjust campaign accordingly	Manage vector control contracts and provide support to technical teams

COMPETENCY DOMAIN	COMPETENCY	COMPETENCY DIMENSIONS/BEHAVIOURS		
		LEVEL 1	LEVEL 2	LEVEL 3
MANAGEMENT OF DEAD BODIES	APPLY SET STANDARDS AND CONTEXT SPECIFIC GUIDELINES	Exhibit awareness of guidelines and ensure that actions are socially and culturally acceptable	Possess knowledge of minimum objectives for disposal options (immediate, short term and long term options)	Encourage stakeholder participation and garner local platforms' participation
			Raise awareness of socio-cultural aspects of death in your team	Ensure plan is ethically, culturally and lawfully appropriate
	HEALTH (PHYSICAL AND MENTAL) CONSIDERATIONS	Distinguish between infectious corpses and non-infections corpses		
		Exhibit awareness of grief and psychiatric disorders amongst community and report to management	Conduct throughout the process includes considerations for physical and mental health issues as a direct or indirect consequence	Provide technical and strategic support and liaise with local authorities to ensure effective dialogue for issues
		Awareness of psychosocial care for emergency workers	Vigilance for disorders amongst team members as a result of working with dead bodies. Implement control measures	Cascade information regarding epidemiological risks -if relevant
	COLLECTION AND DISPOSAL	Follow the identification of bodies process effectively	Implement identification process	Consult stakeholders with regards to appropriate process of identification and disposal
		Accurately remove and store bodies according to plan	Consider different transport methods to the morgue, plan and implement. Organise the mortuary	Manage any contracts with regards to the management of dead bodies
		Effectively don personal protective equipment (PPE) if required	Set PPE procedures, standards and training. Source PPE	
		Effectively conduct burial or cremation of human bodies as well as animals in line with guidance	Plan and organise burials and cremations	

HYGIENE PROMOTION COMPETENCIES

COMPETENCY DOMAIN	COMPETENCY	COMPETENCY DIMENSIONS/BEHAVIOURS		
		LEVEL 1	LEVEL 2	LEVEL 3
PROGRAMMING	CONDUCT FUNCTIONAL ASSESSMENT	Effectively assimilate information about the local context and demonstrate awareness of local cultures/ complexities	Kindle understanding of local context, cultures and situation. Exhibit effective negotiation skills	Ensure staff understand and appreciate the local context and cultures and are furnished with the necessary information
		Demonstrate ability to assist in different assessment techniques (initial and in-depth assessments)	Effectively use the organisational provided guide to conduct the assessment and use dictated standards to focus assessment and planning	Decide on the standards to be used (Sphere, governmental etc.)Provide strategic input into the assessment and expert advice
		Collect information for rapid assessment through directed method. Ex. Mapping exercise, exploratory walk, focus group discussions.	Effectively initiate rapid assessment with inadequate time for a complete baseline survey. Decide on rapid assessment methods and inform team. Incorporate assessment reports from other sectors if available	Ensure that assessments are coordinated with all stakeholders and other sectors and they are all involved in assessment and planning
		Demonstrate competency in a variety of data gathering techniques and report findings upwards. Effectively use a checklist to complete data gathering tasks	Thoroughly assess current hygiene behaviours and practices, identify unmet needs and identify risk practices and decide which hygiene indicators will be used in order to measure success of HP campaign in the future	Garner local/ governmental involvement and campaign for their eventual ownership of programmes. Communicate effectively by tailoring language, tone, style and format to match audiences. Actively listening to perspectives of stakeholders and team members
		Identify and report vulnerabilities	Initiate vulnerability mapping if not available. Incorporate vulnerability considerations in plan	Raise awareness of vulnerabilities to other sectors and stakeholders
	CAPACITY BUILDING	Report capacity building requirements and opportunities	Identify and facilitate capacity building opportunities. Possess quality training facilitating skills	Discuss capacity building opportunities with all stakeholders and coordinate capacity building efforts
			Exhibit leadership through effective team decision making, healthy risk taking, self awareness and conscientious communication skills	Work effectively with people from all backgrounds and understand and consider diverse opinions and points of view
		Take initiatives by identifying sustainability opportunities and provide input	Consider and plan for the sustainability of the programme, especially how it will carry on post funding	Evaluate the sustainability of the programme and ensure necessary adjustments are made to ensure optimal sustainability
			Implement strategic preparedness training and plan	Identify areas and methods to develop local preparedness & create a strategic preparedness plan
	EFFECTIVE PLANNING	Demonstrate understanding of aspects of the planning tool being used (logical framework etc.) Participate in directed planning tool analysis and activity plans	Conduct organisationally prescribed analysis and implement activity plans (Ex. logical framework) Set aims and objectives for the HP campaign. (Ex. SMART/ PHAST/CLTS)	Dictate to team which analysis/ planning method/ tool to use to identify design activity plans. (Ex. SMART/ PHAST/CLTS). Promote cross sectorial collaboration
		Observe planning in order to gain experience	Accurately identify objectives; activities to achieve objectives; identify time, methods and recourses to complete activities	Constructively review the hygiene indicators to be used and ensure stakeholder indicators are taken into account (donor, governmental etc.)
			Effectively complete financial planning and constantly evaluate it. Involve beneficiaries in financial planning	Oversee financial planning and budget planning. Ensure donor guidelines are considered/ adhered to. Involve governmental/ community leaders in financial planning
			Plan with an exit strategy in mind, set realistic deadlines and goals and meet timelines	Ensure exit strategies are taken into consideration when planning and all stakeholders are aware of strategy
			Consider adopting a phased approach and start identifying methods for eventual transition. Understand phases of humanitarian response	Deliver required technical support on planning approach and transitioning approach
	TARGETING	Effectively inform manager of audiences that have not been targeted.	Identify the specific audiences to be targeted and target a small number of risk practices	
		Assist in identifying risk practices and show understanding of why they are risk practices	Identify the motives for changed behaviour and target those motives/ behaviours	Provide expert advice if required
		Contribute to the WASH non food items (NFI) planning (soap/sanitary materials/ etc.…..	Identify the WASH NFIs required and ensure L1 practitioners are trained in the dissemination and information regarding NFIs	
		Exhibit an understanding of infection prevention and control (IPC)	Identify IPC risks and plan for IPC training and measures to be put into place. Mobilise resources for IPC	Ensure IPC interventions and measures are well resourced and supported

COMPETENCY DOMAIN	COMPETENCY	COMPETENCY DIMENSIONS/BEHAVIOURS		
		LEVEL 1	LEVEL 2	LEVEL 3
PROGRAMMING	DESIGN AND IMPLEMENTATION	Display technical knowledge whilst assisting in implementation and build additional skills and knowledge	Ability to review budget and monitor it and conduct asset management	Ensure that staff and team roles and responsibilities are clear and understood
		Assist in implementation, assist in quality monitoring	Implement plan, oversee quality of work being done	Oversee implementation and provide expertise
		Adhere to health and safety regulations	Ensure health & safety regulations are in place and adhered to	Set health & safety policy and procedures
		Adhere to health and safety regulations	Implement IM policies and procedures and ensure competent IM manager is nominated	Set IM policies and procedures and coordinate IM plan with other sectors and stakeholders
		Demonstrate understanding of different material resources used	Plan the management of human resources, material and financial resources for the project	Plan the strategic management of human resources, material resources and finances overall
		Successfully carry out O&M tasks. See main M&E section	Implement O&M procedures and processes. See main M&E section	Ensure O&M processes are effective and review budget as well as manage assets. See main M&E section
	PROJECT MANAGEMENT	Take ownership of own development and attend facilitated training	Ensure optimal hiring. Plan development of staff. Plan facilitated training	Staff hiring and development policies are in place and facilitated. Create or oversee creation of training plan
			Optimal management and fielding of contracts strategically	Ability to cope with pressure and adapting to change. Facilitate and support staff to cope with pressure and adapt to change
		Carry out productive monitoring and evaluation (M&E) tasks and share gathered information	Review programme through M&E plan. Adjust programme if required	Oversee the M&E plan and set data management procedures
		Demonstrate understanding of programme indicators and report discrepancies	Adjust indicators according to current phase of the disaster cycle and adjust indicators for 2nd and 3rd tiers	Set indicators for evaluation of programme and dictate the change of indicators in line with disaster cycle phases
			Provide input into the writing of reports according to the donor indicators	Assemble reports for donors and understand the different donor indicators
			Ensure that there are clear delineations between the immediate, short term and long term campaign aims and objectives	Effectively dictate when the move between immediate, short term and long term campaign strategy takes place
		Know and understand the key principles of hygiene promotion	When designing the HP strategy, consider the key principles and incorporate them if appropriate	Reviewing the HP strategy, ensure that the key principles were taken into account
IMPLEMENTATION	MANAGEMENT OF FIELDWORKERS		Effectively select fieldworkers according to appropriate criteria and standards. Accurately recognise a situation where people ought to be elected, thus understanding the cultural dynamics.	Ensure that maximum number of the affected community are mobilised. Advocate on higher levels with relevant stakeholders
		Assist with training facilitation of fieldworkers	Plan and execute successful training of fieldworkers	Exhibit leadership through effective team decision making, healthy risk taking, self awareness and conscientious communication skills with all stakeholders
			Accurately plan the number of fieldworkers needed to be employed and trained for the projected affected population	Manage contracts, overarching budget and staff
	COORDINATION, CAMPAIGNS, EDUCATION AND SOCIAL MARKETING		Arrange and facilitate useful meetings and negotiations between stakeholders	Arrange and facilitate useful meetings and negotiations between different sectors and relevant authorities
		Understand tools being used and report any problems	Possess working knowledge of many different HP tools and knowledge in order to find the right tool/tools for the specific context	Advocate the importance of community mobilisation at higher stakeholder level, especially at local platforms
		Assist in the execution of aspects of the HP campaign	Creatively employ all possible mediums: Radio broadcasts, posters, drama and street theatre, puppet shows, film or video presentations, focus group discussions and one-to-one discussions and home visits	Through consulting, establish which indicators will be used and disseminate information
	O&M OF WATER SUPPLY AND SANITATION FACILITIES		Implement a robust O&M schedule/ plan for water supply and sanitation facilities	Strategically oversee that O&M plans for water supply and sanitation facilities are implemented
			Identify verifiable indicators and ensure that HP team understand what they are. If required, make assumptions on the potential impact, constantly review and assign risk levels	
		Seize opportunities to promote capacity building	To optimise sustainability, implement capacity building projects within community itself to eventually take over O&M	Involve affected community at higher levels in the HP process in order to build capacity for sustainabile O&M

COMPETENCY DOMAIN	COMPETENCY	COMPETENCY DIMENSIONS/BEHAVIOURS		
		LEVEL 1	LEVEL 2	LEVEL 3
MONITORING AND EVALUATION	MONITORING: HOW, WHO, WHAT AND WHEN?	Accurately carry out individual M&E responsibility as directed by M&E plan	Decide on how monitoring will take place, who will do it, what will be monitored and when. Effectively triangulate information	Identify when nature of indicators change as the emergency progress and advise on alternative indicators or how to tailor existing ones
		Effectively assist in maintenance of monitoring resources	Identify external factors that will influence campaign but that are out of the project's control	Provide expertise on how to discount external factors and their impacts
		Exhibit understanding of the difference between monitoring and evaluation	Accountability to affected population and ensure feedback mechanism from the design through to the implementation to the monitoring and evaluation	If organisation has an M&E process, ensure it is effectively tailored for the specific context
	PARTICIPATORY MONITORING AND EVALUATION	Observe planning for process indicators to gain experience	Effectively use categories for process indicators for ex. appropriateness, effectiveness, efficiency, participation, sustainability, unintended outcomes.	Ensure that beneficiaries are involved in the evaluation
		Successfully carry out individual monitoring tasks	Instigate participatory tools for assessing people's understanding and if appropriate, instigate community monitoring	Coordinate which participatory tools being used by other sectors and stakeholders
		Take ownership of own development and attend facilitated training	Undertake a formal evaluation, if possible involve beneficiaries for capacity building and sustainability purposes	Ensure that capacity building and sustainability are engrained in the M&E plan
	CARRY OUT EVALUATIONS AND WRITE REPORTS/ INFORM STAKEHOLDERS		Ability to evaluate programme in terms of process, impact and outcome. If possible, appoint appropriate M&E officer to oversee M&E. Effectively initiate evaluation, lead the evaluation	Identify when outside experts are required to carry out the evaluation
		Assist with the dissemination of evaluation findings, especially to beneficiaries so that they know if their actions are adding value or not	Collect all information and write respective reports to inform beneficiaries, project staff and donors	If appropriate, assist in report writing/ lend expert advice. Assemble reports and understand donor indicators
			Implement identified required changes to the HP campaign/ HP plan	If required, oversee required changes to HP plan as identified by evaluation findings

Chapter 5: Discussion and Analysis

The aim of this chapter is to discuss and analyse concepts that were investigated further during the research project. It is structured around the four final research objectives with additional issues that were raised at the end.

5.1 Discussion and analysis of research objective 1: Investigate the need to build capacity in humanitarians, specifically in WASH practitioners

The struggle and victory to be recognised as a sector and as a cluster was a good starting point but we are still not professionally recognised as practitioners. There are significant disparities between the significant value WASH practitioners add to an emergency and the way they are viewed. This has an effect on funding, credibility, and ultimately wielding power. Yet, during the questionnaires and literature search, no evidence was found of a WASH practitioner professional development pathway and there is no training certification currency to allow quality freedom of movement within the sector; supporting the WASH practitioner's development.

The literature review did produce a very clear indication that there is in fact a need to build capacity within the humanitarian and more specifically the WASH practitioner cohort. This was also echoed in the 2015 GWC meeting in Nairobi as a result of a group discussion titled 'Ensuring the quality of response; accountability and monitoring'. During this group discussion a number of options to address the issue were produced, one option was the creation of a set of agreed upon WASH competencies.

There is a need for "agreement on the core competencies (of WASH practitioners) and providing the necessary training to make sure these competencies can be reached. Equally important is the need for practical skills guidance – capacity building. The development of private sector partnerships (such as the Red Cross and the Veolia foundation) could also be a means of addressing the lack of proficiency in the sector" (Global WASH Cluster, 2015).

5.2 Discussion and analysis of research objective 2: Identify a viable tool/concept for enhancing capacity building in WASH practitioners?

There are capacity building opportunities for WASH practitioners, but they are ad hoc and incongruous with no global currency. As there is no set standard of required competencies of WASH practitioners, the training courses are built on subjective knowledge of what sufficient WASH competency entails. The formal education options (diploma, masters) requires a high level of time and financial investment. Bolt-on short courses are often:

- Too expensive
- Short and intense so you have to use knowledge straight away
- Not always pitched at the right level as they cannot match the course to individual needs

The first global survey on professionalisation by ELRHA in 2010 made the humanitarian sector aware of its "uneven provision and fragmented and uncoordinated approach to developing people and teams" (Russ, 2012). DFID (Department for International Development) further confirmed this stating in their Emergency Response Review published in 2011, that "the uneven quality of personnel is a major limiting factor in humanitarian response" (Russ, 2012).

This lack of professional recognition undermines the credibility and our accountability to stakeholders. "Anyone can currently end up as a WASH specialist regardless of their background' (Paul 2015). During an ICRC conference where the effectiveness of the humanitarian principles was discussed, Ambassador Lomónaco commented that international humanitarians need to consider their exit strategy and legacy, considering the adverse consequences that may occur after they leave. On the issue of accountability, Dr. Antonio Donini said that although no one questions the existing four humanitarian principles "there is a movement that argues that accountability should be added to the principles" (ICRC and IFRCRC, 2015).

As seen in respondents' feedback people's opinions vary on what they deem makes an effective humanitarian professional / WASH practitioner. Some think formal education is a reliable measure in certain situations while others believe more in on-the-job training and experience. Some argue that personal characteristics hold the key to effective work behaviour. Catherine Russ acknowledges that through her Global Survey on Humanitarian Professionalisation, all of these are important (Russ, 2012), but none seems sufficient to describe an ideal set of behaviours and traits needed for any particular role. Nor do they guarantee that individuals will perform to the standards and levels required by the organization. In WASH, these standards do not even exist. How then can we be accountable to our stakeholders, build on our credibility and grow towards a profession in the sector?

Strikingly, many experienced WASH practitioners did not consider the possibility of the WASH sector having these standards, not even WASH academics. Often, their argument entailed that

the WASH sector is a mixed professional group and therefore it is not feasible to have one regulator, standard, association or platform for measuring human resource quality. Is it possible though that this is also the reason why the standards of WASH provision across organisations are so varied and why unnecessary harm is being done by unknowing WASH practitioners?

It was also suggested to design whatever option was decided upon and only then present it to the WASH cluster as a finished product, "*otherwise the process will take forever!*" (Anonymous ,2015).

5.3 Discussion and analysis of research objective 3: Identifying the inputs and developing the framework

An important consideration was not to reinvent the wheel but to capture the knowledge already produced and aggregate it in a useful framework. It was recognised that there are valuable frameworks and organisational WASH competency documents that could assist with building a standard, general framework that could be used by many organisations and practitioners. Hence the inclusion of humanitarian training organisations in the process to ensure that there was no duplication of effort. This collaboration allowed for triangulation of data and collective development of the framework. The development of the framework is detailed in Chapter 4.

The process was much more gruelling and the idea was received with more hesitation and suspicion than ever anticipated. It was almost confusing in light of how important WASH is and how much effort is put into making the sector better with constant innovation, training and advancement conferences and so forth. The people who did collaborate and support the development were excellent, but they were the minority.

The development of the Hygiene Promotion section was the most difficult for two reasons. One, the WEDC MSc programme the author undertook did not have a separate module on hygiene promotion as it did for water and sanitation. Two, because harnessing a hygiene specialist to collaborate with was not achieved even with three rounds of numerous e-mails sent to garner participation and support. A peculiar situation given how much emphasis is placed on hygiene promotion and how 'hardware' is not effective nor sustainable without the 'software'.

5.4 Discussion and analysis of research objective 4: Test and adjust the framework

With regards to the research question 'Do stakeholders agree with the framework?', one of the responses during this phase was that "I can see how useful it is to have an international standard

but many other professions struggle to practice in countries they did not train in (Anonymous, 2015)". That is the liberty of the humanitarian and WASH practitioner. There are very few geographical boundaries to the WASH practitioner and anyone that is deemed fairly competent have worked and can work in a variety of countries and situations. It is definitely not a sector bound by nation states and borders and neither should our standards be bound by them.

5.4.1 First testing iteration

The first testing iteration (during the development of the framework, close collaboration between the author, CAWST, RedR and IWA allowed for subtle testing, inputs and adjustments to be made) developed from a table / framework (*Figure 4.2 Version 1 WASH Practitioners' Competency Framework)* that the UK military used to validate their soldiers' competencies, to a framework that attempted to define and express the competencies of all the different WASH professions.

The theory behind Version1 of the framework was that if you wanted to be a bio sand filter engineer you could look at the competencies that one ought to possess to be a credible bio sand filter engineer and use it as a development handrail. It could also be used to measure the competencies of your bio sand filter engineer and identify their training needs. The framework also allows people without a formal education to get recognition/credibility and eventually accreditation by achieving the set competencies for that specific profession.

After thorough discussion with Harriet Purchas and Selma Scheewe from RedR, it became apparent that the framework at the time was fairly limiting to the average WASH practitioner and that it does not recognise the versatile and fluid functions of WASH practitioners in general. Harriette Purchas then suggested that the framework ought to be structured according to the functions of WASH. For example, water's main functions are planning, implementation, monitoring and evaluation. Within each of those functions there are tasks that ought to be completed accurately in order to achieve success within that function of water. This allowed WASH practitioners freedom to explore, gain and be recognised for a great number of different competencies within WASH. It was suggested that the framework follow the CBHA's Core humanitarian competencies framework and that inserting levels in each competency would be even more realistic.

5.4.2 Second testing iteration and feedback

The second testing iteration started at the GWC meeting in Nairobi and continued through the consequent responses gained from attendees who evaluated the framework after the GWC meeting. The following paragraphs will discuss inputs into and changes to the framework as a result of this testing iteration structured around on feedback from the GWC and then respondents. Feedback inciting changes to the framework and feedback omitted from the framework will also be discussed.

At the GWC, the author was interested to find out why the creation of these competencies, given the perceived requirement, were not being coordinated. It was surprising and unexpected how resistant key players were to change even though those same people declared how important social mobilisation for development and capacity building were in the affected communities that they worked in. Yet they were reluctant to apply those principles to themselves and some attendees were rather confrontational about the idea that standards might be applicable to them as they are to doctors, public bus drivers and other professions.

5.4.2.1 Feedback inserted into framework form GWC meeting

The following paragraphs discusses the competencies drawn from the GWC and inserted into the framework as part of the second testing iteration.

Exit strategy, transitioning and transitioning indicators

The GWC Standing advisory group (SAG) repeatedly mentioned that when organisations plan and implement their projects and programmes they are not giving enough thought to their exit strategy and that is not only cause more harm than necessary but it is also nurturing unwanted dependency. They also stated that we as a WASH cohort 'were not very good at transitioning'. It was during this discussion that the national WASH coordinators requested support from the SAG in the form of tools, guidelines and frameworks to aid them with transitioning (Global WASH Cluster, 2015). The ability to tailor programmes in line with the disaster cycle and not allowing the programme to become stagnant was echoed and is a Level 2 and Level 3 competency. These Level 2 and 3 WASH practitioners will enhance the process if they adapt programme indicators to the second and third tier of indicators thus moving through to the transition period and making the transition and exit easier on those that remain. The exit strategy topic included capacity building of local platforms, empowering people to take ownership of the sustainability of their own welfare eventually.

Markets in Crises

Markets in Crises was one of the most notable presentations at the GWC and they advocated for markets to be supported in all contexts. By implementing market based programming, it can assist recovery of the market system in three ways:

- The first was market integrated relief through local and regional procurement for in kind distributions and cash for work
- The second was indirect support through markets by targeting support to market actors (grants, loans, transport subsidies and temporary storage) and cash for work (restoration of major supply routes)
- The third was market strengthening and development through employment creation, development of hygiene items supply chains (Pereira, Stone, 2015).

Humanitarian benefits cited were; improved dignity by not just handing out non-food items (NFIs) and food items (FIs) to the affected community but to enable them to resume a resemblance of 'normal' as promptly as possible; empowerment; assisting with power transfer and giving the user choice and flexibility thus engendering more ownership (Global WASH Cluster, 2015).

Soft Skills

Soft skills are essential for the success of programmes, this was evident through the emphasis placed on it by the literature review, the RedR course WASH in Emergencies, the LSTM PG Dip in Humanitarian Assistance, the 21st GWC meeting and the respondents' feedback. Although the framework developed as a WASH practitioners' technical competency framework, omitting the soft skills was one dimensional and does not acknowledge the vast diversity of competencies and skills an effective WASH practitioner required today. Most of the respondents did comment on the lack of soft skills amongst engineers in WASH and that this fissure causes a breakdown in communication and understanding and can lead to programme failure.

The competencies identified at the GWC (Global WASH Cluster, 2015) that required development in the WASH sector were:

- Negotiation skills
- Information management
- Local preparedness
- Transitioning
- Vulnerability mapping
- Mindfulness
- Ability to analyse data
- Apply health data and adjust programming accordingly
- Understanding different indicators used by donors
- Using health and public health data during programming adjustment

Management functions

Acknowledging the CBHA Core Humanitarian Competencies Framework (Rutter 2011), the Core Competencies have not been repeated in this WASH Practitioners' Competency Framework but certain competencies have been elaborated upon or have been tailored to fit the WASH context. In addition, not all management functions can be extrapolated across all sectors and some management functions are unique to WASH as some are unique to the medical sector, therefore unique WASH management competencies were added to this framework (Coates, Sansom 2011).

Adaptive engineering and self-awareness

"WASH engineers are not good at adaptive engineering and they are not always good at team work, improvisation and knowing when to compromise. Engineers are sometimes narrow minded" (Anonymous , 2015)

Some respondents acknowledged that a large number of WASH engineers have a *"complete lack of self-awareness and some even mechanise the soft skills"*. The ability of being *"able to move between sectors and functions and optimising opportunities amongst these sectors through basic social skills and listening to others is an invaluable competency for our organisation"* (Anonymous, 2015). Other areas identified as requiring improvement are encouraging behavioural change and conducting formative research.

Leadership

Leadership was added to the framework; it might mistakenly be interpreted in that the framework seems to suggest that the penned competencies are required in order to be a successful leader. This is not the case and the author acknowledges leadership comes in a variety of forms and competencies. The competencies that were added to the framework were those mentioned at the GWC meeting and by the respondents as competencies that could make a leader even more effective. These included effective team decision making, healthy risk taking, self-awareness and conscientious communication skills.

5.4.2.2 Feedback inserted into framework from respondents

Hygiene promotion

Three respondents mentioned that the framework lacked hygiene promotion, this was an oversight in the cover note of the second testing iteration where it was not explained. Hygiene promotion was always going to be part of the framework but it was not completed in time for the second testing phase.

Soft skills

Soft skills were mentioned by every respondent at the GWC, the literature and at every course attended. This was one of the main reason that the framework morphed from a purely technical competencies framework to including the soft skills as well. In addition to all the soft skills already mentioned stakeholder engagement was added.

Communication skills

This was a thread running throughout the second testing phase's responses. Interestingly respondents pointed out that it is important to just listen initially and not talk and try to be heard. Through listening, the WASH practitioner can build up their understanding of the situation and if all the stakeholders are involved, the practitioner can also gain knowledge of the culture, previous failed attempts and their reasons. Consequently, a few ready solutions can surface if the WASH practitioner does communicate, avoid jargon, slang or speaking too fast. Also, clearly articulating decisions or points of view and effectively disseminating the message is essential (Brogan, 2015).

Sustainability

Dr. Aaron Tanner (CAWST) said that the sustainability of projects definitely need to be built into the framework in that WASH practitioners need to consider which systems remain in place post funding and how. On the issue of accountability, Ambassador Lomónaco also added that international humanitarians need to consider their exit strategy and legacy, considering the adverse consequences that may occur after they leave (ICRC and IFRCRC, 2015).

The term 'engineers'

"The term 'engineers' does not acknowledge all those WASH practitioners that are not technically engineers" (Anonymous, 2015).

The author acknowledges the fact that many people running or contributing to projects are not engineers and it was suggested to change the approach and 'move away from the term 'engineer' or find a way to discriminate between competencies that need technical skills vs. those that need project manager skills. On the initial framework cover page, the term 'engineers' were used to explain the different levels but it also included the terms 'field level workers', 'team supervisors' and 'technical staff'. Although those same terms are still being used to help define the levels, the term 'WASH practitioner' is now used to incorporate all those that practice in the WASH sector. The second option to discriminate between the different competencies is unrealistic and does not recognise the complexity of the WASH practitioner's function and was therefore disregarded.

Assessment and analysis

These competencies were elaborated upon because the WASH practitioners should also consider cross sector assessments to minimise the impact on the affected community and to avoid duplication of effort. In addition, consideration of cross sector assessment findings and the ability to analyse those were added. For example, during the analysis of health data, when a spike in diarrhoea is noticed, it should trigger an increase in hygiene promotion activities. The "WASH practitioner at Level 2 and 3 have to be able to analyse and triangulate data and not just be good at gathering it" (Brogan, 2015).

Programming

Dr. Jonathan Parkinson, senior WASH programme development strategist for OXFAM GB recommended that a section is required on programming and that in comparison to the other areas it has not been given the weight and development that is required due to its importance. Subsequently, the project management **s**ection was included and the 'programming' section was expanded and more competencies were added: to hire and train staff, programme adjustment as a result of M&E results, financial planning, costing and being able to develop the programme in line with the disaster cycle phases.

Report writing

Dr. Parkinson and Kate Brogan from the IMC specified that report writing is a previously undervalued but necessary skill that takes a lot of time and effort. It requires understanding from the team so that they know which indicators to focused on and what their roles are in compiling the reports to the various stakeholders. It is also within this competency that 'understanding different indicators used by donors' are required.

Capacity building

A section dedicated to capacity building was added in acknowledgement of its significance. It is evident, in many cases, that WASH practitioners automatically incorporate capacity building and it is engineered into most of their programme planning and execution. The capacity building section therefore serves as triggers to remind practitioners to consider the sustainability of the programme and to start thinking about the transition of the programme to local platforms post funding. One respondent argued that in order to execute effective capacity building, the WASH practitioner must listen and understand the local culture and context and then identify how to target the local national staff for capacity building.

A popular vehicle for capacity building is training, and managers in any capacity ought to be able to facilitate training sessions. Developing preparedness is a skill that have been repeatedly

mentioned and although it is recognised that funding for preparedness is a major obstacle, we must always seek opportunities for it.

5.4.2.3 Feedback that prompted change

Sphere Standards

'You cannot always apply the Sphere standards, it would be better to decide on the most acceptable and appropriate standards to use by combining governmental, practical, organisational and Sphere standards'. Through the MSc programme at WEDC and other courses, a lot of emphasis was placed on using Sphere standards. During the GWC emerged that although it was almost gold standard, it was not necessarily the most appropriate standard to applied. This was due to the cultural, religious or country specific standards that has to be upheld and respected in certain contexts. You cannot provide a better standard than what the people are used to or that the government can provide as this might undermine the government and might also upset the balance amongst the aid organisations.

"Sphere primarily gives direction on the levels of service, not necessarily its quality or quality of achievements".(Global WASH Cluster 2015)

Why was one approach (log frame) selected over another? The logical framework was an example approach and one that yield from the WEDC course work. This has been addressed in the cover note to explain that these are only guidelines and examples.

5.4.2.4 Feedback omitted from framework

The majority of these points are crucial to the future development of the framework. They were regrettably outside the scope of this project but these suggestions must eventually be added to the framework.

The frameworks require at least one more level

The levels were questioned and there was consensus that at least one more level was required to acknowledge the locally employed people's value and essence in WASH projects. The biggest advocate of this was Dr. Aaron Tanner from CAWST who recommended that a fourth level ought to be added.

"All the major WASH implementation strategies at the moment end up with some cohort at the community level that volunteer or are paid a stipend but do most of the work. This is true for Water Safety Planning, Hygiene Improvement Frameworks, CLTS and Water committees. Often this cohort are the doers, motivators, supporters, first line of technical support and know how.

Thus a failure to recognise this group would be a failure to identify the training need and effectively map the capacity gap."

The addition of this level was earnestly considered but due to a lack of information, experience and mostly responses from informants about what competencies this new Level 1 would comprise of, it was regrettably deemed outside the scope of this research project. Dr. Tanner recommends that the levels be as follows:

- Level 1- Field-level workers with up to 18 months' experience
- Level 2- Engineering technicians/ field level workers with up to 18 months' experience
- Level 3- Incorporated Engineers / team supervisors (2-5 years' experience)
- Level 4- Chartered Engineers /national/international level technical staff (over 5 years' experience) (Walker, Russ 2011).

Walker and Russ (2012) substantiate the inclusion of such a level through their survey findings as respondents stated that *"issues that hampered capacity building for locally employed staff were that there is a reluctance to trust and give responsibility to national staff"*. They called for "*systematic change in that organisations ought to place more emphasis on recognising talent and increasing the trust and responsibility to national staff*" (Russ, 2012) .

Measuring the competencies

The other vital issue that was correctly highlighted by five correspondents were that there is no mechanism to measure the competencies. The comments included "how do you rate these levels or is it by demonstration of the understanding of these concepts or the ability to practically apply these concepts and how do you measure if someone completed a cycle with merit?". Dr. Jonathan Parker mentioned that "measuring competency in terms of 'show awareness of…' is a bit vague because how does someone demonstrate awareness". He also asked for clarification regarding scoring and how it translates into an overall score that is then converted into a level. The creation of overall verification indicators/ validation framework / measuring mechanism is the natural advancement of the WASH Practitioners' Competency Framework and as such is included in the formal scope for further study as it was outside of the scope of this project.

5.4.3 The third testing iteration and feedback

The responses from the third iteration were detailed and possessed great value. As the framework was fairly developed for this iteration it might have eased evaluation thereof for the respondents, consequently harnessing these high quality results.

Therefore, all but one recommendation from the third testing iteration were implemented. Mr. Dominique Porteaud's recommendation to distinguish between large / medium / small scale 'piped system design and distribution' were not implemented as it would require a level of detail that would necessitated significant experience in the field to create. Also, by inserting this level of detail into the framework there was a risk of being too prescriptive to organisations that might use this framework, as each organisation have different capacities and therefore expectations from their different levels of practitioners. For example, a large organisation that have a mandate to deliver piped water to a 300 000 people would be able to reflect this recommendation. Conversely, a smaller NGO that are only delivering to 5 000 people will not require that competency from their practitioners. The flexibility in the framework provides triggers for required competencies but does not prescribed all the details. Organisations can apply their own detail initially until further testing and development has taken place to concrete those competencies in more detail.

5.5 Discussion on the practical implementation and ownership of the WASH Practitioners' Competency Framework

5.5.1 Practical functions and implementation of the Framework

The main intended function of this framework is to enhance the WASH sector by proposing a foundation for a credible move towards more accountability and professionalisation. Specifically, the framework can be used as follows:

- As an organisation that has secured funding to fulfil a function/s in an emergency, the framework could be used to ensure that the people with the necessary competencies are sent by referring to the framework and evaluating the intended practitioners against the required competencies to successfully complete the task
- As a WASH practitioner, organisation or sector, the framework can be used to establish what the training needs or capacity gaps are at the individual or organisational level and to what extent. This will inform targeted capacity building/ training taking place
- HR leads in recruiting and this may occasionally cause tension as HR are not technical specialists. The framework can assist HR to more accurately and effectively select possible candidates for employment
- The framework may help determine peoples' salaries according to their competency level and not necessarily based on the qualifications that they do not have which undervalues staff
- The framework may inform an organisational decision matrix to acknowledge competency

- It is a handrail for practitioners' development. The intention is not to create another hurdle for WASH practitioners but a simple handrail for them to follow in order to develop into a 'holistic' practitioner. For others already well experienced in a different profession (logistics/ engineering), it can be used to bridge the gap between their experience and their movement into WASH
- RedR mentioned that the framework could potentially assist with Knowledge point by fielding specific questions to the correct areas of specialisations/ competencies of the responding experts or fields.

5.5.2 Ownership

The intent is for this framework to evolve and develop. The question arose as to who will take ownership of this framework to ensure it reflects current best practice. Eventual ownership was considered from the initial data collection phase and through a variety of discussions it became clear that at some point ownership will have to be taken by an umbrella/ neutral organisation. However, this was never settled and it is still being discussed but clearly organisations will only be interested to take ownership once they believe it is a workable tool.

What type of qualities are required from the organisation that would take ownership? (Reed, 2016). Do you select an organisation with no conflict of interest like a training organisation (CIWEM, ICE) but probably do not have the expertise or how do you balance the technical with the managerial expertise? Or it could possibly be achieved by using a variety of existing institutions. Thus 'licencing' of these existing institutions to award these competency validations against the WASH competency framework. ALNAP was asked if they would be the type of organisation to accredit/ assist with this type of endeavour. They stated that "they do not accredit but they produce guidance". These questions will need further investigation by possible future research projects.

5.6 Limitations

Known and expected limitations included the lack of external validity of the data due to the qualitative nature as the main source of data were people and people are naturally subjective. The exploratory and uncertain nature of the project posed a limitation in that it could not be planned through to the end. Nevertheless, the writing up of the report was very difficult as there was little structure. Attempts to force the report it into a linear write up and have delineated chapters of methodology, literature review and results- failed. But therein also lies a strength and the unconventional structure of the report is witness to the authentic process and results of this project.

Unforeseen limitations have been touched upon and this was the lack of respondents and responses and the gap was greater than expected and therefore the research shifted to address the gap and not achieve wat was originally imagined. There were minimal of responses in all information requests sent out and all testing iterations. When support was sought to build the hygiene promotion section and to gain information to insert an addition level into the framework- there were no responses. The hygiene promotion section is largely created from literature and only a few feedback points but the extra never materialised even though it really should be in the framework but there simply was not enough information available to do so credibly.

However, these uncertainties were mitigated by ruthless triangulation and collaboration. Each response was measured against the objectives that it related to and all other available data. The electronic mail responses for example were aggregated according to themes and topics. Points raised and the weight accredited to those points depended on the amount of times it was mentioned by different correspondents as well as the number of times the same theme, topic or point arose in other methods of data collection. However, all points and inputs gathered through the testing phases are mentioned in this project. Those points that have not been used to shape the final product are discussed and are unfortunately just outside the scope of this project. They will add value to potential future research projects and as such, have also been included in recommendations for further research.

5.7 Conclusion

This chapter discussed and analysed the main aspects of the research objectives. The feedback of the second testing iteration was discussed in detail as it provided the majority of inputs and changes into the framework and produced the most discussion from respondents. The practical implementation and ownership were discussed as potential uses for the framework as well as starting the conversation on eventual ownership of the framework.

The passion and care for the sector was palpable from all respondents their feedback received validated the information found in the literature review and added such significance to each competency added to the framework and the discussion thereof.

Chapter 6: Conclusion and Recommendations

6.1 The situation

Pressure on the humanitarian sector is mounting and so are the complexities in which humanitarian action takes place. What used to be a fairly unregulated sector occupied with well-intentioned and passionate individuals with perhaps sometimes questionable credentials is now becoming a sector apprehended by the same criterions as global professions and businesses. In a world where politics and social opinion is largely influenced by social media and worldwide popular opinion, stakeholders require more accountability, transparency and an increase in professionalism from the humanitarian sector. This change is taking place not only because humanitarians wishes to be more successful in their interventions, but the consequences of our actions do not remain local and can, within a few hours, be reported worldwide- influencing our funding, support and overall cause.

The focal point of this research project is the WASH sector as an essential part of the humanitarian arena. With a goal of enhancing the WASH practitioners' capacity in order to help them answer the call for more accountability and an increase in quality service delivery and ultimately professionalism.

6.2 The Challenge

There are many singular challenges to capacity building in the humanitarian sector and most of them echoed in the WASH sector. Funding, the variable quality of practitioners, lack of common standards, high staff turnover and inaccessibility among others were explored in the literature review. However, even with initiatives to address these singular issues more challenges arise. For example, in the drive to increase capacity and competency through training we also have to provide ongoing relevant learning and enduring professional support. This support must offer sufficient assurance that the education and training programmes meet the quality standards established by the relevant professions and sectors. As seen throughout this report, these quality standards do not even exist for all the humanitarian sectors, specifically the WASH sector.

Even then, "*in the push to 'do' capacity building, recruit and deploy, it is unclear how much attention is being placed on accreditation, association and professionalisation. Without these assurances it will be difficult to judge the quality of personnel or the standard of education and training they are receiving"* (Coates, 2010).

"This has led to an ad hoc training offering, with gaps in provision and a lack of pathways and progression routes for the sector, both for those wishing to enter the sector and those wishing to develop professionally within the sector"(Walker, Russ 2010).

6.3 The possibilities

The very extensive ELRAH report provides ample evidence of the multiplicity of standards, training, and capacity building initiatives that have been created over the last three decades by NGOs, learning providers and universities. The principle challenge that emerges through this study is not a need to generate commitment to the training and capacity building of humanitarian staff, but to address the lack of coordination and cohesion between the standards, training courses, and investment that are on offer (Walker, Russ 2010).

There have been many endeavours in the WASH sector to enhance capacity in those delivering the services. However, there is no mechanism to coordinate these initiatives into a structure that allows for substantial and holistic development of WASH as a profession. Professionalisation does possess the architecture to allow for a structured and credible pathway to development but a fair bit of work and development is needed first. This project's literature review and findings supports professionalisation as a credible institution through which all these endeavours and initiatives can congruently take place.

6.4 How this research project can help

In a sector that is dependent on funding for its survival, competition and the politics of staying afloat perhaps overshadows the reasons we initially entered the sector. The overwhelming humanitarian need and our passion to address it might sometimes be undermined by 'the way things work' and our energy is rather spent on 'what we can do' as opposed to 'what we should do'. This research project is a call for 'what we should do' and that is to be more accountable to all the stakeholders but mostly the beneficiaries who trust that we are doing all we can to provide dignified assistance - in a sustainable manner and to the best of our abilities. Are we doing that and how are we doing that? We hold others accountable but perhaps do not want to be held accountable? The reasons might be risk aversion, donor requirements, corrupt government and many more. Sometimes the reasons are completely understandable and justified to the typical individual. However, in the humanitarian relief sector things are rarely understandable and justified and we are not typical individuals – we are taking on mostly impossible tasks and we sometimes even accomplish them. The sector deserves more recognition and credit, but we

have to advocate and work for it by constantly bettering ourselves, our accountability and our standards.

At a minimum, this project may stimulate discussion on further congruent development of the WASH sector and its practitioners. It may bring organisations and practitioners closer together and even unite them in the battle to accomplish the Sustainable Development Goals and achieve more sustainable success in emergency WASH interventions. The WASH Practitioners' Competency Framework may offer a tool to acknowledge the value and capacity of WASH practitioners regardless of how they have come to achieve them and might open the door to greater and more equitable empowerment of our most valuable resource - people. In turn, we can align ourselves with the global trend towards more accountability and standards in our service delivery.

6.5 Recommendations and Scope for future work

Four concepts are being recommended for future research. However, they aren't mere recommendations but they are acknowledged as essential to the further development of the WASH Practioners' Competency Framework and perhaps to the development of the sector as a whole. These concepts were discussed in detail in Chapter 5 and will be mentioned briefly below.

6.5.1 Validating and measuring competencies

The development of a validation framework for the WASH Practitioners' Competency Framework. Perhaps in the format of objectively verifiable indicators? What would deem a WASH practitioner "competent"? Would you require 3 out of 7 competencies or 7 out of 7? And how do we balance breadth of competency with depth of competency? Having a set of core competencies are important but not having indicators might undermine the purpose of the competencies as indicators provides a mechanism of measuring them (Rutter, 2011).

6.5.2 Ownership

If the framework has a future as a tool used in the WASH sector, it will need to be dynamically updated to reflect current practice. This will need to be owned and managed. A body in the Global WASH Cluster or in UNICEF (the lead organisation for the WASH cluster) might be a viable option or maybe an agreed upon training organisation. If ownership is taken, it would be useful to translate the Framework into at least a few languages like Arabic, French and Spanish.

6.5.3 Addition of levels to reflect reality

The addition of at least one more level to recognise the locally employed WASH practitioners, build their capacity and more accurately map capacity gaps was very well advocated by Dr. Tanner in Chapter 5 and was found to be essential to the framework's validity through feedback from respondents.

6.5.4 Detailed competency domains

Further detail and fine tuning is required of the respective competencies after more testing, development, use and collaboration. Possibly to a similar extent as the Sphere Project, but for the competencies of humanitarian workers' of all eleven clusters.

6.6 Reflection on objectives

Investigating the need to enhance humanitarian and WASH practitioner capacity was relatively simple with the large amount of literature available on the topic. The second objective was more difficult to achieve due to the lack of standards according to which the initially proposed tools / concepts could be developed on. However, the gap identified did give the research new and exciting direction and with a narrower focus which reinvigorated the project. The resulting two objectives were achieved thanks to the people who supported and collaborated from the onset through to the final details of the framework.

The resistance from the sector was unexpected and alternative methods during the second testing would have been sought had the author known that resistance would be that significant. The author would have approached the GWC SAG first and requested a briefing opportunity to be penned into the GWC agenda in order to discuss the matter on a bigger platform, facilitating more understanding. With regards to testing the framework, it would have been valuable for one testing iteration to be done in one sitting with a number of WASH experts simultaneously to review each competency and discuss them. Perhaps more detailed competencies would have been achieved. Irrespective, all the actions and mitigating measures were taken to ensure the product was developed to its potential regardless of all the constraints. The final framework is a product of relentless collaboration, research, effort and determination.

List of References

AARDEMA, B. and MUGURUZA, C.C., 2014. *Humanitarian Action Qualification Framework (HA QF).* http://www.tuningjournal.org/article/view/34 edn. EUPRHA.org: The Training Journal.

ANONYMOUS, 2015. *Personal communications with informants and feedback respondents.*

BROGAN, K., 2015. *Skype conversation.*

CARBONNIER, G., 2015. Reason, emotion, compassion: can altruism survive professionalisation in the humanitarian sector? *Disasters,* **39**(2), pp. 189-207.

CAWST, 2015-last update, The case for tackling the human capacity gap in the WASH sector. Available: https://onepercentfortheplanet.org/2015/05/the-case-for-tackling-the-human-capacity-gap-in-the-wash-sector/ [July, 23, 2015].

CIWEM, 2012. *Guidance on completing the Mandatory Competence Attainment Report.* Version 7 edn. http://applications.ciwem.org/Login.aspx?ReturnUrl=%2f: Chartered Institution of Water and Environmental Management.

CLINTON, D., WALL, K., SANIO, M., NOTHA, D., CLELAND, A., NEGUSSEY, D. and LEWIS, S., 2010. *The Standing Committe on Engineering Capacity Building's guidebook and compendium initiative.* First edn. Geneva: World Engineers Convention.

COATES, S., 2010. *Case studies on capacity buiding in water sanitation and hygiene.* A0327. Northampton: Dew Point.

COATES, S. and SANSOM, K.R., 2011. Developing competencies for water utility change programmes. *Municipal Engineer,* **000**, pp. 1-10.

CRUESS, S., JOHNSTON, S. and CRUESS, R., 2004. "Profession": a working definition for medical educators. *Teach Learn Med,* **16**(1), pp. 74-75-76.

DENSCOMBE, M., 2010. *The Good Research Guide: For small-scale social research projects.* Fourth Edition edn. Maidenhead; Berkshire; England: Open University Press.

DEVETTE, K. and WILLIAMS, T., 2014. *An Avoidable Crisis: WASH Human Resource Capacity Gaps in 15 Developing Economies.* The Hague: International Water Association.

DFID, 2011. *Humanitarian Emergency Responce Review.* London: Humanitarian Emergency Response Review.

ECHO EU, 2010. *Strenghthening humanitarian responses through 'Enhanced response capacity' funding (Formerly Global Capacity Building and Grant Facility).* Europa: European Commission Directorate-General for Humanitarian Aid - ECHO.

FERRON, S., MORGAN, J. and O'REILLY, M., 2007. *Hygiene Promotion: A practical manual for relief and development.* Second edn. Rugby: Practical Action Publishing Ltd.

FIORINA, C., 2014. *Global Leadership Summit: Defining Leadership.* Dublin: The Global Leadership Summit.

FISHER, J. and REED, B., 2012. *Data collection, analysis and research.* Loughborough: WEDC Loughborough Universtiy.

GDRC, November 2015, 2015-last update, Defining Capacity Building [Homepage of Global Development Research Centre], [Online]. Available: http://www.gdrc.org/uem/capacity-define.html [January 15, 2016].

GLOBAL WASH CLUSTER, 2015. 21st GWC Meeting Report, 2015, GWC.

GLOBAL WATER FOR SUSTAINABILITY, n.d. *Meeting the water and sanitation MDGs: A synthesis report on human resource capacity in NGOs and CBOs in three countries, Tanzania, Mozambique and Burkina Faso.* Florida: Global Water for Sustainability Program, Florida International University.

HALL, R., 1968. Professionalization and bureaucratization. *American Social Review,* **33**(February), pp. 92-93-104.

HAMMOND, V., 2015. *Personnal corespondence in electronic format.*

HLA, 23 May 2016, 2016-last update, The Humanitarian Leadership Academy [Homepage of Humanitarian Leadership Academy], [Online]. Available: http://www.humanitarianleadershipacademy.org/ [Dec 2, 2015].

ICRC AND IFRCRC, 2015. Principles in action: How do neutrality and independence contribute to humanitarian effectiveness? 2015, ICRC.

JAMES, E., 2015. The professional humanitarian and the downsides of professionalisation. *Disasters.*

JOHNSON, K., IDZERDA, L., BARAS, R., CAMBURN, J., HEIN, K., WALKER, P. and BURKLE, F.M., 2013. Competency-based standardized training for humanitarian providers: making humanitarian assistance a professional discipline. *Disaster medicine and public health preparedness,* **7**(04), pp. 369-372.

KENE, M., PACK, M.E., GREENOUGH, P.G. and BURKLE, F.M., 2009. The professionalization of humanitarian health assistance: report of a survey on what humanitarian health workers tell us. *Prehospital and Disaster Medicine,* **24**(S2), pp. s210-s216.

KOVÁCS, G., TATHAM, P. and LARSON, P.D., 2012. What skills are needed to be a humanitarian logistician? *Journal of Business Logistics,* **33**(3), pp. 245-258.

MCMILLAN, K. and WEYERS, J., 2011. *How to write dissertations and project reports.* Second edn. Harlow; England: Pearson Education Limited.

MEEKER, J., PERRY, A., DOLAN, C., EMARY, C., GOLDEN, K., ABLA, C., WALSH, A., MACLAINE, A. and SEAL, A., 2014. Development of a competency framework for the nutrition in emergencies sector. *Public health nutrition,* **17**(03), pp. 689-699.

MESSINA, C., 2015. *Building a Better Response Field Perspectives: The role of humanitarian leadership.* July edn. http://hhi.harvard.edu/videos/bbr-field-perspectives-role-humanitarian-leadership: Harvard Humanitarian Iniatives.

MINISTRY OF DEFENCE, 2012. *Compendium of collective training objectives.* Version 1 edn. London: Ministry of Defence.

MORGAN, P., 1997. *The design and use of capacity development indicators.* Worldwide: CIDA.

NGAI, T.K., MILLS, O., FRENCH, G., DE OLIVEIRA, R., LEPORE, C., MATTENS, M., SIBANDA, T., SWEET, M. and GRAVES, A., 2013. *A global review of capacity building organisations in water, sanitation and hygiene for developing countries.* 1683. Nakuru, Kenya: WEDC.

OED, 2016-last update, Oxford Online Dictionary [Homepage of Oxford University Press], [Online]. Available: http://www.oxforddictionaries.com/definition/learner/professional [2 February, 2016].

OED, 2012. *Paperback Oxford English Dictionary.* Seventh edn. Oxford: Oxford University Press.

PEREIRA, S.G. and STONE, E., 2015. *Markets in Crises : Feedback from the Markets and WASH learning event.* Nairobi: .

PRATT, B. and LOIZOS, P., 2007. *Choosing research methods: Data collection for development workers.* Development Guidlines No.7 edn. Ireland: Oxfam UK.

REED, B. and SCOTT, R., 2014. *Emergency Sanitation.* 2nd edn. Loughborough University: Water Engineering Development Centre.

REED, B., 2016. *Conversation regarding humanitarian engineer competency.*

REED, B. and FEREDAY, E., 2016. Developing professional competencies for humanitarian engineers. . *Proceedings of the Institution of Civil Engineers: Civil Engineering,* **169**(5), pp. 49-50-56.

REED, B., 2012. *Emergency Water Supply.* 2nd edn. Loughborough Universtity: Water Engineering Development Centre.

RELIEFWEB, 2008. *Glossary of Humanitarian Terms.* Draft Version edn. Reliefweb.com: Relief Web.

RICHARDSON, F., 2006. Meeting the demand for skilled and experienced humanitarian workers. *Development in Practice,* **16**(03-04), pp. 334-341.

RUSS, C., 2012. *Global Survey on Humanitarian Professionalisation.* Cardiff: ELRHA.

RUTTER, L., 2011. *Core Humanitarian Competencies Guide: Humanitarian Capacity Building Throughout the Employee Life Cycle.* London: Consortium of British Humanitarian Agencies.

SCHUURMAN, F., 2014. *The Making of a Research Proposal.* Nijmegen: Centre for International Development Issues Nijmegen : Radboud University/Nijmegen.

SELWYN, R., 2012. *Outcomes & Efficiency: Leadership Handbook.* Kindle Edition. edn. London: PIPC UK Ltd.

SWITHERN, S. and SARDIWAL, D., 2015. *Global Humanitarian Assistance Report-2015.* Online: Global Humanitarian Assistance.

THOMPSON, R., August, 2015-last update, Developing a Competency Framework [Homepage of MindTools], [Online]. Available: https://www.mindtools.com/pages/article/newISS_91.htm [July 4, 2015].

UN WATER and WHO, 2014. *The UN-Water Global Analysis and Assessment of Sanitation and Drinking-Water (GLAAS) 2014 Report.* World Health Organisation.

UNDP, 2010. *Monitoring guidelines of capacity development in GEF operations.* First edn. UNDP Website: UNDP.

UNDP, 2009. *Capacity Development: A UNDP Primer.* New York: United Nations Development Programme.

UNICEF, 2014. *Essential Competencies for Cluster Coordinators and Information Managers.* UNICEF.

UNITED NATIONS, 2015-last update, Sustainable Development Goals [Homepage of United Nations], [Online]. Available: http://www.un.org/sustainabledevelopment/sustainable-development-goals/#prettyPhoto [2 February, 2016].

WALKER, P. and RUSS, C., 2010. *Professionalising the Humanitarian Sector: A scoping study.* Worldwide: ELRHA.

WALKER, P., HEIN, K., RUSS, C., BERTLEFF, G. and CASPERSZ, D., 2010. A blueprint for professionalizing humanitarian assistance. *Health affairs,* **29**(12), pp. 2223-2230.

WALKER, P. and RUSS, C., 2011. Fit for purpose: the role of modern professionalism in evolving the humanitarian endeavour. *International Review of the Red Cross,* **93**(884), pp. 1193-1210.

WASH CLUSTER, 2016, 2016-last update, WASH Cluster [Homepage of WASH Cluster], [Online]. Available: http://washcluster.net/ [February, 19, 2016].

WORLD HEALTH ORGANISATION and UN WATER, 2014. *UN-water global analysis and assessment of sanitation and drinking-water (GLAAS) 2014 - report: Investing in water and sanitation: increasing access, reducing inequalities.* 9789241508087. World Health Organisation and UN Water.

Appendices

Appendix 3.1 Initial Electronic Mail Questionnaire

I am focussing on capacity building in WASH, but more for the WASH 'practitioners/professionals'. I am considering developing a specific facet in a "WASH practitioner's accreditation framework". There is no training/ certification currency in the WASH world. There are university degrees that are expensive and not accessible to all of those that need the competencies and training. In order to have a lasting and sustainable effect on WASH, the national WASH capacity to deal with development and emergencies has to be enhanced.

Instead of focusing on the beneficiary, I recommend focusing on the WASH practitioner, whether they are educated in the proverbial North or whether they still have to prove their competencies and skills by being validated. This could be achieved by a WASH apprenticeship program that could be accredited/ standardized globally. The WASH practitioner can be a professional practitioner with (?) internationally recognised qualifications accredited by a 'consortium' of WASH training organisations (IACET/ALNAP). Would it be useful to have an internationally recognised 'Learning and Development Passport' that includes all the competencies necessary to be an effective WASH practitioner but also an effective WASH capacity builder? Therefore, creating a method to certify and train the "WASH force multiplier'.'

My questions are:

1) Do you think there is a real requirement for a "WASH Learning and Development passport" that enables Global WASH training currency in the International WASH Sector? The aim of which is to increase the accountability of those trained and the work they do. On a larger scale it can also aid the drive to professionalise the WASH sector in a similar manner as the Health sector?

2) Do you know of a competency validation program that is used throughout the WASH world? Or do you think it is best practice to have regional/ national programmes instead of somehow standardising them to be utilised globally.

3) My options are:
   a) Designing a 'WASH Learning and Development passport' that enables Global WASH training currency in the International WASH Sector and/or

   b) Designing a WASH Apprenticeship programme as the base of the learning and development passport and/or

   c) Create either a competency validation program that is used throughout the WASH world?

Appendix 3.2 Ethical Clearance from WEDC

Ethical update

Ethical update

Derek Thomson

02/10/2015

To: jane_cilliers@hotmail.com Cc: Brian Reed

Hello Jeanette,

This email confirms that your project entitled "Building capacity through the Rural WASH competency framework" has received ethical approval at the School level.

Regards,

Derek Thomson (cc'd b.j.reed@lboro.ac.uk)

Appendix 4.1 Summary of changes in research objectives

Research objective changes

Significant changes took place in the content and direction of the research objectives as a result of the research process, especially the main finding.

The original objectives identified after analysing the initial data were:

1. Verify the need to build sustainable capacity and the need to increase professionalism, credibility and accountability in WASH to their stakeholders in WASH human resources?

2. Determine which sphere of the WASH sector would currently benefit most from an increase in professionalism, credibility and accountability? Rural water, rural sanitation, urban water or urban sanitation? Ought the focus to be on emergencies, development or both?

3. Evaluate options available to increase professionalism, credibility and accountability in WASH and identify most the beneficial option?

4. Collect and list the different Rural WASH professions/roles.

5. Which Core Rural WASH practitioner competencies ought to be developed and why?

6. Which competencies are required?

7. Which capacity development indicators/validation methods/ experience levels will be most appropriate?

During the course of this individual research project, these objectives changed as more information surfaced and more opportunities presented itself. Notably the objectives reduced from 7 to 4, the first and third objective remained unchanged. Fundamentally, original objective 2 was removed as it became apparent that trying to determine which sphere of WASH would benefit most from an increase in professionalism, credibility and accountability was futile. This was because the need was relatively evenly spread and more importantly, it is not realistic to delineate between rural water, rural sanitation, urban water or urban sanitation because the functions of a WASH practitioner cuts across all those spheres and that delineating the spheres does not recognise the fluidity and complexity of the WASH practitioner's utilities.

Initial objective 4 attempted to use the different WASH professions as the main building block for the framework, thus developing the competencies required for each WASH "role or profession", for example distinguishing between "WASH advisor, WASH Programme manager, WASH Project Officer etc. It rapidly appeared that this objective was not practicable as there were no generalised idea of WASH practitioners' roles/ professions and that the definition depended on the different organisations' mandate, perspective and WASH focus. Objective 7 was recognised as being outside the scope of this research project due to the emerging requirement that a standard first had to be develop and that without it, achieving objective 7 was not logically and credibly possible without addressing the gap identified as the Main Finding.

Appendix 4.2 Case Study: Medical Military Exercise based on competency framework

CASE STUDY: BRITISH ARMY, ROYAL ARMY MEDICAL SERVICES, MEDICAL REGIMENT- 9-20 November 2015

The aim of the exercise was to train a medical regiment in the successful response to a humanitarian response. Following the training phase, they would be deployed in a scenario where they will be judged on their competencies in order to establish whether they would be legally competency to fulfil their role as an individual as well as a group. The British Army has a Compendium of Training wherein every general and specialist required competency is detailed and broken into facets.

The medical regiment deployed and started with refresher training in their core skills and special to arm skills. All personnel already had the qualifications to fulfil their roles thus were not being covered during this exercise. Prior to joining the regiment each individual's qualifications are verified and logged on the training database. These included medical doctors, dentists, nurses, public health professionals, logistic specialist, chefs, communication specialists, medical technicians and various assistants. The qualifications ranges from medical registrations to two week qualifying courses. Some personnel were very experienced and for others it was their first opportunity to practise the qualification they have.

General training: The group underwent training as a whole in competencies that they require in order to protect themselves and understand the context they will be working in. The general training incorporated skills and knowledge that everybody in the group required.

STA Training: Following the general training the various groups divided into specialist area groups and underwent 'special to arms' training. The drivers underwent driver refresher and cross country training; the medics underwent refresher <C> ABC (Catastrophic bleed, Airway, Breathing, Circulation) training etc.

Rehearsals: Once personnel have undergone general and special to arm training, they had the opportunity to practice their new/ refreshed skills and knowledge. Thus during the rehearsal of simulated scenarios they could bring together their qualifications, skills, knowledge and experience by practicing their competency during the given scenarios. They were then more aware of their individual competency level and as a group. During the whole process there are directing staff that lead the process but also offered assistance and advice throughout providing answers and clarification when anyone required it.

Planning – 21st Global WASH Cluster meeting
14th and 15th October 2015 – At IFRC Regional Office, Woodlands Road, Nairobi, Kenya

Day 1:					
		Topic	**Objective: Operational Updates and Challenges**	**Facilitator**	**Time**
08:30		Registration	*IFRC*		00:30
09:00		Welcome to GWC Partners - GWCC & Opening remarks/housekeeping from IFRC			00:10
09:10		Updates from The CAST and the FST	GWC Projects and Structure FST deployments Achievements and Planning	*GWCC* *Will (FST consortium)*	00:20
09:30		Updates from the SAG	Presentation of the SAG deliberations	*GWCC*	00:10
09:40		National Coordinators Day	Feedback and Actions from the National Coordinators day;	*WCCs (to be agreed on 13th)*	00:30
10:15		Open discussion	Questions, Feedback.	*GWCC*	00:25
10:35		*Coffee Break*			00:30
11:05		Emergency Sanitation Project (ESP)	Emergency Sanitation Project Updates + discussion	*Andy (OGB) & Will (IFRC)*	00:20
11:25		Markets in Crises (MIC)	Feedback from MIC Meeting and brainstorming on Gaps and challenges + discussion.	*Sunny P (ACF)*	00:45
12:10		Humanitarian Innovation fund (HIF)	WASH strategic focus areas for next 3 years + discussion	*Menka S (HIF)*	00:20
12:30		*Lunch*			01:00
13:30		Emergency updates: Achievements, Challenges and ways Forward	4 break out groups: Presentations + discussion *(4-slides: Background, Status of Coordination and Response, Achievements, Challenges).* 10min p/country and 50min discussion 1. (*Andy*) Urban Conflict: Yemen (OGB), Ukraine (MC), Iraq (ACF), Syria (WCC). 2. (*Nick*) Natural Disaster: Nepal (WCC), Vanuatu (OGB), Malawi (WCC) 3. (*Murray*) Displacement: CAR & Nigeria (UNICEF-RO), Burundi (WCC), S. Sudan (WCC) 4. *(Robert)* Public Health: Tanzania (IFRC), Sierra Leone (Save), Liberia (TBC), Haiti (TBC)	*Country presentation: WCC / Partner* *Group Facilitation: SAG*	01:30
15:00		*Coffee Break*			00:30
15:30		Key Issues from National Platforms	Each Group to bring back 3 points to plenary: Focus areas for Global WASH Cluster follow up and focus	*Spokesperson of Group & SAG*	01:00

Day 2:					
Time		**Session**	**Objective: WASH Cluster Strategy 2016-2020**	**Facilitator**	**Time**
09:00		Opening	Recap of Day 1	*GWCC*	00:05
09:05		What does coordination look like?	Presentation of different coordination models and thoughts on the future humanitarian coordination?	*ALNAP*	0:20
09:25		Where are we on the Global WASH Cluster Strategic Plan 2011-2015?	Achievements until now… 1. Group Work (4) to review perceptions of achievements (25 mins) 2. Where groups feel more attention should be given and/ or different areas of focus 3. Feedback to plenary (20 mins) 4. 10 minute round up and Q&A	*GWCC & SAG*	00:50
10:15		*Coffee Break*			00:30
10:45		Current Challenges in the GWC	5. Coordination capacity (profiles) and exploring models of coordination 6. Transition and Nationally owned Humanitarian WASH coordination 7. Funding, cost efficiency and the future of surge *(10 min presentation + Q&A)*	*GWCC*	00:20
11:05		Looking ahead: 2016- 2020	Present the focus areas identified by Cluster members and the expectations of the working groups: outputs will guide the GWC Strategic plan 2016-2020	*GWCC*	00:10
11:15		Working Groups	- Building capacity on joint response analysis & assessments *(Nick, Jean))* - Ensuring the quality of response; accountability and monitoring (*Murray, Andy*) - Improving emergency preparedness in coordination and response *(Jamal, Robert))* - Governance, partnership and engagement in the WASH Cluster *(Jamal, Dom)*	*SAG to lead each group.*	01:30
12:45		*Lunch*			01:00
13:45		Feedback & discussions	Each group presents on areas of focus and how the area should look within the WASH Cluster for the coming 5 years. *Presentation (10min = 40) plus discussion (40min)*	*Group spokesperson + GWCC*	01:20
15:00		*Coffee Break*			*00:30*
15:30		Way forward on design and focus of the Strategic Plan.	Open discussion and brainstorming based on working group outcomes and evaluation: Actions and timescales.	*GWCC*	00:30
16:00		Wrapping Up	A.O.B and Next GWC meeting	*GWCC*	00:15
16:20		*End*			

TECHNICAL SANITATION COMPETENCIES					
COMPETENCY DOMAIN	**COMPETENCY**	**EXAMPLE COMPETENCY DIMENSIONS/BEHAVIOURS**			
		Level 1	**Level 3**	**Level 5**
PROGRAMMING	Analyse situation : Conduct needs assessment, uphold Sphere standards and involve stakeholders	Assist in conducting a basic needs assessment	Conduct basic needs assessment	Plan, organise and lead needs assessments
		Help to identify stakeholders and their needs	Conduct a stakeholder analysis	Analyse situation strategically and drive the process to suit the situation following the disaster cycle
		Show an understanding of the Sphere standards	Identifying discrepancies between Sphere standards and current situation and propose possible solutions	Decide on solutions to be implemented and oversee implementation and management
	Design, implement and manage	Show and understanding of parts of the log frame / Participate in logical framework analysis and activity plans	Conduct Logical framework analysis and Implement activity plans	Oversee multiple Logical framework analysis and design activity plans
		Assist in implementation of plan and adhere to Health and Safety regulations	Implement plan, oversee health and safety regulations	Set health and safety regulations and oversee implementation
		Show awareness of material resources	Manage material and financial resources for your project	Manage human resources, material resources and finances overall
	Monitor and evaluate	Take part in the monitoring and evaluation (M&E) plan	Implement M&E plan	Design and oversee M&E plan
EXCRETA MANAGEMENT	Implement effective collection	Demonstrate an understanding of user considerations and different suitable immediate options for excreta collection (family and communal)	Choose effective immediate excreta collection option and ensure user considerations are taken into significant account	Effectively manage contracts and deconflict between stakeholders. Limit negative impacts of immediate collection plan and effectively plan longer term excreta collection methods
		Demonstrate ability to assist in technical implementation of immediate solutions	Implement immediate solution in accordance with the Sphere standards	Ensure that response is in line with disaster cycle and plan ahead
		Demonstrate technical ability to assist in longer term collection solutions and institutional collection	Implement longer term and institutional collection solutions	Ensure longer term solutions effectively service vulnerable people and ensures safety of users
	Faecal sludge transport and disposal	Oversee part of the transport project or contract	Oversee transport project or contract and ensure adherence to Sphere standards	Mange strategic transport and safe disposal project or contracts
	Operation & Maintenance and decommissioning latrines	Take ownership of a part of O&M plan and assist in decommissioning phase	Implement and oversee O&M plan and decommissioning	Design O&M plan and decommissioning plan
WASTEWATER TREATMENT AND DISPOSAL	Assess latrine options for effective disposal of wastewater, design, implement and ensure O&M	Grasp basic operation and construction of latrines and their liquid separating techniques	Demonstrate complete understanding of options available and which options will uphold Sphere standards	Provide technical support to teams in the assessment and selection phase
		Maintain and assist in constructing the selected on-site disposal option	Assess and select appropriate option for wastewater disposal. Design and implement system and its O&M	Provide technical support to teams during implementation and assist in designing O&M plan
		Demonstrate understanding of composting and implement it with community involvement		
	Assess sewerage options, design, implement and ensure O&M	Assist in implementation of sewerage systems and involves community	Select, design and implement options in line with Sphere standards and involve community	Able to provide technical support to teams on all sewerage system options
		Be involved in technical operation and maintenance of system	Design O&M plan and processes	Oversee O&M plan and provide support
	Assess, design, manage, operate and rehabilitate wastewater treatment plants	Collect information for the assessment	Conduct assessment, select, design and implement	Provide technical support and manage contracts
		Demonstrate active involvement in the rehabilitation of sewers and wastewater treatment plants	Implement O & M plan	Set priorities and design process for wastewater treatment rehabilitation
SURFACE WATER DRAINAGE	Follow drainage design process: drainage assessment and assessing the situation	Exhibit understanding of sources of surface water flows and natural run off	Use knowledge of surface water flows as a starting point for drainage assessment	
		Assist in the drainage assessment by focusing on the situation and report findings up wards. Identify stakeholders	Initiate drainage and situation assessment. Conduct drainage assessment and identify discrepancies between current situation and the Sphere standards. Effectively involve all stakeholders	Understand the surface water situation in the entire catchment and cascade useful information downwards
	Understand surface water flows and its impact on the situation	Demonstrate understanding of natural drainage and the importance of attempting to maintain it	Implement measures to optimise natural drainage	Provide technical expertise to design and implementing teams
		Identify impacts on flow quantities, water quality, infrastructure and water supply	Implement measures to limit impacts of surface water runoff	
	Design the drainage system	Understand drainage design principles. Grasp different types of man made drainage systems	Consider all options and design drainage solution bearing in mind the drainage design principles. Effectively implement plan	Manage institutional arrangements for managing drainage.
		Possess awareness of source control, infiltration, slowing the flow down and controlling surface water flows	Successfully implement measures to control source, infiltration, slow flow and control surface water flows	Manage contracts for drainage system and its O&M
		Partake in O & M of drainage system	Implement O & M plan	Ensure effective O &M of drainage system

TECHNICAL SANITATION COMPETENCIES					
SOLID WASTE MANAGEMENT	Assess, design and manage effective waste collection and storage system	Understand the context and attain information regarding the nature of waste	Accurately assess solid waste situation and include all stakeholders	Effectively coordinate assessment of situation in order to minimise duplication of effort	
		Participate in the design and operation of a waste collection and management system	Plan and implement collection system	Drive the change of direction and planning between disaster response phases	
		Participate in plans for removal, reuse or disposal of disaster waste	Document and manage an effective waste collection and management system		
	Assess and design an effective solid waste disposal system	Assess technical options for solid waste disposal, reuse or recycling systems	Document and manage disaster waste management programme	Oversee disaster waste management programme ensuring compliance with required standards and legal considerations	
			Assess effective technical options for solid waste disposal, reuse or recycling systems	Oversee design and implementation of effective solid waste disposal, reuse or recycling systems ensuring compliance with required international and legal standards and guidelines	
			Consider short and long term environmental impact of viable options	Coordinates with emergency and long term stakeholders to ensure long term impact has been considered and agreed	
			Consider short and long term cost implications of viable options		
	Effectively manage and dispose of medical waste	Effectively segregate medical waste according to regulations	Design process and facilities for the effective disposal of medical waste	Coherently Set regulations and policy for disposal of medical waste	
		Demonstrate ability to collect and temporarily store medical waste effectively	Implement process and regulations regarding the treatment of medical waste		
		Final disposal of medical waste	Waste disposal training of medical staff	Co-ordinate training of staff with medical facilities	
VECTOR CONTROL	Effective knowledge about common vectors and control measures	Exhibit understanding of vectors and respective control measures	Apply knowledge of all vectors and their respective control measures for information sharing	Ensure overall health and safety	
		Relate Sphere standards to current vector situation	Identify discrepancies between Sphere standards and current situation		
	Planning a vector campaign	Collect information for the assessment	Initiate assessment and information collection	Involve all stakeholders in campaign design, especially government and community	
			Set objectives and strategy in consultation with level 5		
		Assist with information regarding the campaign indicators and feed information back to campaign managers	Design control campaign with correlating campaign indicators	Manage vector control contracts	
		Assist with monitoring and evaluation campaign by feeding information to managers	Implement monitoring and evaluation process	Provide support to technical teams	
MANAGEMENT OF DEAD BODIES	Apply Sphere and context specific guidelines	Exhibit awareness of guidelines and ensure that actions are socially and culturally acceptable	Possess knowledge of minimum objectives for disposal options (immediate, short term and long term options)	Encourage stakeholder participation	
			Raise awareness socio-cultural aspects of death in your team		
	Health (physical and mental) considerations	Distinguish between infectious corpses and non-infections corpses	Conduct throughout the process includes considerations for physical and mental health issues as a direct or indirect consequence	Provide technical and strategic support	
		Exhibit awareness of grief and psychiatric disorders amongst community and report to management			
		Awareness of psychosocial care for emergency workers	Vigilance for disorders amongst team members as a result of working with dead bodies. Implement control measures	Cascade information regarding epidemiological risk -if present	
	Collection and disposal	Follow the Identification of bodies process effectively	Implement identification process	Consult stakeholders with regards to appropriate process of identification and disposal	
		Accurately remove and store bodies according to plan	Consider different transport methods to the morgue, plan and implement. Organise the mortuary	Manage any contracts with regards to the management of dead bodies	
		Effectively don protective equipment if required			
		Effectively conduct burial or cremation	Plan and organise burials and cremations		
		Effectively disposal of animals in line with guidance			

TECHNICAL WATER COMPETENCIES

COMPETENCY DOMAIN	COMPETENCY	COMPETENCY DIMENSIONS/BEHAVIOURS		
		Level 1	Level 3	Level 5
PROGRAMMING	Conduct functional assessment	Demonstrate ability to assist in different assessment techniques (initial and in-depth assessments)	Effectively use the organisational provided guide to conduct the assessment and use Sphere Standards to focus assessment and planning	Provide strategic input into the assessment and expert advice
		Demonstrate competency in a variety of data gathering techniques and report findings upwards. Effectively use a checklist to complete data gathering tasks	Thoroughly assess current water supply situation, identify unmet needs and identify potential future water supply options	Ensure that all stakeholders are involved in assessment and planning. Garner governmental involvement and campaign for their eventual ownership
	Effective planning		Accurately identify objectives, activities to achieve objectives and identify time, methods and recourses to complete activities	Ensure that planning changes in line with the disaster cycle
			Consider adopting a phased approach.	Deliver required technical support
	Constructively implement plan and manage resources and processes	Display technical knowledge whilst assisting in implementation	Implement plan, delegate constructively	
		Abide by health and safety regulations	Enforce health and safety policy	Set health and safety policy
		Carry out productive monitoring and evaluation tasks and share gathered information	Review programme through monitoring and evaluation	Overseer the monitoring and evaluation and set data managing procedures
		Successfully carry out O & M tasks	Implement operation and maintenance procedures and processes	Ensure O & M processes are effective
WATER QUALITY	Conduct accurate water quality assessment and analysis	Assist in rapid sanitary survey and catchment mapping. Efficaciously involve community	Initiate water quality assessments (rapid sanitary survey and catchment mapping)	Gather information from other sources regarding the water quality: governmental departments/historical information.
		Assist in capacity building by involving community in chlorine dosing	If any suspicion- chlorinate ensuring effective dosage. Cascade dosage information and implement constant monitoring of residual chlorine	
		Initiate understanding of basic water characteristics.	Effectively initiate full sanitary survey/ full assessment. Possess and cascade knowledge about microbiological and biological characteristics of water. Effectively communicate findings to users and team	Provide technical expertise to teams
		Demonstrate accurate identification of hazardous factors, pathway factors and indirect factors affecting water quality	Accurately direct teams on where and when to conduct testing.	Set procedures on recording and reporting of data
	Conduct water quality analysis	Ability to assist in conducting core, secondary and treatability tests	Consider the physical, chemical and radiological characteristics of water and its acceptability to users	Manage water quality testing equipment
		Effectively gather information from community regarding acceptability of water	Effectively aggregate information from community regarding acceptability of water	
WATER SOURCES & SUPPLY	Surface water		Sustainably exploit surface water sources, plan and construct intakes	Involve stakeholders and outside stakeholders that might impact on source
		Take active part in protecting intakes by informing community and constructing fences etc.	Site intakes and implement measures to protect source from contamination	
		Manage risks of individual intake	Mitigate risks of individual intake	
	Ground water	Demonstrate understanding of groundwater behaviour and characteristics of aquifers	Exhibit skills to assess the yields of ground water sources. Effectively consult with local people and access local records of pumping and borehole performance	Deploy expertise in assistance of source development
		Ability to assist in ground water source abstracting and developing techniques	Accurately consider the complexities for abstracting around static and dynamic water levels. Commission borehole development	Manage contracts and assist with borehole development
		Demonstrate locating and accessing groundwater/ accessing groundwater in emergencies	Gather and aggregate information from hydrogeologists and other local people, records form existing wells, remote sensing information etc.	Ensure that water supply increase in line with Sphere standards according to the disaster cycle
		Active participation in the construction of spring protection, hand-dug wells and in the rehabilitating and upgrading of existing wells	Conduct on-the-ground-surveys and use findings to focus efforts	Manage all the data captured
	Sustainable operation and maintenance of water sources and supply		Plan, design and implement supply network/ process	
			Implement operation and maintenance of water sources and the supply network	

TECHNICAL WATER COMPETENCIES					
WATER STORAGE & DISTRIBUTION	Large Scale Water Storage	Demonstrate experience with rapid installation tanks and longer term storage tanks	Assess storage needs as siting of tanks	Provide technical expertise to teams	
		Partake in construction of foundations for tanks and assembly different kinds of tanks	Construct security of service tanks and service pipes		
	Piped system design and distribution	Demonstrate ability to assist in implementation of pipeline system and tap stand structure	Effectively site distribution points and design pipeline system. Accurately calculate required types of pipe, fittings and valves. Design taps stands and plan implementation.	Procure required storage tanks and service pipes	
	Water tankering and bottled water			Manage procurement and contracts	
		Distribute bottled water in line with plan	Plan effective distribution of bottled water		
	Household water treatment and safe storage	Assist in campaign to inform community of effective HWTS	Plan HWTS strategy in conjunction with macro water treatment and storage system	Oversee the HWTS strategy	
		Assist in capacity building by involving community in chlorine dosing			
		Distribute HWTS resources effectively and report back on user preference (Containers for drinking and containers for washing)			
WATER TREATMENT	Bulk water treatment	Actively gain an understanding of sedimentation, filtration and disinfection	Effectively design appropriate water treatment process		
			Accurately establish method for pre-treatment and treatment		
		Demonstrate ability to assist in construction of water treatment plant and plant rehabilitation	Constructively implement construction of water treatment plant or plant rehabilitation	Oversee planning phase and furnish planning team with expertise	
			Implement and manage the operation and maintenance of WTP		
		Take responsibility for a part of operation and maintenance of treatment system	Manage operation and maintenance of treatment system	Oversee operation and maintenance plan and provide advice	

Appendix 4.5 Cover Note to the Second Testing Iteration Framework

DRAFT: EMERGENCY WATER AND SANITATION TECHNICAL COMPETENCY FRAMEWORK

The current trend towards professionalising the humanitarian sector in order to be more accountable to our stakeholders, most importantly our beneficiaries, have seen a sector wide effort to establish standards. These standards could serve a variety of useful purposes, for example being used to measure our performance as WASH practitioners and recognise our quality and competencies. This framework is in its infant draft stages and is being developed in collaboration with RedR and with input from IWA and CAWST. The framework is based on the CBHA Core Humanitarian Competencies Framework and in line with Professionalising the Humanitarian sector: A scoping study by Peter Walker and Catherine Russ the "three levels roughly correspond to the pattern of:

Level 1- Engineering Technicians / field-level workers with up to 18 months' experience
Level 2- Incorporated Engineers / team supervisors (2-5 years' experience)
Level 3- Chartered Engineers / national/ international level technical staff (over 5 years' experience)" (Walker and Russ 2010).
The competency dimensions/ behaviours are purely examples at this stage.

Your input, general or detailed, into this draft framework and thoughts around it would be greatly appreciated. You are welcome to answer anonymously or provide your details in order to be contacted.

Jane Cilliers
Jane_cilliers@hotmail.com

The current trend towards professionalising the humanitarian sector in order to be more accountable to our stakeholders, most importantly our beneficiaries, have seen a humanitarian sector wide effort to establish standards. These standards could serve a variety of useful purposes for example being used to measure our performance as WASH practitioners and recognise our quality and competencies regardless of academic qualifications that are not obtainable by a large number of WASH practitioners globally. This framework is in its third testing phase and is being developed in collaboration with RedR and with input from IWA and CAWST.

The framework is based on a wide selection of existing but narrow focus frameworks. In line with recommendations from "Professionalising the Humanitarian sector: A scoping study" by Peter Walker and Catherine Russ the "three levels roughly correspond to the pattern of:

Level 1 - Engineering Technicians / field-level workers with up to 18 months' experience and entry level staff.

Level 3 - Includes level 2 at this stage of the Humanitarian Leadership Academy's definition. Incorporated engineers, team supervisors (2-5 years' experience), mid-level managers and team leaders/supervisors.

Level 5 - Includes level 4 at this time according to the Humanitarian Leadership Academy's definition, thus senior managers, technical advisors (heads of departments). Chartered Engineers and national/ international level technical staff (over 5 years' experience)". Very senior CEOs, CDs of large NGOs, heads of mission. As a level 5 you need to also have the competencies of a level 1 and 3.

The framework is set out in the different functions of water, sanitation and hygiene promotion. Under each main function the competencies that are required to successfully execute that function is set out under the current three levels. For example, if you are an organisation that has secured funding to fulfil the solid waste management function in an emergency, the framework could be used to ensure that the people with the necessary competencies are sent. As a WASH practitioner / organisation or sector, the framework can be used to establish what your training needs or your capacity gaps are thus providing a handrail for personal and organisational development.

These are just a few of the uses and benefits of this framework.

The competency dimensions / behaviours are examples at this stage and are intended as triggers proposed guidelines as opposed to set requirements. The WASH sector, like everything else in humanitarianism, is incredibly fluid and complex and there are situations where a practitioner will have to fulfil the functions of all three levels. However, attempts need to be made to delineate responsibilities in order to become more professional and accountable.

Currently there exists a strong intention to add another level in order to acknowledge locally employed people that play a significant part in WASH programmes but more information is required to populate that level thus any recommendations will be most welcome. It is also acknowledged that the measuring of these competencies are not currently addressed and it is essential to do so but only once a basic set of essential competencies have been agreed upon.