

# Evidence-building for cash and markets for WASH in emergencies

## PRACTICES IN MARKET-BASED PROGRAMMING IN THE WATER SUBSECTOR



**WASH Cluster**  
Water Sanitation Hygiene



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## ACRONYMS

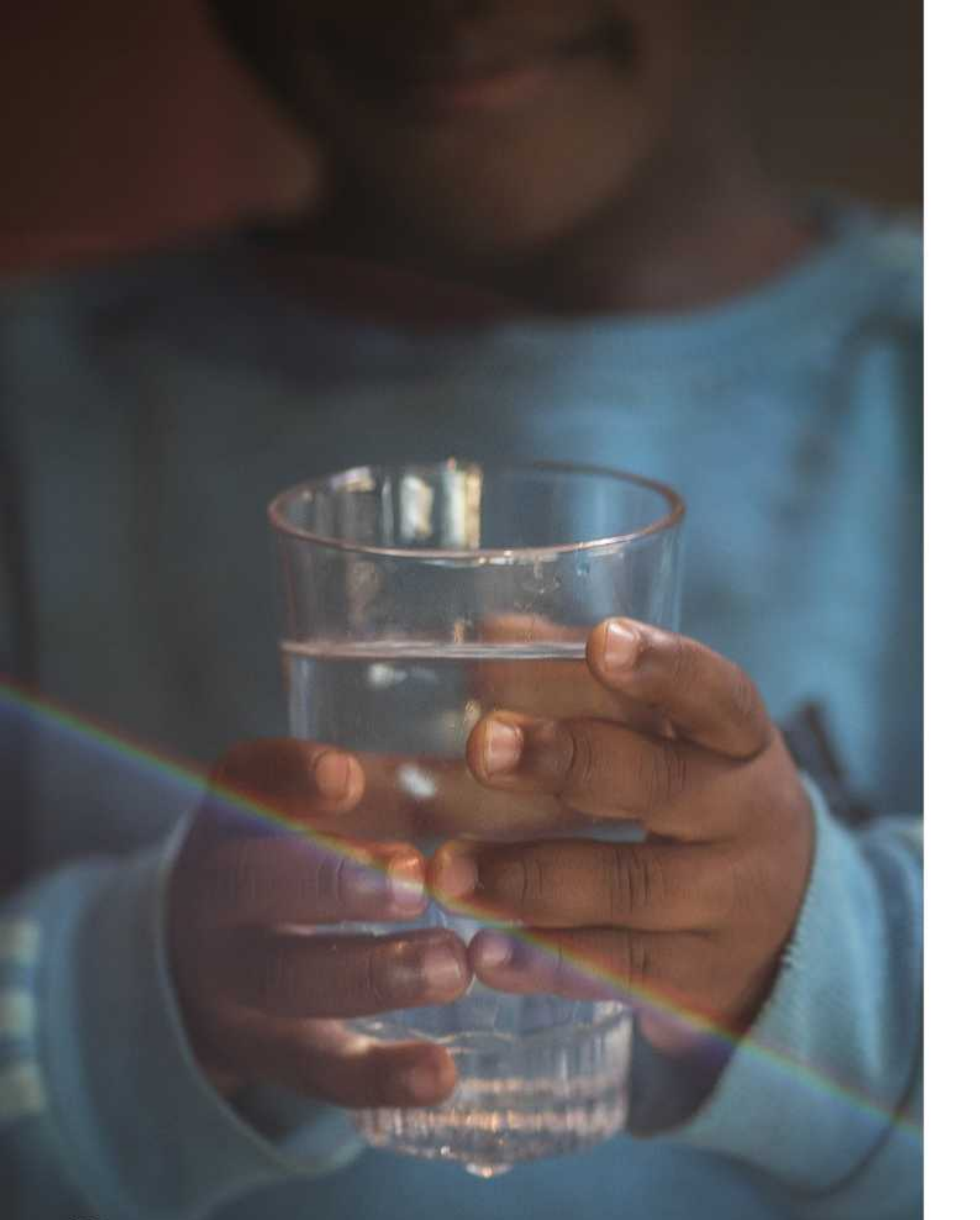
ACF	Action contre la Faim
BCC	behaviour change communication
CaLP	Cash Learning Partnership
CVA	cash and voucher assistance
DRC	Democratic Republic of the Congo
GWC	Global WASH Cluster
HHWT	household water treatment
IDP	internally displaced person
KII	key informant interview
LMIC	low- and middle-income country
MBP	market-based programming
MENA	Middle East and North Africa
MPC	multipurpose cash
NGO	non-governmental organization
NRC	Norwegian Refugee Council
WASH	water, sanitation and hygiene

## GLOSSARY

- **Cash and voucher assistance (CVA):** All programmes where cash transfers or vouchers for goods or services are directly provided to recipients. In the context of humanitarian assistance, the term refers to the provision of cash transfers or vouchers given to individuals, households or community recipients – not to governments or other state actors. This excludes remittances and microfinance in humanitarian interventions, although microfinance and money transfer institutions may be used for the actual delivery of cash (CaLP).
- **Emergency hygiene interventions:** In this study, interventions which aim to improve or maintain safe hygiene behaviours in emergency settings through hygiene promotion and education activities, behaviour change communication (BCC), creating an enabling environment for hygiene practices (such as hand-washing facilities), and facilitating the use of essential hygiene items. Although the package of 'essential hygiene items' varies from one context to another, the list of standard hygiene items usually includes water collection and storage containers, hand-washing soap, laundry soap and menstruation management items. Other potential items can include nail cutters, shampoo, combs, oral hygiene items, baby diapers, towels and underwear.
- **Emergency sanitation interventions:** In this study, interventions which aim to provide, restore or improve sanitation services in emergency settings through the building or repairing of human excreta containment infrastructure (such as latrines, toilets, septic tanks etc.), provision of excreta management infrastructure and services (latrine pit desludging, sludge stabilization ponds, sewage systems, wastewater treatment plants etc.) and provision of solid waste collection, recycling and disposal services.
- **Emergency water interventions:** In this study, two main groups of interventions used in emergency settings: (1) water supply interventions, which aim to supply water or improve the existing supply, for drinking and domestic use; and (2) household water treatment (HHWT) interventions, which aim to improve water quality and use through the promotion of water treatment in the home (chlorine, filters, boiling etc.) by beneficiaries. HHWT interventions are often referred to as 'point of use' intervention
- **Labelling:** The process by which humanitarian agencies 'name' a cash intervention in terms of the outcome they want it to achieve. This may be accompanied by activities to influence how recipients use their cash assistance; for example, this could include messaging conveyed to recipients, possibly in combination with complementary programming activities (CaLP).
- **Local markets:** In this study, markets which are easily accessible to the local population or local market actors (retailers, companies). Local markets can include markets from neighbouring countries, especially for areas located close to borders. As long as supply chains between producers and consumers exist, local markets can sell goods and services which are made locally or nationally or imported from other countries.
- **Minimum expenditure basket (MEB):** Requires the identification and quantification of basic needs items and services that can be monetized and are accessible in adequate quality through local markets and services. Items and services included in an MEB are those that households in a given context are likely to prioritize on a regular or seasonal basis. An MEB is inherently multisectoral and based on the average cost of the items composing the basket. It can be calculated for various sizes of households. A survival minimum expenditure basket (SMEB) is a subset of the MEB and refers to the identification and quantification of goods and services necessary to meet a household's minimum survival needs. Delineating the threshold for survival and differentiating a SMEB from an MEB is not currently a standardized process (CaLP).
- **Microfinance:** The provision of financial services adapted to the needs of micro-entrepreneurs, low-income persons or persons otherwise systematically excluded from formal financial services, especially small loans, small savings deposits, insurance, remittances and payment services (CaLP). When used in the water, sanitation and hygiene

(WASH) sector, microfinance can be used to support households to build a latrine, access a water filter or connect their home to the water network.

- **Modality:** The form of assistance – e.g., cash transfer, vouchers, in-kind, service delivery or a combination (modalities). This can include both direct transfers at household level and assistance provided at a more general or community level – e.g., health services, WASH infrastructure (CaLP).
- **Multipurpose cash (MPC):** Transfers (either periodic or one-off) corresponding to the amount of money required to fully or partially cover a household's basic and/or recovery needs. All MPC transfers are unrestricted in terms of use, as they can be spent as the recipient chooses (CaLP).
- **WASH complementary programming:** Programming where different modalities and/or activities are combined to achieve WASH objectives. Complementary interventions may be implemented by one agency or by more than one agency working collaboratively. This approach can enable the identification of effective combinations of activities to address needs and achieve programme objectives. Complementary programming will ideally be facilitated by a coordinated, multisectoral approach to needs assessment and programming (CaLP).
- **WASH goods and services:** All water, sanitation and hygiene-related items and services that are usually needed in humanitarian settings. They include water, soap, water collection and storage containers, drinking water treatment services, latrine construction materials, latrine emptying services etc.
- **WASH market:** A simple system of exchange of WASH goods and services between two or more actors. A 'WASH market system' is more complex, as it refers to all the players or actors and their relationships with each other and with support or business services, as well as the enabling environment – i.e., the rules and norms that govern the way that WASH markets work. Market systems are interconnected when they share the same enabling environment/rules/norms and business/support services – e.g., when they operate within one country (CaLP).
- **WASH market-based modality:** A form of humanitarian assistance that uses, supports or develops WASH market systems before, during or after emergencies. This covers two main categories of modality in this study: WASH market support and CVA which is designed to have an effect on WASH outcomes.
- **WASH market-based programming (MBP):** Interventions that work through or support local WASH markets. The term covers all types of engagement with market systems, ranging from actions that deliver immediate relief to those that proactively strengthen and catalyse local market systems or market hubs (CaLP).
- **WASH market support interventions:** Interventions that aim to improve the situation of crisis-affected populations by providing support to the critical WASH market systems on which they rely for accessing and using WASH goods and services. These interventions usually target specific WASH market actors, services and infrastructure through dedicated activities (e.g., grants to traders of hygiene items to enable them to repair their shops and restart businesses; training and donation of materials to private water truckers to improve their internal procedure for water chlorination etc.) ([GWC Guidance on Market Based Programming](#)).
- **WASH-specific cash:** Cash assistance which is designed to be used by recipients to achieve WASH-specific objectives. The term 'WASH-specific cash' has been developed for the purposes of this study, inspired by the CaLP definitions for 'cash transfer' and 'sector-specific intervention' (CaLP).
- **WASH-specific voucher:** Vouchers that can only be exchanged for WASH-related commodities and services. This includes 'value vouchers', which have a cash value (e.g., \$25), and 'commodity vouchers', which are exchanged for predetermined goods (e.g., 20L water, soap, latrine slab etc.) or specific services (e.g., labour for latrine construction). The term 'WASH-specific voucher' has been developed for the purposes of this study, inspired by the CaLP definitions for 'vouchers' and 'sector-specific intervention' (CaLP).



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# 1. INTRODUCTION

Humanitarian water, sanitation and hygiene (WASH) practitioners are increasingly using market-based programming (MBP) to deliver safe water in emergency response, with interventions that are designed to work through, or support, local water markets. These market-based approaches have a number of advantages, such as improving the efficiency and effectiveness of emergency water response while also supporting the existing local market systems that will continue to deliver water services long after the crisis.

In the development sector, there is a great deal of knowledge and experience of using market-based modalities for water – e.g., supporting rural water committees, small water enterprises and larger public water utilities in urban areas. However, for the humanitarian sector, while the use of MBP has been steadily growing, the Global WASH Cluster (GWC) has identified the need to consolidate and take stock of experience of MBP for WASH outcomes.

This report aims to respond to this need by presenting an overview of practices related to the use of market support and cash and voucher assistance (CVA) modalities in the water subsector during pre-

paredness and emergency response. The MBP for water practices described here are drawn from a systematic review of 137 documented examples and 41 key informant interviews (KIIs) with humanitarian WASH practitioners. This report has the following objectives:

- present current practices (and practice gaps) of MBP for water in preparedness and emergencies, identifying the contexts and conditions under which MBP modalities are implemented and highlighting lessons learned;
- support WASH practitioners to use MBP for water in the humanitarian contexts in which they work, when relevant, appropriate and feasible.

This report is one in a series of five on MBP for WASH in emergencies. The other four reports in this study cover practices in MBP in the sanitation and hygiene subsectors, practices related to the use of multipurpose cash (MPC) for WASH, and a mapping of the evidence of MBP and WASH outcomes. The study has been commissioned by the GWC, with the overall aim of supporting the increased use of MBP when feasible and appropriate.

## 2. BACKGROUND ON WATER MARKET SYSTEMS

This section describes 'water market systems', provides details on water prices and affordability in low- and middle-income countries (LMICs), ex-

plains how water market systems can be affected by emergencies and, finally, presents the potential role of MBP in emergency water interventions.

### 2.1 Water market systems

Based on the [CaLP glossary](#) definition, a 'water market' refers to a simple system of exchange of water or water treatment products between two or more actors – e.g., an individual buying water from a water trucker, water kiosk, hawker or shop, or the purchasing of piped water for a household.

A 'water market system' is more complex than a 'water market', as it refers to:

- the **water supply infrastructure** (such as boreholes, water pumping and treatment plants, piped water network and hand pumps), as well as **related services, infrastructure and goods** (such as energy, fuel, roads, transportation, market chains for water treatment consumables, hydraulic materials and spare parts, water containers for collection and storage etc.);
- the large range of **public, private and community-based actors** that can be involved in water and connected markets, including water-related ministries, public utilities' boards, municipalities, private water supply companies, urban water kiosk managers, urban water treatment shops, large

water treatment plant operators, water committees, water users' associations, school committees, public water boards etc.;

- the **enabling environment, rules and norms** that govern the way in which water market systems and connected markets work, including quality assurance systems for water and water services.

In LMICs, the nature of water markets varies significantly from one geographic area to another: in urban centres, public/semi-public water utilities and household connections usually dominate the market; in informal urban settlements, water is often supplied through public/private kiosks and water hawkers; in rural areas, water is mostly supplied through smaller public/private water networks and public water points. In many water-scarce countries water trucking is also used, either as the main or a complementary source of water. Water markets are largely influenced by national water sector policies – e.g., public investments in water supply infrastructure or policy related to the privatization of water systems.

### 2.2 Household water treatment markets and market systems

When water is accessible but of low quality, household water treatment (HHWT) products – such as chlorine (in liquid or tablet form), aluminium sulphate (to reduce water turbidity) or various types of water filters – can improve the quality of water used for drinking or cooking. Significant efforts have been made over the last two decades in LMICs, by both governments and development agencies, to improve local production, supply and marketing of HHWT products. HHWT chemicals are now available in most LMICs, generally sold at an affordable price in shops

and pharmacies in urban areas, though the uptake of these products remains low. Reasons include the lack of availability in rural and low-income settings and the low acceptance of the chlorine taste by users. Household water filters are an alternative to water disinfectant chemicals, though they are relatively expensive for poor households and require maintenance and regular replacement of some parts of the filter.

While HHWT is one of the many components of water market systems (others being fuel, electricity, labour,

water trucking etc.), particular emphasis has been placed on HHWT in this report, as it is so closely and directly related to improving water quality. As the product exchanged is not water itself, but dis-

infection chemicals or filters, the HHWT market is very different from the water market and is therefore analysed separately in this report.

## 2.3 Water prices and affordability

Though the human right to water is recognized by the United Nations, access to safe water is not usually free.<sup>1</sup> Water is in itself a free commodity, but its price increases incrementally as it moves along the supply and value chains: when it is pumped, transported, treated, packaged (sometimes), distributed to consumers and, in some cases, treated again before being returned to nature. In areas covered by a piped water network and where wastewater is treated, the cost of wastewater collection and treatment is usually calculated based on the quantity of water consumed, and added to the water bill.

The price of safe water also depends on the price fluctuations and functioning of connected markets. For example, water-trucking prices are highly dependent on the fuel market and competition between private tanker companies. The cost and feasibility of boreholes are dependent on the hydrogeological

context, but also on availability, skills and competition between drilling companies.

Although water prices follow the principles of supply and demand, they are often regulated by government institutions to reduce water wastage, ensure affordable access and set up a robust and sustainable water revenue collection system. Water affordability varies depending on the type of service (type of water points, water quality), geographical location (rural, urban, slum), households' water consumption habits, size and financial capacity. Sphere sets the water affordability threshold at 5 per cent or less of household net income (Sphere, 2018), while for the United Nations Development Programme (UNDP) the threshold is 3 per cent (Hutton, 2012), though many households in sub-Saharan Africa spend a much higher proportion of their income on water.<sup>2</sup>

## 2.4 Water market systems in emergencies

Emergencies affect water market systems in many ways. People can be forcibly displaced to areas where safe water is less (or not at all) available. Water points and infrastructure can be damaged. Secondary market chains (energy, water treatment chemicals, spare parts, transport networks etc.) can be disrupted. Water vendors can stop selling water. Household economies are negatively impacted, reducing their capacity to buy safe water. Populations affected by disasters often have no choice but to use negative coping strategies to adapt to these situations, such as consuming unsafe water, reducing their water consumption, fetching it from further away or buying it at a higher than usual cost. All these factors can have a negative impact on the health and economic status of households. Emergencies

affect water market systems in many ways. People can be forcibly displaced to areas where safe water is less (or not at all) available. Water points and infrastructure can be damaged. Secondary market chains (energy, water treatment chemicals, spare parts, transport networks etc.) can be disrupted. Water vendors can stop selling water. Household economies are negatively impacted, reducing their capacity to buy safe water. Populations affected by disasters often have no choice but to use negative coping strategies to adapt to these situations, such as consuming unsafe water, reducing their water consumption, fetching it from further away or buying it at a higher than usual cost. All these factors can have a negative impact on the health and economic status of households.

1 "All peoples, whatever their stage of development and social and economic conditions, have the right to have access to drinking water in quantities and of a quality equal to their basic needs" (UN, 2012).

2 A family of six living in Dar es Salaam can spend up to 20 per cent of their income on piped water (IIED, 2016).

## 2.5 MBP in the water subsector

MBP for water includes interventions that work through or support local water markets. The term covers all types of engagement with market systems, ranging from actions that deliver immediate relief to those that proactively strengthen and catalyse local market systems or market hubs to improve or maintain access to safe water in emergencies.

MBP is expected to have a positive impact on people's health and on the resilience of water markets to shocks through the achievement of five water-related outcomes (*water availability, water access, water-related quality, water-related awareness and water use*). The causal framework for MBP and WASH, and the specific one for water, can be found in [Annex 5](#). The impact and outcomes related to the water subsector are described in detail in [Annex 6](#).





## 3. METHODOLOGY

This section briefly summarizes the methodology used: the research questions, the process by which practices were identified, categorized and assessed, and the methodological limitations. Further details

on the methodology used for the overall study are included in the evidence mapping report, as well as in [Annex 8](#).

### 3.1 Research questions

This report focuses on the two research questions specific to the use of MBP in the water subsector:

- What current practices are used in MBP for water in emergencies, across the programme cycle?
- What examples are there of successful partnerships in MBP for humanitarian water outcomes (i.e., between humanitarian actors, governments,

community-based organizations and the private sector)?

These research questions were answered through analysis of available practices that aim to assess, use, support, develop and monitor water market systems in humanitarian contexts. Research questions for the whole study can be found in [Annex 1](#).

### 3.2 Identification, categorization and assessment of the practices

MODALITY	WATER SUPPLY	HHWT	TOTAL
Market support	45	21	<b>66</b>
CVA	60	11	<b>71</b>
<b>TOTAL</b>	<b>105</b>	<b>32</b>	<b>137</b>

*Table 1. Number of MBP for water practices reviewed*

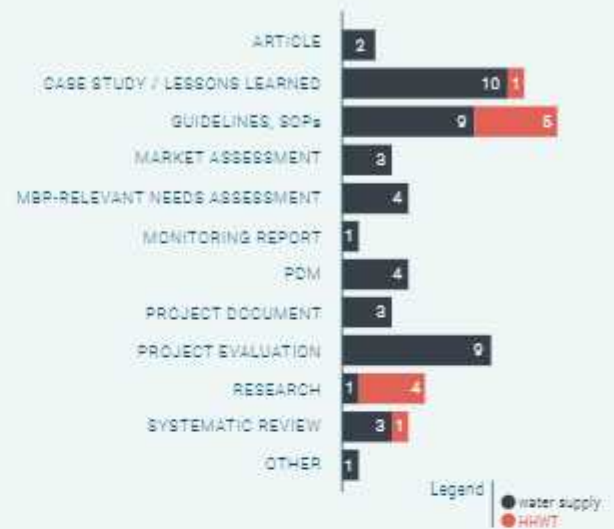
This report presents an analysis of the subset of documents which describe the use of MBP practices to achieve water outcomes.

For this report, a total of 137 examples of market support and CVA practices for both water supply and HHWT were identified (drawn from 118 documents), as shown in Table 1. In addition to the documentation, the use of market-based modalities was explored during 41 KIIs, and additional practices were identified.

Figures 1 and 2 present the distribution of the type of documents included in the study. Further details on the breakdown of practices reviewed by country, type of emergency and type of intervention can be found in [Annex 10](#).



**Figure 1.** Market support for water supply and HHWT; number of practices per type of document



**Figure 2.** CVA for water supply and HHWT; number of practices per type of document

**Notes:** PDM, post-distribution monitoring; SOPs, standard operating procedures.

Although most documents relating to development contexts were excluded in the study screening process, a few documents related to water market support in development contexts which are subject to recurrent crises (Bangladesh, Cambodia, Haiti,

Kenya, Malawi, Zambia) were nevertheless included in this practice review. These documents were included because the practices were considered to be potentially applicable to WASH MBP in emergencies.

### 3.3 Study limitations

In addition to listing practices, this report provides an analysis of the benefits, enabling factors, risks and limitations for each group of practices. The following limitations should be taken into account with regard to the conclusions drawn from this analysis:

- While the evidence mapping report only includes documents for which the effect of interventions on WASH outcomes could be observed, the majority of the documents included in this practice review simply describe a practice and not its effect (though some evidence is also included in the practice reports, as it often describes how MBP was implemented – i.e., practices). Therefore, the 'benefits' listed in the practice reports are not necessarily backed up by 'evidence'; these benefits were not observed for all the practices of the group and

were sometimes simply 'expected results' without clear evidence of effect.

- The fact that an MBP approach or modality has been used and documented suggests that it is feasible and can likely be reproduced in similar contexts and under similar conditions, described as 'enabling factors' in this report. However, the absence of documented practice does not mean that the practice is not feasible, but only that it has not yet been piloted or documented. Refer to the 'practice gap' section in the conclusion for more details.
- In general, the documentation available described practices with a positive bias. The risks and limitations presented here are often drawn from KIIs or as a result of authorial interpretation.

## 4. DESCRIPTION OF PRACTICES

The following sections describe and analyse various types of MBP for water practices: (1) implementation of *market-support modalities*; (2) implementation of *CVA modalities*; (3) *complementary programming*,

which combines different modalities; and (4) *MBP throughout the humanitarian programme cycle*, which presents the use of MBP during water-related assessment, response analyse and monitoring processes.

### 4.1 Market support modalities



Figure 3. Market support for water practices; number per type of implementation modality

Figure 3 presents the types of modalities reviewed in the documentation (not including KIIs). The categories were defined at the outset of the whole study (see also [Annex 8](#) and [Annex 9](#) for more details on categories).

Of the 66 practices related to market support, the vast majority (61) are practices from implementation phase, while only a few practices (5) consist

of assessments, response analysis and standard operating procedures. Charts showing the breakdown of practice by country and type of emergency are available in [Annex 10](#).

The following tables provide an overview of the practices reviewed for each group of market support modalities.

#### 4.1.1 Support to the private sector

<b>Role and benefits</b>	In many LMICs, a dynamic private water market exists and plays a key role in delivering water in non-emergency contexts. 'Support to private sector' modalities consist in working with, or supporting, local private water market actors to provide good-quality and affordable water or water treatment services and products in preparedness or during emergencies.
<b>Enabling factors</b>	Support to the private sector should follow an in-depth water market assessment that identifies supporting the private sector as the most appropriate implementation modality. In most cases, it should be complemented with other modalities such as CVA, training, community engagement and hygiene promotion, advocacy for water market regulation and (if appropriate) direct service delivery. Strong quality control is necessary.
<b>Risks and limitations</b>	It is unlikely to deliver water at humanitarian standards when used as a stand-alone modality in contexts where the water market is unregulated. It is challenging for aid organizations to positively influence the regulatory framework for water or to improve the water treatment and water quality testing procedures of private sector water providers.

#### Observed practices

<b>Emergency water-trucking market regulation</b>	In Lebanon, Oxfam implemented successful advocacy with market actors to harmonize water-trucking prices for non-governmental organizations (NGOs). Advocacy was also conducted to ensure water truckers refilled with water from government boreholes, though the Memorandum of Understanding that was developed for this purpose was never signed due to concerns from the local authorities that such an official agreement would encourage the permanent settlement of Syrian refugees in informal tented settlements (Oxfam, 2018b).
<b>Improving services of private water-trucking companies</b>	<p>In the Horn of Africa, Oxfam has pioneered the use of both household and community vouchers (and sometimes unrestricted cash) to pay for water distributed through private tankers. The quality of the trucked water remains an issue, and chlorination is sometimes done directly by relief agencies (KII with Oxfam, Global support).</p> <p>In 2013 in Gaza, NGOs tried to encourage water truckers to chlorinate their water to improve the quality of water available on the market, though the truckers refused to add chlorine, afraid of losing customers (Bauer, 2014).</p> <p>In 2018, Oxfam distributed commodity fuel vouchers at a subsidized cost to private water tankers in underserved areas of Juba (Matoso, 2018a).</p>

**Avoiding harming urban water treatment shops\***

Urban water treatment shops are popular in many LMICs, to improve the quality of the piped water supply and make it safe to drink. In Jordan, Oxfam started to distribute household water filters but was sensitive to the fact that this reduced the profit made by shops selling treated water and therefore stopped the distribution of filters. The organization thereafter provided water vouchers to be redeemed at the urban water treatment shops, to support these businesses (Bauer, 2014; KII with Oxfam).

**Supporting urban water kiosks**

Many good practices can be taken from the GTZ development project in Zambia. They include encouraging water kiosk managers to complement their income from selling water by also selling other products (soap, condoms) and setting up innovative management systems in which local authorities delegate water supply services to 'commercial utilities' which own the water kiosks and pay the kiosk operators on a commission basis (GTZ, 2015). In many cases, grants provided to water kiosks by aid agencies in emergency contexts usually include repairs and improvements to the kiosk infrastructure and management (Oxfam, 2011b; ACF, 2015b).

**Market-based water safety plans**

In Syria, WASH Cluster partners set up and implemented water safety plans, which involved conducting risk assessments at different levels of the water system (household, trucked water and piped network), followed by adopting appropriate risk management measures, including improvement of the chlorination system for private wells and fixing water lines and pumps for the water networks (Sikder, 2018).

**Investing in hand-pump spare parts supply chains**

As procurement is complicated and costly in the Democratic Republic of the Congo (DRC), NGOs continue to order spare parts from India, thus contributing to the failure of the local market. A study by Concern Worldwide recommends developing the distribution network in rural areas in DRC, investing in local supply chains by procuring handpumps locally (despite local handpumps being more expensive than imported ones), and setting up viable financial management of the water committees (Jones, 2015).

**Water business creation**

In development contexts, humanitarian NGOs often set up local water businesses. For example, Oxfam in Cambodia set up water treatment units run by women (Juillard, 2017), and Action contre la Faim (ACF) in Indonesia supported the creation of a rural water supply company made up of former ACF staff (ACF, 2018).

Working primarily in development contexts, the organization [Water.org](http://www.water.org) partners with local banks and microfinance institutions to offer loans to small and medium-sized water enterprises in low-income settings. Used in development contexts, this practice has the potential to create a more resilient water market. Such an approach could also be piloted in protracted emergencies, in contexts where microfinance is feasible.

\* These shops usually sell 5L containers of treated water that consumers come to get refilled when empty, or get delivered to their homes. Water is often provided by the piped network but is then treated using filters and ultraviolet or ozone disinfection technology to make it safe for drinking.

## 4.1.2 Support to community-based systems

### Role and benefits

Community-based organizations (CBOs) such as water committees are important water market actors and often the only ones in rural areas or slums. In emergency response, CBOs can be supported by using or improving their water delivery or water treatment services, at humanitarian standards. CBOs can be included in market-based water supply management strategies developed by aid agencies, through a business-oriented approach similar to the one usually adopted for supporting the private sector.

### Enabling factors

To be successful, community-based management of water systems in humanitarian contexts should be implemented after a full water market assessment which identifies this option as the optimal one. Comprehensive viability studies and long coaching periods are also necessary to support community-based systems (as is the case for support to the private sector). In addition, permanent subsidies from the State are sometimes needed.<sup>3</sup> A high level of engagement with and from the local community is required.

### Risks and limitations

Support to community-based systems is difficult when national government policy limits the role of civil society (as is the case in Ethiopia and Sudan). In some contexts, it may be more efficient and sustainable for water systems to be managed by the private sector than by CBOs.

## Observed practices

### Setting up financially viable community-based operation and maintenance mechanisms for water systems

In Juba, Oxfam wanted to hand over the management of the Gumbo water treatment plant, built in emergency response, to local actors. After implementing a market assessment, assessing commercial viability and comparing different options, it was decided that the plant should be managed through a tripartite agreement between a cooperative society, a private operator and a water users' committee. The water treatment plant sells water to private tankers and water sellers to increase its revenue and support essential operation and maintenance costs, thereby becoming a financially viable enterprise in the longer term (Matoso, 2018a; 2018b; 2018c).

ACF in South Sudan conducted a system-wide assessment of WASH markets to strengthen its market-based approach and community-based handpump maintenance system.<sup>4</sup> The study provides recommendations on how to strengthen the role of the local authorities in the management of water points and to improve the supply chain for handpump spare parts (ACF, 2016; Lapègue, 2016).

In Puntland, with support from CARE, a water committee buys water-trucking services to fill a large tank, from which it sells water to users from a displaced community. The revenue earned covers the cost of the water trucking, making this a financially viable practice (Abdinaser, 2019).

<sup>3</sup> In many low-income settings (such as rural areas of Darfur), it is unlikely that water revenues can fully cover the operation and maintenance costs of a water system; subsidies are therefore necessary. It should be noted that subsidies for public services are also frequent in high-income countries.

<sup>4</sup> ACF refers to these assessments as 'WASH governance studies'; they are implemented in most of its priority countries.

**Using water users' associations and committees for emergency response**

In Somaliland, Oxfam piloted the provision of unrestricted cash to water committees to collectively purchase water trucking and organize the distribution to vulnerable households (Oxfam, 2020) (see *Box 1 below*).

During a drought in northern Kenya, instead of water trucking, Oxfam distributed fuel vouchers to water users' associations to allow them to operate borehole pump stations and distribute water for free (Wildman, 2012).

In Iraq, to rehabilitate WASH infrastructure in schools, the Norwegian Refugee Council (NRC) delivered conditional cash grants to school committees instead of hiring contractors. The school committees either did the work themselves or hired skilled labour to do it (KII with NRC; NRC, 2019c).

**Improving linkages between water committees and water-supporting markets (handpump spare parts,\*\* chlorine)**

ACTED and Oxfam had some success in what they call 'market matching' in South Sudan, organizing meetings between suppliers and water committees (Oxfam and ACTED, 2014).

Concern Worldwide in DRC conducted a study on the handpump spare part supply chain, providing recommendations on how to set up market chains between village water committees and spare part producers (Jones, 2015).

In Haiti, ACF advocated to replace the existing system, in which national authorities directly supplied chlorine to water committees, with a new system in which water committees would purchase chlorine (at a subsidized price) on the local market, though in the end this proposition was not accepted by the government (Villeminot, 2017).

**Box 1. Cash to access water for communities in Somaliland**

In Somaliland, Oxfam and partners have piloted cash transfers to both village committees and households, as an alternative to humanitarian water trucking in times of drought or severe dry seasons.

In areas where there is no existing water market, cash grants are provided to water management committees to collectively buy and deliver water for their communities (i.e., by negotiating directly with water market actors). In areas where water markets already exist, cash transfers are provided directly to households to pay for their water. This approach is combined with improvement of water storage capacity and water treatment at community and household levels, as well as public health promotion and awareness. Water quality is still a challenge, and Oxfam also provided direct chlorination services to complement the cash transfer.

Advantages of this approach included: freedom for beneficiaries to purchase water directly from preferred vendors; increased purchasing power; flexibility to buy more or less water depending on the quantity needed; and cost-efficiency (water use reportedly increased from 2L to 5L per person per day when cash was provided to the household to buy the water directly, rather than provided through humanitarian water trucking) (Oxfam, 2020).

\*\* These shops usually sell 5L containers of treated water that consumers come to get refilled when empty, or get delivered to their homes. Water is often provided by the piped network but is then treated using filters and ultraviolet or ozone disinfection technology to make it safe for drinking.

### 4.1.3 Support to public institutions and infrastructure

#### Role and benefits

Water networks (pump stations, treatment plants, piped networks) are the cornerstone of the water market in many urban centres in LMICs and are generally operated by public or semi-public water utilities. The practices reviewed consisted of providing financial or technical assistance to water utilities to resume operations or to ensure continuity of services during emergencies, either by hiring contractors on behalf of the utility company or through direct repair and grants, material donation or reimbursement for purchase of materials

#### Enabling factors

It is appropriate in urban areas or in contexts with a high standard of water infrastructure. It requires large budgets and solid technical skills. When the budget required goes beyond the capacity of humanitarian agencies,<sup>5</sup> advocacy and linking with development actors<sup>6</sup> should be conducted (humanitarian-development nexus).

#### Risks and limitations

Support to public institutions and infrastructure has a limited effect in contexts where institutions are very weak and water revenue collection is a huge challenge.<sup>7</sup> In such contexts, approaches that support the private sector may be more effective – e.g., in Haiti (World Bank, 2018).

### Observed practices

#### Improving the preparedness of water and electrical utilities to cope with disaster

Over the last 10 years, middle-income countries with a high standard of water and wastewater infrastructure have been affected by humanitarian crises (Jordan, Lebanon, State of Palestine, Syria, Ukraine etc.). Large aid agencies such as UNICEF, the International Committee of the Red Cross and Oxfam have had some success in the Middle East and North Africa (MENA) region in improving the disaster preparedness of water and electrical utilities by training staff, ensuring the availability of a buffer stock of consumables, creating decentralized warehouses for emergency storage and reducing their dependency on the fuel market (i.e., desalination plants in Gaza) (Diep, 2017).

#### Restoring or ensuring continuity of water supply network services in emergencies

In the MENA region, relief agencies successfully restored supply services during emergencies, through repair or installation of high standard public water system components that had been damaged through conflict (generators, submersible pumps, cables, tanks, reverse osmosis system) (Diep, 2017; Lamb 2015).

In 2016 in northern Iraq, IRC planned to provide generators and fuel to key public boreholes and water pumping stations for trucking (Saint, 2016).

<sup>5</sup> For example, in Ukraine, the financial needs of water companies operating around the contact zone are US\$250 million. The funds required by the WASH sector are \$22 million in 2020, of which only 60 per cent is funded in general (KI with UNICEF Ukraine).

<sup>6</sup> These include the World Bank and the water engineering consultancy sector – e.g., Arup, Veolia, Mott McDonald – which work in a number of fragile contexts.

<sup>7</sup> For example, in urban areas in Lebanon and Yemen, where public water utilities suffer huge financial losses due to non-payment of water bills and illegal connections (KI with Oxfam).



After Typhoon Haiyan in the Philippines, rather than trucking water, Oxfam directed its CFW and food for work schemes towards the rehabilitation of the water pipeline in Tacloban, to support the water utility to resume services (Juillard, 2017).

During COVID-19, NGOs have been working with water utility companies across Africa (e.g., in Kenya and Tanzania) to ensure continuity of water services even when users could not pay their water bills (WaterAid, 2020). UNICEF is currently working on ways to provide financial support for such measures – e.g., by transferring funds to governments, which would then subsidize or cover the revenue loss of water utilities (Hutton, 2020).

**Advocacy for the repayment of water utilities' debt**

In Ukraine, the WASH Cluster engaged in successful advocacy for the repayment of the debt owed by the local water utility to the energy company and is now working on a long-term plan to ensure the water utility's financial viability for the next 5–10 years (KII with WASH Cluster Ukraine).



*The construction of the Zahle pump station in Lebanon was carried out in cooperation with the Bekaa Water Establishment. It improves access to water for both Syrian refugees and the communities hosting them.*



*Pumping systems of El Carmen and Urbina in Venezuela are currently being repaired. In the meantime, the Municipal Institute of Water of Sucre is responsible for supplying the water trucks, while UNICEF ensures water chlorination.*

#### 4.1.4 Support to water market policies and norms

<p><b>Role and benefits</b></p>	<p>Water markets need regulation to ensure coverage in low-income areas, avoid wastage, maintain an efficient and sustainable water revenue collection system, keep water affordable and ensure quality and continuity of water supply. In LMICs this regulatory framework is often inadequate for planning or addressing water issues during emergencies. The practices reviewed focused on improving policies and regulation related to the delivery of water during emergencies – e.g., advocating for greater government investment in disaster-resilient infrastructure. Such improvements can have a positive effect on the functioning of water and HHWT markets in emergencies and enhance the resilience of both the water market and the population.</p>
<p><b>Enabling factors</b></p>	<p>It is appropriate in protracted emergencies, or in emergency preparedness for contexts prone to recurrent crises. When agencies have a high profile and work in close collaboration with national government, this can be an enabling factor.</p>
<p><b>Risks and limitations</b></p>	<p>Only a few examples were identified of support provided to water market policies in acute emergencies and first-phase response, despite being recommended in many market assessments. More evidence is needed on how water policy reforms implemented in development contexts are effective in improving the resilience of local water markets to disaster. This modality is generally not appropriate in rapid-onset emergencies, given the time needed to effect policy change. It also has a limited effect in contexts where institutions are very weak (Somalia, Haiti) and where it may be more appropriate to support the private sector.</p>
<p><b>Observed practices</b></p>	
<p><b>Improving the emergency water-trucking regulatory framework</b></p>	<p>In Lebanon, Oxfam worked to improve the regulatory framework for water trucking, encouraging companies to refill at government-run pumping stations, properly chlorinate water and avoid price disparity between NGOs (Oxfam, 2018d).</p>
<p><b>Improving the regulatory framework for urban water treatment shops</b></p>	<p>In a pre-crisis market assessment in Jakarta, Oxfam observed that urban water treatment shops continued providing water during floods. It was recommended to support these operators through the establishment of a regulatory framework including water quality standards and delivery of official licences to operate (Oxfam, 2016).</p>
<p><b>Supporting privatization of water supply services</b></p>	<p>In Haiti, the World Bank recommended recognizing “the predominance of the private sector in water service delivery in urban areas, adjusting the role of State accordingly” – e.g., through the establishment of public–private partnerships with a greater involvement of local water companies in water production and treatment processes, or improving the management of public kiosks through</p>

franchising, while the government's role would focus on regulation and quality control (World Bank, 2018).

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**Implementing water  
'self-supply' policies**

The World Bank's Water and Sanitation programme defines self-supply as "the improvement to household or community water supply through user investment in water treatment, supply construction and up-grading" (Sutton, 2009). Users can make improvements themselves or pay local private actors to improve their water supply systems. Governmental self-supply policy has led to the improvement of water supply indicators in Ethiopia, Ghana, Mali and Zimbabwe, where people have built hand-dug wells or rainwater catchments for their houses or neighbourhoods, by themselves. Although not emergency-related, this practice is an important way of improving the water safety and resilience of the population, as well as strengthening local water markets.

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**Advocating for  
water service  
continuity during  
the COVID-19  
pandemic**

During the COVID-19 pandemic, NGOs and UNICEF have successfully advocated to governments and water utilities in Africa and Latin America, resulting in the adoption of emergency measures to ensure water service continuity even for the poorest households. These measures include: accelerating the pro-poor water supply connection strategy; suspension of disconnections for non-payment of bills; reconnection of users who have not paid their bills; and even provision of free water in informal urban areas (WaterAid, 2020; KII with UNICEF Latin America and the Caribbean Regional Office).

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**Developing and  
implementing  
national HHWT  
policies**

Improving HHWT markets and behaviours during emergencies is complex and can be better achieved as preparedness or resilience-building interventions. A World Health Organization report analysed the policies of 46 countries and their potential for HHWT scale-up at national level; the two main recommendations of the document were to "support formation and implementation of national HHWT policies and programmes" and to "promote innovative financing such as voucher and microfinance for vendors/producers" (Naman, 2012).

#### 4.1.5 Labour skills for water market systems

##### Role and benefits

The functioning of water markets in emergencies is highly dependent on local skills. The rapid building and repair of water points requires plumbers, masons, electricians, welders, drillers etc. In addition to their core technical skills, these specialized labourers and technicians should also be trained on how to make water systems more resilient to disaster. Through short training courses, vocational training and CFW, agencies can use and strengthen the skills of key water market technicians to carry out emergency repairs to water systems or improve their resilience. Only a few examples of vocational training for technicians working on water supply in emergencies were identified in this review; this is considered a gap, as vocational training has the potential to have a positive impact on the water market.

##### Enabling factors

Support should be provided after an analysis of the local water-related labour market. It is appropriate in recovery or protracted contexts. For the preparedness phase, it is appropriate only in high-risk areas or those affected by recurrent emergencies (see 'Risk and limitations'). It can be useful to complement training schemes by hiring the trained persons for water infrastructure rehabilitation projects (through a CFW scheme or other), to ensure that they have the opportunity to directly apply their skills and start to earn an income from this activity.

##### Risks and limitations

Developing labour skills for water market systems takes time. It is difficult to implement in rapid-onset emergencies and unlikely to have an impact in the short term. It is also difficult to ensure that people trained in preparedness will be available/present when and where disasters occur.

#### Observed practices

In Juba, during the Gumbo emergency water plant project, Oxfam used on-the-job training and coaching to train water plant operators (Matoso, 2018a; 2018b; 2018c).

In Iraq, NRC implemented a household water supply project that used CFW, alongside a livelihood and vocational training programme for masons and plumbers. The trained beneficiaries worked on the CFW project as skilled labourers (NRC, 2019).

ACF in Indonesia supported the creation of a rural water supply company set up by former staff trained during their employment with ACF (ACF, 2018).

Oxfam supported the creation of water filtration businesses in Cambodia by setting up and training 47 small groups of women to operate a water purification unit (Juillard, 2017).

In MENA, in situations of protracted conflict, there were examples of aid organizations training staff at water utility companies in emergency preparedness (Diep, 2017).

The water subsector can also offer opportunities for economic inclusion for both male and female refugees – e.g., through vocational training for plumbers, for Syrian refugee women in Jordan ([UNHCR website](#), 2019).

#### 4.1.6 Social marketing

<p><b>Role and benefits</b></p>	<p>Social marketing uses marketing techniques for social purposes, such as improving hygiene and health. It is a key modality to improve the uptake of HHWT products, addressing both supply- and demand-side barriers at the same time.</p>
<p><b>Enabling factors</b></p>	<p>Social marketing is mostly used for HHWT in development and protracted emergencies and is not appropriate for rapid-onset emergencies or for water supply services.</p>
<p><b>Risks and limitations</b></p>	<p>HHWT suffers from strong resistance from customers because of the taste and smell of the product, lack of understanding of the chlorination protocol or the maintenance process of water filters, and competition with other commercial solutions (water sachets, water vendors). HHWT products in Africa are available mostly in urban centres and are generally used by better-off families. Local HHWT is not commercially viable, and this market needs to be heavily subsidized (Programme for Appropriate Technology in Health, 2010)</p>

#### Observed practices

In Zimbabwe's capital, Harare, Oxfam set up a 'buy one get one free' operation for Waterguard<sup>8</sup> to improve the uptake of HHWT products as a cholera preparedness measure (Ngala, 2018).

To fight cholera in Haiti, ACF set up a successful marketing operation: people who bought a chlorine bottle in one of the selected stores got a free tap installed on their water bucket (Villeminot, 2017).

In both the above examples, the increase in sales generated by the social marketing initiatives enabled participating vendors to expand their WASH-related businesses.

In HHWT market assessments conducted in eight African countries, Population Services International reports that the practice of marketing HHWT as part of a 'basket of goods', which includes other health-related items such as soap or mosquito nets, gives positive results (Programme for Appropriate Technology in Health, 2010).

<sup>8</sup> Waterguard is a brand of liquid chlorine for household use which is widely available in East and Southern Africa

#### 4.1.7 Microfinance

##### Role and benefits

Microfinance is “the provision of financial services adapted to the needs of micro-entrepreneurs, low-income persons, or persons otherwise systematically excluded from formal financial services” (CaLP, 2018).<sup>9</sup> Microfinance has the potential to trigger investments by poor households in safe water systems (connection to water networks, rainwater catchments, protected hand-dug wells, household water filters etc.) that would otherwise be unaffordable. Used in preparedness, microfinance has the potential to build long-term WASH resilience.

##### Enabling factors

Microfinance is appropriate in protracted emergencies or stable contexts as a resilience-building measure. It is not relevant for household chlorination products because of their low cost. Microfinance has some potential to increase access to water filters. It requires a local microfinance institution, although other modalities can be explored, such as savings groups.<sup>10</sup>

##### Risks and limitations

Microfinance is not common in emergency contexts, and humanitarian actors can be reluctant to use it.

#### Observed practices

##### Triggering access to household water purification systems

Microfinance schemes were set up in India, in a development context, for a locally produced household water purification device, complemented by subsidies to reach lower-income households. It had mixed results in terms of product uptake by the target population: though a positive effect was observed in terms of access, usage rates for the water purification device were still low (Programme for Appropriate Technology in Health, 2012).

##### Providing loans to vulnerable families to improve their water access

Working primarily in development contexts, the organization [Water.org](http://www.water.org) works to remove financial barriers between people in need and access to safe water by partnering with local microfinance institutions to establish affordable water loans in their portfolio of offerings. People use these loans to cover the cost of connecting their homes to the water network. Every repaid loan can be lent to another family in need of safe water or sanitation.

<sup>9</sup> Microfinance is not considered a CVA modality by CaLP and it is categorized in this research as a market support intervention that can support both market demand (microfinance to households) and market supply (microfinance to small businesses)

<sup>10</sup> Savings groups are informal financial service providers that serve, primarily, people who are excluded from or underserved by formal financial service providers, including the rural poor, women, youth and other vulnerable populations (SEEP network).

#### 4.1.8 Market-aware procurement practices

##### Role and benefits

Emergency water interventions often rely on the installation or distribution of hydraulic material or HHWT products. These items can be purchased on national or international markets, supplied from agencies' contingency stocks or purchased locally. In general, local procurement supports the local economy and improves local availability of products, while other types of procurement can contribute to market failure (Jones, 2015). However, in some cases, the local water market can be considered too weak to be used, and non-local markets have to be prioritized for procurement in emergencies. Local procurement was not well reflected in this review, as aid agencies rarely document and share publicly the way in which they procure items in emergencies.

##### Enabling factors

In general, local markets must be functional to be used for procurement. When a local market exists but is considered too weak to be used, market support can be implemented to enable local procurement. Prices, quality and volumes in the supply chain should be assessed before procuring locally.

As procurement rules can restrict local procurement, agencies should, when possible, mention specifically in their project proposals that local suppliers will be prioritized, with the objective of strengthening the local market. For example, tendering for the rehabilitation of a large water network would favour the cheapest and most efficient water contractor, which would not necessarily be local.

##### Risks and limitations

Local procurement may take longer and be more costly than using other (non-local) markets or agencies' contingency stocks. Goods available on the local market can be of low quality. There is a risk of depleting stocks and increasing prices for the local population. In some organizations, there can be tension between a programmatic approach of supporting local markets and a procurement approach of purchasing at competitive prices (with processes that are compliant with internal and donor rules).

#### Observed practices

##### Prioritizing local procurement over use of contingency stocks

Various practices reviewed highlighted that aid agencies often failed to procure locally, despite local availability and potential benefits to the local market (Jones, 2015). For example, water collection and storage items are often ordered from regional and global stocks even when they are clearly available on local markets, as it seems easier and faster to do so than launching a local procurement process (KIIs with the International Federation of Red Cross and Red Crescent Societies and UNICEF).



**Supporting school management committees to procure locally for emergency WASH rehabilitation**

There was an example of this practice from NRC in Iraq, where, instead of the usual lengthy tendering process that might have resulted in hiring contractors from another region, the rehabilitation of WASH facilities and water supply in schools was managed locally. Cash grants were transferred to each school's management committee, which was responsible for hiring local contractors directly, with technical support and financial oversight from NRC, thereby saving time and improving both the quality and ownership of the work. However, there may be challenges in terms of donor compliance for future funding, with a need to demonstrate that no humanitarian funds reach listed 'excluded entities'<sup>11</sup> (KII with NRC Iraq; NRC, 2019c).

## 4.2 CVA modalities

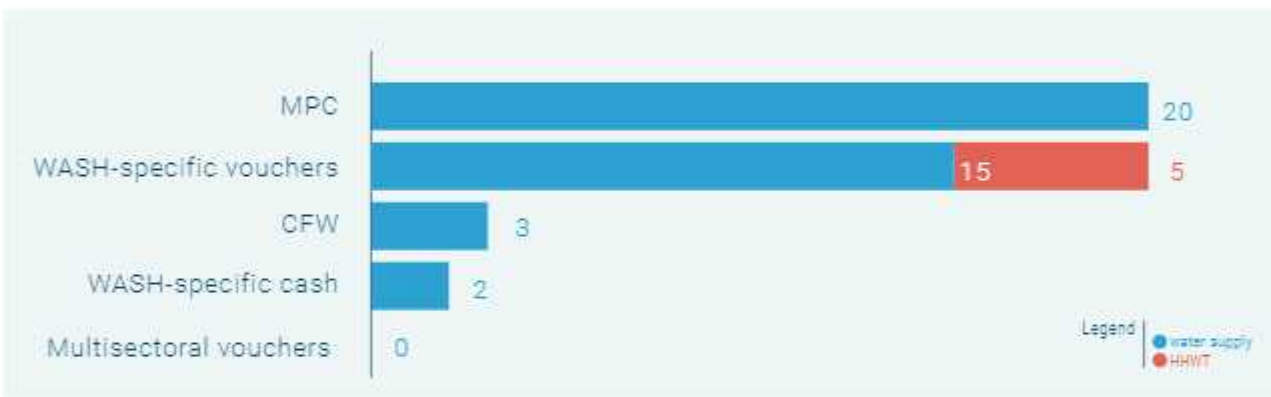


Figure 4. CVA for water practices; number per type of implementation modality

Forty-five documented practices of using CVA for water outcomes were reviewed: 40 for water supply and 5 for HHWT. Figure 4 presents the breakdown of documented practices by modality (not including information from KII).

The following tables provide an overview of the practices reviewed for each type of CVA modality used for water supply and HHWT, with the exception of MPC

(which is addressed in the specific report on MPC and WASH) and CFW (which is included in both sections 4.1.5 and 4.3.3 of this report). It should be noted that, in addition to the three CFW practices shown in Figure 4, the aspects of CFW that contribute to supporting labour markets have been included as separate practices in the market support section (4.1.5).

<sup>11</sup> Due to anti-terrorism legislation, there can be issues with donor compliance when aid agencies must demonstrate that no funds received for humanitarian assistance have reached any entities that are listed as 'excluded' or on terrorist 'blacklists' for donor countries (lists which include private companies and individuals as well as organizations).

## 4.2.1 WASH-specific vouchers for water

### Role and benefits

When used in the water subsector, 'WASH-specific vouchers' are vouchers that can only be exchanged for water-related commodities and services, either a cash value (e.g., \$5), predetermined commodities (e.g., 20L of water or a bottle of chlorine) or specific services (e.g., labour for maintenance of household water supply).<sup>12</sup> Vouchers are frequently used in the WASH sector as a way of directly meeting project objectives and targeting the poorest households, while giving the user some flexibility in terms of when they want to make purchases and from which vendor. Quality and quantity can be monitored, as humanitarian agencies have a direct contract with the water supplier or HHWT vendor.<sup>13</sup>

### Enabling factors

Sufficient safe water or good-quality HHWT must be available on the local market. As the unit cost of water and HHWT is small compared to other household expenses (Hutton, 2012), collaborating with other aid actors or piggybacking on an existing delivery mechanism (such as e-vouchers) can be an enabling factor, making the use of vouchers more cost-efficient (and easy for users). The use of vouchers is better adapted to recurrent distributions, rather than one-off distributions.

### Risks and limitations

There is a risk that vouchers can distort the market by selecting certain traders to participate in voucher programmes (to the exclusion of others). Compared to unrestricted cash, voucher systems can take time to set up and be more complex to implement. Vouchers should be used when there is a clear advantage to restricting household spending to certain preselected goods, services or vendors.

## Observed practices

### Vouchers for water

There were 15 observed practices of the use of water vouchers from: Central African Republic, DRC, Ethiopia, Haiti, Iraq, Jordan, Kenya, State of Palestine, Somalia, South Sudan, Sudan and Syria. In most contexts the water came from water trucking, as in Ethiopia (Oxfam, 2011) and Somalia (NRC, 2019). In Jordan, water vouchers were redeemed from 'urban water treatment shops' (Lamb, 2015); in Central African Republic from 'water kiosks' (ACF, 2015b). There were no examples of vouchers being used to pay for piped water to homes.

In Gereida camp for internally displaced persons (IDPs) in South Darfur (Sudan), CARE used water vouchers, which were redeemed at water kiosks, as a way of enabling the poorest households to access water through the camp's piped water network. While 20 per cent of the IDPs received water vouchers, the rest paid for water themselves, thereby contributing to operation and maintenance costs (CARE, 2018; KII with CARE Sudan).

<sup>12</sup> The term 'WASH-specific voucher' has been developed for the purposes of this study. The definition given here is inspired by the definitions for 'vouchers' and 'sector-specific intervention' in the CaLP glossary (2018).

<sup>13</sup> In emergencies, vouchers may be the most effective modality for HHWT, with some advantages over other CVA modalities (cash) and in-kind, though the strength of evidence is very weak. The low demand for HHWT products means beneficiaries are unlikely to purchase them unless encouraged to do so with vouchers (KII with UNICEF DRC and Mozambique). According to a study from Oxfam in Zimbabwe, in-kind distributions of HHWT products in emergencies (such as cholera outbreaks) may actually reduce their uptake in non-outbreak periods (Oxfam, 2018a).

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#### Vouchers for HHWT

In Nairobi, during the COVID-19 outbreak, Oxfam recharged water vending machine users' credit by paying the water utility company directly, thereby covering the cost of water for the beneficiaries of this programme (see Box 2). This intervention was possible via remote management, which reduced transmission risks for both project participants and NGO staff (KII with Oxfam staff, Kenya).

There were five practices of HHWT vouchers from Haiti, Kenya, Malawi, Zambia and Zimbabwe. They could be described as preparedness or resilience-building activities, implemented in development contexts affected by recurrent outbreaks of waterborne diseases, such as cholera or typhoid. The aim was to increase the use of HHWT products and their availability on the market, to prevent or reduce the impact of future outbreaks of waterborne diseases. There were no HHWT voucher practices reviewed from humanitarian contexts.

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#### Vouchers for water supply material

In Iraq, NRC distributed vouchers to 3000 returnee families in Ramadi to enable them to upgrade the water supply facilities in their homes. The vouchers could be exchanged for pipes and other materials at preselected local vendors, against a list of up to 42 products (also including sanitation materials). The families were in charge of overseeing the work in their homes. For people with protection needs or those lacking the technical know-how, plumbers and builders (also trained by NRC) were made available and paid through CFW, to support the work for each household (NRC, 2019; KII with NRC Iraq).

**Box 2. Water ATMs in Kenya**



In 2016, to improve access to and affordability of water in Nairobi slums, a public–private partnership between the Nairobi Water and Sewerage Company, the city's main water distribution company, and Grundfos, a Danish water engineering firm, resulted in the installation of water vending machines (ATMs) connected to the city's main supply lines. To buy water, users load credits onto smart cards. By a simple swipe of their smart card on the ATM's sensor, water is released from the main storage into the user's container (The Guardian, 2016). World Vision International implemented a similar intervention in rural areas of Kenya in 2015, with the installation of 57 intelligent water dispensers, called 'AQ Taps', observing a net improvement in water revenue collection by the local water service provider.

In Nairobi, during the COVID-19 outbreak, Oxfam provided remote support to vulnerable households, enabling them to access water by recharging their water ATM credit for free.

*The water ATMs in Mathare slum have reduced weekly expenditure on water from KSh250 (US\$2.50) to KSh2.50 (US\$0.25).*

**Box 3. Water e-vouchers in State of Palestine**

Since 2014, the World Food Programme (WFP) and UNICEF have partnered to provide 14 000 families in Gaza with life-saving assistance. In terms of water, families received electronic magnetic cards that enabled them to purchase drinking water and hygiene and sanitation products worth NIS200 (approx. US\$53) at local retailers. The same targeting approach was used for both food and water assistance, aligned with the government-led social assistance programme which targets the most vulnerable households using a proxy means-testing formula.<sup>14</sup>

The e-vouchers are delivered through a computerized system that links WFP's office and participating retailers in Gaza through PalPay, operated by the Bank of Palestine. PalPay is a one-card platform that can accommodate multiple 'wallets' and can deliver different types of assistance – goods, services and cash – on a single card. Any purchase made with the e-vouchers is automatically captured in the system, which serves as a form of real-time monitoring; in one instance, a sudden spike in the redemption of bottled water in one area prompted an investigation, which revealed that a local water source had been damaged (the water source was later repaired).

The programme had an important secondary effect on the local economy: feedback from retailers indicated that it helped them stay open during the emergency and even hire additional workers to meet the increased demand (UNICEF, 2016).

<sup>14</sup> A proxy means-testing formula correlates information on household or individual characteristics (such as age or family composition) with welfare levels, in a formal algorithm to indicate household income, welfare or need. In this example, the formula is used by WFP to determine eligibility for its food e-voucher programme, and also by a number of key social protection actors such as the World Bank, the European Union and the United Nations Relief and Works Agency (UNICEF 2016).

## 4.2.2 WASH-specific cash

<p><b>Role and benefits</b></p>	<p>'WASH-specific cash' is assistance in the form of money – either physical currency or electronic cash – that is designed to be used by recipients to achieve WASH-specific objectives, such as purchasing water.<sup>15</sup> For the water subsector, the value of WASH-specific cash is only intended to meet the cost of water – unlike MPC, which is designed to meet a variety of basic needs. In humanitarian contexts where water has to be paid for, cash transfers can enable the poorest households to be targeted for support to purchase water.</p>
<p><b>Enabling factors</b></p>	<p>Although cash is inherently unrestricted, aid agencies can use labelling to encourage the use of cash to pay for water – i.e., by 'naming' the cash in terms of the how it is meant to be used.<sup>16</sup> WASH-specific cash should be used alongside other forms of assistance that cover basic needs, such as MPC or in-kind distributions of food and non-food items, so that recipients of WASH-specific cash can prioritize spending on water. There is potential to combine WASH-specific cash with measures to mitigate risks around water quality (monitoring quality, chlorination, supporting and promoting the use of HHWT, hygiene messaging etc.) (see Boxes 1 and 4).</p>
<p><b>Risks and limitations</b></p>	<p>When this modality is used, monitoring of water quality is a challenge, and WASH practitioners cite concerns around the risk of people accessing unsafe water (either cheaper or free of charge) when receiving cash transfers, though it should be noted that contamination of water delivered through water trucking is a widespread problem, whether the water trucking is paid for by the humanitarian agency or by the beneficiary/customer themselves.<sup>17</sup></p>

## Observed practices

Based on the document review and KIIs, only two examples of the use of unrestricted cash for water were found, in Somaliland (Oxfam, 2020) (see Box 1) and Lebanon (UNICEF, 2018) (see Box 4). In Yemen the use of unrestricted cash for water, as an exit strategy for water trucking, is being considered but has not yet been implemented.

<sup>15</sup> The term 'WASH-specific cash' has been developed for the purposes of this study. The definition is inspired by the CaLP definitions for 'cash transfer' and 'sector-specific intervention' (CaLP glossary 2018).

<sup>16</sup> For example, in Lebanon, by monetizing an existing in-kind intervention as well as labelling, it was communicated to beneficiaries that free water trucking had been replaced by cash for them to pay the cost of water trucking themselves (UNICEF, 2018, KI) with UNICEF Lebanon).

<sup>17</sup> one key informant interviewed for this study stated that more than 50 percent of water trucking monitored in Lebanon was contaminated (unverified).

**Box 4. Cash4Wash for Syrian refugees in Lebanon**

Delivering adequate WASH services for Syrian refugees in informal tented settlements (ITSs) in Lebanon is challenging, as the settlements are not officially recognized by the Government of Lebanon; therefore no permanent infrastructure can be built to exit from water trucking. Refugees living in these areas depend entirely on water trucking, which is expensive for households.<sup>18</sup> The most vulnerable Syrian refugees receive MPC assistance through a one-card system (LOUISE). However, the MPC transfer value is based on a minimum expenditure basket that only includes the estimated cost of piped water and not the relatively higher cost of water trucking that has to be paid by families living in the ITSs.

In 2018, UNICEF piloted the monetization of water trucking and latrine desludging for these refugees – i.e., specific Cash4Wash transfers were delivered directly to the most vulnerable households located in ITSs dependent on water trucking, in addition to the MPC they already received. The additional cash assistance was transferred directly to the same card with which refugees are familiar, making this a cost-efficient and simple approach.

The main challenge is the risk of poor-quality water delivered by water trucking; therefore continual quality control is required. However, it was noted that this challenge is not specific to the Cash4WASH approach, and water quality control is an issue even if traditional water trucking is used and paid for directly by aid agencies. An evaluation of the innovative Cash4WASH approach is planned for 2020 (UNICEF, 2018; KII with UNICEF Lebanon).

### 4.2.3 Multisectoral vouchers

'Multisectoral vouchers' is a term used in this study to denote vouchers which are designed to achieve objectives for multiple sectors – i.e., for WASH and one or more other sectors. In the water subsector, water or HHWT products can potentially be included in multisectoral vouchers, but there was only one example of this practice being used – described in a KII (see Box 5 below) – with no evidence of positive effect. In the documentation, one example was reviewed: a feasibility assessment which rec-

ommended the use of vouchers for hotels (including the provision of water) and restaurant vouchers to be provided to refugees, asylum-seekers and migrants in Greece (Platzmann, 2015). However, no information was found as to whether such a project was implemented.

Due to the gap in practices and evidence around the use of multisectoral vouchers for water, no conclusions can be drawn as to their feasibility or the conditions under which such a modality might be relevant or appropriate.

<sup>18</sup> The average monthly cost for household water trucking is \$20 per household; a survey by Oxfam found that this represents up to 6.5 per cent of average household expenditure, which is above the UNDP 3 per cent affordability threshold.

*Box 5. Inclusion of HHWT in multisectoral vouchers in Mozambique*

In Mozambique, as part of the Cyclone Idai response, a joint UNICEF–WFP programme provided three months of vouchers for food and WASH non-food items (NFIs) worth \$40 per month (50 per cent of the food basket and 50 per cent of the WASH NFI basket). For the WASH NFIs, HHWT (liquid chlorine) was included, as well as soap, washing detergent and other hygiene-related NFIs.

Monitoring of water-related outcomes showed that while some families bought soap (26 per cent) and washing detergent (21 per cent), there were very low rates of purchasing HHWT. Overall, vouchers were mostly spent on food, rather than WASH NFIs. A number of untested hypotheses were put forward to explain the low purchasing of HHWT: there had previously been distributions of chlorine water treatment, so families may still have had stocks; HHWT is generally inexpensive, so families may have preferred to use the vouchers to prioritize bulk purchases of food (such as 25kg sacks of rice) and use other income to purchase chlorine; or, as demand for HHWT is usually low and people often do not like the taste, they may simply prefer not to purchase it when given the choice.

One of the lessons learned from this programme was that while multisectoral vouchers have the advantage of giving families flexibility to prioritize according to their needs and preferences, they may not be an effective way to directly meet all sectoral objectives set by aid organizations. Multisectoral vouchers can be appropriate for access to WASH NFI that people like using given the choice (such as soap), but not for ensuring access to HHWT, for which people show low levels of preference (KII with UNICEF Mozambique).

### 4.3 Complementary programming for water

There are multiple barriers to achieving water outcomes in emergency contexts, and the use of several modalities is often necessary to address them all. While the sections above focus on the implementation of specific market support and CVA modalities, this section presents examples where agencies have used a combination of different modalities and/or activities (both market-based and non-market-based) to better address the needs of affected populations and achieve WASH programme objectives. These approaches are referred to as 'WASH complementary programming' in the glossary.

The following tables provide a summary of these practices and approaches, based on the available

documentation and KIIs. Although a wide variety of market- and non-market-based modalities can be implemented simultaneously during emergency response, by single or multiple agencies, this aspect of interventions is often not well coordinated or well documented. The MBP for WASH practices that were reviewed for this study tended to focus primarily on market-based modalities, providing very few details of the other modalities used, and there are significant gaps in the documentation for 'complementary programming'.

### 4.3.1 Combining CVA and market support modalities

#### Role and benefits

In LMICs, WASH markets are rarely functional enough to provide safe water to beneficiaries affected by humanitarian crises without external support. Combining CVA and market support is often an appropriate approach, addressing both demand- and supply-side barriers. In addition, when the capacity of supported market actors is not sufficient to provide water that meets humanitarian standards, direct service delivery can be combined with market-based modalities. Regardless of the modalities chosen, most interventions should also include promotion of safe water-related behaviours, whether support is delivered directly, through public institutions or via community actors.

#### Enabling factors

A thorough response analysis process enables the identification of the most appropriate combination of modalities. Different modalities can be combined within a single agency project; synergies can also be achieved through coordination of multiple partners (one NGO doing direct service delivery, another doing CVA etc.).

#### Risks and limitations

Combining modalities requires multidisciplinary teams, as CVA, market support and direct water supply assistance require specific skills, which relief agencies are not always able to budget for and provide.

### Observed practices

A number of practices of combining CVA and market support were identified in this review. These included enabling vendors to stock HHWT products and later distribute them through vouchers during an emergency (Sauter, 2016), and distributing cash for households to buy material to improve the plumbing systems in their houses while skilled labour was provided through CFW (KII with NRC Iraq). Many of the HHWT social marketing interventions reviewed combined market support and vouchers to improve access to HHWT products.

Examples of the complementary use of direct assistance and market-based modalities included: direct infrastructure repair such as the rehabilitation of wells; building or repairing water networks (Oxfam, 2012a; UNHCR, 2017; CARE and ACF, 2019); provision of hygiene BCC, used in most WASH-specific CVA interventions (such as ACF, 2015b); and complementary provision of services, such as direct chlorination services complementary to CVA for water trucking (Oxfam, 2020).



### 4.3.2 WASH infrastructure projects with a CFW component

#### Role and benefits

In CFW interventions, cash payments are provided to beneficiaries on the condition of undertaking designated work (CaLP, 2018). CFW interventions usually have two objectives: building or rehabilitating community infrastructure and providing short-term income support to meet beneficiaries' basic needs. When used in the water subsector, CFW can play a role in supporting the local water market system, as the 'work' can contribute to WASH infrastructure projects and help to skill labourers. However, although CFW is typically referred to as an 'MBP for WASH' modality due to the 'cash' component, based on the post-distribution monitoring reviewed here, the cash received through CFW plays a very minimal role in improving beneficiaries' financial access to safe water.

#### Enabling factors

A market assessment should be conducted, recommending CFW as an appropriate modality to support water markets. Beneficiaries participating in CFW schemes can also benefit from specific WASH technical training to improve their labour skills for water market systems. The work implemented through CFW should target key components of the local water market (piped network, wells supplying a large number of beneficiaries etc.) as recommended by the market assessment.

If one of the objectives is for CFW to help beneficiaries meet their basic needs, including improving financial access to water, then it is necessary to ensure that local markets are able to provide safe water at humanitarian standards, that beneficiaries prioritize safe water rather than other sources and that the amount of cash is sufficient to cover all basic needs, including safe water.

#### Risks and limitations

Based on the practices reviewed, CFW has some limitations and only produces a positive effect on water market supply and demand when specifically designed for this purpose. It may not be the most effective or efficient way of supporting water market infrastructure (e.g., compared to using local contracted labour or contractors), as project participants might lack the appropriate skills. Sustainability may also be an issue, and there is risk that the infrastructure is not maintained by communities in the longer term (Schira, 2011).

In a humanitarian crisis in which immediate basic needs (including water) are great, CFW is unlikely to be the most appropriate modality; therefore unconditional modalities, such as MPC, should be considered or combined with CFW.

### Observed practices

#### WASH infrastructure and CFW

A few examples of the practice of using CFW for water infrastructure projects in emergencies were found from Iraq, Kenya, the Philippines and Yemen.

In the Typhoon Haiyan response in the Philippines, Oxfam adopted a comprehensive MBP approach, which began with a water market assessment. Implementation followed the recommendations from the assessment, and CFW was used to

rehabilitate the water network, rather than, for example, hiring contractors or supporting market actors (Oxfam, 2013b).

In Iraq in 2016, World Vision International implemented a CFW project to rehabilitate some of the public water network pipelines that were damaged during the ISIS occupation (WVI, 2016).

In Yemen, community projects implemented through CFW included rehabilitation of water sources and facilities (CARE and ACF, 2019).

In Kenya, CFW was used to increase water supply in drought-affected areas by building or rehabilitating water catchment structures, to improve access to water for both people and livestock. While 80 per cent of the beneficiaries participated in the CFW, the remaining 20 per cent received payments but did not contribute labour because of their 'highly vulnerable' condition (Brewin, 2009). It is common practice in CFW programmes that the most vulnerable do not participate in the work but still receive income support in the form of unconditional cash transfers.

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**Monitoring cash  
received through CFW**

It is also common practice to monitor household expenditure and the effect of the cash received through CFW. For example, in Yemen, income received through CFW reportedly increased access to water and food markets (CARE and ACF, 2019).

Beneficiaries usually only spent a small part of the cash on water, corresponding to water affordability thresholds. For example, in Kenya, CFW beneficiaries spent 2–6 per cent of the cash received on human water and 3–5 per cent on animal water (varying depending on local water prices and seasonality). Water quality and use were also monitored in this case, and the project evaluation concluded that access to safe drinking water had improved as a result of this complementary intervention, which included improvements to WASH infrastructure, BCC and the CFW (Schira, 2011).

### 4.3.3 Marketing and vouchers to improve the uptake of HHWT

#### Role and benefits

In a 2017 brief from BEAM Exchange, behavioural economics was introduced as an interesting field of practice for water-related MBP, specifically for the uptake of household chlorine products (Whitehouse, 2017). Several rigorous studies compared the effect of different modalities for the marketing and distribution of HHWT products in development contexts, including comparisons between free and low-cost access for beneficiaries. The main hypotheses are that using marketing and vouchers can improve both the efficiency of HHWT interventions and long-term uptake of the products by the population. It has also been hypothesized that a financial contribution from the household can improve the uptake of the product thanks to the 'sunk cost effect', although this hypothesis was not supported in one study.<sup>19</sup> Although these studies were not from emergency contexts, the results could be used to design resilience-building or preparedness interventions in fragile States and to improve the general uptake of HHWT.

#### Enabling factors

The use of marketing and vouchers to improve uptake of HHWT in emergency response requires a well-functioning HHWT product market, as well as a minimum level of knowledge and awareness of the product by the population.

#### Risks and limitations

It is not yet clear if the marketing and voucher modalities implemented would have the same added value during emergency response, as priorities and consumption patterns of affected populations can change in times of crisis. For first-phase emergency response specifically, promoting the sale of HHWT products to beneficiaries – even at a very low price – may not be considered appropriate by some aid actors (as HHWT should be provided for free, as part of an assistance package – e.g., through vouchers that cover their full cost).

### Observed practices

#### Distributing free HHWT products to households through vouchers

Evidence suggests this modality is more cost-efficient and effective in improving chlorine coverage than in-kind distributions through monthly community health worker visits.<sup>20</sup> Vouchers are also more efficient in improving the long-term uptake of chlorine products, by establishing a habit of product procurement at the store (Dupas, 2013; 2020). Vouchers can make HHWT interventions more focused and cost-effective through 'self-targeting' – i.e., the households that are interested and will use the product are more likely to redeem their vouchers (Dupas, 2013).<sup>21</sup>

In addition, it was demonstrated that provision of HHWT products through vouchers to households with young children increases chlorine usage by these house-

<sup>19</sup> In behavioural economics, the 'sunk cost effect' is characterized by the fact that a household is more likely to use a product they have purchased than if it has been given for free – the logic being that as they have already paid for it, they will use it to 'justify' the expense.

<sup>20</sup> Relief agencies and governments often rely on community health workers to distribute and promote the use of chlorine products through home visits, which is a strategy that has proven effective in some emergency responses such as Haiti (Lansagne and Clasen, 2013) and South Sudan (ACF, 2014).

<sup>21</sup> People who are not likely to use the HHWT do not go through the trouble of redeeming the voucher, thus saving money for the programme.

holds, which then translates into substantial child health impacts. For instance, “new parents could receive a HHWT booklet of coupons during prenatal care, to be redeemed at local shops or pharmacies or health facilities” (Dupas, 2020).

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**Distributing free HHWT products to households through vouchers**

In protracted emergencies such as Haiti or Somalia, a financial contribution from beneficiaries to access HHWT products could be considered while using a voucher system. In practical terms, households would have to pay a part of the product cost when redeeming the voucher at the shop.

However, one study in Haiti (Ritter, 2018) demonstrated that requiring such a financial contribution from households does not necessarily have any effect on its use (thus contradicting the assumed sunk cost effect). It also limits the intervention’s coverage and health impact by discouraging poorer households from accessing the product, when they are often the ones who would most benefit from it.

Nevertheless, introducing such a cost recovery system can be necessary to connect humanitarian interventions with long-term, sustainable programmes. The documents reviewed suggest that the optimal household contribution should be estimated through a ‘willingness to pay’ study, while the remaining cost should be subsidized by relief agencies or the government.

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**Distributing free HHWT products to households through vouchers**

A study from Haiti found that although visits by community health workers can be effective in maximizing purchase of chlorine and health impact, it was not as cost-effective as door-to-door selling of chlorine at a very low price (Ritter, 2018).

#### 4.3.4 Complementary programming to improve exit strategies for emergency water supply

<p><b>Role and benefits</b></p>	<p>As part of their exit strategy, humanitarian WASH actors often hand over complex emergency water supply systems to local service providers, using a combination of market support modalities. Market support modalities are used to improve water market supply (e.g., enhancing local labour technical skills, building the capacity of the community or the private sector to manage infrastructure), while demand is stimulated through the use of targeted CVA and income-generating activities to enable financial access to water for the poorest beneficiaries.</p>
<p><b>Enabling factors</b></p>	<p>Envisaging an exit strategy from the outset of humanitarian response can enable a smoother transition. For instance, to be handed over to a local water utility, a water network built in an IDP camp should be efficient and commercially viable, and correspond to national water supply development standards. Multi-year exit strategies should be designed and implemented with local water market actors and donors. CVA and income-generating activities should be included in the exit strategy to increase beneficiaries' financial capacity. Long-term subsidies and ad hoc technical assistance (e.g., by local public institutions) should also be planned.</p>
<p><b>Risks and limitations</b></p>	<p>In some cases, national water development standards are higher than those used in humanitarian contexts and hard to achieve in a rapid-onset emergency; a progressive improvement of infrastructure and an increase in beneficiaries' willingness to pay are required during the recovery phase until reaching national policy standards.<sup>22</sup></p>
<p><b>Observed practices</b></p>	
<p><b>Handing over emergency water pumping and treatment plant to local actors</b></p>	<p>In 2016, Oxfam set up a large water treatment plant with the capacity to provide safe water to 20 000 people in the Gumbo neighbourhood of Juba. Oxfam anticipated the future handover of this infrastructure from the early stages of the project: the water treatment plant was designed to supply water directly to households, as well as market actors such as local water tankers and bicycle water sellers. The water treatment plant was also solar-powered to decrease energy running costs and dependency on the fluctuating fuel market. Oxfam studied different options for sustainability and decided that the creation of a water cooperative society was the most suitable management model (Matoso, 2018a; 2018b; 2018c).</p>
<p><b>Transitioning from free water provision to cost-recovery systems in camps</b></p>	<p>In Gereida IDP camp in Darfur, the water network was managed jointly by CARE and a local water committee. As funding from humanitarian donors was expected to come to an end, CARE developed a four-year exit strategy. This involved improving demand and willingness to pay for water through the distribution of</p>

<sup>22</sup> Standards in development contexts, often included in national WASH policies, are usually more difficult to attain than SPHERE standards. For instance, the national policy in Sudan indicates that "Water supply systems in urban areas shall be designed with adequate capacity to provide 90 litres per capita per day", while water networks in IDP camps in the country are initially designed to provide 15 or 20L per person per day.

water vouchers to vulnerable beneficiaries (20 per cent of the camp population), income-generating activities (a cinema) to increase the financial capacity of the water committee, and setting higher tariffs for productive use of water (KII with CARE Sudan). This strategy aimed to enable the local water committee to cover the operation and maintenance costs of the network while still continuing to provide water free of charge to those households who could not afford to pay for it.

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**Transitioning from temporary water trucking to a permanent piped water network**

In the Gambella region of Ethiopia, UNHCR transitioned from emergency water trucking to permanent water supply using an MBP approach that supported public infrastructure through the construction of a piped water system for both Ethiopian host communities and South Sudanese refugees. The 'Itang Integrated Water Project' included refugees within the national water policy while also supporting host communities by improving their water access. Through the cost-recovery system, the host communities pay for their water, while UNHCR and the Ethiopian Government cover the cost of water for refugees. In the future, with the introduction of cash-based interventions and livelihood opportunities, refugees will also start paying for their water, thereby contributing to the financial viability of the water utility (UNHCR, 2017).

### 4.3.5 Water market monitoring

#### Role and benefits

Market monitoring in the water subsector usually involves monitoring the price of water and associated markets (fuel, electricity, HHWT etc.). It can also include regular monitoring of water quality (water kiosks, boreholes, networks etc.). The WASH sector has followed the example of other sectors, particularly food security, for which market monitoring has long been a routine activity that informs decision-making for humanitarian response.

#### Enabling factors

To provide meaningful results, water price monitoring needs to be at scale (often national/cluster level). It requires significant human and financial resources and therefore benefits from a collaborative approach by a number of humanitarian partners – e.g., coordinated through the WASH Cluster together with the Cash Working Group and implemented by REACH.

#### Risks and limitations

Risks exist that the results of water price monitoring are not sufficiently used to inform programming and funding. Examples were given during KIIs of data collection stopping or being reduced in frequency and scope after a certain period, due to a lack of interest from WASH partners. Although it is important to monitor water quality as well as prices, regular monitoring of water quality at the level of a water market is difficult to implement, because of the high cost and resources it requires.

### Observed practices

WASH clusters launched interesting water market monitoring initiatives at national level in Somalia, South Sudan and Yemen between 2016 and 2018, collecting market indicators (price, stock, restocking time) for water trucking or bottled water on a monthly basis. This monitoring was done mostly by REACH, often using remote data collection systems.

At the time of writing, a large-scale monitoring exercise focusing on water markets and related services in key countries affected by COVID-19 was launched through REACH at the initiative of the GWC and UNICEF. The questionnaire focuses on water prices but also contains questions on service quality and hygiene.

## 4.4 MBP for water throughout the humanitarian programme cycle

Implementation of MBP for water is enabled by a market-sensitive, coordinated, multisectoral approach to needs assessment and response analysis. It also involves monitoring processes which are adapted to MBP – including regular monitoring of the water market system during the response – and new arrangements in terms of information management, and inter-cluster and intersectoral

coordination. The following tables provide some examples of how MBP was taken into account in the phases of the humanitarian programme cycle and enabling environments, although these arrangements are not well documented, and there are significant information gaps in this area.

### 4.4.1 Market-sensitive assessments, response analysis and planning

#### Role and benefits

Market assessments are the cornerstone of MBP for WASH (GWC, 2019). Their role is to inform subsequent WASH response analysis and planning. During the response analysis phase, the relevance, appropriateness and feasibility of various market- and non-market-based response modalities must be assessed for the water subsector, and the optimal combination of modalities identified and included in the implementation strategy. Water is one of the many basic needs that need to be covered, and response analysis should start by a multisectoral analysis, before being narrowed down to the WASH sector. This process can be done at agency level by project managers or programme coordinators, or at humanitarian response level by cluster coordinators. The water market can experience changes (prices, quality, availability) over time; it should be closely monitored during the emergency response phase, and corrective actions implemented if needed.

#### Enabling factors

The practices reviewed indicate that water and HHWT market assessments are common in preparedness and protracted emergencies such as in DRC, Ethiopia, Haiti or the MENA region. To ensure that assessment and response analysis processes are market-sensitive, WASH project managers or coordinators should follow MBP training or have dedicated support from a cash and markets specialist. Inter-cluster market-sensitive response analysis is extremely challenging – especially in first-phase response – and is only really feasible with strong inter-cluster leadership.

#### Risks and limitations

The assessment reports reviewed provided key information on water market systems but generally did not cover households' multisectoral needs, priorities and economy, with the exception of the basic needs assessment piloted in Ethiopia (Save the Children, 2018), and as such would have a limited capacity to inform multisectoral response analysis. Even though all water market assessments reviewed included key recommendations to guide preparedness and response strategies, it was difficult to gather from the documentation the extent to which the recommendations were actually followed.



## Observed practices

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From the practice review, only a limited number of WASH partners (six in total) routinely conducted water market assessments. They mostly used the emergency market mapping assessment or the pre-crisis market assessment methodologies. Only one of the 25 water market assessments reviewed was conducted at cluster level (Somalia WASH Cluster, 2020).

No documented multisectoral market-sensitive response analysis process was identified, apart from the basic needs assessment and response analysis pilot in Ethiopia (Save the Children, 2018).

Market-based modalities for water are now commonly integrated into humanitarian response plans, with examples from the WASH Cluster operational response plans in Myanmar (OCHA, 2020c), South Sudan (OCHA, 2020b) and Yemen (OCHA, 2019), although the response analysis process leading to such decisions is not well documented.



**WASH Cluster**  
Water Sanitation Hygiene

Evidence-building for cash and markets for WASH in emergencies  
**Practices in MBP in water**

## 5. CONCLUSION

This report presents an overview of current practices of MBP for water in emergencies, describing documented interventions and approaches across the humanitarian programme cycle, as well as examples of successful partnerships between humanitarian actors and the public and private sectors. The practices are drawn from 137 documented examples of MBP for water and 41 KIIs. While this sample no doubt represents only a fraction of the total number of MBP for water practices implemented in emergency response over the last 20 years, it is clear from this review that MBP in the water subsector is feasible and already widely used in humanitarian response.

For each type of market-based modality or approach, the specific benefits, enabling factors, risks and limitations were identified, based on the practices reviewed. These factors are summarized below for each group of modalities.

### Market support

Market support modalities offer some benefits and opportunities to achieve quality water programming in emergencies, as follows.

- The **private sector** is usually a strong actor in water provision and can be used and supported during emergency preparedness and response.
- **Support to community-based systems**, such as community-based organizations and water users' associations, can be especially relevant in rural areas and informal urban settlements, where there is a limited presence of private and public actors.
- **Support to public institutions** such as water utilities is appropriate in urban areas or in contexts with a high standard of water infrastructure.
- **Supporting water market policies** is a long-term approach that can have a positive effect on the resilience of water infrastructure to disaster, as well as facilitating the delivery of water during emergencies.
- **Social marketing** is a key modality to improve the uptake of HHWT products in protracted emergen-

cies or the preparedness phase, addressing both supply- and demand-side barriers at the same time.

- **Microfinance** can be used in protracted emergencies or stable contexts as a resilience-building measure to trigger investments by poor households in their water infrastructure.
- **Market-aware procurement processes** in the emergency water sector can avoid harming local markets, support the local economy and improve local availability of water-related goods and services.
- **Water-supply labour markets** can be supported through training schemes, use of local labour and CFW which is designed to use skilled workers, during emergency response and preparedness.

Regarding *enabling factors*, the practice review identified specific conditions that facilitate the implementation of market support modalities for water. The main enabling factors were:

- conducting a full market assessment prior to the design and implementation phase;
- working in the preparedness phase or in the context of resilience-building, when there is sufficient time to analyse and support water markets and establish partnerships with market actors ahead of emergencies;
- donor and/or organizational flexibility to support local markets and market actors.

Certain market-based modalities present specific *risks and limitations* when used in humanitarian contexts:

- Some market support modalities – social marketing, microfinance, vocational training and support to water market policies – take considerable time to implement and are therefore more appropriate in the preparedness phase, resilience-building interventions, emergency recovery phase or protracted emergencies (rather than first-phase emergency response).<sup>23</sup>
- In contexts where the water market is unregulated and people lack safe water-related behaviours,

<sup>23</sup> This is based on the practices documented and reviewed for this report. Some practices of supporting water policies in the first phase of the COVID-19 outbreak were identified, although not yet well documented.

supporting markets is unlikely to ensure water is provided at humanitarian standards, unless combined with some direct assistance, water quality control and BCC on safe water practices.

- Support to public institutions and infrastructure should be limited to contexts where water institutions are strong; in other contexts approaches supporting the private sector or community-based market actors may be more relevant.
- Unless HHWT markets and related behaviours are strong – which is rarely the case in humanitarian contexts – the use of market support for HHWT should be limited to preparedness, resilience-building or protracted crises.
- There is a risk that investing in local supply chains, through local procurement of water supply material or commodities, can be costly and raise quality issues.

## CVA

Regarding CVA, *WASH-specific vouchers* are frequently used for water supply and HHWT as a way of directly meeting project objectives and targeting the poorest households, ensuring monitoring of quality and quantity, while giving the user some flexibility in terms of purchase. *Multisectoral vouchers* are very rarely used in the water subsector (there was only one example reviewed here of HHWT products being included in multisectoral vouchers). *WASH-specific cash* can be used as a 'top-up' to complement MPC in areas where water access is more difficult and costs more than the estimated amounts included in the minimum expenditure basket, though, like multisectoral vouchers, WASH-specific cash is also rarely used for water. Water-related costs were, however, frequently included in MPC transfers (see the MPC report for further details).

Regarding *enabling factors*, the practice review identified specific conditions that facilitate the implementation of CVA modalities for water. The main enabling factors were:

- existence of functional local water and/or HHWT markets;

- implementing in urban or peri-urban contexts, where water is often paid for, even by poorer households;
- presence of strong water market regulation and quality control for water services;
- presence of CVA interventions in the same area, reaching the same target communities, which enable WASH projects to piggyback on existing delivery mechanisms.

As is the case for market support, there are also *risks and limitations* when using CVA modalities in humanitarian contexts:

In contexts where the water market is unregulated and people lack safe water-related behaviours, cash transfers are unlikely to provide water at humanitarian standards, unless combined with some direct assistance, water quality control and BCC on safe water practices. In such contexts, water vouchers may offer more opportunities for quality control than cash transfers.

Unless HHWT markets and related behaviours are very strong – which is rarely the case in humanitarian contexts – the use of cash transfers for HHWT should be limited to preparedness, resilience-building or protracted crises. As above, in such contexts, the use of vouchers could offer more opportunities for access to HHWT and behaviour change than cash transfers, though more practice and research are necessary in this area.

## Complementary programming for water

To adequately address all the barriers to achieving water outcomes in emergencies, MBP should aspire not only to implement market-based modalities but, rather, to identify the *most appropriate* combination of market- and non-market-based modalities for the specific context. This can be achieved by one agency alone or by a number of agencies working collaboratively. Some examples of such complementary programming at agency level were identified in the water subsector – e.g., the combined use of vouchers, BCC and market support for HHWT, or direct chlorination services in conjunction with CVA for water trucking. Examples were also identified in which market-based modalities such as CVA were used in combination with support to com-

munity-managed water systems as exit strategies for humanitarian assistance in long-term camps for displaced persons. But, in general, there was scarce documentation available of such approaches. *Enabling factors* for the use of complementary approaches at agency level include the presence of multidisciplinary teams and strong coordination between them. Ideally, the use of *multi-agency WASH complementary programming* is facilitated by a coordinated and market-sensitive approach during needs assessment, response analysis and implementation (including the set-up of consortia or other strong coordination mechanisms), although no such example was identified during the study. If there is a lack of coordination when market and non-market-based modalities are used together in emergency response, there is a risk of failing to meet objectives and creating confusion among beneficiaries and local market actors.

### MBP for water throughout the humanitarian programme cycle

WASH market-sensitive approaches for water were used by agencies and clusters during various phases of the humanitarian programme cycle, such as situation assessment, response analysis and strategic planning, and monitoring. Some WASH partners routinely conducted water market assessments before and after crises. Market-based modalities for water were commonly included in humanitarian response plans, although this remains essentially a sectoral approach, and examples of multisectoral response analysis and strategic planning are rare. Water-trucking markets were often monitored during emergencies in the Middle East or the Horn of Africa, but how this monitoring informed the response was not well documented. The existence of cash and market focal points within agencies supporting national WASH clusters and partners, as well as the implementation of MBP for WASH-related training for WASH practitioners, are *enabling factors* for the adequate use of market-sensitive approaches throughout the humanitarian programme cycle. These approaches, which take into account local market actors and try to address multiple barriers

to achieving water outcomes, are essentially 'good programming' for the WASH sector. They bring with them only one real *risk or limitation*: as these approaches require new skills, a high level of preparedness from WASH practitioners and strong coordination between sectors, adopting MBP could increase the complexity of response analysis to the point where, in the worst-case scenario, it potentially delays the delivery of emergency water assistance. To mitigate this risk, better emergency preparedness, pre-crisis market mapping and capacity-building of WASH practitioners are necessary.

### Partnerships in the humanitarian water subsector

MBP in the water sector often involves partnerships between humanitarian organizations and public and private sector actors that may not otherwise work together. This dialogue should ideally be established during the preparedness phase or within resilience-building programmes. Some practices of establishing or facilitating such partnerships to increase the reach and quality of water services were identified – e.g., partnerships between NGOs, private tankers and water-related ministries. Collaboration between NGOs and public water utilities in preparedness or emergency response were common in MENA and the Philippines. In Africa, during COVID-19, UNICEF and NGOs have been working with water utility companies to ensure continuity of water services for all populations, even when water bills were not paid. Partnerships between humanitarian actors were also identified to target and deliver CVA for water as well as other basic needs, through the use of common targeting criteria, beneficiary lists and common cash delivery mechanisms.

It should be noted that establishing partnerships to address the most vulnerable groups in the population is generally easier when actors are public (public water utilities, ministries). The question remains as to what extent the local private sector can be held accountable for providing safe water, according to humanitarian principles, during emergency response.<sup>24</sup>

<sup>24</sup> This is based on the practices documented and reviewed for this report. Some practices of supporting water policies in the first phase of the COVID-19 outbreak were identified, although not yet well documented.

## MBP for water practice gaps

Certain gaps were identified in the review of MBP for water practices, though it should be noted that the absence of documented practice does not necessarily mean that a particular approach or modality is not feasible or was not used. For instance, very few practices of supporting water markets during the first three months of an emergency response were identified, though these modalities are potentially relevant and appropriate during this phase. The combined use of market- and non-market-based modalities for water within agencies or across the response was not well documented. While numerous practices were identified of MBP for water during assessment and implementation phases, some gaps in the documentation were observed during response analysis and monitoring (especially gaps in using results of water market monitoring to inform humanitarian response). Documented examples of response-level coordination and information management of complementary approaches in the water subsector were also lacking.



**WASH Cluster**  
Water Sanitation Hygiene

Evidence-building for cash and markets for WASH in emergencies  
**Practices in MBP in water**



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