

The Sideline Cross-Cutting Issue: Mainstreaming Environment into the Water, Sanitation, and Hygiene (WASH) Cluster

Moritz Hauer

**Division of Risk Management and Societal Safety
Lund University, Sweden**

**Riskhantering och samhällssäkerhet
Lunds tekniska högskola
Lunds universitet**

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Moritz Hauer

Magnus Hagelsteen

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Abstract

Addressing key environmental concerns during humanitarian assistance is critical to prevent additional hazards, reduce risks, and to not further increase the vulnerability of disaster-affected populations. However, the environment remains an underappreciated cross-cutting issue within the humanitarian sector and efforts to systematically integrate environmental concerns into humanitarian assistance as well as to reduce its environmental impacts are quite limited. The purpose of this research is to analyze the current state of environmental mainstreaming in humanitarian assistance, and to identify the main barriers hindering the systematic integration of environmental concerns. This thesis specifically focus on the WASH Cluster due to the intrinsic link between WASH and the environment. Having conducted 12 semi-structured interviews with various WASH practitioners at different levels, it is concluded that the key challenge to environmental mainstreaming across the WASH Cluster does not solely lie in the details of the mainstreaming process itself. Instead, the process is stuck at the fundamental step of prioritization, needed to initiate and drive forward the overall environmental mainstreaming process. Without more top-down directive and greater prioritization of environmental concerns by the Cluster Lead Agency, environmental mainstreaming is unlikely to progress much further within the WASH Cluster's humanitarian assistance. Other challenges for environmental mainstreaming include a lack of donor support for environmental concerns, no common environmental mainstreaming strategy, the division between the humanitarian and development sector, too few technical experts with environmental know-how, and a general absence of monitoring and evaluation of environmental impacts. When comparing the results of this research with previous findings, it appears that the state of environmental mainstreaming within the humanitarian sector has changed very little over the past decade. A clear commitment to environmental concerns, greater involvement of technical expertise and capacity development for staff at all levels is needed to bring about the change associated with environmental mainstreaming.

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Riskhantering och samhällssäkerhet
Lunds tekniska högskola
Lunds universitet
Box 118
221 00 Lund

<http://www.risk.lth.se>

Telefon: 046 - 222 73 60
Telefax: 046 - 222 46 12

Division of Risk Management and Societal Safety
Faculty of Engineering
Lund University
P.O. Box 118
SE-221 00 Lund, Sweden

<http://www.risk.lth.se>

Telephone: +46 46 222 73 60
Fax: +46 46 222 46 12

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Lund, 18 August 2017

Moritz Hauer

List of Acronyms

CBPF	Country-based Pooled Funds
CLA	Cluster Lead Agency
DRR	Disaster Risk Reduction
HPC	Humanitarian Programme Cycle
HRP	Humanitarian Response Plan
IFRC	International Federation of Red Cross and Red Crescent Societies
INGO	International non-government organization
JEU	UN Environment / OCHA Joint Unit
NGO	Non-governmental organization
NWOW	New Way of Working
OCHA	(United Nations) Office for the Coordination of Humanitarian Affairs
SDG	Sustainable Development Goals
UN	United Nations
UNHCR	United Nations High Commissioner for Refugees
UNICEF	The United Nations Children's Fund
WASH	Water, Sanitation, and Hygiene
WHS	World Humanitarian Summit

Table of Contents

1. Introduction.....	1
2. Purpose & Research Question	2
3. Theoretical Background	3
3.1 Environmental Mainstreaming – Making the Case	3
3.1.2 Benefits of Environmental Mainstreaming	4
3.2 Environmental Mainstreaming – What is It? How Does It Work?	4
3.2.1 Defining Environmental Mainstreaming.....	5
3.2.2 Mainstreaming Mechanisms	6
3.2.3 Mainstreaming Strategies	7
3.3 WASH-Specific Environmental Issues	9
4. Methodology	10
4.1 A Constructivist Lens	10
4.2 Interviews	11
4.2.1 The Global WASH Cluster	11
4.2.2 Data Collection.....	12
4.2.3 Interview Guide.....	13
4.2.4 Data Analysis	14
4.3 Challenges & Limitations	15
5. Results	17
5.1 The Challenges of Environmental Mainstreaming	17
5.2 Environment in the WASH Cluster	20
5.2.1 Conceptualization of Environment in WASH.....	21
5.2.2 Current Environmental Concerns and Actions.....	21
5.3 Approaches to Environmental Mainstreaming	23
6. Discussion.....	27
6.1 Prioritization and Strategy	27
6.1.1 A Strategy for Environmental Mainstreaming	28
6.2 No Donor Support, No Mainstreaming	30
6.3 The Humanitarian-Development Divide	31

6.3.1	Resilience and Preparedness	32
6.4	Technical Expertise	33
6.5	Monitoring and Staff Turnover.....	35
7.	Conclusion	37
8.	Recommendations	39
8.1	Mainstreaming Environment Vertically	39
8.1.1	Cluster Lead Agency and Donors	39
8.2	Mainstreaming Environmental Horizontally	40
8.2.1	Environmental Working Group.....	40
8.2.2	Sharing of Knowledge and Experience	41
8.3	Raising Awareness and Developing Capacities	41
8.4	Existing Opportunities	42
8.4.1	Champions of Change	43
9.	Bibliography	44
10.	Appendices.....	48
10.1	Appendix 1 – Interview Letter	48
10.2	Appendix 1 – Interview Table Extract.....	49

List of Figures

Figure 1.	Interview and probing questions.....	14
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List of Tables

Table 1.	Horizontal and vertical mainstreaming with respective strategies.....	8
Table 2.	WASH-specific environmental issues.....	9

1. Introduction

The nexus of environment and humanitarian assistance is a complex and slightly ambiguous one. The ways in which the natural environment and humanitarian assistance are linked are not always as clear-cut as in development (see Adams, 2003). Many humanitarians do not consider environmental concerns to be an integral component of the humanitarian sector, and rather considered the environment a ‘development issue’ (UN Environment / OCHA Joint Unit [JEU], 2014). As a result, efforts to integrate environmental considerations into humanitarian assistance are limited. This lack of environmental engagement within the humanitarian sector is, can cause substantial shortcomings in the overall quality of response efforts (see Kelly, 2013).

Previous work on the environment-humanitarian nexus has identified several key linkages between the environment and humanitarian assistance. Barrett et al. (2007) show that environmental issues, e.g. shortage of natural resources such as firewood or water, can negatively impact the way humanitarian assistance can be delivered. Furthermore, natural hazards, and subsequent disasters, have the potential to severely damage the natural environment, e.g. by causing land degradation, exploiting wood and water resources too heavily, effectuating the release of hazardous substances, and disrupting ecosystem functions. Besides the intrinsic value of a healthy environment itself, a damaged local environment is also problematic insofar as it can negatively impact the life, health, and livelihoods of affected populations, causing a reduction in their resilience and increasing vulnerability (Barrett et al., 2007).

Moreover, it is humanitarian assistance itself that can “cause or contribute to negative environmental impacts” (Brooke & Kelly, 2015: 4). Field-based experience has shown that humanitarian assistance can damage the respective local environment through, for instance, the accumulation of disaster waste, unsustainable use of local natural resources, or directly damaging local ecosystems (Brooke & Kelly, 2015). The potential of humanitarian assistance to damage the environment, combined with the aforementioned links, ought to bring about a more active integration of environmental concerns.

Despite an existing policy basis (elaborated later on), the environment is far from being an integral component of humanitarian assistance and efforts to mainstream environment into humanitarian assistance are rather limited, as environmental considerations largely remain an ‘add-on’ (JEU, 2014). Hence, there is a need to identify the obstacles that hinder the systematic integration of

environmental considerations into humanitarian assistance in order to aid affected populations more holistically and preserve the environment as best as possible.

2. Purpose & Research Question

The purpose of this research is to gain further understanding of current state of environmental mainstreaming within the humanitarian sector. It sets out to analyze efforts to integrate environmental concerns into humanitarian assistance, and the key challenges that hinder the environmental mainstreaming process. Improving the integration of environmental concerns of humanitarian assistance is vital to minimize negative environmental impacts, “and build back safer and sustainably to improve affected people’s resilience and reduce the risk of disasters” (JEU, n.d.). To limit the scope of this research and achieve greater analytical detail, this thesis focuses on the WASH Cluster’s humanitarian assistance. Seeing that there are multiple critical links between the natural environment, disasters and humanitarian assistance, and in order to contribute to an improved integration of environmental concerns in emergency WASH operations, this research asks:

What are the key challenges that inhibit the systematic integration of environmental concerns, i.e. environmental mainstreaming, across the WASH Cluster?

Through investigating the integration of environmental concerns into the WASH Cluster’s humanitarian assistance, this research also seeks to contribute to greater conceptual clarity on environmental mainstreaming in the humanitarian sector. Prevalent confusion over the concept of mainstreaming continues to complicate the systematic integration of environment in humanitarian assistance (JEU, 2014). Greater conceptual clarity regarding the various processes and mechanisms of environmental mainstreaming within the humanitarian context can help to achieve further progress within the environment-humanitarian nexus. Based on the identified challenges, this thesis provides recommendations for advancing environmental mainstreaming across the WASH Cluster.

3. Theoretical Background

This chapter develops the theoretical foundations of this research. The academic literature on environment and humanitarian assistance is rather sparse and basically silent on environmental mainstreaming within the humanitarian sector. While a few reports address the environment-humanitarian nexus as well as environmental mainstreaming, theoretical insights have to be sought outside the humanitarian sector. In the following, the first subchapter makes the case for environmental mainstreaming by outlining the existing humanitarian policy basis and providing an overview of the currently established benefits of environmental mainstreaming for humanitarian assistance. Thereafter, the theoretical foundations for this thesis are established by providing a background to environmental mainstreaming, a working definition, and exploring the specific mechanisms and strategies of environmental mainstreaming.

3.1 Environmental Mainstreaming – Making the Case

Actors who have engaged with the environment-humanitarian nexus so far have unanimously called for a greater integration of environment in humanitarian assistance (see JEU, 2014, Brooke & Kelly, 2015; Barrett et al., 2007). It has been argued that a “policy basis for integrating environmental considerations into humanitarian assistances” is already in place (Brooke & Kelly, 2015: 6). For instance, according to the *do no harm* concept, humanitarian assistance should not cause further harm to the disaster or crises survivors. Environmental considerations ought to be part of this concept, since environmental damages or malpractice can affect the lives and livelihoods of people (see Kelly, 2013). In accordance with the *do no harm* concept, Principle 9 of the Humanitarian Charter specifically recognizes that humanitarian assistance can result in unintended adverse effects, and that “in collaboration with affected communities and authorities, we aim to minimize any negative effects of humanitarian assistance on the local community or on the environment” (Sphere Project, 2011: 23). Additionally, the Code of Conduct for the International Red Cross and Red Crescent Movement and NGOs in Disaster Relief calls for “particular attention to environmental concerns in the design and management of relief programmes” (International Federation of Red Cross and Red Crescent Societies [IFRC], 2003: 3). Thus, the call for making the environment an integral part of humanitarian assistance is not merely a demand by environmental actors, but it can also be based on key humanitarian principles and concepts.

3.1.2 Benefits of Environmental Mainstreaming

The reviewed literature argues that making the environment an integral component of humanitarian assistance entails various benefits. Barrett et al. (2007: 6) argue that actively integrating environmental concerns can deliver more sustainable solutions to humanitarian assistance and “help reduce over-exploitation and conflict over scarce resources.” Adequately addressing the negative (secondary) impacts on the environment, caused by a disaster and the subsequent humanitarian assistance, helps to mitigate harmful effects on community health and livelihoods. Lastly, mainstreaming environment into humanitarian assistance can “reduce the likelihood of protracted negative effects and hence the overall costs of a disaster” (Barrett et al., 2007: 7). Achieving greater environmental sustainability throughout the emergency response would also link humanitarian assistance more effectively into the development process, where environmental concerns are dealt with to a greater extent (Kelly, 2013). Additionally, the JEU (2014) stresses that the integration of environmental issues into humanitarian response allows for a reduction in both vulnerability and disaster risk. This can reduce the environmental drivers of conflict (e.g. competition over scarce natural resources); promote environmental management to avoid and/or reduce disaster impacts; ensure greater sustainability throughout the physical, economic and human rehabilitation; increase resilience; and “link humanitarian assistance to immediate livelihood needs” (JEU, 2014: 20). These links, however, remain underappreciated, especially due to a lack of clear vision “among humanitarian practitioners, institutions and donors on how the environment – and its links with all sectors – should be addressed in a more consistent, holistic and strategic manner” (JEU, 2014: 21).

3.2 Environmental Mainstreaming – What is It? How Does It Work?

The foundations for environmental mainstreaming can be traced back to the 1987 Brundtland report, which promotes the integration of environment into economic planning as well as decision making. In 1992, the Earth Summit further developed the basis for environmental mainstreaming, as Principle 4 of the Rio Declaration promotes environmental protection as “an integral part of the development process and cannot be considered in isolation from it” (United Nations [UN], 1992). In addition, Chapter 8 of the Agenda 21 is dedicated to the integration of environment and development in decision-making. In the 1990s, early environmental mainstreaming efforts sought to integrate environment into national planning (e.g. through poverty reduction strategy papers) to “ensure that economic decision, policies, and plans took environmental priorities into account and

addressed the impact of human activities on environmental services and assets” (Benson et al., 2014: 607).

Subsequently, mainstreaming has developed as a tool for the (systematic) integration of a particular issue¹ into a specific sector, including the policies, plans, legislations and practices within it (Nunan et al., 2012). Wamsler et al. (2014: 190) argue that mainstreaming can be framed as “incorporating new aspects into existing core work,” and that the motivation for mainstreaming stems “from the need to change the dominant paradigm.” Simply speaking, environmental mainstreaming is about the “*greening*” of non-environmental sectors (Benson et al., 2014: 606).

While various actors in the humanitarian sector have recognized that a change of the dominant paradigm is necessary insofar as a greater integration of environmental considerations is needed, the specific pathways, mechanisms and processes of environmental mainstreaming are not conceptualized very well. Neither UN Environment (including the UN Environment / OCHA Joint Unit) nor existing reports on mainstreaming environment into humanitarian assistance (e.g. JEU, 2014; Kelly, 2013; Brooke & Kelly, 2014) explicitly define and conceptualize environmental mainstreaming.

3.2.1 Defining Environmental Mainstreaming

The following discusses definitions of environmental mainstreaming and lays a conceptual basis for environmental mainstreaming within the humanitarian context. Conceptual guidance for environmental mainstreaming can be found within literature focusing on development, organizational structures, as well as (national) policy-making and implementation. The European Environmental Agency (2005: 12) defines environmental mainstreaming (also referred to as Environmental Policy Integration in this instance) as “moving environmental issues from the periphery to the center of decision-making, whereby environmental issues are reflected in the very design and substance of sectoral policies.”

A more widespread definition is offered by Dalal-Clayton and Bass (2009: 20), who argue that environmental mainstreaming is “the informed inclusion of relevant environmental concerns into the decision of institutions that drive national, local and sectoral development policy, rules, plans, investment and action.” On the one hand, this definition is more comprehensive than the one

¹ Other cross-cutting issues that are being mainstreamed include gender, risk reduction, HIV/AIDS, education and learning, as well as climate change adaptation (Wamsler et al., 2014).

provided by the European Environmental Agency (2005). On the other hand, the definition by Dalal-Clayton and Bass (2009) also ties environmental mainstreaming intrinsically to development. Environmental mainstreaming does, however, occur outside the development sector as well, meaning that the definition of Dalal-Clayton and Bass (2009) causes some tension when applied to the humanitarian sector.

In order to at least tentatively develop a conceptual basis, this thesis defines environmental mainstreaming for the humanitarian sector as *‘the informed inclusion of relevant environmental concerns into the decisions that drive the humanitarian sector’s policies, rules, plans, investments and actions.’* Additionally, Benson et al. (2014: 608, emphasis in original) suggest that mainstreaming “focuses on the way by which people’s lives and the environment are improved.” While this thesis’ tentative definition of environmental mainstreaming is rather broadly formulated, it can help to identify whether environmental mainstreaming is taking place or not.

3.2.2 Mainstreaming Mechanisms

Looking at organizational structures and policy integration at national level, Nunan et al. (2012) argue that environmental mainstreaming can occur through two integration mechanisms or pathways². The integration process can occur vertically or horizontally. While the two pathways are rather different in the way that environmental mainstreaming takes place, Nunan et al. (2012: 266) point out that the two mechanisms should be understood as “different modalities rather than entirely discrete alternatives.”

Vertical mainstreaming refers to the integration process steered by a strong, leading entity, such as a powerful governmental body (Nunan et al., 2012), or in the case of the WASH Cluster, UNICEF represents such an entity as it embodies the lead agency for the cluster. This vertical process entails high levels of top-down guidance with corresponding reporting mechanisms back to the top, and utilizes hierarchical structures for the integration of environmental matters in existing core work (Nunan et al., 2012; Wamsler et al., 2014). Nunan et al. (2012) add that vertical mainstreaming arrangements require responsibility, commitment as well as sufficient capacity by the lead agency. In the case of national-level environmental mainstreaming within the development sector, development planning and environmental ministries have, in some instances, come together to

² Wamsler et al. (2014) refer to these mechanisms as dimensions.

combine coordination capacity on environmental matters with greater implementation capacity (Nunan et al., 2012).

Horizontal mainstreaming, on the other hand, only utilizes limited top-down support and instead occurs via “temporary arrangements such as liaison roles or task forces or more permanent arrangements such as teams, full-time integrating roles or an integrating department” (Nunan et al., 2012: 266). These more temporary arrangements push and coordinate the mainstreaming process across other entities. Cross-sectoral working groups or committees have been able to achieve environmental mainstreaming due to the available technical and analytical expertise (Nunan et al., 2012). While horizontal mainstreaming mechanism can help to efficiently coordinate the mainstreaming process, it normally suffers from “insufficient authority to exercise top-down control” (Wamsler et al., 2014: 191).

3.2.3 Mainstreaming Strategies

Wamsler et al. (2014) further adds a total of six different mainstreaming strategies to both the vertical and horizontal mainstreaming mechanisms (see Table 1). While these strategies are based on the integration of ecosystem-based adaptation into municipal planning in Sweden, they provide a useful elaboration of the vertical and horizontal mainstreaming mechanisms. Wamsler et al. (2014) explain that the add-on, programmatic, as well as inter- and intra-organizational mainstreaming strategies generally relate to coordination-related activities. The regulatory, managerial, and directed mainstreaming strategies entail “activities characterized by high level of guidance” (Wamsler et al., 2014: 191).

Research by Nunan et al. (2009) as well as Wamsler et al. (2014) has shown that combining vertical and horizontal mainstreaming mechanisms avoids weaknesses and creates synergies that increase the chance of successful environmental integration. Additionally, based on evidence of the Poverty-Environment Initiative, Benson et al. (2014: 609) argue that “strong leadership drives mainstreaming and getting this leadership at the right hierarchical level to drive change is critical.” Nunan et al. (2014) argue that a wholly vertical approach relies too heavily on the capacity of the lead entity, whilst an entirely horizontal approach has limited implementation power only. Combining the two approaches would ensure technical as well as analytical expertise on the one hand (e.g. through cross-sectoral working groups), and an appropriate mandate as well as sufficient resources on the other hand (Nunan et al., 2014). Similarly, Wamsler et al. (2014: 197) stress the

“importance of both horizontal and vertical dimensions as complementary strategies to reinforce and balance each other,” and argue for utilizing diverse mainstreaming pathways. Evidence has shown that adequate timing, e.g. when to communicate evidence, and influencing planning as well as budgeting processes at the right time, can influence the success of environmental mainstreaming (Benson et al., 2014).

Mainstreaming Mechanisms	Mainstreaming Strategies	
Horizontal mainstreaming	Add-on mainstreaming	Refers to the establishment of specific on-the ground projects or programs that are not an integral part of the department’s core objectives but directly target ecosystem-based adaptation or related aspects.
	Programmatic mainstreaming	Relates to the modification of department’s core work by integrating aspects related to ecosystem-based adaptation into on-the-ground project or programs.
	Inter- and intra-organizational mainstreaming	Promotes collaboration of individual sections or departments with other stakeholders (departments, organizations, committees, or governmental bodies) to inform, consult, advise or collaborate for shared knowledge generation, competence development and action-taking for advancing ecosystem-based adaptation.
Vertical mainstreaming	Regulatory mainstreaming	Refers to the modification of planning procedures and related activities by formal and informal plans, regulations, policies and legislations that lead to the integration of ecosystem-based adaptation.
	Managerial mainstreaming	Refers to the modification of organizational management and working structures including related internal formal and informal norms and work descriptions as well as the configuration of sections or departments to better address aspects related to ecosystem-based adaptation.
	Directed mainstreaming	Supports or redirects the focus onto aspects related to integrating ecosystem-based adaptation by providing topic-specific funding, promoting the initiation of new projects, supporting the education of staff, or redirecting responsibilities.

Table 1. Horizontal and vertical mainstreaming with respective strategies (Wamsler et al., 2014).

3.3 WASH-Specific Environmental Issues

Delrue and Sexton (2009) as well as the JEU (2014) have outlined cluster-specific key environmental concerns linked to the respective humanitarian activities. The environmental concerns linked to the WASH Cluster activities include over-pumping of groundwater aquifers, improper rehabilitation and decommissioning of wells, water contamination from sewage disposal, as well as improper disposal of solid waste (see Table 2.). Additionally, potential outcomes of a disaster which can complicate the WASH-specific response operations include contamination of water sources or damage of water and sanitation infrastructure (see Delrue & Sexton, 2009).

	Environmental impacts than can affect humanitarian activities	Humanitarian activities that can cause negative environmental impacts
WASH	<ul style="list-style-type: none"> • Contamination of water sources by chemicals, hazardous waste and weapons • Damage of water and sanitation infrastructure, leading to cross-contamination • Presence of debris and carcasses 	<ul style="list-style-type: none"> • Over-pumping of groundwater aquifers • Improper rehabilitation and decommissioning of wells • Water contamination from sewage disposal • Inappropriate / energy-intensive WASH systems (e.g. septic tanks, desalination plants)

Table 2. WASH-specific environmental issues (based on Delrue & Sexton, 2009: 2, JEU, 2014).

4. Methodology

The following chapter outlines this thesis' methodological approach in terms of data collection and analysis. Semi-structured interviews with various practitioners from different organizations within the WASH Cluster were used to collect the required information. Furthermore, this chapter provides justifications for the choices made in this research, and discusses various research limitations.

4.1 A Constructivist Lens

This thesis ontological and epistemological foundations are rooted in social constructivism. It assumes that the social world is axiomatically different than the natural world. Laws of social dynamics cannot be deduced in the same way as natural laws, due to the complexity, agency, and changing nature of individuals and their social interaction (Halperin & Heath, 2012). When subscribing to a constructivist epistemology, the assumption follows that “people act on the basis of beliefs, values, or ideology that give meaning to their action” (Halperin & Heath, 2012: 310-311). Subsequently, we ought to interpret how people link their actions to meaning, and which values, norms as well as belief systems such meaning is rooted in. As a research method, interviews enable the researcher to study actions and meanings through collecting as well as analyzing the experiences and perceptions of individuals (Halperin & Heath, 2012).

A constructivist lens is valuable insofar as it entails questioning the truth claims that often go unchallenged and are generally taken for granted (see Klotz & Lynch, 2007). For instance, whilst humanitarian assistance has existed for quite some time in human history, the modern concept of humanitarian assistance and its principles “has only truly emerged since the latter half of the 20th century” (Rysaback-Smith, 2015: 5). These guiding principles are the result of a post-World War II negotiation process amongst various actors which illustrates a certain consensus of values and norms (see Rysaback-Smith, 2015). As such, the aims of humanitarian assistance, i.e. importance of protecting human life, alleviating human suffering, and promoting human welfare, are socially constructed. It follows that there is no objective truth in regards to the ways in which human suffering ought to be reduced and how humanitarian assistance is to be delivered. In- or excluding environment concerns within humanitarian assistance might, thus, be determined by the choices practitioners make, or by more structural constraints of the humanitarian system.

4.2 Interviews

This research gathers qualitative data through semi-structured interviews to further investigate the challenges of integrating environment and humanitarian assistance within the WASH Cluster. Semi-structured interviews are an insightful research instrument which aids the researcher in understanding “people’s perceptions, feelings, opinions, experiences, understandings, values, beliefs, attitudes, emotions, behavior, formal and informal roles, and relationships” (Halperin & Heath, 2012: 262). Semi-structured interviews with practitioners from the WASH Cluster allow for a detailed insight into their perspectives as well as attitudes regarding the integration of environmental concerns into the WASH Cluster’s humanitarian assistance. Rather than standardized questionnaires, interviews were chosen as the research method as these allow for a more wide-range discussion (Halperin & Heath, 2012). Interviews are more suitable for analyzing the various perspectives and experiences in regards to environmental mainstreaming in WASH, and can help to uncover the individual attitudes and beliefs in regards to environmental concerns in humanitarian assistance (see Valentine, 2005).

Lastly, the interviews themselves can function to raise awareness for the importance of environmental mainstreaming. Since the respondents have to reflect upon environmental components of their work, shortcoming in regards to the integration of environmental concerns can potentially be highlighted.

4.2.1 The Global WASH Cluster

The WASH Cluster represents one of 11 clusters, and specifically addresses needs and gaps in relation to water, sanitation as well as hygiene. Formed in 2006, the WASH Cluster embodies “an open and formal platform for humanitarian WASH actors to work together in partnership” (WASH Cluster, 2013a). The cluster comprises 32 full-members, including UN agencies, international organizations, and international non-governmental organizations (INGOs). The WASH Cluster seeks to improve the emergency response coordination at global and national level in order to effectively assist affected populations through the delivery of water, sanitation and hygiene promotion (WASH Cluster, 2013a).

The decision to focus on the WASH Cluster was taken in consultation with the JEU. The specific focus on WASH was chosen for a number of reasons. Firstly, WASH is intrinsically linked with the environment meaning that certain environmental considerations are simply unavoidable,

making the cluster particularly interesting to study environmental mainstreaming. Secondly, previous research on the environment and WASH already exists, which can be built upon. Thirdly, the WASH Cluster has expressed an interest in this kind of research.

4.2.2 Data Collection

It was planned to conduct a total of 14 interviews and with the help of the Global WASH Cluster Coordinator, purposive sampling was used to select WASH Cluster practitioners from different partner organizations as well as both headquarter- and field-level. Each interview was expected to take 45 minutes at most. Out of the 14 initially contacted potential respondents, nine were actually interviewed. Only one person directly refused to be interviewed, arguing that he believed he did not have enough experience on the topic. The other four potential respondents did not reply, possibly due to a very heavy workload or being involved in ongoing emergencies. Three further respondents were contacted through the network of previously interviewed respondents, and all agreed to be interviewed. Thus, a total of 12 semi-structured interviews were conducted, of which almost all took 55 to 60 minutes. The interviews took longer than expected because most respondents had more to add at the end of the interviews or because they answered some of the questions very elaborately.

The decision to interview WASH practitioners at headquarter- and field-level was taken to increase the research's validity and gather a wider range of experiences. While staff at headquarters might be more aware of the WASH-specific environmental policy, field-based staff might have greater insight into its practical implementation. Through interviewing practitioners at different levels, this research can collect more varied accounts and experiences in regard to environmental mainstreaming in WASH. Respondents come from various organizations within the WASH Cluster, e.g. UNICEF, IFRC, CARE, as well as Oxfam, and cluster coordinators from different parts of the world. In addition, the respondents fulfill different roles, including cluster coordinators, team leaders, WASH program managers as well as emergency specialists, technical experts, and three of the respondents also have a donor function as part of their work.

The interviews were conducted via Skype as it enables a wide geographical access. Skype interviews depend on a stable internet connection and can suffer from low audio quality, which can complicate the interview transcription. Face-to-face interviews were impossible for this research due to the respondents being so geographically dispersed. Even though online interviews do not

reach the same level of personal interaction between researcher and respondent, they still allow the respondents to express themselves freely and enable the researcher to ask follow-up questions (Halperin & Heath, 2012). Each Skype interview was, with the consent of the respondent, recorded and subsequently transcribed, using the free online program *oTranscribe* (otranscribe.com).

4.2.3 Interview Guide

In each interview four rather open questions are asked, which allow for further in-depth probing and responsiveness, depending on the respondent (see Halperin & Heath, 2012). The interview guide was tested with a colleague, which lead to a simple change of wording for some of the questions to prevent potential comprehension problems. In order to provide an understanding of this research, a letter outlining the background and purpose of this thesis was attached to every first email to potential respondents (see Appendix 1). Background information about the research was also briefly provided at the beginning of every interview.

At the beginning of the interview, each respondent was asked to briefly describe their role and function within the WASH Cluster. The first two questions seek to investigate the respondents understanding of the link between environment and WASH (see Figure 1). The first question generally seeks to understand how practitioners conceptualize the environment in relation to the WASH Cluster's work. The second question more specifically asks which environmental concerns – if any – the respondents take into account in order to gain an overview of the different environmental concerns the practitioners deem important. The third and fourth ones specifically address environmental mainstreaming in WASH. The third question asks for the respondents' opinion on how the aforementioned environmental concerns are integrated into WASH's response operations. Finally, the last question seeks to gather the respondents' accounts on the current challenges in regards to environmental mainstreaming. Probing questions were used throughout the interview to tease out more information if necessary.

After the first two interviews, it was decided to add Question 1.1 to the set of interview questions. The intention was to make the respondents reflect further about the environmental implications of their work, and perhaps make the whole topic more tangible. The first two respondents were not asked Question 1.1 again, but their answers contained responses to this question as well. Whilst answering Question 1 as well as 1.1, several respondents went on to give answers to Question 2 by themselves already. In this case, Question 2 was skipped and Question 3 was asked instead.

Main Questions

- ***Environment & WASH***

1. How do you understand *environment* in the context of the WASH Cluster's work?
 - 1.1 Have you personally experienced any major negative environmental consequences as part of emergency WASH operations?
2. In your work, which environmental concerns do you take into account to prevent negative impacts on the local environment and affected populations?

- ***Environmental Mainstreaming***

3. From your perspective, in which ways are the environmental concerns that you mentioned mainstreamed (integrated) into WASH?
4. In your opinion, what are currently the main problems for mainstreaming environmental concerns into WASH?

Wrap-Up

This concludes the interview; is there anything you would like to add?

Probing Questions

Would you care to elaborate on...?	Why do you consider...to be this way?
Could you perhaps provide an example?	Why do you think...matters?
Can you think of other ways to...?	Why do you regard...as important?

Figure 1. Interview and probing questions

4.2.4 Data Analysis

The analysis of the research data follows the three steps of data reduction, coding, and drawing conclusions (Halperin & Heath, 2012). Each interview transcription was at first inserted in a table (using Microsoft Word) to gain a better overview of the questions and corresponding answers. Relevant elements of each interview text were identified and color coded (see Appendix 2). Thereafter, thematic connections and commonalities amongst the interview texts were noted in a separate column of the table.

The thematic connections, commonalities are subsequently coded using the broader categories of *environmental framing*, *mainstreaming environment*, and *mainstreaming challenges*. The first category groups the respondents conceptual understanding of the environment as well as the links they establish between environment and WASH's humanitarian assistance. The *mainstreaming environment* category includes all answers illustrating the current environmental mainstreaming approaches within WASH. This includes the kind of environmental considerations that are currently being taken into account. The *mainstreaming challenges* category broadly subsumes all challenges in the environmental mainstreaming process that respondents could identify. Within these three broader categories, subsequent categories are established using an open-coding approach. For instance, key emerging themes and commonalities can function as sub-groups within the broader categories (Halperin & Heath, 2012).

Finally, this categorized data is assessed in order to draw conclusions and “bring into focus a web of meanings” (Halperin & Heath, 2012: 281). Preliminary conclusions are validated by cross-checking respondents' answers for key differences and using previous literature. For instance, Wamsler et al.'s (2014) conceptualization can be used to relate answers, grouped within the *environmental mainstreaming mechanisms*, to vertical as well as horizontal mainstreaming. While the purpose of this analysis is answering the research question, it also aids in developing a more holistic picture of the state of environment within WASH, and thus, contributing to more understanding within the environment-humanitarian nexus.

4.3 Challenges & Limitations

The main challenge was the initially low response rate and overall time it took potential respondents to reply to the interview request. It took several tries to get a response, and due to the busy schedules of the respondents it could take a considerable amount of time until an interview was set up. Overall, this process significantly prolonged the research.

One of the key shortcomings regarding interviews is the ‘interview effect’ (Halperin & Heath, 2012), i.e. the presence and intentions of the researcher can influence the respondents' answers. Respondents might try to give answers according to what they think the researcher is expecting (Halperin & Heath, 2012). Semi-structured interviews can help insofar as they allow the researcher to steer the discussion through follow-up and probing questions (Halperin & Heath, 2012). It is also crucial to be aware of the influence of one's own subjectivity and personal bias in the course

of the interview. Leaving the respondents insufficient room to express themselves freely, e.g. using leading questions, can distort research result and miss important aspects (Halperin & Heath, 2012).

Semi-structured interviews normally involve a relatively small number of respondents, which allows for an in-depth engagement with each respondent. However, the validity of the research findings can suffer from a small number of respondents, as interviewing a different set of individuals might generate alternative findings (see Halperin & Heath, 2012). Another issue in regards to the validity is that the WASH Cluster is not a homogenous group. The various organizations within the cluster still follow their own working procedures and have different approaches. Thus, the extent to which environmental considerations are integrated in the response can vary from organization to organization within the cluster.

5. Results

In this chapter, the results of the interviews are presented. The first subchapter lists the key challenges of environmental mainstreaming within the WASH Cluster. Thereafter, existing environmental actions, based on current framings of environment within WASH, are presented. Finally, the last subchapter illustrates the respondents' perspectives on how to ensure a greater integration of environmental concerns into the WASH Cluster's humanitarian assistance.

5.1 The Challenges of Environmental Mainstreaming

The key issue, as reported by all respondents, is that the environment is simply not a priority. It was argued that without giving higher priority to the environment, it is unlikely that environmental concerns will be integrated systematically across the WASH Cluster. Several respondents claimed that this lack of prioritization within the WASH cluster is accompanied by an insufficient commitment and willingness to fully mainstream this cross-cutting issue on the side of the organizations as well as donors. One respondent illustrated this overall situation clearly by stating that “to my knowledge, it [the environment] has never been really mainstreamed,” and another respondent explained that he has “not seen any mechanism or tool to ensure environmental consideration.” A few respondents argued that saving lives is the priority, leaving little room for environmental considerations. One respondent argued that this “humanitarian imperative tends to not give a lot of thought to the bigger sustainability picture.”

The time pressure during humanitarian emergencies and the necessity to move quickly was seen by several respondents as contrary to considering the environment. Additionally, more than half of the respondents argued that environmental concerns are rather a long-term development issue, and that the short-term nature of humanitarian assistance leaves little room for the environment. One respondent added that the environment is “more seen as a development issue [and] it is not directly in our mind as a traditional WASH issue.” Nevertheless, half of the respondents also called for greater efforts to bridge the humanitarian-development divide and to break the silos between the two sectors. One respondent argued that the “tendency to neglect environmental impacts can have serious implications,” thereby criticizing the approach of leaving little room for environmental considerations within humanitarian assistance. The respondent claimed that the ‘short-term/long-term’ argument is an excuse used by many humanitarians to avoid having to engage with the sustainable use of natural resources, even during crises. Additionally, a few respondents argued

that recurring and protracted crises mean that humanitarian assistance often has to be delivered over a long period. This criticism was supported by two other respondents who illustrated that rushed decision-making during emergency response can cause a certain path dependency throughout the response, with little flexibility regarding a transition to more sustainable ways of delivering aid. For instance, one respondent explained that in one instance they “could have used that money to buy some rainwater harvesting tanks, but the grant was specifically for water trucking,” and that “often, NGOs are also reluctant to go back to the donor and change something.” Moreover, two respondents argued that the humanitarian imperative of saving lives should not necessarily be considered as contrary to giving adequate consideration to environmental concerns and constraints.

Most respondents also argued that a key challenge for prioritizing as well as mainstreaming environment into WASH is the lack of donor support and funding. Donor support was seen as vital to achieve greater environmental consideration and to convince people to mainstream environment, but donors were described as rather inflexible when it comes to funding new approaches. Several respondents stated that there is a lack of ‘hard mechanisms’ to ensure that the environment is being considered. Donor requirements, which are attached to funding, were seen by most respondents as such a hard mechanism that is crucial to ensure greater environmental consideration. Yet, one respondent explained that the humanitarian budget is already tight, and questioned where money for the environment is supposed to come from. Another respondent added that “we are consistently forced to try to do more with less money. Further response to the donor criticism was expressed by one respondent who reported that funding proposals rarely have strong environmental components, making it difficult for donors to fund environment-related approaches. Additionally, two respondents argued that proposals often lack sound assessments of natural constraints or the state of natural resources, and that especially hydrogeological surveys must be utilized to a greater extent.

The need for technical expertise and guidance was expressed by more than half the respondents as a considerable challenge for mainstreaming environment into WASH. Three respondents argued that more technical expertise and the input of natural scientists, particularly hydrogeologists, is required when designing and agreeing on proposals. One respondent explained that too often WASH programs are designed without a hydrogeologist, which is “a little bit like making a medical program without a doctor.” Two respondents explained that simply following standards would not

suffice, as one size does not fit all. In addition, a general lack of a methodical approach for environmental assessments and proper framework regarding environment in WASH was considered a problem by several respondents. Some respondents argued that there is no systematic approach to reducing the environmental impact of WASH operations. One respondent explained that too many approaches exist and that a more holistic approach was needed. Operational research as well as data on environment in WASH were seen as insufficient by several respondents. One respondent elucidated that “the specific and detailed data that you need to design a response, order materials, and do the job, is often very poor.” Furthermore, in the absence of more technical guidance, moving from theory to practice was considered challenging by some respondents, as environmental considerations can be difficult and complex to implement in practice. In this regard, three respondents also expressed the need for more user-friendly tools to make it easier for humanitarians to consider the environment.

Besides the need to utilize more technical expertise, several respondents also stated a general lack of capacities, knowledge and awareness regarding environmental concerns amongst staff as key issues. Additionally, a few respondents stated that cluster coordinators are often overloaded, reducing their capacity to fully address all cross-cutting issues. The heavy workload paired with the multiple cross-cutting issues complicate the integration of environmental concerns. One respondent explained that “there are so many thematic areas and everyone wants you to fight in their corner. So, you might have a gender checklist, a child protection checklist, an environmental checklist, and a DRR checklist.” Another respondent adds that “the workload is so heavy that you cannot change completely and integrate a lot of new things like on a daily manner.”

The lack of capacities to adequately address environmental concerns is further exacerbated by the high staff turnover within the humanitarian sector. Many respondents listed staff turnover as a key challenge for mainstreaming environment, arguing that this turnover causes a further loss of capacity and institutional knowledge. As explained by one respondent, the high turnover of humanitarian staff means that “each time you have to start again and it is difficult to hand over the knowledge and practice.” Furthermore, two respondents stated that there is a general lack of ‘lessons learned’ workshops that include environmental concerns after an emergency. One respondent argued that the staff turnover further exacerbates this problem, since it can cause knowledge of environmental concerns in earlier stages of an emergency to be lost later on.

Three respondents elucidated that the environment does not receive adequate consideration because the environmental impacts of humanitarian assistance are only felt after some time, at which point the humanitarians might have left already. One respondent illustrates this problem by arguing that “when you drill a borehole and you did not take into account the fact that the water table will be affected, you will never see the consequences of what you have done because you will never be there.” In addition to this sensory bias, three respondents point to the lack of accountability for environmental issues within the WASH cluster as a key challenge.

Finally, two respondents explained that initiatives with a greater environmental focus often face the issue of scale, i.e. they fail to deliver humanitarian assistance to a great number of people. One respondent explained that he “would rather serve 20.000 people with something that was okay, than 2000 people with something that was perfect.”

5.2 Environment in the WASH Cluster

Despite the overall lack of environmental mainstreaming within the WASH Cluster, all respondents acknowledged the importance of integrating environmental concerns into the cluster’s humanitarian assistance. Most respondents argued that humanitarian assistance and the environment affect each other. Each respondent explained that humanitarian assistance can damage the environment, whilst environmental conditions can have negative impacts on humanitarian assistance as well. All respondents agreed that the impact of humanitarian assistance on the environment ought to be considered, and a greater integration of environmental considerations was welcomed by each respondent. In doing so, most respondents framed the importance of environmental considerations through the lens of public health, as environmental concerns were seen to be inherently linked to the health and vulnerability of affected populations. Two respondents specifically established the link between humanitarian assistance, environment, lives and livelihoods. For instance, using the case of Somalia, one respondent elucidated that the water scarcity in Somalia severely affects both humans and their livestock. This creates “terrible pressure on the boreholes because you have a lot of people gathering water for themselves but also the animals,” which also causes public health issues. Moreover, as the water scarcity causes the loss of livestock, pastoralists lose their livelihoods, essentially rendering them internally displaced within Somalia. The situation is further exacerbated by the impacts of climate change, which causes more frequent and intense episodes of drought.

5.2.1 Conceptualization of Environment in WASH

The environment was predominantly conceptualized in terms of water resources. Water quality and quantity, water contamination, impacts on aquifers and surface water, water tables, and the overall water balance were key aspects of the respondents' environmental conceptualizations. Additionally, three respondents also included wood resources in their conceptualization of the environment in relation to WASH. Besides water resources, two respondents also included soil and air quality in their understanding of the environment. Half of the respondents added that climate change ought to be included in the discussion on WASH and the environment, arguing that the impact of climate change on natural resources and the number of humanitarian emergencies in the future is crucial to consider. Only two respondents employed a more holistic understanding when talking about WASH and the environment. Besides water resources, land and air quality, their conceptualization entailed natural resources in general as well as biodiversity and overall ecosystem health.

5.2.2 Current Environmental Concerns and Actions

The most commonly mentioned environmental concern was disaster waste, which can come in the form of solid waste, wastewater, hazardous waste, and human waste as well as animal feces. Almost all respondents argued that improper management of such waste can cause severe damage to the environment, e.g. through pollution of water bodies, and seriously threaten public health. Several respondents referred to the Haiti case, as an example of the potentially catastrophic results of contamination. Furthermore, fecal sludge, with the associated challenge of finding appropriate disposal locations, was mentioned by half the respondents as a serious environmental and public health concern. In addition, a few respondents stressed that wastewater and solid waste are especially problematic in the urban context as it becomes more complicated to manage. One respondent explained that a lack of solid waste management can harm the environment, as it was the case in Haiti where “lots of cement and bricks were dumped in the sea and damaged the corals.”

Subsequently, more than half of the respondents reported using solid waste management to prevent and mitigate negative impacts of solid waste on public health as well as the environment. The respondents argued that determining adequate locations for waste disposal was especially important for managing the impacts. However, two respondents argued that solid waste management generally represents a major challenge, and that there often is a lack of good solid waste management during humanitarian operations. Fecal sludge management was mentioned by

three respondents to prevent pathogens from entering the environment, causing contamination as well as adverse health impacts.

The contamination of water sources was listed by most respondents as a crucial environmental concern. However, due to the key WASH objective of delivering safe drinking water as well as the respondents' general framing of environmental concerns through a public health lens, such contamination was rather seen a grave public health risk than an environmental concern in itself. The contamination of water bodies during WASH interventions was directly experienced by three respondents, and several respondents mentioned the protection of water points as well as proper siting and protection of latrines to avoid the contamination of water sources. Improper placement of latrines, or wastewater discharge into water sources could cause such contamination, as reported by some respondents. One respondent reported that to the intricate social and political circumstances in Somalia complicated the adequate siting of latrines, thereby increasing the risk of water contamination. Furthermore, two respondents reported having experienced damage to WASH infrastructure. For instance, one respondent explained that flash floods had previously wiped away WASH infrastructure in Yemen. Such damage to WASH infrastructure could lead to the contamination of the environment and cause public health concerns.

All respondents explained that they promote or engage in some kind of water resource management to ensure a sustainable supply of safe drinking water to affected populations. Three respondents reported utilizing integrated water resource management or “integrated and systematic hydrogeology” to reduce negative impacts on water resources. Half of the respondents stated that the abstraction of water, both from groundwater aquifers and surface water sources, can have negative environmental impacts. For instance, several respondents argued that drilling boreholes can be a considerably unsustainable practice, and that the salinization of groundwater due to this practice is a serious environmental concern for WASH operations as well as the sustainable supply of water. In addition, the over-pumping of water sources, causing groundwater drawdown and a decreasing water table, was directly experienced by three respondents. The respondents explained that excessive pumping to supply water to camps resulted in the drawdown, causing local wells to dry up. Using the case of Darfur, one respondent explained that the lack of water availability “resulted in increased conflict and people movement, which then increased the number of IDPs [Internally Displaced Persons].” One respondent added that the water table at a reservoir in Maputo has been decreasing constantly and the water body is not replenishing up quickly enough, causing

issues in regards to sustainable water supplies. However, some respondents pointed out that water trucking, as an alternative to method of providing water to affected populations, is an unsustainable and very costly measure as well. Instead, several respondents explained that they tried to rehabilitate existing water sources rather than drilling new boreholes. Two respondents reported using solar power to pump water more sustainably. One of these two respondents added that sand dams as well as rainwater harvesting were commonly used in Yemen to manage water resources with a reduced environmental impact. Only one respondent explained that his organization (UNHCR) had conducted studies to assess the organization's impact on groundwater aquifers. The studies, specifically in Kenya and Jordan, showed that UNHCR had a net neutral impact without negative environmental consequences.

Finally, only four respondents stated having used environmental impact assessment, specifically in relation to groundwater as well as the impacts of wastewater discharge. In contrast, one respondent argued that “we usually do not conduct any evaluation of the impact of WASH emergency interventions” and another respondent explained that environmental impact assessments are rarely a donor requirement. Reasons for this situation include the aforementioned challenges of lack of prioritization of environmental concerns and the general tendency to not give adequate consideration to the environment throughout humanitarian assistance.

5.3 Approaches to Environmental Mainstreaming

Based on the existing challenges to environmental mainstreaming as well as the current environmental concerns and actions within the WASH Cluster, all respondents provided their accounts of how they envision environmental mainstreaming to progress within the WASH Cluster. As clear environmental mainstreaming strategies and mechanisms were considered largely absent by most respondents, the discussions instead revolved around what ought to be done to achieve a more systematic integration of environmental concerns.

Each respondent clearly expressed that the key to achieving environmental mainstreaming is a greater involvement and reliance on technical expertise. One respondent explained that “if you want to systematically integrate more environmental concerns, you need to have a sufficient number of natural scientists in your team that will bring in the expertise.” Another respondent suggested that academic world and private sector should be utilized as valuable sources of technical expertise. Additionally, one respondent recommended making use of local environmental networks

during an emergency to include more context-specific environmental expertise. Several respondents added that the WASH Cluster networks provides good opportunities to share technical guidance and make use of existing expertise within the cluster.

In addition to the need for more technical expertise, most respondents argued that trainings and capacity building for staff is necessary to raise awareness and develop the staff's understanding of environmental concerns during emergencies. One respondent reported having “never seen a training dedicated to the environment” and that trainings as well as workshops have had a good impact in regards to gender mainstreaming. However, another respondent explained that mainstreaming is not as simple as trainings and workshops, arguing that “if there is no effective support provided, specifically constant and long-term support, then it is very difficult to implement.” He added that, from his perspective, even gender mainstreaming within the WASH Cluster took place in “an extremely disorganized manner.”

Moreover, several respondents argued that assessments templates which include environmental concerns would ensure more environmental consideration during humanitarian assistance. One respondent specifically mentioned that Rapid Environmental Impact Assessments “can help humanitarians consider potential environmental impacts of their activities.” Additionally, more than half the respondents asked for checklists and guidelines on environment and WASH. A few respondents argued that developing a more consistent methodical approach regarding the integration of environmental concerns into response would aid the mainstreaming of environment into WASH. In this regard, a methodology to measure environmental impacts as well as environmental indicators were called for by three respondents. One respondent illustrated the situation by explaining that “if none of the indicators is to minimize the impact on the environment, then you are not measured on it – so, why do it?!”

All respondents agreed that donor support and funding is absolutely essential to prioritize environmental concerns in practice and be able to mainstream environment into the WASH Cluster's humanitarian assistance. Almost all respondents argued that donors can make a major contribution to environmental mainstreaming by using funding mechanisms to enforce more environmental considerations. Speaking from a donor perspective, one respondent explained that “if we insist to include some environmental concerns, then it happens.” Another respondent similarly reported that funding mechanisms can be used to “ensure that environment is included at

the proposal level.” He added that “we can make sure that before they [NGOs] drill a borehole that they conduct a proper hydrogeological survey and they fully understand the system.” Several other respondents agreed that environmental concerns should be included within proposals from the beginning on, and that donors play a key role in this regard by making environmental considerations part of the proposal and design requirements. Some respondents also argued that if the Country-based Pooled Funds (CBPFs) would attach such requirements, it could help to integrate environment concerns more systematically. Similarly, three respondents commented that to achieve environmental mainstreaming, the Humanitarian Response Plan (HRP) should include key environment concerns. The respondents argued that this would also cause donors to be more inclined to provide the necessary funding. One respondent explained that for the Democratic Republic of Congo (DRC) annual operational plans were developed under the Humanitarian Response plan and that “one of the key thematic areas we will work with, as the WASH Cluster, is the environment.”

Furthermore, most respondents argued that UNICEF, as the Cluster Lead Agency (CLA), and the Global WASH Cluster need to assume a leadership role if environmental mainstreaming is to be successful. One respondent explained that “UNICEF, as the leader, should do this [drive the change] because they are one of the main actors in terms of water and sanitation, but also in terms of mandate and the close relationship with the governments.” However, several respondents raised concern regarding the expertise of UNICEF on the environment. Nonetheless, most respondents agreed that if UNICEF gives more priority to the environment and commits to integrating environmental concerns, then environmental mainstreaming across the cluster would be able to advance. Additionally, two respondents argued that a communication strategy is needed to raise awareness amongst partner organizations regarding the lack of environmental considerations. However, one respondent illustrated the importance of a financial incentive for creating such commitment by stating that: “Actually, to be brutally honest, it is normally the financial equation that is the driver to turn these things into reality. People are less concerned about the real environmental issues.”

A few respondents mentioned that they see more potential for integrating environmental concerns when applying a lens of disaster risk reduction (DRR) and resilience building. It was argued that these approaches entail a more holistic vision which allows for adequate environmental consideration. In this regard, several respondents added that development-humanitarian

collaboration is needed adequately address cross-sectoral and cross-cutting issues. Furthermore, multiple respondents explained that the transitional phases throughout a humanitarian emergency can provide key points for integrating environmental concerns. For instance, one respondent explained that at least after two or three weeks into the response, a specialist should be given “30 minutes of the WASH Cluster meeting to do a presentation on key [environmental] issues, and recommend which things should be done and integrated into the proposal.” Similarly, a few respondents suggested that, if possible, exit strategies should always be developed for unsustainable practices. Another respondent explained that the pre-emergency context can be used to ensure more environmental consideration throughout the response by including environmental concerns in the process of contingency planning. As part of the contingency planning process, he explained, “there needs to be an updated mapping of the [natural] resources, especially the contamination of water.”

Finally, multiple respondents pointed out that the extent to which environmental concerns are integrated into the humanitarian assistance depends on the national context, in terms of national or regional environmental regulations and their enforcement. One respondent explained that “some governments prioritize environmental impacts. For instance, in Ethiopia, it is always a very high priority thing and the government says ‘you must consider the environment’ and there is a budget for reducing the impact.” He added that in Rwanda, the government requested that an environmental impact assessment had to be conducted to mitigate environmental impacts, but that “the vast majority of countries would not do that.” Another respondent reported that in Greece the environmental rules and regulations of the European Union had to be upheld throughout the humanitarian assistance.

6. Discussion

To answer the research question, the key challenges faced by the WASH Cluster in regards to environmental mainstreaming are highlighted and discussed throughout this chapter. It is argued that the origin of all challenges lies in the lack of prioritization of the environment.

6.1 Prioritization and Strategy

The key challenge to environmental mainstreaming across the WASH Cluster does currently not solely lie in the details of the mainstreaming process itself. Instead, the process is stuck at the fundamental step of prioritization, needed to initiate and drive forward the overall environmental mainstreaming process. As long as the Global WASH Cluster does not set the environment as a priority cross-cutting issue, the vertical or horizontal mainstreaming mechanisms are unlikely to occur because mainstreaming strategies are not being established. This is illustrated by some respondents arguing that “environment is clearly not at the forefront” amongst the different cross-cutting issues, as well as the general lack of mechanisms and tools to ensure consistent environmental consideration throughout the humanitarian assistance, as noted by several respondents.

The prioritization of environmental concerns at higher decision-making levels is a fundamental necessity to produce sustained environmental mainstreaming efforts. Nunan et al. (2012) explain that permanent mainstreaming mechanisms occur once greater priority is placed on the integration of a particular cross-cutting issue. Permanent mechanisms go beyond temporary arrangements and can include arrangements such as dedicated environmental units or full-time integrating roles that ensure a consistent and systematic integration effort (Nunan et al., 2012).

In the case of the WASH Cluster, no such permanent mechanisms have been identified. The lack of prioritizing environmental concerns is intrinsically linked to the current absence of strategies related to the vertical mainstreaming mechanism, which means that there is no strong steering and top-down guidance from either UNICEF or key donors on the systematic integration of environmental concerns. However, Nunan et al. (2012: 275) argue that without the top-down directive and support that is associated with the vertical integration process, it is “unlikely to achieve sustained results.” Hence, environmental mainstreaming is prone to remain in its state of infancy unless the environment is placed higher on the agenda and partners commit to integrating environmental concerns more systematically.

The lack of prioritization is a structural issue insofar as it stretches across all levels within the cluster. From the cluster lead, to donors, to partner organizations in the cluster, and down to staff in the field, environmental concerns are consistently sidelined. Overall, this situation appears to have changed very little over the past decade, when comparing the results of this research to the findings of Barrett et al. (2007) and the JEU (2014). This begs the question of why so little change has occurred, how to best champion environment in the humanitarian sector, and how to create commitment to and prioritization of environmental concerns by key decision makers.

One explanation is an overall lacking sense of urgency regarding environmental concerns and the environmental impact of humanitarian assistance in general. Kotter and Cohen (2002: 3, emphasis in original) explain that “those who are most successful at significant change begin their work by creating a sense of *urgency* among relevant people.” This sense of urgency is a fundamental step to achieve successful change. A sense of urgency is, for instance, evident in current efforts to ‘green’ the UN’s Peacekeeping forces. One respondent explained that the backlash caused by the operations in Haiti generated enough political will, i.e. a certain sense of urgency, to now fully review the forces’ ecological footprint, energy use, discharges, and more.

6.1.1 A Strategy for Environmental Mainstreaming

Even if higher priority is given to the environment, a clear strategy for how to mainstream environment into emergency WASH operations still needs to be developed. The interviews have revealed a lack of a methodical approach regarding the integration of environmental concerns in emergency WASH operations. For instance, environmental impact assessments are used inconsistently, hydrogeological surveys to fully understand the state of water resources are often not requirement, the potential environmental impact of vector control is considered to a low degree only, and approaches to the supply of safe drinking water can vary considerably in regards to their environmental impact. Of course, much depends on the context within which the humanitarian assistance takes place and it is difficult to develop a generalized environmental best practice for the WASH Cluster’s humanitarian assistance in various emergency contexts.

Yet, there is no ‘minimum environmental standard’ set by the WASH Cluster for all partners within the cluster to adhere to. Subsequently, the degree to which environmental concerns are integrated into emergency WASH operations differs a great deal amongst the various organizations. Additionally, there appears to be little communication on environmental issues amongst the

cluster's organizations. Some organizations provide their staff more actively with environmental guidelines and checklists, while others have no such material. Thus, more communication and sharing of experiences across the organizations in regards to environmental concerns in emergency WASH operations could help to foster good environmental practice across the cluster and ensure a more consistent approach. For instance, CARE International, together with the ProAct Network, has produced several documents on environmental best practice in emergency WASH operations, including an environmental impact checklist³. These documents seem to not have been distributed consistently across the WASH Cluster, as none of the respondents was aware of them.

According to the literature on environmental mainstreaming, environmental mainstreaming is more successful when both the vertical and horizontal integration mechanisms are in place (Nunan et al., 2012; Wamsler et al., 2014). Consequently, besides UNICEF's leadership and top-down guidance needed to bring about the vertical integration process, an environmental mainstreaming strategy should entail horizontal integration as well. For instance, cross-sectoral working groups or committees, which integrate technical and humanitarian expertise, can push and coordinate mainstreaming efforts across the cluster (see Nunan et al., 2012). As the leader for the environment as a cross-cutting issue (Global WASH Cluster, 2009), UN Environment should be represented in such a working group or committee to add the expertise and experience on various environmental issues. Establishing this horizontal integration mechanisms could help to offset UNICEF's lack of environmental expertise, which was raised as a concern by several respondents.

Finally, giving greater priority to environmental concerns and developing a clear mainstreaming strategy are also necessary actions to create a common commitment, assign responsibilities and subsequent accountability for environmental matters within the cluster. Commitment, assigned responsibilities and environmental accountability are key components in moving environmental mainstreaming from theory to practice (JEU, 2014). When it comes to facilitating the practical integration of environmental concerns, the mainstreaming strategy should also seek to address a 'mainstreaming overload' (see Kok & Coninck, 2007; Agrawala & Van Aalst, 2008). As cluster coordinators often face the daunting task of dealing with multiple cross-cutting issues, a strategy

³ See here: 1) <http://educationcluster.net/wp-content/uploads/sites/5/2014/04/GWC-Environmental-Best-Practice-in-Emergency-WASH-Operations.pdf>

2) <http://educationcluster.net/wp-content/uploads/sites/5/2014/04/GWC-Potential-Environmental-Impact-Checklist-for-Common-WASH-Interventions.pdf>

3) <http://educationcluster.net/wp-content/uploads/sites/5/2014/04/GWC-Technical-Brief-Reducing-Environmental-Impacts-of-Vector-Control-Chemicals-in-Emergencies.pdf>

for environmental mainstreaming should find the best way to support field staff with the integration of environmental concerns and other cross-cutting issues.

6.2 No Donor Support, No Mainstreaming

The interviews made abundantly clear that donors are a key actor in realizing environmental mainstreaming. Most obviously, donors are necessary to provide funding that incentivizes and enables organizations to practically address more environmental concerns throughout their humanitarian assistance. Additionally, donors play an important role in regards to the vertical mainstreaming mechanism, as they have the ability to enforce certain design requirements and to use funding mechanisms to ensure that organizations consider the environment. In this sense, donors can safeguard compliance with environmental guidance and enforce that a minimum environmental standard is upheld during emergency response.

The few respondents that have a donor function, were very open to integrating environmental concerns to a greater extent. They fully acknowledged their potential as donors to steer the environmental mainstreaming process by blocking funding or setting requirements for the design of humanitarian projects. Moreover, some donors do include certain environmental or sustainability requirements. For instance, the United States Agency for International Development's (USAID) *Environmental Procedures* (2013: 15) sets out principles of environmental review for international disaster scenarios, and highlights the importance of ensuring "that environmental factors and values are integrated into the programming decision-making process." Additionally, the Department for International Development (DFID) sets certain environmental criteria in its 'Humanitarian Response Guidelines for NGOs' (2013).

While all respondents agreed that donor support is crucial, the question remains of how to make donors take on this role. This research confirmed the previously identified "chronic lack of funding for environment in humanitarian assistance" (JEU, 2014: 5), as most respondents explained that there is simply no money for environmental initiatives. Some respondents argued that donors need to be convinced by field-based evidence of environmental impacts, or that proving cost effectiveness is a good way to get donors on board. However, the danger of relying too heavily on cost-benefit approach is that only stand-alone environmental activities, such as using solar-powered water pumps, are actually being implemented practically. The benefits of, for instance, deploying

an Environmental Field Advisor or conducting environmental impact assessments might not be obvious immediately if environmental concerns remain a low priority.

Hence, as long as the environment remains a low priority issue, expenses for environment-related activities might be viewed as unnecessary, especially given the tight humanitarian budget. The perception and awareness of individuals regarding the importance of environmental concerns in emergency WASH operations plays an important role on the donor level as well. If environmental concerns are to be integrated systematically across the WASH Cluster, it takes a common commitment and policy of all donors, as well as funding guidelines that consistently include environmental considerations.

6.3 The Humanitarian-Development Divide

The division between the humanitarian and development sector is problematic in relation to a variety of issues (see Anyangwe, 2015). Regarding the environment, there is a widespread assumption amongst many humanitarians that environmental issues ought to be addressed within the development sector, as dealing with environmental concerns is not congruent with the goals of humanitarian assistance (JEU, 2014). This perspective was also evident with many of the respondents interviewed for this research, who argued that the short-term humanitarian imperative of saving lives as well as having to act as quickly as possible clashes with addressing environmental concerns and trying to reduce the environmental impact of humanitarian assistance. Instead, it is commonly argued that environmental issues are a long-term matter, and thus, inherently linked to development work.

While it is true that the development sector has made considerably more sustained efforts at integrating environment and development⁴, it is fallacious to argue that the supposedly short-term nature of humanitarian assistance is uncondusive for integrating environmental concerns. Several respondents pointed out that the short-term/long-term dichotomy is an inadequate conception of humanitarian and development work. Humanitarian assistance does not always follow the short-term paradigm, as certain parts of the world face recurring or protracted crises (see Food and Agriculture Organization of the United Nations [FAO], 2010). One respondent clearly illustrated

⁴ Especially since the 1987 World Commission on Environment and Development as well as the 1992 United Nations Conference on Environment and Development (UNCED), efforts to integrate environment and development have been underway (Bernstein, 2000). Thereafter, the Millennium and Sustainable Development Goals have made the environment an integral part of development, predominantly through the concept of sustainable development (UN, n.d.).

this by explaining that “in Sudan and Darfur, [...] we effectively have got an emergency program going on year after year, in an incredibly difficult and deteriorating local environmental context.” Thus, the argument that the short-term nature and time pressure of humanitarian assistance does not allow for the integration of environmental concerns is certainly not applicable for all humanitarian crises. Additionally, with overall shifts in the humanitarian system and climate change’s effect on global disaster risk, humanitarian organizations “should be better prepared to operate over the long haul” (McVeigh, 2017). Changes within the humanitarian system itself as well as global shifts in how we approach disaster risk might offer opportunities for a more systematic integration of environmental concerns.

6.3.1 Resilience and Preparedness

Alinovi and Rockström (2016) argue that systemic shock and stress have become an essential feature of our current time in the Anthropocene. Simply optimizing existing systems will not suffice to deal with the challenges of the 21st century anymore. Instead, resilience building is needed as “we must recognize that reactive humanitarian aid is insufficient, we now need an international strategy for proactive action to enable communities avoid disaster and transform positively through crises” (Alinovi & Rockström 2016). Similarly, a recent report by the Inter-Agency Regional Analyst Network (IARAN) contends that the humanitarian system can and should contribute to achieving the Sustainable Development Goals (SDGs). However, doing so would require change in the humanitarian system and “moving beyond the humanitarian-development divide, which creates a superficial segregation of work and approaches” (IARAN, 2017: 7).

Approaches to overcome this superficial segregation do exist. During the 2016 World Humanitarian Summit (WHS), the largest number of stakeholders “identified the need to strengthen the humanitarian-development nexus, and to overcome long-standing attitudinal, institutional, and funding obstacles” (OCHA, 2017: 3). The WHS also produced the New Way of Working (NWOW), which “frames the work of development and humanitarian actors, along with national and local counter-parts, in support of collective outcomes that reduce risk and vulnerability and serve as instalments toward the achievement of the SDGs” (OCHA, 2017: 4). Hence, the process of bridging the humanitarian-development divide is underway and should be facilitated continuously by all involved actors.

These current perspectives are also reflected in the answers of some respondents who argued that the development and humanitarian silos should be broken down, and applying a resilience lens as well as viewing the different disaster risk management elements as more integrated can help to do so. Such change would subsequently open up opportunities for integrating environmental concerns more systematically. Bridging the divide would make the environmental expertise as well as experience of the development sector more accessible to humanitarians, and development actors could brief humanitarians on key environmental concerns in a given context. Therefore, if the two sectors were more integrated, environmental concerns would perhaps not be sidelined as much anymore during emergency response. Since many organizations within the WASH Cluster already work in both sectors, there are various opportunities to start bridging the humanitarian-development divide.

In the pre-emergency context, preparedness can play a valuable role for the systematic integration of environmental concerns during emergency WASH operations. Several respondents explained that if national legislation or standards require certain environmental actions to be undertaken, e.g. environmental impact assessments, then humanitarian actors would follow such requirements. Thus, the degree to which the environment is being considered throughout the response could be increased by ensuring that national disaster preparedness takes the environment into account (see Srinivas & Nakagawa, 2008). For instance, the contingency planning process can be used to identify key environmental concerns during emergencies, and to develop subsequent actions.

6.4 Technical Expertise

Despite each respondent's own expertise and extensive experience with WASH, the interviews showed a univocal call for more technical expertise on environmental concerns in emergency WASH operations. The underrepresentation of technical experts, contributing the necessary environmental knowledge, stretches across all levels. On the one hand, more involvement of technical experts is needed at the stage of designing response operations as well as assessments of natural resources and overall environmental conditions during the early response. Technical experts are indispensable since standardized guidelines and checklists alone do not suffice for every specific context. On the other hand, at donor and decision-making level more technical experts are needed because "often [the] people who agree the proposals are not technical people," as one respondent argues. The JEU (2014: 23) has also found that this situation is widespread within the cluster system where "those who screen proposals at the cluster level often lack environmental

expertise and can do little more than confirm that something has [been] determined to deal with environmental impacts.”

From a theoretical point of view, this overall lack of utilized technical expertise is a fundamental barrier to environmental mainstreaming. Nunan et al. (2012) show that technical expertise is crucial to infuse mainstreaming and that the horizontal mainstreaming mechanism depends on the availability of technical expertise. Thus, the respondents’ assumption that technical expertise is necessary to bring about environmental mainstreaming is supported by this thesis’ theoretical background. While the “lack of environmental expertise, and limited access to technical expertise,” as the JEU (2014: 22) puts it, is a structural challenge in the sense that it occurs at various levels, its solution might not prove as difficult as other challenges. Technical expertise is generally available and it is rather a matter of decision-making to, for instance, include hydrogeologists or deploy environmental advisors in emergency WASH operations more systematically.

The greater involvement of technical experts to achieve environmental mainstreaming should come about in two ways. As explained above, individual technical experts with environmental knowledge ought to be involved at different levels within the WASH Cluster. In this way, technical expertise can be represented at field level as well as the policy and donor level. The experts can, subsequently, also help to raise awareness for various environmental concerns amongst staff, and help to build their capacity in regards to environmental assessments, monitoring and evaluation, and review of proposals. Secondly, a WASH Cluster working group of technical experts and decision-makers should be established that helps to coordinate environmental mainstreaming efforts and provides expertise wherever necessary (see Nunan et al., 2012).

Nonetheless, the inclusion of more technical experts on environmental matters generally relies on greater prioritization of environmental concerns. If horizontal mainstreaming is “unaccompanied by vertical pressure from a central point (at least in the early stages), [it] is unlikely to achieve sustained results” (Nunan et al., 2012: 275). As one respondent explained, “we need to bring together some technical expertise, but still always under the leadership of the WASH sector, which means under UNICEF leadership.” Hence, technical expertise by itself cannot infuse environmental mainstreaming, but it is essential to facilitate the systematic integration of environmental concerns into emergency WASH operations.

6.5 Monitoring and Staff Turnover

The loss of knowledge and the overall lack of monitoring of environmental concerns, which might occur during an emergency WASH operation, presents another considerable obstacle for environmental mainstreaming in the practical context. The high staff turnover (and the time it can take to fill empty positions) within the humanitarian sector means that knowledge on environmental issues that occur during the early phases of an emergency might be lost at later stages. Without mechanisms to effectively hand over and retain information on environmental concerns, it is unlikely that such information will show up in final reports.

Apart from the knowledge lost due to high staff turnover, information on environmental concerns is often not collected in the first place as there rarely are any specific requirements regarding the monitoring and reporting on the environment during humanitarian assistance. Respondents argued that this lack of monitoring and reporting requirements as well as the lack of environmental indicators causes humanitarians to “turn a blind eye” on the environmental impact of emergency operations, as one respondent puts it. Additionally, Brooke and Kelly (2013: 4) argue that “evidence regarding the environmental impact of humanitarian interventions may be more negative rather than positive, which is a disincentive to reporting.” Hence, monitoring and reporting on environmental concerns relies on the inclusion of the environment in the design of response operations and the use of environmental indicators. As part of increasing monitoring and reporting on environmental concerns, ‘lessons learned’ workshops after emergency operations should also aim to specifically include environment in the evaluation of the response.

Reporting and evaluating environmental concerns that occur during emergency WASH operations (or humanitarian assistance in general) is vitally important for several reasons. On the one hand, reporting environmental concerns during emergency response provides crucial input for assessing post-disaster needs, enabling environmentally responsible practices as well as to build resilience to “future disasters and reconstruct in a way that will reduce risk by not over-exploiting natural resources or damage ecosystem services” (World Wildlife Fund [WWF], 2016: 2). On the other hand, reporting is an important component of the vertical mainstreaming mechanism since it is the response of the lower levels to the top-down guidance (Nunan et al., 2012). Furthermore, including environmental concerns in reports and evaluation would help to generate data as well as experience regarding environment in emergency WASH operations, which can subsequently help to improve future environmental mainstreaming.

Consequently, the capacity of staff to recognize and monitor environmental concerns should be developed. In addition, environmental indicators combined with donor requirements regarding project proposals and the design of response operations could significantly advance environmental mainstreaming across the WASH Cluster. Throughout the emergency response, local environmental networks can be used to ensure that information about environmental concerns is not lost with staff turnover, and to utilize the expertise as well as increase the participation of local stakeholders in the response.

It is important to note that almost all the challenges identified in this research are in no way limited to the WASH Cluster only. They are challenges endemic to the wider humanitarian sector, which struggles to integrate environmental concerns in the way the development sector has done (JEU, 2014). Insufficient efforts to mainstream environment, thus, stretch beyond the individual clusters and should be considered at all levels of the humanitarian system.

7. Conclusion

This research set out to investigate the key challenges inhibiting environmental mainstreaming across the WASH Cluster. Based on 12 semi-structured interviews with various practitioners from different organizations within the WASH Cluster, this research concludes that environmental concerns cannot be considered mainstreamed into the WASH Cluster's humanitarian assistance. While certain environmental concerns are taken into account, and actions to reduce environmental impacts are implemented by some organizations within the cluster, there is no systematic approach regarding the integration of environmental concerns. Moreover, the general lack of minimum environmental standards for emergency WASH operations means that the integration of environmental concerns can differ a great deal depending on the context and organization. The key challenge for environmental mainstreaming within the cluster, as expressed by all respondents, is that environmental concerns are simply not a priority, and consistently sidelined during humanitarian response. The lack of prioritization of environmental concerns is the key challenge which inhibits the environmental mainstreaming process. Without prioritizing environmental concerns to a greater extent, the mainstreaming process will simply not ensue across the WASH Cluster, or the humanitarian sector in general.

Besides prioritization, other key challenges for environmental mainstreaming include donor support, the humanitarian-development divide, insufficient utilization of environmental and technical expertise, as well as a lack of monitoring of environmental concerns and overall loss of information due to high staff turnover within the sector. Together with the cluster lead, donors are vitally important in regards to the vertical mainstreaming mechanisms, which is associated with top-down guidance and leadership to achieve a systematic integration of environmental concerns (see Nunan et al., 2012). Funding mechanisms are an essential tool to facilitate environmental mainstreaming, enforce a minimum environmental standard throughout emergency WASH operations, and ensure that environmental concerns are considered when designing emergency response operations. Overall commitment and policy standards are needed to harness this mainstreaming power of donors. Furthermore, bridging the divide between the humanitarian and development sector would help to infuse environmental mainstreaming throughout humanitarian assistance, and make the environmental expertise and experience within the development sector more accessible.

The challenges of prioritization, donor support, and the humanitarian-development divide require more time and dedication to be solved. Dealing with these challenges would, however, significantly advance environmental mainstreaming across the WASH Cluster. The issues of technical expertise and lack of monitoring as well as reporting are easier to address but their overall impact on environmental mainstreaming relies on dealing with the previously mentioned challenges. For instance, a working group of technical experts on the environment in emergency WASH operations, an essential feature of the horizontal mainstreaming mechanism, depends on top-down directive and support of the cluster's leadership to have a greater impact (see Nunan et al., 2012). Similarly, making the monitoring of environmental concerns as well as subsequent reporting a requirement for WASH Cluster organizations presupposes that environmental concerns are given greater priority. In any case, a greater involvement of technical expertise, as well as establishing environmental monitoring, reporting and evaluation mechanisms, is essential to integrate environmental concerns more systematically.

Lastly, even though this research looked at the WASH Cluster only, it seems that within the humanitarian sector environmental mainstreaming has advanced very little over the past decade. The challenges are largely the same as those identified by Barrett et al. in 2007. Hence, the key question is how to create the necessary commitment to environmental concerns, and how to best champion the systematic integration of environment into emergency WASH operations and humanitarian assistance in general. In this regard, persistently raising awareness for the environment-humanitarian nexus, utilizing effective communication strategies and sharing best environmental practices as well as experiences are important actions. In addition, further research should look at each step of the Humanitarian Programme Cycle (HPC) to identify key opportunities of integrating environment in humanitarian assistance.

With a major ecological crisis underway and the world seeking to achieve the SDGs (Alinovi & Rockström, 2016), sidelining environmental concerns is simply not appropriate anymore. Even humanitarian actors should do their best to respect the planetary boundaries and contribute to social as well as ecological resilience. At the end of the day, we need to concentrate our collective efforts to alleviate suffering, bring about prosperity, and enable people to live a dignified life. Respecting the ecological integrity of our planet must be a fundamental guiding principle along the way.

8. Recommendations

If the environment is to become a more integral part of the WASH Cluster's humanitarian assistance, then the necessary change needs to be managed adequately. This chapter provides recommendations for achieving a more systematic integration of environmental concerns in emergency WASH operations. Since many of the environmental mainstreaming challenges identified in this thesis exist within the wider humanitarian system as well, most recommendations are also applicable beyond the WASH Cluster. The first set of recommendations relates to the vertical mainstreaming mechanism, which mainly aims at the Cluster Lead Agency and donors. Thereafter, recommendations regarding the horizontal mainstreaming mechanisms are listed, focusing on technical expertise, an environmental working group, and communications. Finally, existing opportunities and more general elements that will aid the environmental mainstreaming process are elucidated.

8.1 Mainstreaming Environment Vertically

Achieving environmental mainstreaming, or the mainstreaming of any issue in general, is about wider change than developing stand-alone, add-on activities that achieve little more than increasing the staff's workload. A vision of change is required that lays out the change process, with various actors taking responsibility and driving forward the change. Mainstreaming environment into the humanitarian assistance of the WASH Cluster requires the top-down directive and support of both the cluster lead and donors.

8.1.1 Cluster Lead Agency and Donors

As the lead agency, UNICEF needs to place greater priority on environmental concerns and provide leadership for the systematic integration of environment across the cluster. A common WASH Cluster policy on the environment that reflects a prioritization of and commitment to environmental concerns needs to be developed. This policy should be implemented across the cluster in a similar fashion to the WASH Cluster's approach to address key concerns such as gender, age and disability, i.e. the *5 minimum commitments for the safety and dignity of affected people* (see WASH Cluster, 2013b). Setting a minimum environmental standard across the WASH Cluster and giving greater priority to environmental concerns must come from UNICEF in order to ensure cluster-wide recognition of the environment as an important cross-cutting issue.

Compliance with such standards can be achieved if donors commit to taking environmental concerns into account when screening proposals, and subsequently, to utilize funding mechanisms to ensure that environmental concerns are considered as part of emergency WASH operations. Environmental mainstreaming would strongly benefit from donors explicitly demanding that key environmental concerns must be taken into account and environmental impacts have to be reduced. Hence, donors should develop a common environmental policy for emergency WASH operations, which ensures donor's commitment to environmental concerns. Donors also need to dedicate some funding to enable organizations to include environmental components into their emergency response. Dedicated funding and design requirements that include the environment are very likely to achieve a more systematic integration of environmental concerns.

8.2 Mainstreaming Environmental Horizontally

Environmental mainstreaming has been shown to be most successful if the vertical integration pathway is combined with horizontal mainstreaming (see Nunan et al., 2012). Utilizing technical expertise to a greater extent as well as establishing a working group on WASH and environment are key recommendations in regards to horizontal mainstreaming.

8.2.1 Environmental Working Group

A working group on environment and WASH, which brings together various technical experts, should be established. This working group can coordinate environmental mainstreaming efforts by providing knowledge and experience on WASH-specific environmental concerns. Since UN Environment has the cross-cutting issue lead on the environment, it should be invited to be part of this working group and contribute its vital expertise. Besides the consultation regarding environmental mainstreaming efforts, this working group should aim to identify the specific synergies between saving lives, sustaining livelihoods, and preventing environmental harm as best as possible. The results of such research can be turned into environmental best practice recommendations as well as evidence for donors. Thus, the working group would be instrumental for the development of cluster-wide minimum environmental standards. A close collaboration between the CLA, donors, and this environmental working group would significantly advance environmental mainstreaming across the WASH Cluster, as it combines leadership and expertise. The environmental working group of the Shelter Cluster could function as a model to follow⁵.

⁵ See <https://www.sheltercluster.org/community-of-practice/environment>

8.2.2 Sharing of Knowledge and Experience

Besides an environmental working group, organizations within the cluster should increase their exchange of environmental expertise and experience. Some organizations, e.g. Oxfam and CARE International, have environmental guidelines and checklists that could be shared across the cluster. Many respondents were unaware of CARE International's several documents on environmental best practice for the WASH Cluster. Organizations within the cluster should, therefore, improve their communication on environmental concerns and make existing environmental documents available across the cluster, if possible. The environmental working group could also be used as a hub of information exchange through which organizations can make key documents, such as guidelines or checklists, available.

8.3 Raising Awareness and Developing Capacities

As part of an overall environmental mainstreaming strategy, there needs to be a communication strategy in place which raises awareness for the environmental concerns in relation to emergency WASH operations and sensitizes staff to the environmental impact of humanitarian assistance. Raising awareness is needed to prioritize environmental concerns amongst humanitarians to a greater extent, and help to develop a better understanding of the environment in humanitarian assistance.

Raising awareness needs to be supplemented with capacity development for staff, so that environmental concerns are effectively included in the design of emergency WASH operations and can be identified during the emergency response. Moreover, capacity building in regards to monitoring and evaluation of environmental concerns is necessary to create responsibility as well as accountability for environmental damages. Making the environment a part of evaluation and reporting mechanisms, such as lessons learned workshops, will also help to further raise awareness for various environmental concerns. Such gathered information can also be crucial for subsequent recovery and resilience building efforts. Regarding the development of environmental indicators, the existing Environment Marker⁶ can help to assess the environmental impacts of humanitarian projects (JEU, 2014).

⁶ See http://postconflict.unep.ch/publications/sudan/Environmental_Marker_short_guidance_Sudan_2014.pdf

8.4 Existing Opportunities

Efforts to integrate environmental concerns more systematically can build on several existing opportunities to help the mainstreaming process. Firstly, the respondents interviewed for this research were unanimously convinced of the importance of taking environmental concerns into account more systematically. This willingness of staff to deal with environmental concerns must be utilized as best as possible. Rather than creating a ‘mainstreaming overload’ that prevents staff from adequately addressing cross-cutting issues, environmental mainstreaming efforts should place an emphasis on how to best support and facilitate field staff’s efforts in integrating environmental concerns in emergency WASH operations. Links between, for instance, gender and environment or DRR and environment, can be used to create synergies between the integration of different cross-cutting issues. Determining strategic moments of integration, i.e. which environmental concerns are most important at which stage, will help to increase the efficiency of environmental mainstreaming. The Field Support Team can be utilized to directly or remotely support such integration efforts and promote best practices. Similar to other cross-cutting issues, it can be beneficial to pilot the practical integration of environmental concerns in emergency WASH operations in certain emergency contexts first. Countries such as Yemen, Sudan, South Sudan, or Haiti represent priority countries due to the serious environmental conditions.

A plentitude of previous mainstreaming experiences, such as gender, protection or DRR, can be drawn upon when developing a plan of action for mainstreaming environment. Similar to other cross-cutting issues, environmental mainstreaming needs to be closely tied to the HPC. In this regard, current initiatives can aid environmental mainstreaming in relation to the HPC. The JEU currently works on coordinating and updating existing environmental assessment methodologies⁷, which will aid the integration of the environment during needs assessments and analysis. The upcoming revised Sphere standards will provide additional general guidance on cross-cutting issues as well as WASH. Lastly, Goal 6 of the SDGs provides a comprehensive conceptual framework, linking access to water and sanitation to ecosystems, human health, as well as environmental sustainability (see UN, 2017). With its targets and indicators, Goal 6 sets out a vision for the integration of water, sanitation and environment, which is expedient for the humanitarian sector as well. The combination of commitments made during the World Humanitarian Summit, a changing approach under the New Way of Working, and the frame provided by Goal 6 offers

⁷ See here <http://www.eecentre.org/assessments/>

significant opportunities to systematically integrate environmental concerns into the WASH Cluster's humanitarian assistance.

Lastly, a series of Nexus Dialogues has recently been initiated by the Environmental Management Group, in collaboration with the Stockholm Environment Institute. These dialogues focus on “environmental nexus issues linked to the SDGs,” and the Third Dialogue will focus on the environment-humanitarian nexus (Fadaei, 2017). These dialogues will help to identify strategies that aid the practical integration of environmental concerns into various fields of work.

8.4.1 Champions of Change

Initiating the change and bringing about environmental mainstreaming requires individuals who consistently promote the issue. Such champions of change are necessary at all levels to prevent environmental concerns from being sidelined in priority setting, funding, and in the field. These individuals are also vital to create the sense of urgency needed to initiate the change associated with environmental mainstreaming. People from existing environmental communities of practice or networks, such as the JEU's Environment and Humanitarian Action network, might be able to facilitate the environmental mainstreaming process and create the necessary sense of urgency. Lastly, due to its influential role, the Inter-Agency Standing Committee (IASC) can play an important role in raising awareness for environmental concerns across the clusters and facilitate environmental mainstreaming.

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10. Appendices

10.1 Appendix 1 – Interview Letter

Environmental Mainstreaming within the WASH Cluster

My name is Moritz Hauer, I am 25 years old and currently study a Master's in Disaster Risk Management and Climate Change Adaptation at Lund University, Sweden. After my internship with the UN Environment / OCHA Joint Unit, I decided to write my Master's thesis within the field of Environment in Humanitarian Action (EHA).

My Master's thesis engages with the Environment-Humanitarian Nexus. Specifically, I am interested in the challenges of integrating, i.e. mainstreaming, environmental concerns into the WASH Cluster's humanitarian assistance – and how that is/has been done. The rationale is that disasters, but also humanitarian action itself, can considerably damage local environments, which negatively impacts the life, health, and livelihoods of affected populations. Consequently, when delivering humanitarian assistance, certain environmental concerns need to be addressed to not increase the vulnerability of affected people. The WASH Cluster is a good starting point for such research as its work is intrinsically linked to the natural environment.

In doing this research, I aim to further develop current understandings of environmental mainstreaming. Environmental mainstreaming is nowadays widely promoted as the key mechanism for integrating environmental concerns and objectives into ongoing work. However, the conceptual basis of environmental mainstreaming remains underdeveloped, causing a lack of knowledge regarding its specific pathways and mechanisms, i.e. how environmental mainstreaming is actually done.

In order to address these knowledge gaps, I would like to conduct semi-structured interviews with WASH practitioners at various levels. The interviews, combined with theoretical work on environmental mainstreaming, should aid me in further developing the conceptual basis for environmental mainstreaming in the humanitarian context. Moreover, identifying WASH-specific key challenges for integrating environment in humanitarian action can help to develop recommendations for increasing the environmental sustainability of future emergency response.

Ideally, I would like to complete the interviews by the end of March. Therefore, I would greatly appreciate if you get in touch with me as soon as possible, in case you find this research relevant and agree to be interviewed. The interview will take approximately 45 minutes.

It is best to get in touch with me via email: moritz.hauer@outlook.com

Or Skype: mo.hauer

All the best,

Moritz

10.2 Appendix 1 – Interview Table Extract

Interview Question	Respondent's Answer	Key Notes
1. From your perspective, <i>in which ways are the environmental concerns that you talked about mainstreamed into WASH?</i> If they are being mainstreamed.	<p>I mean there has been work around this. There is a document produced by Benfield Hazard Research Centre, probably over 10 years ago now, with CARE International looking at Rapid Environmental Impact Assessments in humanitarian situations, which provides a few tools to help humanitarians consider potential environmental impacts of their activities. So it looks at the activities themselves, and then it looks at the procurement chains for materials, it is called 'green procurement'. So, that is a piece of work that has had some level of influence to give a tool to help practitioners consider the environment. I think generally people are quite aware of issues around contamination of water bodies, groundwater and surface water, from sanitation activities. There is guidance written around that and people keep it in their mind.</p> <p>There is quite a bit of work done now on, what would be called, fecal sludge management. So looking at fecal sludge and how is it treated, where is it disposed of, and can we bring in systems that would improve the treatment of that.</p> <p>There is quite a lot of work in terms of solid waste management, in terms of reuse and recycling. There is a number of projects around the world but one that jumps to mind is Oxfam's work in Zaatar on a solid waste reuse and recycling plant. There is all this work around social enterprises looking at human waste reuse.</p> <p>But I think what always happens when there is a humanitarian situation, the life-saving interventions take priority over potential environmental impacts. So, in the first phase it is always life-saving activities that have the highest priority, and then as you come to transitional phases you can start to take time to consider environmental impacts and reduce the impacts.</p>	<ul style="list-style-type: none"> • REIA • Green procurement • Fecal sludge management • Solid waste management • General Awareness – <u>contamination of water</u> • Treatment and disposal of fecal sludge • Reuse & recycling • <u>Tools</u> help to consider environmental impact • Transitional phases allow for consideration of environmental impacts • Life-saving key <u>priority</u> <ul style="list-style-type: none"> ○ Consider environmental impact later on ○ Conflict between life-saving and environment?
<p>Darker Green = Environmental Actions Lighter Green = Environmental Concerns / Considerations</p> <p>Orange = Environmental Mainstreaming Challenges Blue = Environmental Mainstreaming Actions / Opportunities for Mainstreaming</p>		