

PRE-CRISIS MARKET ANALYSIS

Credit, Drinking Water and Wheat Flour Market Systems

Tilkaif and Shikhan districts, Ninewa Plains, Northern Iraq

Informing emergency response and preparedness ahead of the counter-offensive to recapture Mosul from ISIS

Final Report March 2016



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DISCLAIMER

The scenarios which informed the data collection and subsequent analysis for this report reflect a general expectation – based on recent and current trends in Iraq – that internally displaced persons (IDPs) fleeing Mosul city and the surrounding areas will encounter three major obstacles in displacement: 1) navigating the front line and ongoing violence; 2) restrictions on movement and access to safety and services when fleeing conflict; and 3) discrimination and stigmatization in displacement. These trends are referenced throughout the analysis and have informed programmatic recommendations in potential IDP-hosting communities of the Ninewa Plains. These trends are also a significant shift in terms of barriers facing those fleeing Mosul in comparison with the large displacement in June 2014.

The recommendations offered in this report take into account these identified barriers facing IDPs as well as the anticipated restricted humanitarian space in reaching them, resulting from the high levels of insecurity and predicted ongoing conflict in the area.

Nevertheless, in order to ensure that assistance reaches greater numbers of IDPs, steadfast action must be taken by local authorities and security forces to:

- Guarantee the safety of vulnerable groups fleeing violence, including through the establishment and communication of safe routes away from conflict areas, minimizing their proximity to conflict and planned in advance of military operations. Civilian safety must remain central;
- Adhere to transparent, consistent and dignified security screening procedures. These procedures should not discriminate on the basis of ethnicity, gender or religion; should work to preserve family unity; and should be made known and remain publicly available. Furthermore, a process of appeal against denied entry should be established and should be easily accessible.

In addition, action must be taken by the government and the humanitarian community to:

- Negotiate access to safety and services in areas of displacement across the Ninewa plains to ensure that all civilians can gain access to adequate and appropriate assistance, including functioning markets;
- Actively reduce tension and institute policies and programmes that promote social cohesion and address stigmatization of, and open hostility towards, particular identity groups.

TABLE OF CONTENTS

EXECUTIVE SUMMARY	5
SECTION 1. CONTEXT AND METHODOLOGY	11
1.1. Why market analysis is important	11
1.2. Objectives of this PCMA	11
1.3. Methodology	12
SECTION 2. CRISIS SCENARIO	14
SECTION 3. SCOPE OF THE ASSESSMENT	16
3.1. Geographical focus	16
3.2. Target population – characteristics	17
3.3. Seasonal calendar for Tilkaif and Shikhan districts	18
SECTION 4. CRITICAL MARKET SYSTEMS	19
4.1. Selection of critical market systems	19
4.2. Analytical scope	20
SECTION 5. SITUATIONAL ANALYSIS: TRANSVERSAL MARKET ENVIRONMENT ISSUES	21
SECTION 6. THE CREDIT MARKET SYSTEM	22
6.1. Current market situation	22
6.2. Emergency-affected situation	25
6.3. Gap analysis	26
6.4. Recommendations	28
SECTION 7. THE WATER MARKET SYSTEM	30
7.1. Current market situation	30
7.2. Emergency-affected situation	33
7.3. Gap analysis	34
7.4. Recommendations	35
SECTION 8. THE WHEAT FLOUR MARKET SYSTEM	38
8.1. Current situation	38
8.1.1. Assistance-driven wheat flour supply chain	39
8.1.2. Private sector wheat flour supply chain	41
8.1.3. Market environment	41
8.1.4. Current gap analysis	42
8.2. Emergency-affected situation	44
8.2.1. Impact on the market environment	44
8.2.2. Impact on the target groups	45
8.2.3. Impact on the market chain	45
8.3. Recommendations	46
SECTION 9. MONITORING AND UPDATING THE RESULTS	49
9.1. Market monitoring	49
9.1.1. Credit market system monitoring plan	49
9.1.2. Water market system monitoring plan	50
9.1.3. Wheat flour market system monitoring plan	51
9.2. Updating of results	51
ANNEX 1. TERMS OF REFERENCE	53
ANNEX 2. BIBLIOGRAPHY	57
ANNEX 3. TEAM COMPOSITION	58
ANNEX 4. LIST OF ACTORS INTERVIEWED	59
ANNEX 5. INITIAL BOREHOLE MAPPING	60
NOTES	61

LIST OF ACRONYMS

ACF	Action Contre la Faim (Action Against Hunger)
BRHA	Dohuk Governorate Board of Relief and Humanitarian Affairs
DRR	Disaster Risk Reduction
DTM	Displacement Tracking Matrix (IOM)
EFSVL	Emergency Food Security and Vulnerable Livelihoods
EMMA	Emergency Market Mapping and Analysis
FGD	Focus Group discussion
GCGT	General Company for Grain Trading
GoI	Government of Iraq
HH	Household
HRP	Humanitarian Response Plan
ICRC	International Committee of the Red Cross
IDP	Internally displaced person
IOM	International Organization for Migration
IQD	Iraqi dinar
IRC	International Rescue Committee
ISIS	Islamic State of Iraq and Syria
KRG	Kurdistan Regional Government
KRI	Kurdish Region of Iraq
MAG	Market Analysis Guidance
MCNA	Multi-Cluster Needs Assessment
MEAL	Monitoring, evaluation, accountability and learning
MFI	Microfinance institution
MoDM	Ministry of Displacement and Migration
MPCA	Multi-purpose cash assistance
MT	Metric tonne
NFI	Non-food items
NGO	Non-governmental organization
OCHA	Office for the Coordination of Humanitarian Affairs
PCMA	Pre-Crisis Market Analysis
PDM	Post-distribution monitoring
PDS	Public Distribution System
PKK	Kurdistan Workers' Party
RRM	Rapid Response Mechanism
SLG	Savings and loan group
TA	Technical advisor
UNDP	United Nations Development Programme
USD	United States dollar
WASH	Water, sanitation and hygiene
WFP	World Food Programme

EXECUTIVE SUMMARY

Background and rationale



Mosul, Iraq's second largest city, was captured by ISIS in June 2014 and still remains under their control. However, the Iraqi army has vowed to recapture Mosul, and the speculation is that a counter-offensive is imminent. All scenarios for this military operation have dramatic humanitarian implications. According to some estimates, between 500,000 and 1.5 million civilians could flee into either the surrounding areas or into ISIS-controlled Syria. A large influx of new internally displaced persons (IDPs) fleeing towards the Ninewa plains would have an impact on markets in the area; those markets need to be understood in order to meet humanitarian needs and to inform programming in an appropriate and effective

way, while doing no harm. In February 2016, Oxfam and the International Rescue Committee (IRC) co-facilitated a Pre-Crisis Market Analysis (PCMA) to inform preparedness and emergency response interventions by understanding market systems that are critical to supporting the basic needs and livelihoods recovery needs of populations affected by displacement in the Ninewa plains.

PCMA is an approach to conducting market analysis prior to emergencies in order to understand existing levels of functionality and to anticipate how markets will respond after a shock occurs. It allows humanitarian agencies to map the functionality of current market systems and assess their capacity to cover the needs of affected people in an emergency. This is key to feeding into preparedness and contingency plans by informing the design of appropriate emergency response interventions, as well as to recommending mitigation measures to be implemented before the shock occurs. Recommendations for both emergency and preparedness interventions may be for direct responses targeting affected populations, but also for indirect responses aimed at supporting market actors so that they are able to effectively provide for the needs of the population, with minimal external assistance. Indirect responses can also include advocacy activities to target elements of the market environment in order to contribute to a better functioning of the market system.

With the ongoing nature of the crisis and the current increase in the use of cash transfers in humanitarian programming in Iraq, there is a critical need to systematize market analysis as a crucial step in the response design phase. All humanitarian interventions have an impact on markets, and understanding market dynamics is fundamental to (1) doing no harm, (2) increasing efficiency and effectiveness and (3) strengthening both emergency response and livelihoods promotion interventions. Market analysis can be carried out at all stages of the programme cycle to inform preparedness, response, monitoring, early recovery and coordination efforts.

Methodology

This PCMA adapted the Emergency Market Mapping and Analysis (EMMA) methodology for the pre-crisis context in order to map and analyse specific critical market systems. Market systems are composed of networks of market actors (the market chain), whose dynamics are influenced by institutions, norms and trends (the market environment) and supported by a range of key infrastructures, inputs and market support services.

The assessment team was composed of 15 participants and a technical support team of five, from 12 different agencies, including local NGOs and INGOs. Participants attended a week-long workshop in Erbil that covered the PCMA approach, the 10 steps of EMMA and other relevant topics in market analysis, before beginning field research. The study analysed how selected market systems are performing in the current situation and aimed to forecast the impacts of the shock scenario in the target areas.

Target areas and population, scenario and critical market systems

Definition of the scenario, target areas, target population and critical market systems was informed by consultations with key humanitarian actors and members of the relevant clusters. The scenario selected for this exercise was the

massive displacement of people expected as a result of a future counter-offensive by the Iraqi army and coalition forces to reclaim Mosul. This scenario entailed some critical unknowns, such as the location and number of people who would flee the city, as well as the time when the shock would occur. The study covered Tilkaif and Shikhan districts of the Ninewa plains; these districts were selected because they are likely to see a large influx of IDPs following the shock.

The target population for this study was composed of displacement-affected households in Tilkaif and Shikhan districts, including both people affected by the current displacement and those affected by the forecast new wave. Within this target population, three target groups were identified: current IDPs (those displaced by the 2014 events who are currently living in camps and in non-camp locations across the districts); host households; and potential new IDPs who would be displaced into the area should the shock occur. Syrian refugees are not present in large numbers in these two districts; for this reason, they were not included as a target group for the study.

Based on prior consultations with members of the Food Security, WASH and Emergency Livelihoods and Social Cohesion clusters, as well as a review of secondary information and validation from the assessment participants, the following critical market systems were selected for analysis: wheat flour, drinking water and chicken rearing. However, the chicken rearing market was changed to the credit market system for livelihoods in the early stages of fieldwork, based on information collected first-hand, in order to better address the initial objective of analysing market systems that would support the displacement-affected population in terms of emergency livelihoods.

For all three market systems, the key analytical questions focused on three main aspects:

- a. The conditions and constraints for the target groups in accessing market systems, both in the current situation and in the event of displacement from Mosul;
- b. The capacity of market systems to meet the needs of the target groups, in both current and emergency-affected situations; and
- c. The most appropriate interventions to improve preparedness, feed into future planning efforts and contribute to the design of emergency interventions as a response to the forecast Mosul displacement.

For the study, the estimated number of IDPs moving from Mosul to the two areas of coverage (Tilkaif and Shikhan districts) was assumed to be in the range of 200,000 to 700,000 individuals.

Key findings and recommendations for each market system

All three market systems are already affected by the protracted conflict with ISIS and the economic crisis in Iraq and the Kurdish Region of Iraq (KRI), which is linked to plummeting global oil prices. Communities in target areas are already hosting a number of IDPs as well as experiencing significant delays in government salary payments, which are affecting the livelihoods of a large portion of the population. Should a massive displacement occur of new IDPs from Mosul to the Ninewa plains, the impacts will add to the current constraints, especially in terms of social cohesion and overstretched household finances.

1. Formal and informal credit market system

Access to credit, be it in cash or in kind, is a key strategy used by households (both hosts and IDPs) to meet their basic needs (e.g. food) as well as their livelihoods needs (e.g. inputs for small businesses). The credit market system in the area is characterized by a combination of formal networks (commercial and government banks, microfinance institutions (MFIs)) and informal networks (local traders, community and social networks). Stable income, asset ownership and legal residency are the main prerequisites for accessing formal credit, while informal credit practices are based mostly on relationships of trust and support from a guarantor. Because of the economic crisis and the disruption in government loans, most host households are currently able to access informal credit only. Informal credit is also the main source for IDPs within the displacement-affected populations, mostly in the form of in-kind credit via local traders or in cash and in kind via community members (relatives and friends) to meet basic needs. Community-based savings and loan groups used to function in the area but stopped as a result of the economic crisis, resulting in a lack of community-led microfinance initiatives.

As a consequence of the expected shock, the supply capacity of existing credit suppliers will be unlikely to meet an increased demand for credit from a larger population. It is most likely that local traders will have virtually no financial capacity, or willingness, to expand their provision of credit to a larger number of people. Indeed, they are already being affected by delayed repayments by debtors, which affect their ability to keep their credit lines open with their own suppliers. Newly arriving IDPs will lack the networks needed to access credit and guarantees from community members, and those who do have them will add to the pressure on community members already providing support or

guarantees in the baseline situation. Restrictions on movement will further hamper those wanting to access formal credit, as formal actors are mostly based around the main urban centres or within KRI.

Because of the intertwined network of informal credit lines (local traders lending to host households and IDPs, IDPs accessing credit from host communities, etc.), an impact on the capacity of one actor to provide credit will cascade down to other groups and will in turn affect their capacity to access and provide in-kind and cash credit.

Recommendations for preparedness measures to improve access to credit for the livelihoods of target groups:

- Support the re-establishment of savings and loan groups in host communities to re-establish livelihoods through accessing micro-credit.
- Provide incentives to host communities or local leaders to act as guarantors for credit to IDPs.
- Increase the provision of market information for IDPs, to increase awareness about options for accessing credit and to reduce vulnerability due to a lack of information on systems.
- Conduct stakeholder mapping of foundations that previously provided small loans in the area and analyse their constraints and needs for support.

Recommendations for emergency response (emergency livelihoods phase) to improve access to credit for the livelihoods of target groups (second-line response):

- Provide grants to small traders to service IDP camps and supply credit.
- Facilitate the mentoring of new IDPs by previous IDPs who have successfully started and sustained small businesses.
- Support the establishment of savings and loan groups for IDPs (in and off camps).
- Provide incentives to host communities or local leaders to act as guarantors for credit to new IDPs.
- Support credit solutions for mobile traders.
- Increase the provision of market information for new IDPs to raise awareness of solutions for accessing credit.
- Humanitarian actors should serve as credit guarantors for groups wishing to generate income in displacement.

2. Water market system

Data gathered suggest that, in the current context, there is no gap in the drinking water market system, as on average people in the target areas are able to access at least the minimum volume of potable water required (30 litres per person per day for all needs). However, the ability to access this volume of potable water in the current situation is dependent on a number of critical coping strategies, including community- and household-level storage of water sourced from boreholes. The assessment team are also aware that the areas surveyed did not include informal IDP settlements not connected to the water network, and it is possible that there are gaps in water access in such areas.

The water network previously relied on two main water stations on the Tigris River; however, these are now under ISIS control. The network therefore now depends primarily on boreholes spread across the target area. Boreholes are currently operational for an average maximum of nine hours per week, as they rely on the main electricity supply. Private water trucks are available and a large number of trucks are currently not in use, as demand for water has decreased since the initial emergency (the 2014 displacement). Indeed, when the water stations were taken over by ISIS, and before the water network could be supplied by boreholes, water trucking demand increased during this transition period.

If the shock scenario occurs, the two main water stations may become accessible again, though to what extent they will be functional is uncertain. It is unlikely that the water network will be able to support a large new influx of IDPs, due to power shortages and geographical access restrictions, and it is therefore likely that there will be a gap in meeting the needs of a larger affected population from the current network alone. Both water truck owners and bottled water suppliers reported having the capacity to expand their supply. However, bottled water is expensive and may not be affordable for new IDPs, who may also not have physical access to shops. The cost of water trucking is likely to increase due to the distances involved and the lack of boreholes accessible to water trucks.

There are a number of possible market-based options for meeting the increased demand for drinking water, as well as options to strengthen the system in the pre-crisis period to better prepare for the shock.

Recommendations for preparedness:

- Conduct a thorough mapping of boreholes in the target areas and their capacity.
- Repair/rehabilitate any non-functioning boreholes in the target areas.
- Provide water treatment systems to existing boreholes where there are gaps.
- Pre-position bottled water supplies where shops selling bottled water are not easily accessible to the target population.
- Carry out a brief analysis of the water container market e.g. communal storage tanks (household and/or communal), jerry cans.
- Map out the catchment area of water trucking operators in normal times and during a shock.
- Map out the catchment area of bottling stations.
- Map out the key suppliers of fuel (for generators, trucks, etc.) in conjunction with key suppliers, the WASH cluster and local water authorities.
- Pre-select and draw up pre-agreements with water truckers.
- Pre-position key WASH equipment – surface water treatment, tap stands, pumps, generators, etc. (locally sourced where possible).
- Build the capacity (two-way training) of water authorities in water supply and distribution in an emergency (e.g. bulk treatment of water from the Tigris River).
- Examine current hygiene practices within host and IDP communities to establish a baseline and to inform a water conservation management and community mobilization strategy.
- Conduct a feasibility assessment of solar panels for energy supply at boreholes.



Photo: Corrie Sissons

Recommendations for emergency and recovery response:

- First-line response:
 - Distribute vouchers or cash to be exchanged for drinking water, either by water trucking or bottling refill.
- Second-line response:
 - Reconnect the main water stations at Tilkaif and Khawaj Khalel.
 - Provide generators and fuel to key public boreholes.
 - Provide generators and fuel to water pumping stations for trucking.
 - Support water authorities in setting up a temporary water pumping station on the Tigris River.
 - Promote best hygiene practices to help mitigate the risks of drinking unclean water from rivers and dams.
 - Conduct a mass communication campaign on water conservation management (recognizing seasonal variations and behavioural patterns), with the equitable distribution of water between host communities and IDPs.

3. Wheat flour market system

Wheat flour consumed as flatbread or rolls (samoon) is one of the staple foods in the target area. Host communities generally receive their wheat flour rations on a monthly basis from the government-run Public Distribution System (PDS). In order to bake bread, wheat of a certain quality is needed. Bakeries only use imported wheat flour. Households mix the local wheat flour that they receive from the PDS with higher-quality imported wheat flour, which they have to purchase. In addition to their constrained purchasing power, which prevents them from buying imported wheat flour from local traders, IDPs mentioned difficulties in accessing wheat flour from the PDS. Some IDP communities prefer to bake bread at home, but many lack the equipment to do so. Although most IDPs already have a PDS card, they are largely unable to claim the PDS food rations in their area of displacement, for various reasons:

- New IDPs first need to get clearance from the Asayish, the security forces of the Kurdistan Regional Government (KRG), and then officially register as IDPs with the Ministry of Displacement and Migration (MoDM), before they can receive their PDS rations.
- PDS supply chains lack flexibility and are unable to move goods to locations with large numbers of IDPs.
- IDPs are a long way away from food agents in their new locations.

With the current economic crisis, the capacity of the PDS in-country is already overstretched, with delays in registering new IDPs and distributing baskets of basic food commodities, and incomplete baskets being distributed.

The Government of Iraq (GoI) buys the vast majority of domestic wheat production and also imports wheat to meet demand and to improve quality by blending imported varieties with local production. However, local farmers have received virtually no payment for the crops they have provided to government silos over the last two harvests, resulting in high levels of debt.

If the expected shock occurs, the PDS will face serious difficulties in providing rations for new IDPs; delays are expected in registration, for instance. Quantity-wise, the government is expected to be able to provide wheat flour from silos, but this may involve moving volumes from other provinces to the areas of displacement. Transport will remain a key issue (from fields to silos, then to millers, food agents and IDPs). An increase in demand may well result in an increase in the price of wheat flour overall. The different actors in the wheat and wheat flour market chain (millers, bakers and traders) are all confident about their ability to increase the volume of their business activity, although they mention fuel and electricity as major constraints. Traders (importers, wholesalers, local traders) appear to be able to increase their levels of supply as long as the border with Turkey remains open.

Recommendations for preparedness activities:

- Join/participate in the Rapid Response Mechanism Consortium¹.
- Support the transportation capacity of millers (by advocating for the PDS to partly retake responsibility for or support transport).
- Support bakers (provide loans or grants to increase their rolling stock of wheat flour).
- Form partnerships with millers and silos to offer paid internships for young people.
- Advocate with all the NGOs operating in Northern Iraq to Turkey's Minister for Trade and Customs to ensure 'emergency' circulation permits for wheat importers.
- Advocate with other NGOs to better target non-registered IDPs.

Recommendations for emergency response:

- First-line response:
 - Conduct a multi-sectoral market analysis to support appropriate multi-purpose cash assistance (MPCA) to new IDPs and displacement-affected households (according to post-distribution monitoring (PDM) data from the Iraq Cash Working Group, food is the primary expenditure for those receiving MPCA).
 - Provide vouchers for bread or wheat flour to affected households (depending on the preferences of local communities).
- Second-line response:
 - Support the establishment of bakeries in host communities and in camps (investigate opportunities to link with existing or new savings groups).
 - Support the transport capacity of millers (through fuel vouchers or grants/loans to transport wheat from the silos), if the PDS has not retaken responsibility.
 - Support bakeries (through loans/grants to increase their rolling stock of wheat flour).

Market monitoring and updating of results

Markets are dynamic in nature, and if the shock analysed here does not occur immediately, it will be crucial to monitor how markets behave over time in order to keep the findings and recommendations up to date. Regular monitoring is essential, and the following monitoring plans provide suggestions as to what to monitor for critical market systems, and how to do it.

As this PCMA was a multi-agency exercise, participating agencies should coordinate to share responsibilities for data collection linked to the monitoring plans, and try as far as possible to include some of these indicators in existing monitoring efforts (e.g. PDM, any planned baseline or needs assessments, regular price monitoring), so as to optimize the use of time and resources.

The results of this PCMA should be updated in two events: when the shock occurs and displacement starts and when (if) the context changes significantly (outside normal patterns seen in the market monitoring plans). When the shock occurs, the scenario-affected market maps should be updated (the maps showing the situation as of February 2016 will not change). The objective is to verify the anticipated impacts of the shock on the critical markets and to update response recommendations accordingly. This can be done within 2–3 days.

The trigger for a rapid post-crisis assessment to update the shock-affected market maps will be when displacement starts and once it is fairly clear where displaced households are moving to. Ideally, this should be conducted by staff who have taken part in this PCMA exercise.

Any needs assessments that occur within and outside IDP camps should include questions about market actors and the impact of the shock on their business and their capacity to supply wheat flour, water or credit.

If it is found that there are significant differences between the anticipated effects of the shock scenario (in the initial PCMA) and observed impacts (in the update), agencies should consider conducting a more in-depth PCMA.

Section 1. Context and methodology

In Northern Iraq, the ongoing conflict with ISIS has led to more than 3.3 million people being internally displaced, on top of the previous influx of 250,000 Syrian refugees prior to 2014 (HRP, 2015). Large population shifts, as well as the fact that a large portion of Iraq's cereal belt has become a battlefield, have put a strain on markets. Market purchase remains the main source of food for many Iraqis in displacement, with markets on the whole continuing to function across the country, albeit with inflated prices or limited availability of items. Facing protracted displacement, households are increasingly resorting to harmful coping strategies to survive; however, markets do appear to be able to continue to meet people's needs if they have the purchasing power to access them financially.

Mosul, Iraq's second largest city, was captured by ISIS in June 2014 and remains under its occupation. The Iraqi army has been planning to recapture Mosul, a city where the population live under tight control with restricted freedom of movement.

All the possible scenarios for this military operation have dramatic humanitarian implications; according to estimates, between 500,000 and 1.5 million civilians could flee either into the surrounding areas or into ISIS-controlled Syria. If new internally displaced persons (IDPs) flee towards the Ninewa plains, this would have an impact on markets in the area; those markets should in turn be understood in order to meet potential future humanitarian and early recovery/emergency livelihood needs in an appropriate and effective way, while doing no harm.

1.1. WHY MARKET ANALYSIS IS IMPORTANT

All humanitarian interventions have an impact on markets, either before, during or after a crisis occurs. Analysing markets is important at all stages of humanitarian response in order to:

- Do no harm: mitigate risks of medium- and long-term negative impacts on local markets and people's livelihoods created by humanitarian responses bypassing local economic dynamics;
- Increase efficiency and effectiveness: use the capabilities and networks of existing market actors to provide for the needs of affected populations, and analyse how markets respond to a humanitarian response to allow for timely adjustments throughout implementation;
- Strengthen preparedness and emergency response;
- Support livelihoods and local economic cycles in all stages of preparedness and emergency response, to support resilience building.

Pre-Crisis Market Analysis (PCMA) is an approach to conducting market assessments prior to emergencies in order to anticipate how markets will respond after a shock occurs. It builds on earlier experiments with market baseline mapping and analysis conducted in pre-crisis settings. PCMA does not replace existing market analysis tools; rather it is intended to provide a guide to applying those tools in pre-crisis contexts, particularly in contexts that are prone to recurring humanitarian crises.

PCMA is designed to help agencies to improve preparedness, feed into future planning efforts and contribute to the design of disaster risk reduction (DRR) programmes by identifying certain parts of market systems that are not functioning well or may be vulnerable to shocks. Increasing the speed of emergency responses or strengthening market systems ahead of emergencies would potentially reduce the impact of disaster on lives and livelihoods, and begin to address the longer-term or chronic nature of poverty and vulnerabilities.

1.2. OBJECTIVES OF THIS PCMA

This PCMA in Northern Iraq focused specifically on those markets that are critical for supporting the basic needs and livelihoods recovery needs of potential future IDPs and vulnerable conflict-affected host communities in the Ninewa plains whose lives may be disrupted by a future counter-offensive on Mosul. The exercise took place over a period of three weeks in February 2016.

The analysis focused on identifying both direct programming options targeting IDPs or host community members and indirect responses targeting key market actors to improve capacities to provide basic needs and livelihoods opportunities to IDPs and host community families. The main objective for the livelihood market portion of the assessment was to identify and assess appropriate and relevant options for enhancing existing emergency livelihoods strategies and markets.

The specific objectives of this study were as follows:

- To identify through a pre-crisis market analysis appropriate responses to meet preparedness, emergency and early livelihood recovery needs, with a particular emphasis on market support activities;
- To strengthen the market analysis capacity of both national and international NGO staff; and
- To build experience within the aid agencies working on livelihoods in Iraq in applying market analysis to response analysis and design.

1.3. METHODOLOGY

This PCMA used an adapted version of the Emergency Market Mapping and Analysis (EMMA) methodology. EMMA is an iterative process of 10 steps from preliminary analysis to communication of results, including key analytical steps: market mapping, gap analysis, market analysis and response analysis. The core feature of the approach is the production of market system maps, showing how market actors interact and how the market chain is influenced in its functioning by environmental factors (institutions, rules, norms and trends), as well as by key infrastructures, inputs and market support services.

For each market system, two maps were produced, the first showing how the market systems are functioning in the current situation (February 2016), and the second capturing the most likely impacts of the shock scenario on the market system². As is explained later in this report, the current situation is already a context of crisis. This study therefore mapped and analysed the current constraints facing market systems, and how they would be further affected by the shock. This allowed the identification of response options aimed at (1) supporting market systems to cover the needs of the target population where gaps were found, and prepare for the shock scenario; and (2) supporting both market systems and affected populations after the shock occurs.

For this exercise, a technical support team of five people was formed: an external consultant, a specialist in market mapping and analysis; two in-country coordinators (Oxfam's Emergency Food Security and Vulnerable Livelihoods (EFSVL) Coordinator, acting as the Market Focal Point, and the International Rescue Committee (IRC)'s Economic Recovery and Development Coordinator); and two technical advisors (TAs) from Oxfam and IRC headquarters (IRC's TA could only be present in-country during the initial training workshop, while Oxfam's TA came at the end of the training workshop and participated throughout the fieldwork and analysis parts of the study).

Fifteen participants from 12 different agencies formed the **PCMA team**³; they were mostly local personnel from international NGOs, one expatriate and one staff member from a local NGO. There was a mix of skills in the team, with around half of its members familiar with the Ninewa plains context. Most participants were programme staff, covering a range of fields such as WASH, food distribution, livelihoods and education, as well as a number of monitoring, evaluation, accountability and learning (MEAL) officers. While a few team members had previous experience of price monitoring, none had previously carried out a market analysis.

The team could have benefited from having more people familiar with the geographical area, more senior programme people (to better support analysis) and more members with a business support background (such as logistics and finance). Language skills were a critical factor, as some of the study's target groups in the area speak either Arabic or Sorani Kurdish: most team members were familiar with both languages, but some faced challenges as their native Kurdish was not the Sorani dialect and they lacked confidence in speaking Arabic.

The PCMA process was initiated a few weeks before the start of the study: the Market Focal Point held initial consultations with humanitarian partners to discuss the scenario, target area, potential critical market systems and compilation of resources. The study itself therefore started with a review of secondary information, a week prior to the start of in-country work. This was carried out by the consultant, with support from the in-country technical team, who compiled reports from various cluster members (mostly from the Food Security, WASH and Emergency Livelihoods and Social Cohesion clusters).

As one of the three specific objectives of this PCMA, a strong emphasis was put on building the capacity of team members. An **initial training workshop** was held in Erbil during the first week of the exercise (7–13 February 2016) and co-facilitated by the external consultant and IRC TA. The objective was to familiarize team members with the purpose and process of PCMA, and to introduce them to the key analytical concepts of market analysis. All modules of the training used a hands-on approach, with team members working in groups on practical case studies.

Day 1 of the workshop gave space for a presentation of the process to a broader audience of humanitarian managers, which aimed to ensure buy-in on the scenario, target areas and potential market systems to study. The actual PCMA study started on Day 2 of this workshop, and participants were guided through the EMMA process from the situational

analysis and selection of critical market systems to analyse. This guided practice continued throughout the fieldwork and analysis phases of the whole three weeks. During the training workshop, participants were also introduced to the basics of mobile data collection, as some data were collected using electronic means. From Day 2 of the initial workshop, participants were divided into three teams, one for each selected critical market system. A team leader was designated for each team.

The fieldwork phase extended from 14 February to 21 February (with a day off on 19 February), with the team based in Duhok and conducting field interviews in Tilkaif and Shikhan districts⁴. Debriefings at the end of each day enabled all three teams to do some preliminary analysis of the data gathered in order to refine the market maps and make necessary adjustments to the fieldwork plans for the following days.

A total of 126 interviews were held, with various actors:⁵ semi-structured interviews with key informants (government offices, UN agencies, national and international NGOs, private sector actors, local leaders) and market actors (large and small traders, credit providers, bakeries, water truckers, etc.); and structured individual interviews or focus group discussions (FGDs) with households from the target groups (host communities and IDPs). Most interviews were conducted by team members in pairs, using paper-based surveys.

A total of 29 interviews were conducted using electronic tablets, including individual household interviews for the water market system and trader interviews for the wheat flour market system. This was part of a trial to test the usefulness and efficiency of using mobile data collection methods in a market assessment. However, such assessments are of a specific nature, as interviews are mostly semi-structured and carried out in a conversational style and predominantly collect qualitative data. Sample sizes are small and flexible, as they depend on a limited timeframe and on the actual market dynamics (key actors). Such market assessments are not intended to produce statistical analysis but instead aim to capture changing dynamics. Whereas mobile data collection is appropriate in large-scale assessments with large numbers of structured interviews (food security and livelihoods (FSL) assessments, PDMs, etc.), it did not seem to be the case for market assessments of this type, where the flexible nature of paper-based surveys is a clear advantage. Although this method proved appropriate for very structured household interviews and allowed a time gain in data entry, it was too restrictive for all other interviews. In addition, it took some time to set up and test, and changes had to be made during fieldwork, while the limited number of days (five) available for fieldwork did not leave much space for such changes.

Following the data collection period, a three-day final analysis workshop was held (on 22–24 February) in Erbil with team leaders and support persons only, to consolidate the gap and market analysis and work on the response analysis. A presentation of findings was organized on 25 February in Erbil, with a very large audience of nearly 100 representatives from local authorities, various local and international NGOs, UN agencies and donors.

TABLE 1: SCHEDULE FOR PCMA EXERCISE

Activity	February 7-13	February 14-20	February 21-25
Erbil: Training workshop			
Duhok: Data collection in the Ninewa plains, daily analysis			
Erbil: data analysis, formulation of recommendations, development of report, presentation of findings			

Section 2. Crisis scenario

The scenario selected for this exercise was the massive displacement of people expected as a result of a future counter-offensive by the Iraqi army and coalition forces to reclaim Mosul. Mosul was captured by ISIS in June 2014 and has remained under its control since then. It is estimated that at least 1.5 million people are currently living in the city (half of the population of Ninewa governorate) (IOM, DTM).

At the time of this study, work around the national contingency plan was under way in Iraq, led by OCHA and partners. The PCMA exercise would have greatly benefited from conclusions and recommendations coming out of this national contingency plan. Unfortunately, none of the conclusions were ready to be shared until after the PCMA ended, and the study had to be carried out with many unknowns. The biggest unknown was the number of people likely to be displaced and their potential areas of destination. According to estimates, any number between 500,000 and 1.5 million people could flee from Mosul into the surrounding areas of the Ninewa governorate, including the Ninewa plains.

The Ninewa plains are located north and northeast of Mosul, and are composed of four main districts: Tilkaif, Shikhan, Akre and Al-Hamdanyia. This zone is surrounded on its northern, eastern and southeastern sides by the Kurdistan Region of Iraq (KRI). Over the past 10 years, this area (together with Sinjar and Telafar districts) has been the centre of a territorial dispute between the Kurdistan Regional Government (KRG) and the Government of Iraq (GoI), which has exacerbated sectarian conflicts. With the military campaign aimed at liberating the territories besieged by ISIS in 2014 and 2015, the area fell under *de facto* control of the Peshmerga forces, with the central GoI still administering some areas.

Previous PCMAs have used scenarios of predictable crises based on their prevalence and recurring nature. Forecasts of how market systems would be impacted by the shock scenario were, in these cases, based on what had happened in previous occurrences of the crisis. However, in the case of this Northern Iraq PCMA, the scenario studied has not previously occurred on the same scale. The capture of Mosul and Sinjar by ISIS in June and August 2014 resulted in massive waves of displacement northeastwards (as of February 2016, KRI is hosting 631,728 individuals from the Mosul/Sinjar displacement – IOM, 2016) but at that time IDPs could flee into KRI. It is estimated that half of all Ninewa IDPs following this displacement resided in KRI, with 40 percent of them settling in Duhok⁶.

In the case of a potential new displacement resulting from the anticipated Mosul counter-offensive, it is expected that IDPs will not be allowed to cross the KRI border and will therefore be stranded in and around the Ninewa plains and in the north of the governorate. Among other areas, Tilkaif and the southern parts of Shikhan district were judged to be potential areas of displacement for those fleeing Mosul.

For the purpose of this study, and after consultation with colleagues, potential IDP figures in the Ninewa plains were placed at between 200,000 individuals for the lowest estimate and 700,000 for the highest.

Such displacement may exacerbate social tensions, especially with current Yazidi and Christian IDP communities, as people fleeing Mosul, potentially mostly Arab Sunnis, would most likely face non-acceptance and stigma in some places. It is therefore expected that new IDPs will move towards communities of ethno-religious kinship, where they would more likely expect to receive support from fellow members. Movements will likely be restricted for IDPs fleeing Mosul (for instance, due to screening at checkpoints).

Another unknown in the equation is seasonality: the shock could happen any time in the future – in early spring or later on, during harvest-time throughout summer and beyond. The counter-offensive on Mosul has been debated for more than a year now, but currently there are signals that tend to indicate that it might finally happen in the coming months (e.g. increased number of airstrikes, troop movements, attempts to take control of strategic areas on supply routes to Mosul, etc.).

Even after the launch of the counter-offensive, the displacement could happen in waves, either over a short period of time or a longer timeframe. For this reason, the analysis and recommendations made for all three market systems have endeavoured to cover the range of differences in terms of outcomes that would depend on the season.

Taking these unknowns into account, estimates of how the market systems would be affected should the shock occur were made on the basis of a qualitative analysis of dynamics and key constraints rather than a very detailed numerical analysis. As is explained in Section 4, the selection of critical market systems for analysis was greatly affected by this uncertainty and these assumptions.

Finally, it is important to consider that the current situation is already one of crisis, as is explained in Section 4. While previous PCMA have compared the projected shock situation with a 'normal' one considered as 'baseline', it was decided here not to refer to the current situation as a 'baseline' because many dynamics within the market systems are already strategies to cope with the current economic and displacement crisis. Moreover, it would not have been relevant or possible to consider a previous 'normal' situation in this context, for the following reasons:

- Intertwining factors have kept the area in an unbalanced situation for a long time now (disputed territories, economic and fiscal crisis, areas affected by displacement, other environmental factors), and in recalling a situation where dynamics were deemed 'normal' it would not be possible to find a consensus in perceptions amongst such a diverse range of actors as those who were interviewed (local authorities, humanitarian actors, market players, host and displaced communities).
- The objective of this PCMA is to support preparedness measures and emergency response in case the scenario occurs, and therefore recommendations for supporting or strengthening the resilience of market systems need to be based on an understanding of their current capabilities and status, rather than a hypothetical 'normality' that has not existed in a long time.

As a side note, another scenario that could also have been considered for the study was the potential collapse of Mosul dam, which would greatly affect communities downstream, entailing loss of lives and livelihoods, devastation of villages and agricultural lands and potential temporary displacement. However, it would have been too difficult to focus on two scenarios with different impacts given the time and geographic scope of this study and so, considering the highly anticipated nature of a Mosul counter-offensive and the inevitability of large-scale displacement in this case, it was decided to focus on this scenario.



Photo: Oriol Andres

Section 3. Scope of the assessment

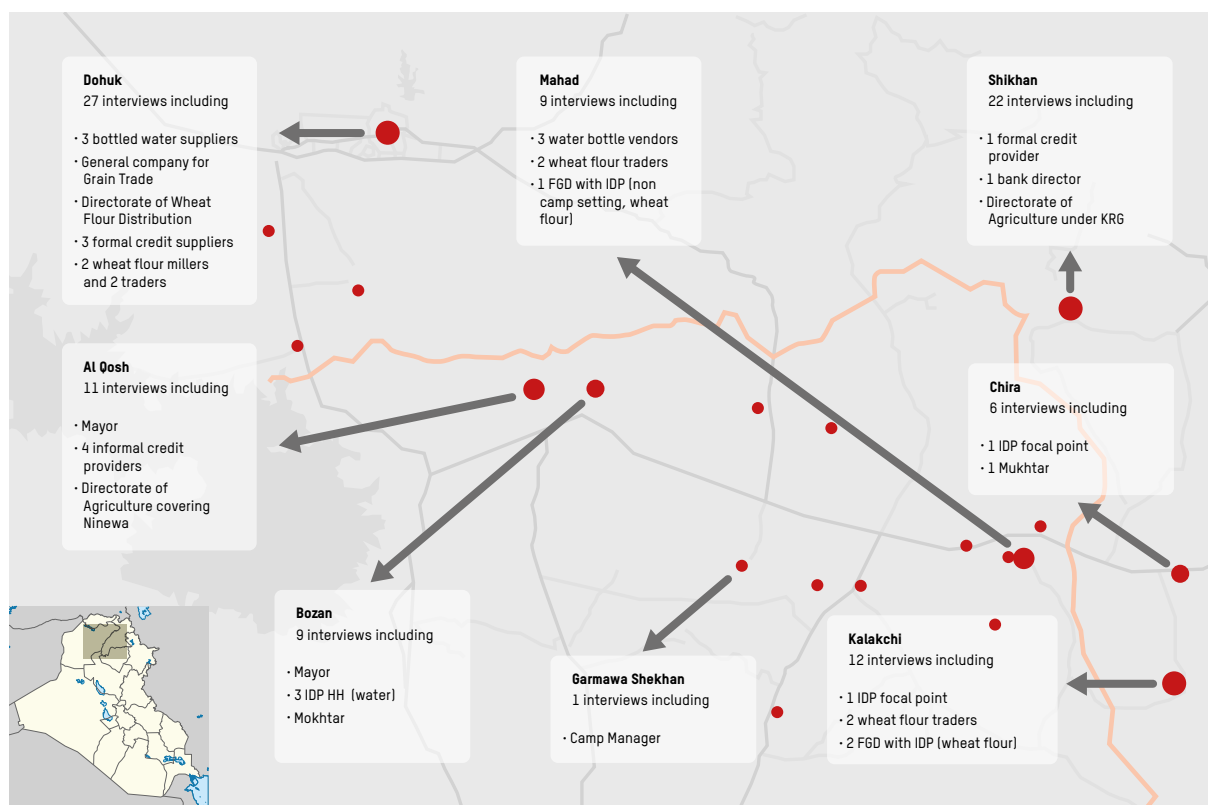
3.1. GEOGRAPHICAL FOCUS

As explained in the previous section, the destination areas for displaced people fleeing Mosul in the event of a military operation are as yet unknown. However, it is anticipated that people will move towards communities based on ethnic kinship. Consultations with key humanitarian actors in the preparation phase of this PCMA identified Tilkaif district and the southern parts of Shikhan district as some of the main areas where new IDPs would flee. Other areas such as the northern parts of Ninewa governorate will also potentially be key areas for displacement. For the purpose of this assessment, it was decided to focus on the Ninewa plains, and particularly Tilkaif and Shikhan districts, so as to keep the geographical coverage realistic against time and team constraints. The capacity-building component of the exercise was intended to allow participating agencies to conduct further market analysis in other areas in the near future if needed.

For security reasons, the study could not cover the whole of Tilkaif district, as the southwestern part of it is currently still under ISIS control. The security rules of many NGOs in the area allow movements in the Ninewa plains up to the permissive line, which has been set to leave at least 15km as a buffer zone between the front line and the areas considered to be safe for movement. In this report, wherever Tilkaif is mentioned, it refers to the accessible areas only, not the parts of the district that are under ISIS control.

Map 1 shows locations where interviews were held. Some interviews were conducted by phone (for example, with actors in Zakho or key informants from areas close to the front line).

MAP 1: GEOGRAPHICAL COVERAGE OF THE PCMA



3.2. TARGET POPULATION – CHARACTERISTICS

The target population for this study was composed of displacement-affected households in Tilkaif and Shikhan districts, including both those affected by the current displacement (from 2014) and people affected by the new wave that is forecast. Within this target population, three target groups were identified: current IDPs (those displaced by the 2014 events who are currently living in camps and in non-camp locations across the districts); host households; and potential new IDPs who would be displaced into the area should the shock occur. Syrian refugees are not present in large numbers in the two districts of study, but rather in the areas of Duhok and Akre; for this reason, they were not included as a target group for the study. Table 2 gives some information on each target group (number of households, locations and main characteristics).

TABLE 2: CHARACTERISTICS OF THE TARGET GROUPS

Target population: displacement-affected households in the Ninewa plains (Tilkaif and Shikhan districts)			
Target group	Number	Locations	Characteristics
IDPs	International Organization for Migration (IOM), January 2016: Tilkaif: 3,366 households (HH) Shikhan: 12,121 HH	Tilkaif and Shikhan districts (Peshmerga controlled areas only) Camps Non camp locations	Three-month movement intentions (IOM, January 2016): Tilkaif: 50 percent would integrate locally in current location (involuntarily, no other choice), 30 percent would voluntarily integrate locally in current location, 10 percent would go abroad, fewer than 10 percent would return to their place of origin. Shikhan: almost 90 percent would integrate locally in current location (voluntarily). Reported primary needs (IOM, January 2016): Tilkaif: access to income (primary need for 55 percent of IDPs), household items or non-food items (NFIs) (21 percent). Shikhan: access to income (44 percent), shelter (44 percent).
Host households	IOM Jan 2016: Tilkaif 11,359 HH Shikhan 25,216 HH	Distributed through the area	Main livelihood = agriculture and livestock
Potential IDPs (crisis scenario)	Likely 500,000 to 1.5 million people overall. IOM estimates of 9,000 IDP HHs currently in Mosul originally from Arab villages in Ninewa. Total Mosul population currently estimated at 2 million individuals (official records – IOM). Estimated 200,000 to 700,000 IDPs to Tilkaif and Shikhan.	Unknown Likely around Alqosh, Hatara and Shikhan (TBC with contingency planning)	Uncertainties around their main livelihoods. Information on economy in Mosul (IOM): Most common pre-crisis businesses for Mosul residents were services and the food industry. In July 2015 central government cut off all salaries and pensions to tens of thousands of employees currently living in Mosul (IOM). All business except food trade has stopped. Residents are commonly selling furniture, cars or spending savings. Potential social cohesion issues in non-Arab villages (non-acceptance, stigma – associated with ISIS). Current IDPs trapped in Mosul are from Arab villages in Ninewa (rural agricultural communities).

According to the International Organization for Migration (IOM)'s Displacement Tracking Matrix (DTM, 2016), access to income is the primary need for IDPs currently living in Tilkaif and Shikhan districts, though in Shikhan shelter is an equally pressing need. There is a larger proportion of IDPs in Shikhan district, where camps were settled, but many are living in unfinished buildings with sometimes limited access to energy and water sources.

The most common livelihoods in the area are employment in grocery stores (in and close to towns) and farming activities (in and around villages). Agriculture includes dairy, cash crops (vegetables), field crops (wheat, barley), foraging, livestock and poultry rearing. A very large proportion of the host population is employed by the government, and a large number of people have university-level education. There is a large number of IDPs with trade skills who are unemployed.

3.3. SEASONAL CALENDAR FOR TILKAIF AND SHIKHAN DISTRICTS

Weather patterns	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Rainy season												
Dry season												
Cropping	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Wheat / Barley					Harvest					Planting		
Vegetables		Planting				Harvest						
Water availability	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Village borehole						High demand						
Water trucking borehole												
Rivers and dams						High demand						
Bottled water							High demand					
Livestock	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Lambing/Kidding												
Normal sale of animals												
Labour	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Farm labour												
Other	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
School year												
Religious festivals			Nawroz			Ramadan			Eid	Ashura		Xmas

Section 4. Critical market systems

4.1. SELECTION OF CRITICAL MARKET SYSTEMS

The PCMA was intended to analyse markets that are critical for supporting the basic and livelihoods recovery needs of potential future IDPs and displacement-affected populations in general in the Ninewa plains. The intention was to cover three market systems in the study: one for a staple food commodity, one related to WASH/key household consumables and one related to emergency livelihoods.

Prior to the start of the study, consultations with members of the relevant clusters helped to produce a shortlist of market systems:

- Staple food commodity (recommendations from members of the Food Security Cluster):
 - Wheat flour
 - Imported rice
 - Sunflower oil or bulgur.
- WASH (recommendations from members of the WASH cluster):
 - Water trucking services
 - Soap
 - Sanitary pads.
- Livelihood-related market (discussions with members of the Emergency Livelihoods and Social Cohesion cluster):
 - Chicken farming
 - Livestock and meat production
 - Other agricultural livelihood.

The final decisions as to which staple food and WASH/key household consumable-related market system to select were taken during the workshop in a participatory way, based on the relevance of each system to the critical needs of the target populations (both current and future displacement-affected households), as well as the relevance of using the PCMA-EMMA methodology (a market system-based analysis). As a result, the wheat flour and water trucking systems were selected. During the training phase, the team decided to focus not solely on water trucking services but to broaden the scope to the range of options that the target population had to access drinking water (including water networks, bottled water and rivers, in addition to water trucking services).

The decision as to which livelihood-related market to select was much less straightforward, with a lack of consensus amongst humanitarian actors. The main issue was the large number of unknowns surrounding the shock scenario, especially in terms of the size of population that would be displaced by a future Mosul counter-offensive. Also, very little secondary information was available regarding the livelihoods of the population that would be displaced. The hypothesis that they would or may be involved in agricultural livelihoods was not shared by all key humanitarian actors; although the current host population in the area is involved in agriculture as a key livelihood, employment in the public sector is still, in theory, a major source of income, even for hosts. It was believed that the majority of people fleeing from Mosul would not have an agricultural background, and therefore an agriculture-based market system might not be very relevant for them. However, it was unclear which other livelihood-based market system would be relevant for analysis, even with the hypothesis that new IDPs would try and start new businesses. Indeed it is, as yet, not possible to predict what kind of small businesses they might engage in, and selecting only one kind (e.g. electronics maintenance) for analysis would be far too narrow and would have few multiplier effects, therefore not using the full potential of this PCMA exercise.

Based on information gathered with humanitarian colleagues and team members, it was decided initially therefore to focus on the chicken farming market, with the understanding that it was a livelihood strategy that was widely used in the area, even by host communities, to generate income, and could even potentially generate employment opportunities (for the large-scale production side) for new IDPs in the shock scenario.

However, after preliminary mapping of this market system and one day of data collection and interviews in the field, it became very clear that chicken farming was not a critical market system for this study's target population. Indeed, the team found that people in these areas are not significantly engaging in chicken farming, and those who do not do it with a commercial intent. The chicken market is dominated by frozen chicken imports from Turkey. Potential job opportunities in the large local production farms are very limited – the few labourers who are already working there are indeed IDPs or refugees, but there is no capacity to expand employment generation. In short, there seemed to be

no space for this market to absorb or create new income generation opportunities for the study's target groups. The same conclusions applied to egg production.

It was therefore decided, given a slight window of opportunity time-wise, that the team would change focus and analyse the credit market system instead, so as to make the best use of the investment put into this PCMA. Credit was one of the options on the shortlist of critical market systems, but in the initial ranking exercise to decide which market to study chicken rearing came out on top. When the team decided to change to credit, members of the Emergency Livelihoods and Social Cohesion cluster were consulted to ensure buy-in.

Credit was looked at here in its broadest meaning, encompassing both formal and informal credit practices (cash and in kind). The idea was to understand what kind of credit practices were commonly used in the area, and how this market could absorb a new influx of IDPs and allow them to access credit and funds for their livelihoods needs. There was a sense that there could be interesting opportunities for humanitarian actors to support market facilitation and social cohesion through bolstering the credit market system now to include future IDPs who may wish to engage in small-scale income generation. Credit is used for a variety of small businesses, and therefore the results from analysing this market system would be applicable to a large range of livelihood support activities.

4.2. ANALYTICAL SCOPE

For all three markets (wheat flour, water and credit), the key analytical questions guiding the study were focused around three main issues:

- Understanding constraints in access and entry points for target groups;
- Assessing the functionality of the market system and its capacity to cover the needs of the target groups;
- In light of the analysis, recommending the most appropriate interventions to ensure that current and future target groups have access to the market system.

For all three market systems, the analysis was structured as follows:

- Market system maps: as previously mentioned, each market system has two market maps: one showing the current situation and a second one showing the impacts of the forecast shock on it. Each market map is composed of three layers:
 - Central layer: market chain – key market actors and their linkages. This shows how the commodity or service is produced and supplied to consumers;
 - Top layer: market environment – key factors such as institutions, rules, norms, trends and practices which influence the functioning of the market chain;
 - Bottom layer: key infrastructure, inputs and market support services which support the functioning of the market chain.
- Key findings from the market analysis;
- Key findings from the gap analysis: this relates to the needs and constraints of the target population in terms of accessing the market system;
- Recommendations for preparedness and emergency responses: these are based on the market and gap analyses and follow a screening of different response options.

Section 5. Situational analysis: transversal market environment issues

A number of issues linked to the current business environment affect all three markets and are explained here.

Economic crisis: The central government in Baghdad is facing a financial crisis due to the fall in global oil prices. The loss of oil revenues impacts all economic sectors, and particularly the government's ability to pay civil servants, finance the conflict against ISIS and provide assistance to IDPs and host communities. Close to 80 percent of working Iraqis are employed in some way by the government, and when in 2015 the KRG stopped receiving salaries from the central GoI for its public sector employees, due to its decision to start exporting oil independently, civil servants were hard hit. The salaries of civil servants in KRI have been cut off and they are currently being paid with sometimes more than five months' delay.

Turkey border: In December 2015, Turkey closed its Habur border crossing with KRI, citing security concerns related to the ongoing conflict with the Kurdistan Workers' Party (PKK) in the southeastern provinces of Turkey. Iraq's main crossing point to Turkey was closed for 22 days, and reopened in early January 2016. Commerce was affected as thousands of trucks were stranded on both sides of the border. Alternative routes through Iran were used, impacting on transport prices.

Trade routes: The conflict with ISIS has interrupted normal supply routes and has fragmented local, national and regional markets, undermining KRI's role as a safe trade route to the larger southern Iraq market. Movement of goods in and out of KRI to Baghdad has been particularly badly affected. Road closures are severely disrupting supply lines, which contributes to rising food prices, particularly in the Ninewa governorate. Because of the crisis, the KRG was obliged to source fuel from refineries much further south, leading to an increase in electricity prices and transport costs. The electricity sector is heavily dependent on government support. Gasoline prices in KRI have significantly increased and the price of diesel doubled (to IQD 950 per litre) in June 2014. These sharp increases have had a serious impact on economic activities.

Socio-ethnic background of IDPs: Sunni Arabs generally have more restrictions on their movement and less access to markets than Kurds, Shabaks, Yazidis, Turkmen and Christians.



Photo: Oriol Andres

Section 6. The credit market system

The following key analytical questions were used to guide the analysis of the credit market system:

1. What are the conditions and constraints for current host households and IDPs to access credit and funds for livelihood needs?
2. What is the capacity of the formal/informal credit market system to cover the needs of the target groups? How would it be affected in the event of a large influx of IDPs from Mosul?
3. What would be the most appropriate interventions to ensure that the target groups and potentially newly displaced people can access the formal and informal credit market system? How can this system contribute to the emergency response?

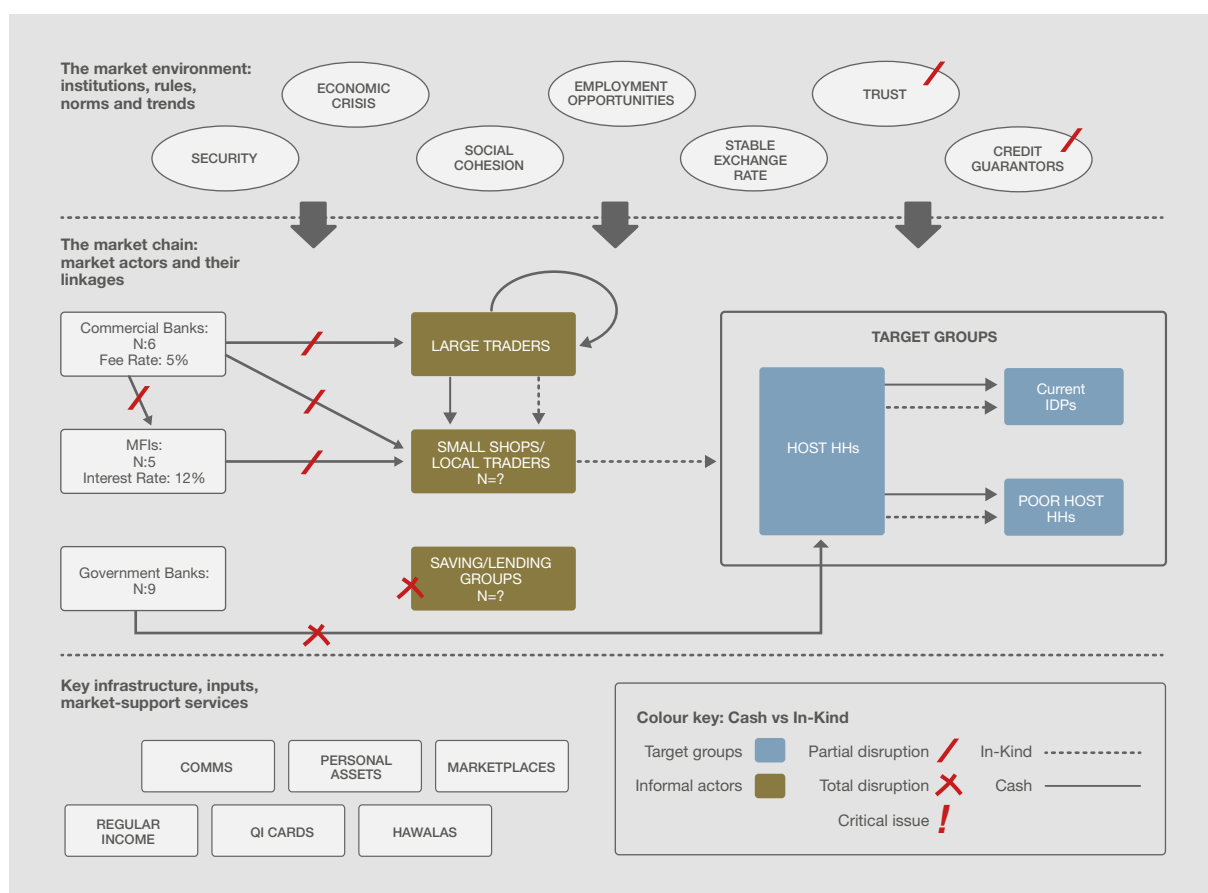
It is worth noting that due to the last-minute change in the market system selected, very little secondary information for the credit market was available prior to this study, except for some data collected in a few monitoring reports (by Action Contre La Faim (ACF) and IRC notably) and the REACH Initiative’s Multi-Cluster Needs Assessment (MCNA) report (REACH, 2015); this information mostly relates to livelihood coping strategies. Information collected during the second round of the non-camp IDP MCNA (May 2015) by REACH (191 households interviewed in Shikhan district) suggests that 41 percent had resorted to debt in the month prior to the assessment. Of these, 96 percent did so to cover food expenses and 80 percent to support health expenses. The average debt for this sample amounted to \$3,100.

Borrowing for critical needs is considered a corrosive coping strategy. The focus of this study was to look at credit practices for supporting livelihoods.

6.1. CURRENT MARKET SITUATION

Figure 1 shows the credit market system map in the current situation. The following narrative explains the key features and dynamics of the current functioning of the market system.

FIGURE 1: CREDIT MARKET SYSTEM MAP – CURRENT SITUATION (FEBRUARY 2016)



Market environment

In the current situation, the credit market has very limited capacity due to specific environmental/contextual factors resulting from the protracted conflict with ISIS and the economic crisis in KRI. The key contextual factors affecting the credit market at present are:

- The economic crisis in KRI (resulting in huge delays in salary payments)
- Trust and need for credit guarantors
- Lack of employment opportunities
- Increased social tension as a result of existing IDP populations in these areas
- Insecurity.

The ongoing dispute between Baghdad and Erbil, the KRI capital, over oil exports and the economic crisis have meant that the large number of people employed by the government are not receiving their salaries, or at least not all of them. Furthermore, the presence of IDPs in communities since the fall of Mosul in 2014 has meant that communities are already under a degree of strain and that job opportunities are few. The market for credit is highly dependent on trust existing between credit suppliers and recipients, or the ability of trusted people to act as guarantors for others.

Some host communities and IDPs are receiving financial support from relatives abroad. However, during the course of this study and field interviews, there was no mention of any credit practice linked to remittances (e.g. recipients having a moral obligation to pay back the sender). Further research would be needed to analyse this.

The exchange rate between the Iraqi dinar (IQD) and the US dollar (USD) is an important environmental factor for those accessing formal cash credit in particular, as fluctuations can mean that the credit accessed is insufficient to meet critical or livelihood needs or that more must be paid back than is borrowed. The exchange rate has been stable over the past year and thus does not represent a major threat currently. However, it can quickly affect the market system if it fluctuates, as it plays a critical role in price formation for all market goods.

Market chain

The credit market chain is made up of actors who supply both formal and informal credit in both cash and in-kind forms. The main actors are:

- Commercial banks
- Microfinance institutions (MFIs)
- Government banks
- Traders (large and small)
- Savings and loan groups
- Host communities (middle-income and poor)
- IDPs.

The main actors supplying formal credit in the areas of Shikhan and Tilkaif are commercial banks, MFIs and government banks. However, due to the contextual factors outlined above, many of these actors have had their ability to supply credit partially affected by the ongoing crisis. This includes supplying formal credit to each other, with local MFIs unable any longer to access credit from commercial banks. All formal actors said that they applied interest rates to any credit supplied (from 5 percent for commercial banks to 12 percent for MFIs). Recipients of formal credit are MFIs, large traders, small traders and host communities in both districts. However, very few traders and individuals were any longer able to access formal cash credit. While the government banks had previously given credit to households for agricultural inputs, this line of credit has been suspended and no host communities are now able to access credit from government banks. Large traders in Duhok city and Shikhan town said they gave cash credit to each other, based on trust, and also cash and in-kind credit to smaller traders in Shikhan and Tilkaif districts who they knew would be able to pay them back at a later date.

The main type of credit available to target communities in the two districts is informal in-kind credit for food items, which comes mostly from friends, neighbours, relatives and local small traders. Poor host community households and IDPs rely heavily on in-kind credit from better-off members of host communities (those with regular access to income, assets, connections, etc.) or small traders who trust them to pay it back.

During the study, communities interviewed reported the use of savings and loan groups (SLGs). Households interviewed during fieldwork mentioned that some SLGs that used to exist in these areas were not currently functioning, but it was reported that some still existed, especially around Duhok (however, the team was not able to contact them). SLGs are informal groups whereby people come together and each group member puts money into a

'common pot'. In theory, group members can, in turn, borrow the money that has been collectively saved, typically for livelihood needs, which can then enable the person to pay back the rest of the group after a short period of time. It was reported that currently, for those SLGs still functioning, money borrowed would be used for basic needs instead, hindering the capacity of the borrower to pay it back. Households interviewed said that the groups that used to exist but stopped functioning did so because people were not able to save enough cash, due to the current lack of livelihood options to generate income. Most commonly, the main preconditions for this kind of informal credit practice are trust and relationships. Due to time and team constraints, it was not possible to carry out further research; however, this mechanism appears to be a valuable one to investigate more deeply.

Infrastructure and services

The key infrastructure, inputs and services in the baseline map of credit market are:

- Communications
- Personal assets
- Qi cards (national credit card of Iraq)
- Hawalas⁷
- Marketplaces
- Regular Income.

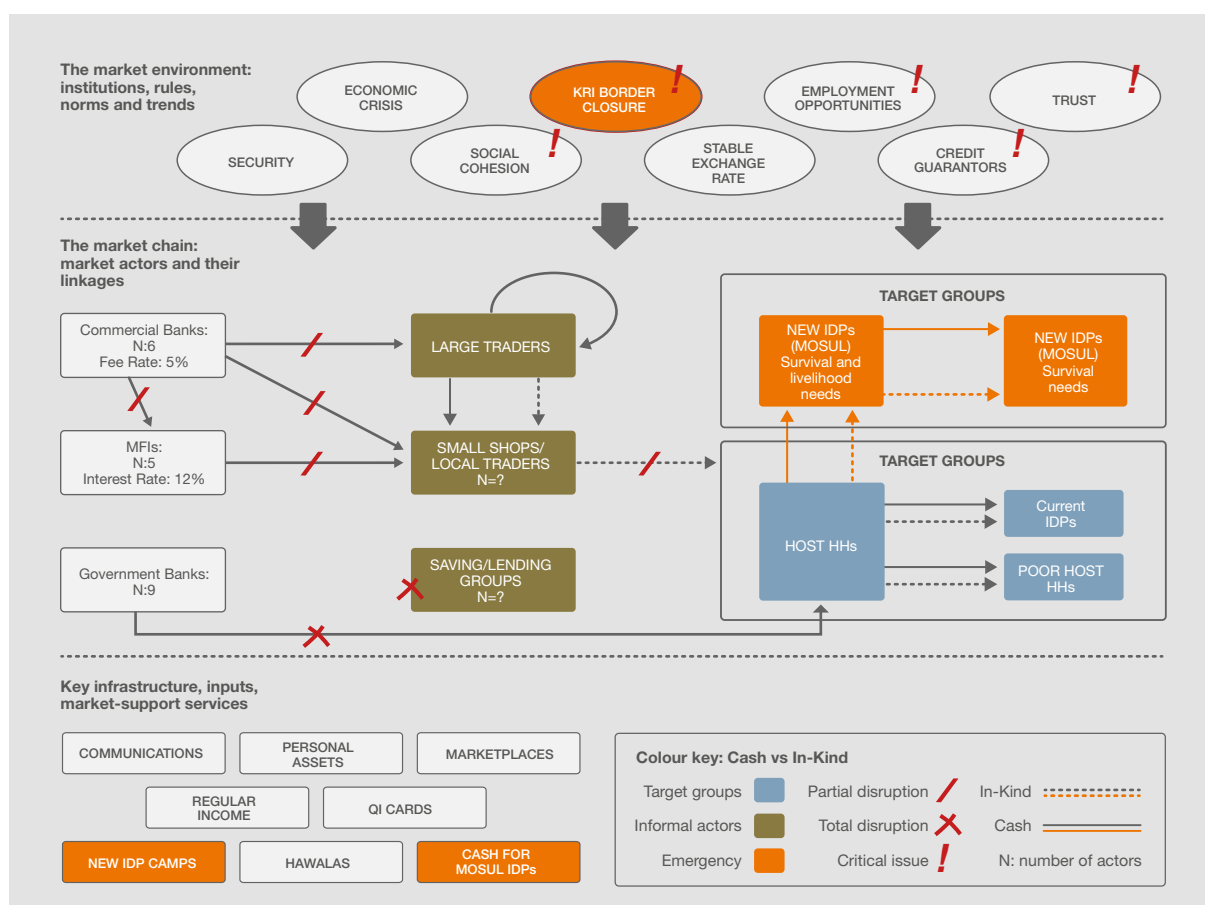
The ability to access credit is dependent on marketplaces existing and traders, both large and small, having places to offer credit from and to store stock. Communications infrastructure is key to facilitating the credit market, with traders and credit recipients relying on communications (mobile telephone networks for calls and texts, Internet, etc.) to identify opportunities to access credit, discuss repayment, etc. Hawalas are operational as money transfer agents, but they do not act as suppliers of credit. Regular income is a key facilitator for access to credit for households: those wanting to access both cash and in-kind credit are much more likely to be able to do so if they have a regular source of income. Government employees, who use Qi cards to access their salaries, are amongst those most likely to be able to access credit, as suppliers know that they should at some point be able to access funds through this mechanism. Finally, household assets play a key role in terms of insurance on loans for credit suppliers, who may ask for physical guarantees against the credit they offer, to ensure that they are repaid in some form.



6.2. EMERGENCY-AFFECTED SITUATION

Figure 2 highlights the main foreseen impacts of the shock on the market system.

FIGURE 2: CREDIT MARKET SYSTEM MAP – SHOCK SCENARIO



Market environment

In a shock scenario, a large influx of IDPs from Mosul into the target areas would further exacerbate the influence of key features of the credit market system environment. It is anticipated that the border between KRI and federal Iraq could be closed to IDPs, meaning limitations on travel between areas and restrictions on access from Ninewa to markets in large urban centres such as Duhok. This could affect integration of the market for credit, particularly for formal credit, should people be unable to access credit within KRI and be forced to access it in the areas they are restricted to. This could leave new IDPs vulnerable to paying high rates of interest on any credit they are able to access, if credit providers are able to exploit a lack of suppliers in the area to monopolize the market.

Social tensions could well increase if a large number of predominantly Sunni Arab IDPs arrive in the Ninewa plains. The majority of Christian and Yazidi villages already mistrust Sunni Arabs in these areas, based on suspicions that they collaborate with ISIS, and many respondents said that new IDPs from Mosul would not be welcome in their area. Family ties and social networks mean that new IDPs may well settle in places where they know people to begin with; however, it is clear that social cohesion in the Ninewa plains will be jeopardized by any large influx of IDPs from the city. Given that the credit market relies heavily on trust, this has obvious ramifications for the ability of these new IDPs to access credit, as many people may be unwilling to lend to them, based on the double stigmatization of them as not only new IDPs but also likely Sunni Arabs coming from ISIS-controlled territory. The availability of credit guarantors would also be affected, as only a few key people would be able to act as guarantors for new IDPs, and a new wave would exacerbate pressure on their capacity. Furthermore, the availability of employment opportunities in the area will be impacted if large numbers of IDPs come into an already overstretched labour market. No IDPs interviewed stated that they had a stable income or that they were using credit for livelihood needs, so it is reasonable to assume that this situation

would only be exacerbated with an increased number of IDPs, both for host communities and for those already displaced or likely to be so in the future.

Market chain

The market chain would also be affected in the future shock scenario. Commercial banks, MFIs and government banks, all of which had a low capacity to supply credit at baseline, would certainly not have the capacity to lend money to a larger number of people, especially to new IDPs who do not have guarantees for repayment.

Demand for credit may well increase in this shock scenario, as a larger population would be without access to income and would rely heavily on humanitarian assistance and connections in new areas to meet basic survival and livelihood needs. However, the supply of credit will certainly be unable to meet demand, hindering the ability of the credit market to perform in a shock scenario.

A future influx of IDPs from Mosul could also affect the willingness of traders, both large and small, to give credit. With many traders saying that they had already given credit to some IDPs in communities who had then left the area or even the country without repaying it, levels of trust in the ability of new IDPs to repay may well be low. Many traders also felt that IDPs, even if they stay in communities, would not be in a realistic position to repay loans given their lack of regular income. Some small traders said that increased numbers of IDPs would potentially mean a reduction in the amount of credit they would be willing to offer in general, if their own capacity to get credit was affected. Some traders, however, said that an influx of IDPs and thus demand for goods could potentially increase their business and their ability to supply credit. If humanitarian agencies choose to distribute unconditional cash or vouchers, then it is reasonable to assume that this could also be the case. If IDPs are able to access credit, or have a small amount of capital when they flee, they could be in a position themselves to begin petty trading activities – however, this will be highly dependent on social networks and also on trust.

New IDPs from Mosul could be in a position where they wish to access credit for both critical and livelihood needs. Based on interviews, it seems likely that the main option open to them would be accessing informal in-kind credit from host communities, predominantly from host communities known to them. If the ability of host communities to access credit is negatively affected by an influx of IDPs then, in turn, the IDPs they are hosting will have limited options themselves to access cash and in-kind credits.

In short, because of the intertwined network of informal credit lines (local traders lending to host households and IDPs, IDPs accessing credit from host communities, etc.), an impact on the capacity of one actor to provide credit will cascade down to other groups and in turn will affect their capacity to access and provide in-kind and cash credit.

Infrastructure and services

In a future shock scenario, changes to key infrastructure and services will also impact the credit market system in the area.

It is anticipated that new IDP camps will be built for Mosul IDPs, which may well be at a distance from urban centres such as Shikhan town, and therefore far from marketplaces. Small trade may begin in these camps, as evidenced by the presence of small traders in some camps already existing in the Ninewa plains (e.g. Garmawa camp). However, the physical establishment of camps will certainly play a role in the credit market system, influencing how frequently and from where IDPs can access credit, both in-kind and cash.

Furthermore it is anticipated that, as part of a humanitarian response, agencies in the Ninewa plains may inject unconditional cash transfers into the economy to meet critical needs. Based on coping strategy data from the area, many IDPs at present rely on borrowing from friends and relatives to meet critical needs. Depending on the extent of cash distributions and the appropriateness of the targeting, some of this cash may well end up being lent as credit to other IDPs or used to pay off existing loans to other host community members, IDP families or traders.

It is unlikely that a counter-offensive will be launched from the northeastern area of Ninewa governorate, or that fighting will spill over into Shikhan and Tilkaif districts and cause significant infrastructural damage.

6.3. GAP ANALYSIS

Access issues

There are significant barriers to accessing formal credit in the current market system, with the majority of households – both host and IDP – only really able to access informal, in-kind credit, due to the ongoing economic crisis in KRI and

a lack of stable income to repay loans from banks and MFIs. Most people interviewed were accessing credit in some way, but this was almost always from small local traders or friends and relatives and was based on trust relationships. These sorts of informal credit transactions do not need any contract or official documentation for those receiving the credit; they are simply based on an understanding between credit supplier and recipient that the credit will be repaid within a given timeframe.

Most suppliers of formal credit cited residency in KRI, a stable income or government job or ownership of a house (as a guarantee) as prerequisites for accessing formal credit. As many IDPs and indeed vulnerable host communities do not have these assets, they are already unlikely to be able to access formal cash credit. Furthermore, many credit suppliers in local markets and host communities who had given informal credit said that they would have reservations about giving credit to IDPs in the future, as they had previously given credit to IDPs who had then left the area without repaying it. This reputational issue is a further barrier for IDPs in these districts, who may have no intention of moving again but whose ability to access credit will be affected by the behaviour of their predecessors.

In many areas, people said that they had previously engaged in community-based savings and loan groups; however, these had in all cases ceased to function as a result of the economic crisis in the area and people losing stable incomes. The lack of local community-led microfinance initiatives was noted in multiple focus groups, and people also expressed an interest in restarting them should they have the capital. Without groups like this where people can save small amounts in a mutual fund, it is difficult, without the capacity to access formal credit from large MFIs or banks, for host community members and IDPs alike to save money.

Furthermore, all formal (and many informal) credit suppliers cited the need for a guarantor in any credit transaction where no prior relationship exists between credit supplier and recipient. Some small traders said that *mukhtars* (village leaders) could act as guarantors for both host communities and IDPs, but this is contingent on the *mukhtar* or other local leaders being willing to do so. Households who do not have a relationship with someone like a *mukhtar* who would be willing to act as a guarantor for their credit face issues in accessing credit in general.

Movement restrictions in the target areas are already causing problems for those wanting to access formal credit in particular, with IDPs in camps unable to travel to urban centres such as Duhok, either due to their inability to pass checkpoints due to a lack of papers or not having affordable transport options available. This means that for IDPs, especially in camps, even if some informal in-kind credit is available to them, they have very little choice as to who supplies it.

Interviews with suppliers of formal cash credit revealed that they all charged rates of interest to varying degrees. There was a sentiment amongst communities that it was haram, or forbidden, to borrow money from people who charged interest on it – particularly amongst Muslim communities. This could indicate that, even if other access barriers to formal credit were removed, because of their religious affiliation some people may still be unable to access formal credit from banks or MFIs.

Ethnic, gender and other vulnerability issues

In the current context, women in particular face specific barriers to accessing credit. Even though all formal credit suppliers expressed a willingness to offer credit to both men and women, in practice women often need the support of their husbands to access any sort of credit, in particular formal credit and cash credit. In a society where access to money and income is directly correlated to decision-making power over finances, women (who are less likely than men to hold jobs and receive a regular income) are disadvantaged when it comes to accessing credit, as they are less likely to have the necessary guarantees.

In the current situation, there is a sense of mistrust between IDPs and host communities, especially when they have different socio-ethnic backgrounds. In Shikhan and Tilkaif districts, host communities are either solely Muslim, Christian or Yazidi, or a mix, such as in Shikhan town. Most of the Yazidis are living in Bozan and Shikhan areas, while Christians from Tilkaif are staying in Alqosh and Muslims are mixed, but are mainly concentrated in Kalakchi sub-district and Shikhan. Previous displacement patterns seem to indicate that many IDPs have settled in places where they have kinship ties or connections. This facilitates access to credit, as these ties can also serve to enable trust and provide guarantees. This will be an acute issue for IDPs from Mosul, who may be associated with ISIS and treated with even more mistrust than previous incomers.

There is a gap in access to credit for livelihood needs in the two districts. All IDPs interviewed said that they did not access credit for livelihood needs, only critical needs, while host communities accessed it for both. Small and large traders predominantly gave livelihood inputs to host communities, as the items needed, such as fridges or agricultural tools, are of a higher value and thus the degree of trust may need to be stronger than for small food items.

Repayment

Linked to the gaps in the market surrounding the lack of trust between credit suppliers and recipients is the issue of repayment. Many traders said that people were unable to repay previous loans, and that therefore this was influencing the decisions of suppliers as to whom they gave credit to. Accessing credit is a coping strategy used by many households in the two districts to meet critical household needs. Indeed, PDMs from humanitarian agencies working in the areas of Shikhan and Tilkaif reveal that up to 89 percent of non-camp IDPs who had received food aid in Shikhan and 58 percent in Tilkaif had purchased food on credit at least once in the week prior to being interviewed⁸. There is a risk that, in order to pay back credit on time, households may sell off their assets, and thus fall deeper into corrosive coping strategies.

6.4. RECOMMENDATIONS

This section details recommendations for responses based on the market and gap analysis of the credit market system. For recommendations on ongoing market system monitoring, please refer to section 9.1.1.

The findings from the analysis suggest that both preparedness and emergency livelihoods responses should integrate not only IDPs (current and future), but also host households and local traders, in order to alleviate the pressure that is already overstressing their capacity to provide credit to others. This must be done by facilitating the re-establishment of community-led credit mechanisms such as savings and loan groups. It is important to note that credit mechanisms should be supported only for households resorting to credit for livelihoods needs, and by ensuring that they have the capacity to repay loans, so as not to encourage increased indebtedness. People should not be encouraged to use credit primarily for survival needs, as they may not be in a position to repay loans. In such cases, basic needs should be met by other types of assistance (cash grants, vouchers, in-kind, etc.).

Key recommendations for preparedness include:

- Support the re-establishment of SLGs in host communities to help people re-establish livelihoods through accessing micro-credit (e.g. small shops, workshops).
- Provide incentives to host communities or local leaders to act as guarantors for credit to IDPs.
- Increase the provision of market information for IDPs, to increase awareness about options for accessing credit and reduce vulnerability due to a lack of information on systems.
- Carry out stakeholder mapping of foundations that previously provided small loans in the area and analyse their constraints and needs for support.

Key recommendations for emergency livelihoods response (second-line responses) include:

- Integrate training on saving and financial management into emergency cash transfer programmes.
- Provide grants or loans to small traders to service camps and supply credit.
- Facilitate mentoring of new IDPs by previous IDPs who have successfully started and sustained small businesses.
- Support the establishment of SLGs for IDPs who are willing and have the skills to start up small businesses (in and off camps).
- Provide incentives to host communities or local leaders to act as guarantors for credit to new IDPs.
- Support credit solutions for mobile traders.
- Increase market information for new IDPs to raise awareness about solutions for accessing credit.
- Distribute multi-purpose cash assistance to displacement-affected households.

TABLE 3: RESPONSE RECOMMENDATIONS FRAMEWORK – CREDIT MARKET SYSTEM

Response activities or combinations of activities	Key risks and assumptions	Likely effect on the market system and target groups	Timing	Implementation
Re-establishment of savings and loan groups (SLGs) in host communities (including current IDPs)	<ul style="list-style-type: none"> • That host communities are willing to re-establish groups • That sufficient capital can be injected for the groups to function as before • That host communities are willing to offer cash credit to new IDPs 	<ul style="list-style-type: none"> • Could absorb future IDPs and create an environment more favourable for offering credit in target areas • Keeps credit lines open within host communities and between host communities and IDPs 	<ul style="list-style-type: none"> • Preparedness phase 	<ul style="list-style-type: none"> • Mapping of host communities who are able/interested to set up SLGs • Small grants to re-establish SLGs • Training on savings and financial management • Dialogues on inclusion of future IDPs
<ul style="list-style-type: none"> • Facilitate dissemination of market information for new IDPs to increase awareness about options for accessing credit and reduce vulnerability due to a lack of information on systems 	<ul style="list-style-type: none"> • That IDPs can actually access the credit, not just have the information on it. 	<ul style="list-style-type: none"> • Can facilitate easier access to formal and informal credit 	<ul style="list-style-type: none"> • Preparedness/ Emergency Response 	
<ul style="list-style-type: none"> • Distribution of multipurpose cash assistance to new IDPs/ host communities combined with awareness raising on savings and financial management 	<ul style="list-style-type: none"> • That those receiving cash can be incentivised to offer some as credit to others • That sufficient cash is distributed to cover critical needs and for lending 	<ul style="list-style-type: none"> • Cash injection will mean more cash for credit in the market system • MPCA contributes to debt repayment, stimulating the credit system • Target groups have increased capacity to offer credit 	<ul style="list-style-type: none"> • Second Phase Response 	<ul style="list-style-type: none"> • Distribution of unconditional cash grants • Provision of sensitization around supplying small amounts of informal cash credit • PDMs to determine percent of MPCA given as credit/saved
<ul style="list-style-type: none"> • Establishment of Savings and Loans Groups for new IDPs (in camps) • Linked to support to establish income generating activities 	<ul style="list-style-type: none"> • That IDPs have permission/are able to do this in camp environments • Willingness of IDPs to establish SLGs. 	<ul style="list-style-type: none"> • IDPs could rely on borrowing credit from each other, can overcome potential trust issues with host community • IDPs can access credit even when marketplaces in host communities are inaccessible 	<ul style="list-style-type: none"> • Early Recovery/ Emergency Livelihoods Phase (Second Phase) 	<ul style="list-style-type: none"> • Sensitization meetings with new IDPs to discuss interest in taking part in SLGs • Training on SLG methodology and benefits • Support to individuals wanting to use credit for income generation.
<ul style="list-style-type: none"> • Small grants and loans to mobile traders to service camps and offer credit. 	<ul style="list-style-type: none"> • That small traders would be willing to offer credit and to travel to camps • Camps allow mobile traders to enter and do business 	<ul style="list-style-type: none"> • Facilitate access to credit for new IDPs settled in camps with movement restrictions 	<ul style="list-style-type: none"> • Emergency Response / Early Recovery Phase (Second Phase) 	<ul style="list-style-type: none"> • Training for small traders in managing credit funds • Distribution of small restricted grants to traders to use as credit
<ul style="list-style-type: none"> • Mentoring of new IDPs by current IDPs who successfully set up and sustained a small business 	<ul style="list-style-type: none"> • That new IDPs would be accepted in the same way that current IDPs have been accepted 	<ul style="list-style-type: none"> • Facilitate skill transfer as well as sharing of best practices among IDPs • Enhance networking • Facilitate access to credit if a successful IDP business can act as guarantor for newly arriving IDPs. 	<ul style="list-style-type: none"> • Early Recovery/ Emergency Livelihoods Phase (Second Phase) 	<ul style="list-style-type: none"> • Information sharing sessions and community dialogues organised

Section 7. The water market system

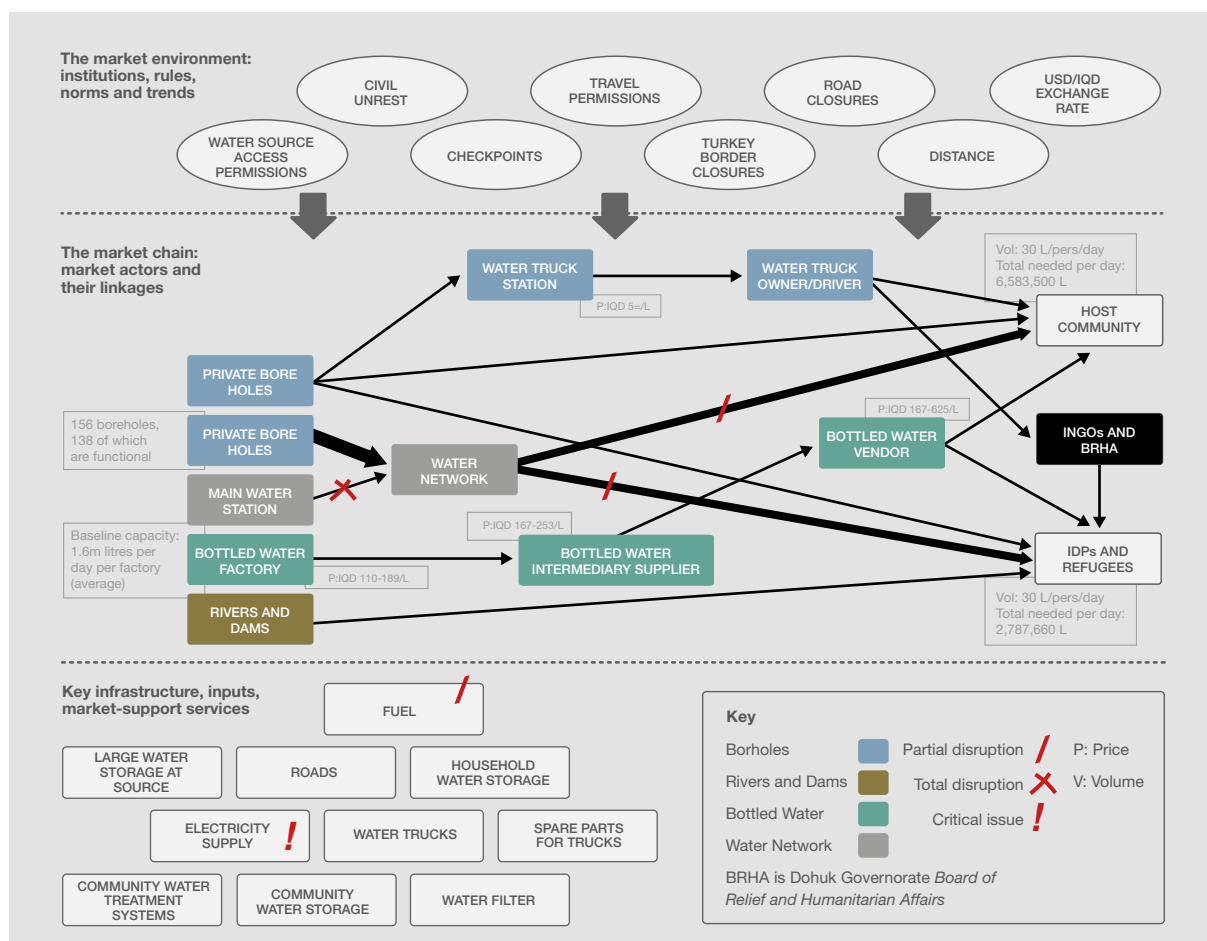
The key analytical questions for the water market system were designed as follows:

1. What is the capacity of the water market to provide the needed quantity and quality of water to the target population, in both current and shock situations?
2. What are the key constraints for water suppliers in accessing affected populations?
3. What are the possible indirect and direct responses to identified constraints to access or issues with market capacity, to ensure that target groups have access to safe water?

7.1. CURRENT MARKET SITUATION

Market chain

FIGURE 3: WATER MARKET SYSTEM MAP – CURRENT SITUATION (FEBRUARY 2016)



As shown in Figure 3, the main actors in the water market chain in Shikhan and Tilkaif are as follows.

Private boreholes: There are a significant number of privately dug and owned boreholes across the region, but it is hard to quantify this number as there is no centrally held list. These boreholes are either dug at household level, or are dug to be accessible to water truckers. Those dug at household level may not be delivering water of a drinkable quality. Most of those dug for water trucking are of good quality, or have chlorination systems attached. These boreholes in general run off the main electricity power supply and so, due to shortages, are only functioning for two or three days per week and two or three hours on those days on average. Some owners have also invested in generators to increase pumping hours, or very large storage tanks to ensure that access to water continues when the pump is not functioning.

Public boreholes: There are a huge number of public boreholes across the region. In Tilkaif and Shikhan districts there are at least 145 public boreholes, of which 138 are currently reported as functional by the Water Directorates of Duhok and Ninewa. On average these have a pumping capacity of 29,000 litres per hour. Five new deep boreholes have been drilled since the beginning of the crisis, when the large water stations were cut off by the front line. Public boreholes are government-managed through the various Water Directorates. They feed water back into the piped water network. These boreholes in general run off the main electricity power supply and so, due to shortages, only function for 2–3 days per week and 2–3 hours on those days on average (public generators are not available for all of them). This means that it is difficult to quantify a flow rate, as during operational hours the flow is maximized to refill storage at community and household levels.

Water truck stations: As mentioned above, a number of boreholes have been drilled privately as business opportunities. Across Duhok, Tilkaif and Shikhan districts there are 11 boreholes that are currently accessible to water trucks. Their pumping capacity is not confirmed, but is likely to be around 30,000 litres per hour on average. However, as with the public boreholes, these run off mains electricity, meaning that it is difficult to quantify the flow rate due to intermittent power supply. These pumping stations supply water trucks with water at a price of between IQD 2,000 and IQD 5,000 per truck (depending on tank size and the volume delivered; minimum selling units of 1,000 litres cost IQD 5,000, and this will decrease as recipients are able to purchase in larger quantities). Some stations chlorinate the water as it passes through a large storage tank. When these stations were used by the government and INGOs at the height of the current crisis to truck water to newly displaced populations, the government provided Aquatabs water purification tablets and salaries to owners in order to ensure a plentiful supply of drinkable water.

Water truck owners/drivers: There are a number of people who work either driving a single water truck or managing a fleet of trucks. Truck sizes vary in capacity from 3 cu m to 20 cu m (3,000 litres to 20,000 litres). Drivers tend to fill up in main urban centres as this is where the 11 accessible boreholes are, and will travel to deliver water in the surrounding areas. The price they sell the water for is fairly standard, at IQD 5,000 for 1,000 litres. However, the volumes they are willing to sell vary: some water truckers are willing to sell in smaller amounts (e.g. 1,000 litres), but others ask for a minimum order of half a water truck. If they are contracted to travel outside of their normal area, they will increase their prices. Water truckers can only fill up from private boreholes; to use public boreholes they need special permission from the Water Directorate (this serves as a licence to use the borehole with no fee, and is allowed only when the government wants to increase coverage in emergencies).

All water truck drivers and station owners commented on the availability of water trucks: demand for water has decreased since the initial emergency, and so a large number of trucks are not currently in use. Demand has decreased as more sustainable options have come in: camps have been connected to water networks, and water networks within and outside camps have been extended, which has reduced the need for trucking.

Rivers and dams: Rivers and dams remain a source of water for those who cannot access the water network or afford to pay for drinking water in other ways. Water from rivers and dams needs to be treated, and households report boiling it or using Aquatabs, which they purchase from clinics.

Bottled water factories: The wider area of Duhok, Zakho and Akre is home to a number of bottled water factories of medium-size capacity. Water is supplied from natural springs in Zakho. It was not possible to get exact figures from all of them, but for two factories that were able to provide clear data, production ranged from 900,000 litres to 2,250,000 litres per day. Water is bottled in a variety of volumes, but the most popular size is 500ml. Each factory has the capacity to increase production by increasing the number of hours it operates: most suppliers interviewed said that they could double their capacity. They did not anticipate any issues in finding labour for more shifts. Water sales are invoiced in either IQD or USD, according to the buyer's preference.

Bottled water intermediary suppliers: The bottled water factories sell directly to intermediaries. These suppliers then sell the water on to small shop vendors in their geographical areas.

Bottled water vendors: There is a myriad of small and medium-sized shops across the target areas which sell bottled water alongside other goods. All the vendors interviewed were open to the idea of voucher programming for water, and were confident in their abilities to increase their supplies to meet increased demand. The price of bottled water increases along the chain: for example, for a pack of twelve 500ml bottles, the price at large supplier/factory level is IQD 750–950, then IQD 1,000 at intermediary level and finally IQD 1,500 for a shop in town. Average prices per litre increase from IQD 110–189 at factory level to IQD 167–253 at intermediary level and to IQD 167–625 in small shops (this depends on the size of bottles and packs).

Main water stations: There are two very large water stations on the Tigris River – Tilkaif Station and Khawaja Khalel Station, but these are now behind the front line. They used to pump water straight into the water network and so water supply was not an issue. Since they have been inaccessible, the area has had to rely on boreholes, as described above. The International Committee of the Red Cross (ICRC) has drilled five very large boreholes to pump water to a secondary station at Telskuf to ease pressure on the system.

Water network: This refers to the pipe network, which supplies water from boreholes to the tap. It also includes community-level elevated storage tanks.

Market environment

There are a number of factors around the market chain that have the potential to influence the market system. These include the legal requirements for accessing boreholes and travel permissions for certain areas, both of which can affect a trader's ability to move water from bottling factories or boreholes to the buyer.

The fact that the nearest border crossing with Turkey is closed regularly due to civil unrest and political issues also has the potential to affect fuel prices in the region, as well as causing temporary road closures. However, fuel prices are set by the government, and both supply and prices have been quite stable for the past year.

Although the USD/IQD exchange rate has largely remained stable throughout the current crisis, traders cite this as a concern when they are paying their suppliers in USD and then selling to customers in IQD. There is a worry that if the crisis worsens, or if political relations with Turkey deteriorate, the exchange rate will be affected.

The distance that water has to travel also has an impact on prices, particularly for trucked water. The prices quoted in the market map (Figure 3) are for current trucking routes, but suppliers warned that, if they are asked to truck water over longer distances, prices will rise due to higher operational costs. They were not able to quantify this accurately, but there was a suggestion that trucking from Duhok to the Telskuf area would cost an additional \$100 per trip.

Key infrastructure

There are a number of key infrastructure considerations that help the market system to function well. One of the biggest requirements for all water providers is electricity. Factories are able to invest in private generators to overcome issues with the state power supply. However, borehole operators, especially those who are running public (government) boreholes, do not have back-up generators or fuel to run them. This severely affects the functioning of the boreholes and the volume of water they pump.

In order to mitigate the effect of this lack of power, it is essential that there is both community-level and household-level water storage. Without this, people would only be able to access water for 2–3 hours a day on 2–3 days a week on average. Many private borehole operators have also found a way to provide water continuously by building very large storage tanks, which fill whenever there is mains power.

Of course, the water trucking market can only meet demand if there are sufficient water trucks and the ability to keep them roadworthy. This assessment found that there is an oversupply of water trucks currently – the demand for trucked water has decreased significantly over the past few months after the high demand in the early months of the crisis. This has left many water truckers without business. All water truck owners who were interviewed stated that it was easy to find spare parts and mechanics to maintain the trucks in local markets.

7.2. EMERGENCY-AFFECTED SITUATION

FIGURE 4: WATER MARKET SYSTEM MAP - SHOCK SCENARIO

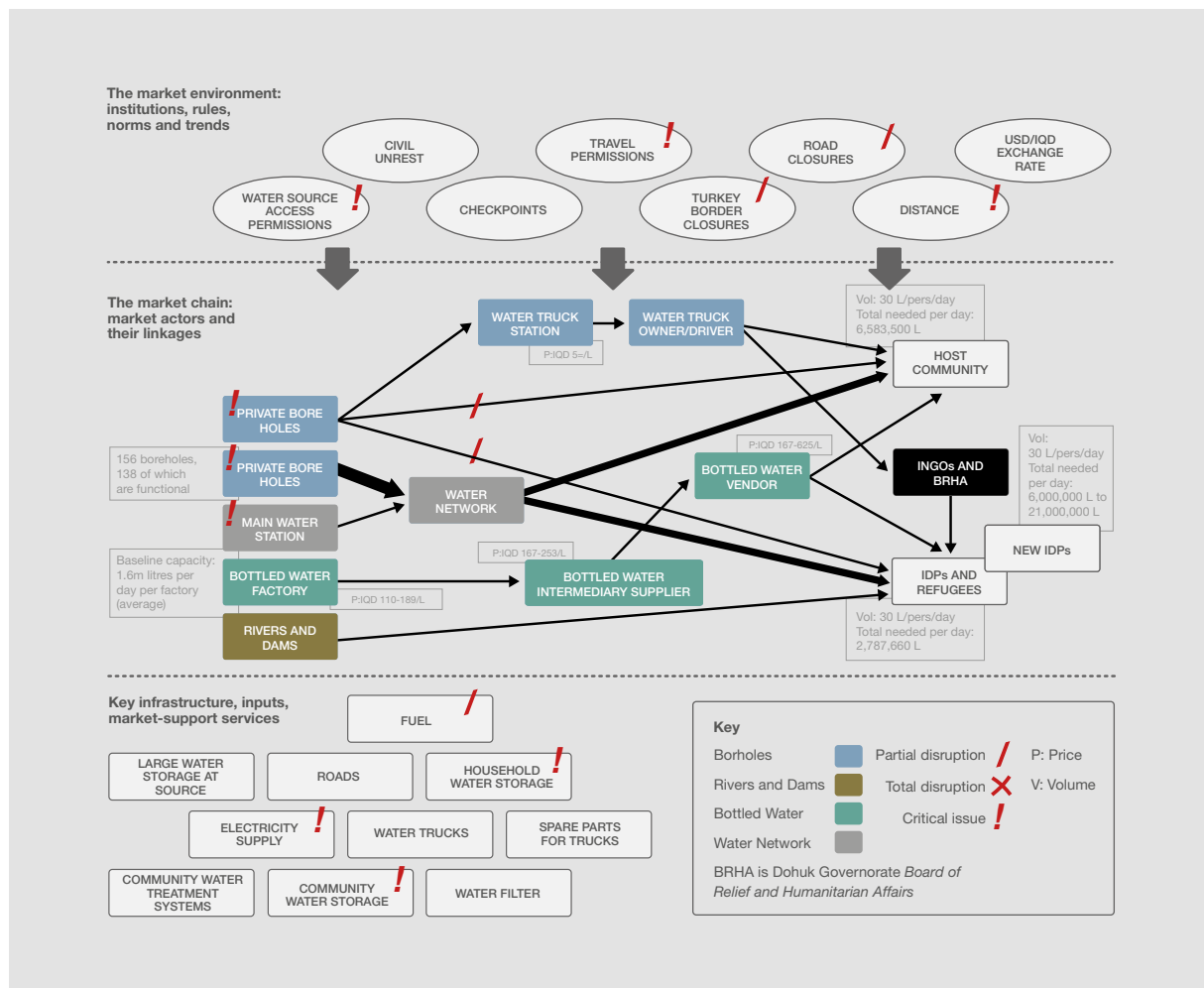


Figure 4 shows the anticipated effect of the shock on the market system, taking the following factors into account:

- There is a possibility that when front lines are pushed back, the two main water stations on the Tigris River will be found to be operational and can easily be reconnected to supply the network. However, the stations may also require major repairs, or may even have been destroyed.
- It is to be expected that the water network will be unable to support a large new influx of IDPs, mainly due to power shortages and restrictions in geographical access. This is not to say that there is not an option of supporting the functioning network to increase its efficiency and production, so that it can meet some of the additional demand.
- Bottled water factories would be able to meet some of the increased demand caused by a large displacement, but they do not have sufficient storage capacity to pre-position very large quantities.
- Depending on how and where the counter-offensive takes place, there may be challenges around travel permissions and crossing checkpoints that have the potential to severely affect the water trucking and bottled water market systems. This could affect market integration, which in the pre-shock scenario is very strong. However, it is to be expected that in a situation of humanitarian crisis, travel waivers would be provided for relevant actors.
- It is possible that during a counter-offensive the border with Turkey would be temporarily closed, and this could have an impact on the availability of fuel. Supply routes for fuel were not investigated in this study, but it appears that there are diversified options in place (some fuel comes from inside Iraq).
- The cost of water trucking in a shock is likely to increase due to the distances that water trucks would need to travel. There is a lack of boreholes that are accessible to water trucks, both private and public, in the target area, meaning that water would need to be trucked from urban centres such as Duhok and Semel⁹.

In summary, assuming that actors have freedom of movement post-shock and that there is not a severe fuel shortage, there are a number of possible market-based options for meeting the increased demand for drinking water, and it is recommended that a combination of interventions should be considered – both direct and indirect. There are also ways to strengthen the system in the pre-shock period in order to be in a better position at the shock point.

7.3. GAP ANALYSIS

In Iraq, the WASH cluster has set a minimum volume of water for all uses (drinking, cooking, other domestic use) at 30 litres per person per day. In the summer months, the WASH cluster increases this quantity to 50 litres per person per day. Data gathered from the field for this assessment would indicate that, on average, people are able to access this quantity of potable water, assuming they have sufficient water storage capacity at community and/or household level. Current water consumption in the camp setting is over 100 litres per person per day for all uses, as access is not limited.

This indicates that at the baseline level there is no gap in the water market system. However, the system is clearly under pressure, and the possible gap in provision is managed carefully through a number of coping strategies:

- Community-level water storage – many communities have very large elevated water tanks which the borehole pumps into when the mains electricity is functioning. This allows for water to be stored ready for use when the borehole is not functioning due to power shortages. Some of these have chlorine added, if there is no chlorination system at the borehole.
- Household-level water storage – the assessment found that the average household has the ability to store 2,000 litres of water. This allows them to refill storage tanks when boreholes are functioning via the water network. Information from secondary data indicates that this average quantity of water is used within 2–3 days for an average family¹⁰.
- A small number of households (host households or IDPs outside camps) are also paying for supplementary water – either by paying for private water trucking or by buying bottled drinking water. The monthly spend on water remains low, however, at an average of IQD 38,000 per month (\$31.50) for those who spend anything.

Given the pressure that the water network in the target area is already under, another influx of displaced people would be likely to create a large gap in water provision directly from the network. Boreholes which pump into the network are currently operational for an average of 2–3 days per week for 2–3 hours on each of these days. This is because they are dependent on the mains electricity supply, which is under significant pressure. Boreholes could be operational for longer periods if back-up generators were available.

There are also likely to be issues with geographical access to water sources for newly displaced populations. Many of the areas to which people are expected to travel initially as the front lines around Mosul move are rural areas with very few water network access points. Therefore, even if the network could support a large increase in demand, the physical ability to access taps will hinder IDPs from making use of it. Current populations in the areas assessed were very vocal in their view that community resources were already overstretched and that therefore they would not be so welcoming of newly displaced people. Social tensions also play a large role in this attitude, and there is a concern that newly displaced people from Mosul will have restrictions placed on their movement. This would necessitate water being delivered to the displaced population, rather than asking people to travel to water sources.

These possible restrictions on freedom of movement may also have an impact on the ability of water truckers to reach affected populations. Currently, additional travel permissions are required to pass certain checkpoints in Ninewa, and these permissions can take several days to be processed. It is to be hoped that in the event of mass displacement these restrictions would be waived for humanitarian actors, but this needs to be acknowledged as a potential challenge to any initial response.

Even without movement restrictions, displaced populations are unlikely to be able to connect immediately to the water network. The current crisis has shown that it takes some time for displaced communities to settle, and only then is it possible to extend water networks to serve informal settlements or households living in unfinished buildings. While this has proved to be a fairly simple solution from a technical point of view, and it has been easy to contract engineers to carry out the work, getting the necessary government permissions has not always been straightforward. Concerns around the provision of a water network encouraging displaced populations to settle is the main reason for this, alongside issues of land ownership. Extending the water network will also increase demand on the current boreholes and it would be expected that this would need to go hand in hand therefore with the provision of power solutions to borehole operators.

The size of the gap created will also be affected by the season: if displacement occurs in the summer months (June, July, August), then the WASH cluster recommends the provision of 50 litres per person per day for all needs, with 20 litres being for drinking and cooking.

TABLE 4: NUMERICAL GAP ANALYSIS FOR THE WATER MARKET SYSTEM

Target Group	Population	Normal requirements (30 litres per day) ¹¹	Current amount provided by HH (litres per day)	HH Shortfall (in litres)	Summer requirements (50 litres per day)
Current IDPs (HH size = 6)	92,922	2,787,660	3,252,270	(464,610) no current shortfall	4,646,100
Host households (HH size = 6)	219,450	6,583,500	7,680,750	(1,097,250) no current shortfall	10,972,500
Potential IDPs (shock scenario 1)	200,000	6,000,000	-		10,000,000
Potential IDPs (shock scenario 2)	500,000	15,000,000	-		25,000,000
Potential IDPs (shock scenario 3)	700,000	21,000,000	-		35,000,000

7.4. RECOMMENDATIONS

This section details recommendations for responses based on the market and gap analysis of the water market system. For recommendations on ongoing market system monitoring, please refer to Section 9.1.2.

Preparedness options

There are a number of steps that can be taken before the shock occurs to strengthen the drinking water market and its ability to meet increased demand.

Conduct a thorough mapping of boreholes in the target area: Any response option will be greatly aided by a thorough mapping of boreholes in the target area, as well as mapping of water truck filling stations in the surrounding areas. This assessment has pulled together some data, but these are not complete (see Annex 5). Knowing in advance where boreholes are, their flow capacity and whether they have water treatment systems will be critical in understanding which of the possible response options are most appropriate in the event of the shock.

Repair/rehabilitate broken boreholes in the target area: Following on from borehole mapping, the repair and rehabilitation of non-functioning boreholes in the target area should be a priority for WASH actors in the current period. Not only will this contribute to preparations for supplying newly displaced populations with drinking water, it will also ease pressure on the current water network. This will have the secondary impact of contributing to easing social tensions, as host communities will be included as direct beneficiaries of any project to repair boreholes.

Provide water treatment systems for existing boreholes: As part of a preparedness plan, the provision of water treatment systems for existing public and private boreholes should be considered. These should be in the form of reverse osmosis systems, which treat the water in the borehole wherever possible, rather than treating it at the community or household storage levels. Where this is not possible, Aquatabs can be provided for community water storage tanks, but this is not a sustainable option. Agencies have been working on this, and many boreholes do now have water treatment systems in place, but completing this work will ease the pressure on the water network currently.

Pre-position bottled water stocks: The pre-positioning of bottled water stocks should be considered. Some factories have warehousing space, which could be used for this purpose if agencies do not have their own warehousing available. Factories are able to increase production very quickly, but it would still be wise to have as much as possible pre-prepared. Bottled water is the most expensive option but could well be the most appropriate response in the first days of a shock, while populations are still moving and may not be able to access markets.

Carry out a brief analysis of the jerry can and storage tanks market (household and/or communal): This assessment has been focused solely on the drinking water market and has not been able to look at the jerry can and/or communal and household storage tank market. Therefore, it is strongly advised that a brief market analysis of the water storage market takes place to ensure that there is a sufficient supply of jerry cans/storage tanks to cope with the shock, or to establish if that market needs support in order to meet increased demand. It would also be prudent to track the country of production of jerry cans and storage tanks in the market, due to some donor restrictions.

Pre-position key WASH equipment (surface water treatment, tap stands, pumps, generators) – locally sourced where possible.

Carry out mapping of the catchment areas of water trucking operators in normal times and during a shock, and also map bottling stations and key suppliers of fuel (for generators, trucks, etc.), in conjunction with key suppliers, the WASH cluster and local water authorities.

Pre-contract water truckers: It is highly likely that water trucking will play a part in meeting the new demand for drinking water in the shock scenario, and so agencies are advised to pre-select water truckers now.

Emergency response options

Post-shock, there are a number of viable options, encompassing both direct and indirect market responses.

First-line response:

- **Distribute vouchers or cash to be exchanged for drinking water, either by water trucking or bottling refill:** If displaced populations are able to access shops, then provision of the standard MPCA could cover some water needs.

Second-line response:

- **Reconnect the main water stations to the water network:** As soon as they are accessible, the Tilkaif and Khawaja Khalel pumping stations should be assessed for damage. Repair of any damage and reconnection to the main water network should be an absolute priority, if this is at all possible. If it is possible, then other response options around keeping public boreholes running for longer hours via the use of generators become less important, as sufficient water would be pumped from these two main stations.
- **Provide generators and fuel to key public borehole operators:** If there are significant numbers of newly displaced people who reach areas where they can access the water network, then it will be critical to ensure that boreholes can function 24 hours a day, pumping water into the network. Provision of generators and vouchers for fuel would mean that the water yield could potentially increase by almost 200 percent compared with the baseline. More research is needed (i.e. complete mapping of boreholes and keep monitoring water table depths).
- The provision of fuel vouchers and repairs for generators is not economically sustainable, so it would be important to consider sustainable options such as the development of community water committees to ensure that boreholes continue to operate beyond the initial shock. The government will not be in a position financially to continue to subsidise this provision, and the issues with government power supply will not be resolved quickly; so these alternative, community-led solutions need to be encouraged wherever possible. This response is also only viable if displaced populations have access to water storage at the household level – this would not need to be a large storage capacity if boreholes were operating 24 hours a day, but it would need to be considered.
- **Provide generators and fuel to water pumping stations for trucking:** If large numbers of newly displaced people are unable to access the water network (which is likely), then water trucking will become essential. The water pumping stations have the capacity to meet the demand of new displacement, but only if they are able to function when the mains power is not on. This will require the provision of generators and fuel vouchers for the whole time this extra demand exists.
- **Set up a temporary water pumping station on the Tigris River:** If there are large numbers of displaced people in the southern areas of the Ninewa plains, it would be worth considering the option of setting up a temporary water pumping and treatment station on the Tigris River. This would need to incorporate flocculation, sedimentation and chlorination, before allowing trucks to fill up. This could be a quicker and more efficient way of reaching displaced people than trucking water from Duhok and Semel. Current estimates are that such a station would take a maximum of 1–2 weeks to set up. If the scenario of very large numbers of displaced people in the southern plains looks likely, then it would be wise to create a bill of quantities for this work in advance and pre-select a contractor for the work.
- **Provide vouchers for bottled water:** If displaced populations are able to access shops, then the provision of vouchers for bottled water could be considered as a viable response option in the initial shock period. This would support local market systems, but it could be time-consuming to implement across a wide geographical area and multiple small vendors.
- **Extend the water network:** Once displaced populations have settled, at least temporarily, it may well be possible to extend the water network to serve newly formed informal camps, or unfinished buildings. This has proved successful in the current crisis in KRI, where only around 20 percent of IDPs are housed in formal camps. This is a sustainable way to provide drinking water, but it relies on landowner and government permissions and so can take some time. Once permissions are granted, the work tends to be quite quick and easy to contract out. Again, this option is only viable if it is accompanied by water storage solutions.

TABLE 5: RESPONSE RECOMMENDATIONS FRAMEWORK – DRINKING WATER MARKET SYSTEM

Response activities or combinations of activities	Key risks and assumptions	Likely effect on the market system and target groups	Timing	Indicators
Conduct a thorough mapping of boreholes in the target area	Target area remains secure enough to access	None	Preparedness phase	Completed matrix of boreholes
Repair/rehabilitate any non-functioning boreholes in the target area	Target area remains secure enough to access Contractors are available for the work	Will support provision of water to the host community and existing displaced communities	Preparedness phase	# of boreholes functioning in the target area
Provide water treatment systems to existing boreholes where there are gaps.	Target area remains secure enough to access. Contractors are available for the work. Able to procure necessary equipment.	Will support provision of water to the host community and existing displaced communities.	Preparedness phase	# of boreholes with water treatment incorporated in the target area.
Pre-position bottled water supplies.	Bottled water factories have capacity to increase production.	Will allow for rapid deployment of bottled water in the shock scenario.	Preparedness phase	# of litres of bottled water pre-positioned in Duhok governorate.
Carry out a brief analysis of water container market e.g. jerry cans.	Target area remains secure enough to access.	None.	Preparedness phase	Brief report on the market system for water containers.
Pre-select water truckers	Assumes that water trucking will play a role in the response. Assumes that water truckers are willing to contract in advance.	Supports the water trucking market. Should result in a quick supply of drinking water to affected populations.	Preparedness phase	Capacity of water truckers pre-selected.
Reconnect main water stations of Tilkaif and Khawaj Khalel.	Assumes that the stations become accessible early on in the response. Assumes that they are repairable.	Would increase the volume of water in the water network.	Emergency response (second-line)	# of litres of water being pumped in to the water network.
Provision of generators and fuel to key public boreholes.	Assumes that mains power remains unreliable. Assumes that fuel prices are stable and fuel is accessible.	Will support provision of water to the host community and existing displaced communities Will provide water to displaced communities who can access the network	Emergency response (second-line)	# of hours per day public boreholes are functioning.
Provision of generators and fuel to water pumping stations for trucking.	Assumes that mains power remains unreliable. Assumes that fuel prices are stable and fuel is accessible.	Will support provision of water to the host community and existing displaced communities. Will provide displaced communities who can access the network with water.	Emergency response (second-line)	# of hours per day private water stations are functioning.
Set up of temporary water pumping station on the Tigris river.	Assumes that populations are in the more southern plains rather than the northern plains Assumes that contractors are ready and able to set up the pumping station Assumes that the area is secure enough to operate	Will support the provision of water to displaced and host communities in the southern Ninewa plains at a lower cost and higher volume than trucking water from Duhok	Emergency response (second-line)	# of litres per day of water pumped and filtered

Section 8. The wheat flour market system

The analysis of the wheat flour market system was guided by the following key analytical questions:

- 1. How is the wheat flour market behaving today, and how will it behave in the event of a large-scale displacement due to a counter-offensive on Mosul?
 - a. Main sources and actors, their capacities and current volumes and quality traded
 - b. What is the current role of the Public Distribution System (PDS)?
 - c. To what extent can the wheat flour market respond to an increase in demand?
- 2. What are the current and expected challenges of the affected population (existing IDPs, host communities and new IDPs) in accessing wheat flour?
- 3. What are the appropriate market-sensitive programming options to meet the wheat flour needs of the affected population (host communities, existing IDPs and new IDPs)?

8.1. CURRENT SITUATION

Wheat flour is consumed by host communities and IDPs as flat bread or white rolls (samoon), particularly in rural areas. Figure 6 shows how the wheat flour market system functions in the current situation (February 2016). There are two main segments in the market chain: wheat flour is provided either through assistance by government programme and aid agencies (where wheat is produced locally and supplemented with imports) or through market purchases from the private sector (mostly imported wheat flour from Turkey). Half of the wheat consumed in Iraq is generally imported (FAO, 2015). Although target groups (host communities and current IDPs) mostly get their wheat flour from the government-run PDS, and to a lesser extent from aid agencies, they all complement their wheat flour needs by acquiring imported wheat flour from local traders. The better-off host households and IDPs without baking equipment or those with two or less members in the household usually buy bread from bakeries. IDPs, particularly those who are not receiving assistance from the PDS, are facing serious challenges in accessing wheat flour due to their limited purchasing power. Figure 5 shows the composition of a typical food basket distributed by the World Food programme (WFP), per person per day.

FIGURE 5: TYPICAL WFP FOOD BASKET COMPOSITION (PER PERSON PER DAY)

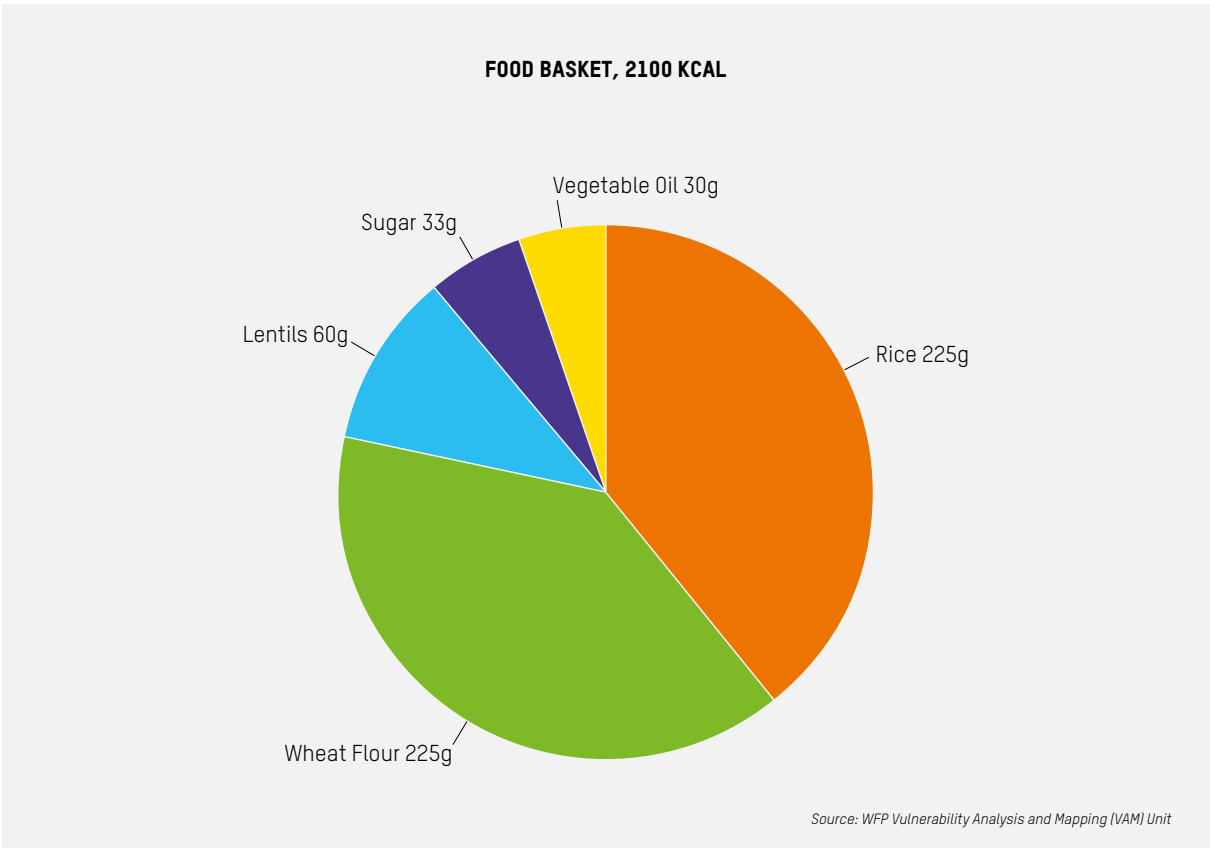
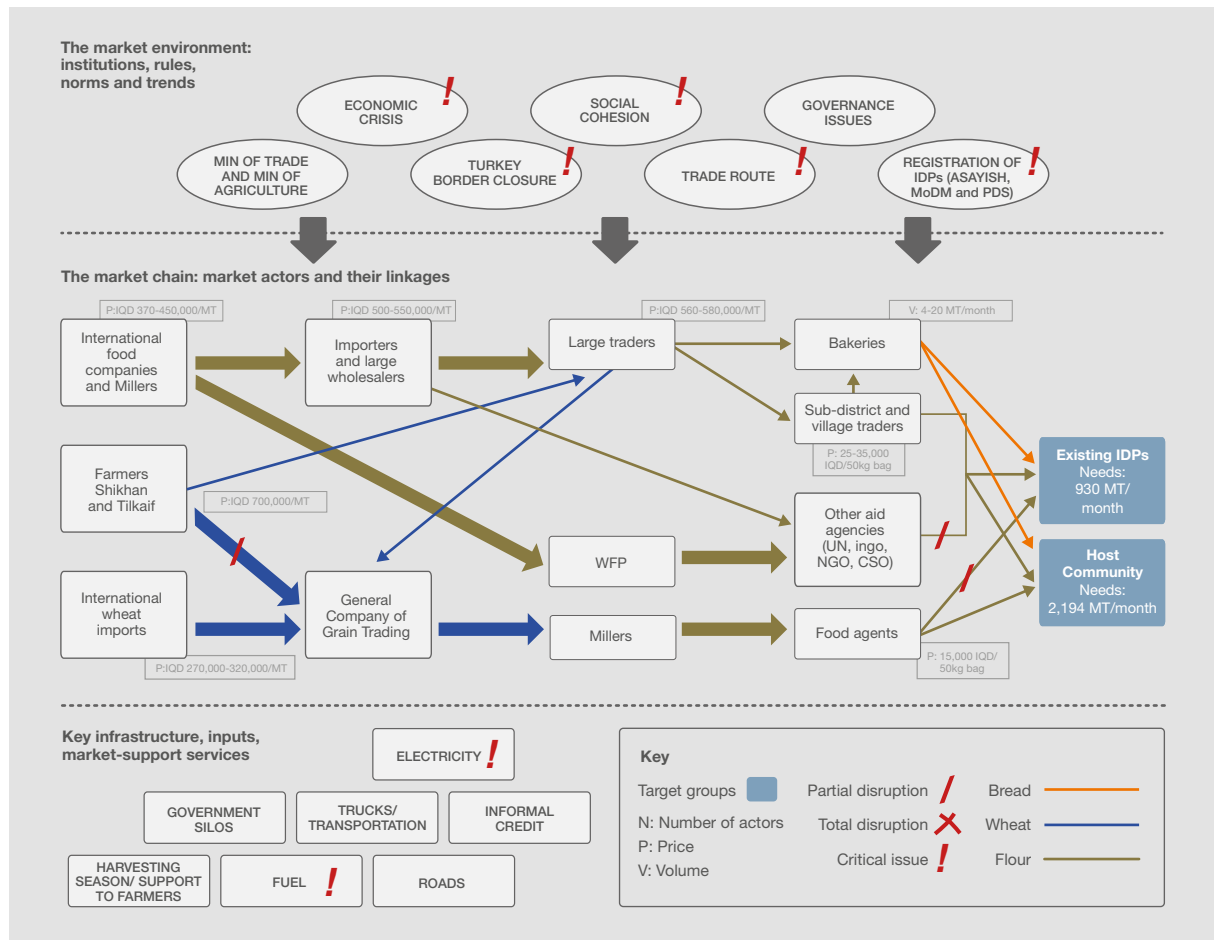


FIGURE 6: WHEAT FLOUR MARKET SYSTEM MAP – CURRENT SITUATION (FEBRUARY 2016)



8.1.1. ASSISTANCE-DRIVEN WHEAT FLOUR SUPPLY CHAIN

Wheat flour distribution system: functioning

The main characteristic of the wheat flour market system is that, though it is supported by the government, it also relies on wheat flour of better quality imported from abroad. Wheat is a strategic crop in Iraq, and wheat flour is one of the staple food commodities that are provided to the population through the **PDS**.

The PDS is a government subsidy scheme that was created in 1991 as a mechanism for the distribution of locally produced food and imports (initially in the context of UN sanctions to ensure the availability of food). It is supervised by the Ministry of Trade and provides subsidized food commodities to most of the Iraqi population, using ration cards. The government-run General Company for Grain Trading (GCGT) is in charge of providing adequate amounts of cereals to PDS cardholders. The PDS is currently not targeting only the poorest households: every registered resident in Iraq is entitled to receive monthly rations. In theory, the ration card provides the following commodities (quantities are per person per month): locally produced wheat flour (9kg), rice (3kg), sugar (2kg), vegetable oil (1 litre) and powdered milk (three packs of 450 grams each).

Local wheat farmers are contracted by the Ministry of Trade, and sell the bulk of their harvests to the GCGT. Wheat is also imported, with quantities determined by the shortfall between the volumes needed for the PDS basket and local production. The GCGT ensures the storage of imports and locally produced wheat in silos. It then organizes with the Directorate of Wheat Flour the monthly distribution to the millers. Grain mills are mostly in the private sector and grind wheat under contracts with the GCGT. PDS beneficiary households then collect their rations from food agents (the GCGT is normally responsible for the allocation of wheat flour from millers to food agents).

Local wheat production: status and challenges

Ninewa, together with Salah al-Din governorate, contributes on average nearly one-third of Iraq's wheat production. Production is mostly rain-fed and therefore vulnerable to more frequent dry spells. Wheat is a strategic crop and has been heavily subsidized by the government, which normally provides farmers with agricultural inputs (seeds, fertilizers and pesticides) at subsidized prices and buys their crops at above market prices. The vast majority of domestic wheat production is purchased by the Ministry of Trade for use in the PDS (see below). The buying price is set at IQD 700,000 per metric ton (MT), which is substantially above world wheat prices, as it aims to incentivize Iraqi wheat growers to increase their planted area.

However, because of the current economic and displacement crisis, local farmers in the target areas face huge constraints. Supplies of agricultural inputs and fuel are no longer regular and delays in, or lack of, timely seed distribution during the planting period have also affected the area farmed and the quality of crops. Planting of winter barley and wheat for harvesting in April 2016 concluded in mid-December 2015. Furthermore, farmers from host and IDP communities have not been paid for the past two years, which has considerably increased their levels of debt. Many IDPs used to be farmers in their areas of origin but cannot access land in their new locations, therefore jeopardizing their main source of income.

Silos and storage capacity

Local wheat production is stored in government-run silos where it is mixed with imported wheat from the United States, Australia, Canada and Russia (imported wheat is brought in through Umm Qasr port at the southern tip of Iraq and then distributed to the country's 18 governorates). The type of wheat planted and harvested locally is of lower quality than imported wheat.

When it captured large parts of Ninewa governorate, ISIS also took control of some key silos. It seems that the group then replicated Baghdad's subsidized system and continued operating the silos to supply the areas under its control. However, it is unsure whether these silos will still be operational in the event that these areas are reclaimed.

There are five government silos remaining in the area covering Duhok, Tilkaif and Shekhan: Fayda (stock as of mid-February: 43,000 MT of wheat), Shikhan (110,000 MT), Zakho (15,000 MT), Duhok and Rovia (capacity of 40,000 MT but under construction). It is estimated that the total volume of wheat stored in silos close to the target area is at least 180,000 MT. The GCGT is planning to transfer some of the stocks to other provinces in order to free up space for the next harvest (due in May–June).

Millers

The Ministry of Trade used to contract around two dozen flour mills across Ninewa, but most of these are now in ISIS-controlled areas. There are currently only 4–5 mills operating in the target areas. Imported wheat is blended with domestic wheat prior to milling. Before 2003, millers were supported by the government with fuel and electricity and could buy and grind wheat and sell flour. Currently, millers have a contract with the government (via the GCGT) to produce wheat flour for PDS rations and are no longer allowed to buy grain and sell wheat flour independently.

Since the beginning of 2015, millers have been responsible for transporting wheat from silos to the mills and from the mills to the local PDS food agents. Previously, transporters were specifically contracted by the government for that purpose, but the PDS has not been able to sustain that system. The main running costs are electricity, fuel for generators and transportation costs. Transporting wheat flour to the newly liberated areas on their own budgets is proving particularly challenging for millers.

All three millers interviewed for this study currently produce on average between 1,300 MT and 2,300 MT of flour per month (one MT of milled wheat produces 0.8 MT of flour and 0.2 MT of bran used for animal feed). Stocks are replenished at the beginning of each month, with support from the GCGT. Millers only grind the amount that they receive. Usually, the volumes received do not need a whole month to be milled, and all mills have the capacity to mill more. All millers interviewed also reported having the capacity to store wheat flour (from 1,000 to 5,000 MT).

Distribution challenges

The PDS has been facing challenges for a number of years, as it is extremely costly and is affected by poor management and a lack of transparency along the delivery channel. In recent years, the government has made an effort to improve PDS targeting by excluding public sector employees with a monthly income of \$1,286 and above. Attempts to replace the PDS with a cash transfer system beginning in 2012–13 have not been successful so far, mainly due to widespread public demonstrations and to lack of political will. The World Bank is working with the Iraqi

government to transform the PDS into a targeted, vulnerability-based social protection system (IMF, 2015).

Currently, the PDS is experiencing huge delays, especially in the provision of other staple food items. In January 2016, rice was being distributed with a three-month delay and oil with a seven-month delay, while sugar and powdered milk had not been distributed for at least six months. In theory, if a household has not received their PDS ration for at least three months, they are entitled to compensation in cash. There are 1,400 food agents spread across Duhok governorate alone, while there are currently only 108 food agents for the non-ISIS controlled areas of Ninewa.

The PDS started to assist IDPs in their displacement areas in December 2014; however, it faced challenges due to difficulties in management of the beneficiary database and constraints in accessing and transporting food to beneficiaries in their areas of displacement. Distribution data for wheat flour suggest that deliveries to non-ISIS-controlled areas of Ninewa are meeting less than 50 percent of the entitlement of PDS beneficiaries. Furthermore, the PDS has a limited capacity to distribute assistance in areas close to the front line.

Adding to existing constraints, on 4 February 2016 the central government sent a letter to PDS offices across Iraq stating that it would suspend distribution to IDPs across the country that month, as it needed time to sort out duplication issues in the registration database system. At the time this study was completed, no information was available as to whether and when the distribution would start again.

Nevertheless, the Humanitarian Response Plan (HRP) in Iraq has identified the PDS as a viable exit strategy from humanitarian response. External humanitarian action must help to bridge gaps not covered by the government. A phased handover of emergency operations is envisaged, as soon as this becomes financially and logistically viable for the government.

Other aid (WFP and implementing partners)

WFP has been supporting the PDS in KRI since 1996. Currently, aid agencies are aiming to address gaps in PDS capacity to cover the population's needs. The rationale behind this is also to create linkages between ongoing humanitarian action and the government-run system.

8.1.2. PRIVATE SECTOR WHEAT FLOUR SUPPLY CHAIN

Households complement their food rations with market purchases, especially when they do not receive the whole ration. Interviews with traders were conducted in Duhok city, Zakho, Shikhan town, Baadre, Mahad, Kalakchi and Qasroq. All the traders interviewed sell imported wheat flour from Turkey. The central market in Duhok serves as a regional trading hub, particularly for Turkish imports, due to its proximity to the border, as well as for goods from Iran and southern Iraq, though to a far lesser extent.

Wheat flour is bought from Turkey by importers and wholesalers at IQD 370,000–450,000 per MT, then sold to large traders at IQD 500,000–550,000 per MT and finally on to bakeries and village traders at IQD 560,000–580,000 per MT. A 50kg bag of wheat flour is sold by village traders at IQD 25,000–35,000 (equivalent to IQD 500,000–700,000 per MT, depending on the wholesale price, transportation fees from the central market in Duhok and the quality of imported wheat flour).

Bakeries buy only imported wheat flour, mainly from Turkey. Currently, their main challenge is shortages of fuel and gas, as the government does not provide fuel support as regularly as it used to. Electricity cuts are frequent and fuel is needed to operate generators.

Each commercial baker buys between 4 MT and 20 MT of imported wheat flour per month, and the monthly average production per baker ranges from 4,000 to 120,000 pieces of bread. They buy wheat flour from traders at a price of around IQD 25,000 per 50kg bag. None of the bakers interviewed depend on formal credit, though most of them rely on support from relatives and other business partners. They sell bread at IQD 1,000 per pack of 6–10 pieces. However, whereas host households used to prefer buying bread directly, they now prefer to bake it at home as their purchasing power is constrained by the economic crisis and they therefore must turn to cheaper options.

8.1.3. MARKET ENVIRONMENT

On top of the issues linked to the current economic crisis, factors playing a major role in the wheat flour market system include risks related to the closure of the Turkish border, impacts of the crisis on trade routes (see section 5) and the registration of IDPs.

Many IDPs fled their homes without their proof of identity. In the current environment, documentation is essential to

pass checkpoints and in many cases to obtain humanitarian assistance (even though occasionally people are able to pass on medical grounds, and some agencies are able to support new IDPs who are not registered with the Ministry of Displacement and Migration (MoDM)). Although all IDPs already have a PDS card, they are largely unable to claim the PDS food rations in their areas of displacement, for various reasons:

- New IDPs first need to get clearance from the Asayish (security services) and then officially register as IDPs with the MoDM, before they can receive their PDS rations. This process can take from one week up to one year. Inadequate MoDM staff capacity to deal with the volume of applications causes significant delays.
- There is a lack of flexibility in PDS supply chains and an inability to move goods to locations with large numbers of IDPs.
- IDPs are a long way away from food agents in their new location.
- Some IDPs do not have their ration cards or original documents (NGOs only accept the original PDS ID, in addition to the MoDM process).

After the influx of IDPs in June 2014, the PDS office in Baghdad supported the Duhok office for six months. The MoDM provided a one-off cash package of IQD 1 million (\$843) to households displaced in 2014. Negotiations to open a Ninewa branch of the PDS in Duhok to facilitate the registration of IDPs from Ninewa are under way.

In many areas, NGOs are required to use MoDM beneficiary lists, which means that IDPs who are unable to produce the documents needed to register with the MoDM are often excluded from other humanitarian aid provided locally. IDPs from Ninewa are supposed to get their registration from Tilkaif (or previously from Mosul).

8.1.4. CURRENT GAP ANALYSIS

Host communities are generally receiving their wheat flour rations on a monthly basis. IDPs living both within and outside camps mentioned difficulties in accessing wheat flour. Most IDPs had to wait from two months up to one year before receiving wheat flour from the PDS or from NGOs. Many people in Shikhan and Tilkaif districts travel to Shikhan town to buy wheat flour (a distance of between 10km and 20km) to supplement their rations.

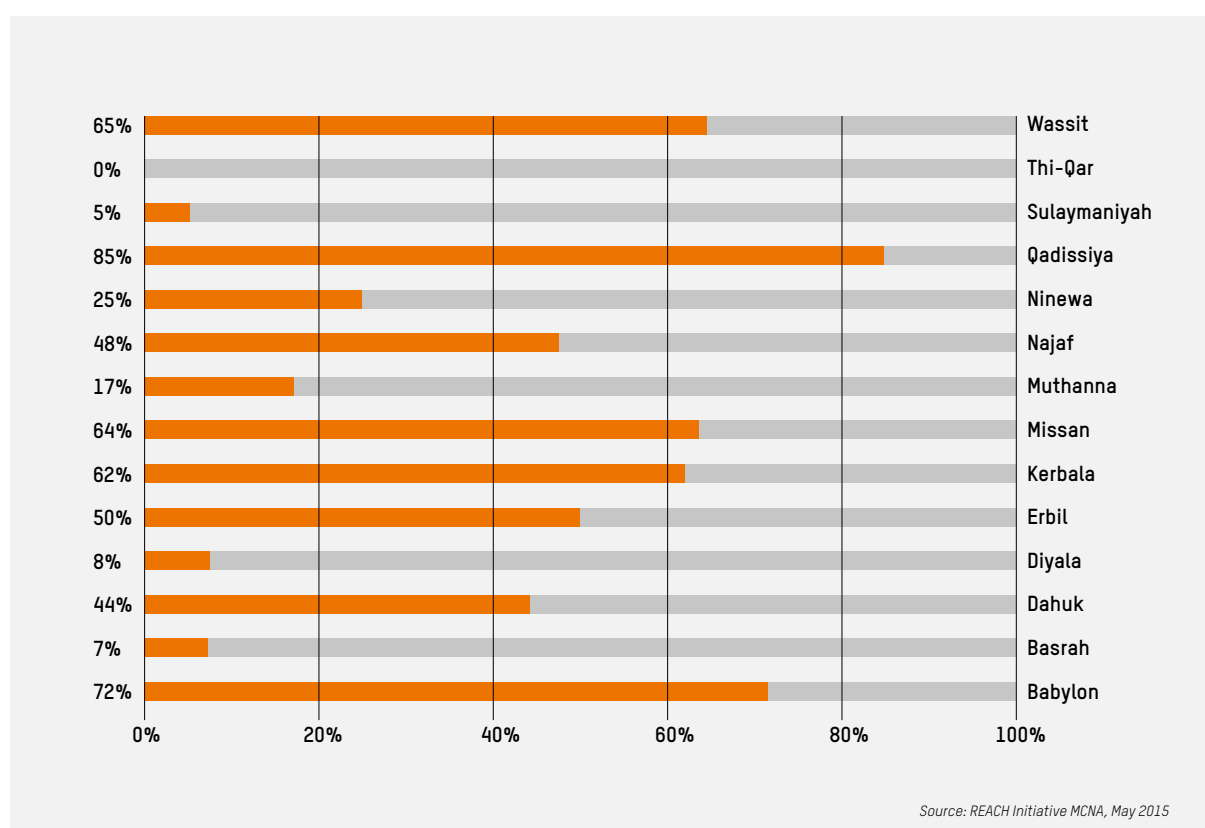
In order to apply for a new PDS card, IDPs in Ninewa governorate have to travel to Duhok. However, this poses a challenge for many IDPs from Arab communities due to restrictions on their freedom of movement. In some cases *mukhtars* (village leaders) travel to purchase items for families who are not able to go themselves.

As of mid-February 2016, 11,179 IDP households had been registered by the PDS office for Shikhan district, which means that close to 1,000 IDP households have not been registered (compared with IOM DTM data, which showed 12,121 IDP households as of late January). Data for Tilkaif could not be retrieved from the PDS.

At the household level, bread is typically cooked in a tandoor (cylindrical clay oven), and is consumed either as flat bread or plain white rolls. Almost all households, whether they are IDPs or from host communities, said that they bake bread at home. A small number said that they sometimes take their flour to the bakery (they pay IQD 10,000 for 150 pieces). Although most households are able to bake, all of them face challenges in buying cooking gas and accessing electricity and functioning home baking equipment.



FIGURE 7: AMOUNT OF PDS RATION LAST RECEIVED, AMONG HOUSEHOLDS REPORTING THAT THEY HAD RECEIVED THEIR PDS RATION



Information collected during the second round of the non-camp IDP multi-cluster needs assessment (May 2015) by the REACH Initiative (191 households interviewed in Al-Shikhan district) suggests that 81 percent of people had received food rations from the PDS. However, only 28 percent had received the full amount the last time they received their ration, while 72 percent had received half their ration. The same proportion, 72 percent, had received their last PDS ration either during the month of the assessment or in the month prior to it.

Currently, PDS food baskets are not distributed on a regular basis, nor are they always complete. Despite delays in the provision of some baskets, the PDS is relatively functional in Duhok and Zakho, but not in northern Ninewa (Tilkaif and Telafar). In some places in Tilkaif, people have not received their wheat flour parcel for more than six months. Most IDPs no longer have regular access to their PDS ration away from their established place of residence. In some places, IDPs do not receive their share as their food agent is located too far away, and they have to cover the transport costs themselves. IDPs borrow food from friends or relatives or they purchase food on credit, thus putting pressure on shopkeepers.

In terms of assistance, people generally reported a preference for cash, as the food that is distributed is often considered to be of poor quality. ACF's PDM (November 2015) reported that wheat flour that is distributed is not commonly resold. Bulgur and pasta sometimes are, as people complain of their quality. In addition, PDMs by Iraq Cash Working Group members over the past year reveal that food is the most frequently purchased item with multi-purpose cash assistance.

Gender issues

For a woman without a male companion, obtaining food assistance is particularly difficult, as the PDS card bears the name of the male head of household. She can essentially be blocked from transferring the card as well as from obtaining any other documentation (and, by extension, services and assistance).

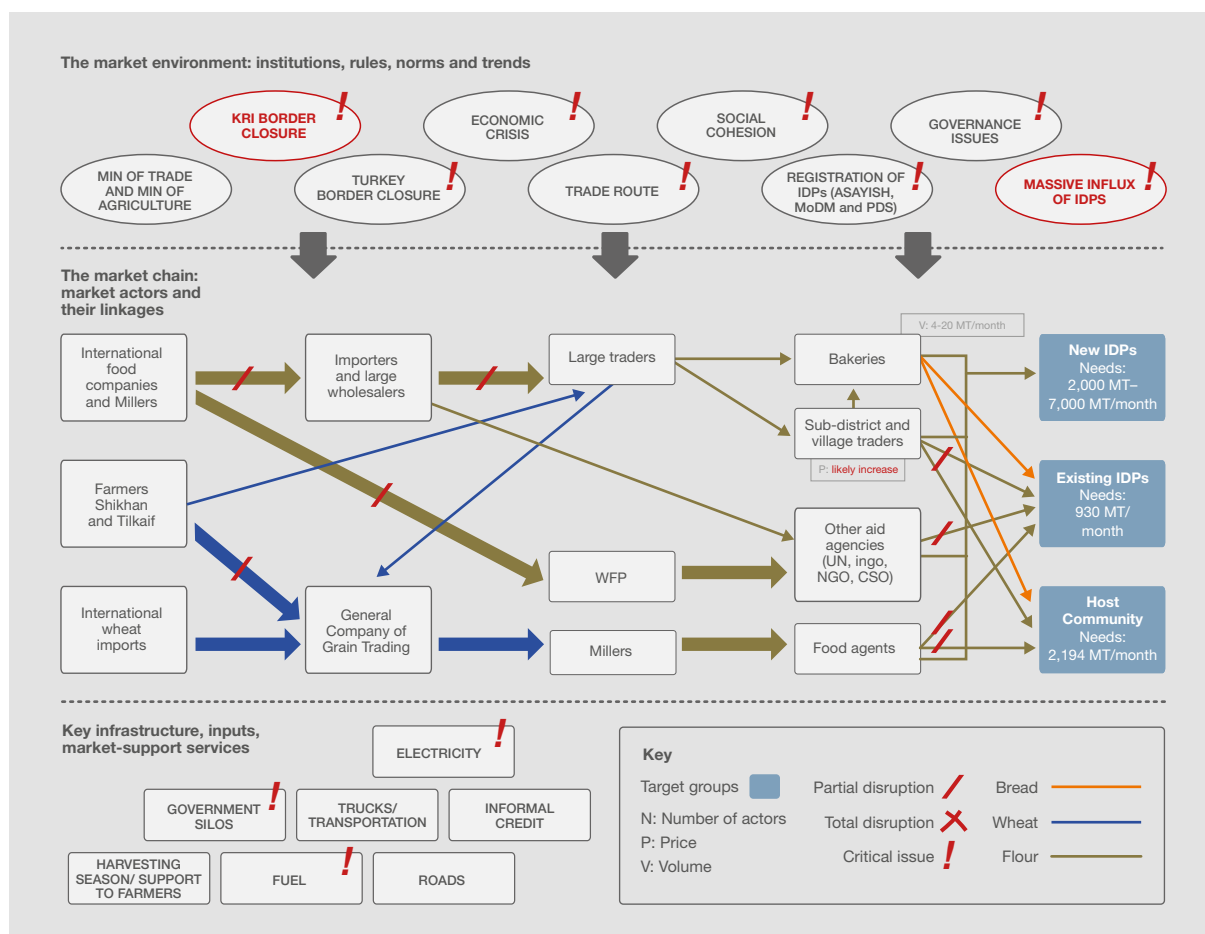
In the current context, protection and documentation are essential in order for women to obtain even the most basic humanitarian assistance and to reach areas of safety. Women are often required to produce their father's or

brother's civil ID or a nationality certificate to support their own cases. The complexity of the system and their lack of knowledge of the 'rules' can make it impossible for women to get their card without help (Humanitarian Exchange, November 2015).

8.2. EMERGENCY-AFFECTED SITUATION

Figure 8 shows the anticipated impact of the shock scenario on the wheat flour market system. The main impacts are highlighted in red.

FIGURE 8: WHEAT FLOUR MARKET SYSTEM MAP: SHOCK SCENARIO



8.2.1. IMPACT ON THE MARKET ENVIRONMENT

Economic crisis: The economic system is currently under stress because of limited central government resources to provide assistance to affected groups. The assumption is that the government will be facing a serious struggle to provide assistance to the increased caseload in a timely manner. Host communities are also experiencing serious challenges to meet their own basic needs, so they will most likely not be in a position to assist new IDPs as they did with the previous influx.

Border closure: In this scenario, there are increasing risks of a closure of the border with Turkey, which may significantly affect the number of trucks transporting wheat flour from Turkey to Iraq. At the same time, IDPs may not be allowed to enter KRI, which may create congestion in and around camps in Ninewa province.

Registration of IDPs: The current registration system is already overstretched, so the gaps in the amount of assistance provided and delays will most probably increase, and NGOs currently covering these gaps and shortcomings will have to significantly scale up their activities.

Wheat production and storage: Access to agricultural land in liberated areas will be affected by the high number of unexploded mines and other devices laid by ISIS. A major challenge that will hamper management of the crisis is that local silos cannot handle the volume of local grain, as they do not have enough storage capacity (according to the GCGT and silo managers, limited storage capacity is a structural issue). Silos also lack staff, as most have left. In the worst-case scenario, silos reclaimed from ISIS may not be operational.

8.2.2. IMPACT ON THE TARGET GROUPS

IDPs without PDS cards who are not staying in camps and who are already struggling would be seriously affected by the crisis. The access of NGOs to Kurdish and Arab villages might be hampered (due to political issues: interventions in Arab villages are not well perceived). Communities close to the front line and Arab communities will be amongst those most affected by access issues. There are also concerns about the population remaining in Mosul, as market access will be very limited or cut off altogether.

There is much concern and anxiety among both existing IDPs and host communities around the arrival of additional IDPs. Specifically:

- Their current capacity is already stretched and assistance from the government and aid agencies is not regular.
- In terms of security, many IDPs expressed strong resentment against Sunni Arabs (some mentioned risks of revenge killings). There could be an increase in inter-communal hostilities, and suspicion and mistrust of people fleeing Mosul as some may be seen as supportive of ISIS.

Because of the discrimination and treatment endured by Arab IDPs, some Arab communities might want to flee towards the southeast (Kirkuk).

Around half of the people interviewed in FGDs said that they would prefer cash or vouchers, claiming that the food received is often of poor quality. Others preferred in-kind assistance, stating that prices were likely to go up when the offensive happens. They also said that, in the initial month, in-kind would be better. There was a general consensus from the FGDs that host communities and IDPs would prefer bread to wheat flour in the event of an in-kind distribution. Half of those who said bread specified that they would rather receive bread first because at the beginning of the crisis people might not have the means to bake it, so in-kind support would make sense. After this first phase, there was agreement that cash would be more appropriate.

8.2.3. IMPACT ON THE MARKET CHAIN

The PDS is already overstretched, particularly when it comes to reaching IDPs, and it will face serious difficulties in providing rations for new IDPs, with delays expected in registration. Quantity-wise, the government is expected to be able to provide wheat flour from silos, but this may mean moving volumes from other provinces to the areas of displacement. Transport will remain a key issue (from fields to silos, then to millers, food agents and IDPs). PDS flour supplies might need to be pre-positioned as a precautionary measure and this is a challenge, as there is already limited capacity to store wheat. If IDPs do not receive their PDS rations, this might put upward pressure on market prices.

Millers reported having the capacity to produce more flour, but the cost of labour would be an issue. The major impact would be if the GCGT stops distributing wheat to millers. The new harvest in May–July might coincide with the period of the shock, so there might be an increase in demand for milling wheat, in order to free up space for new products and to provide assistance to new IDPs. Millers who are producing wheat flour for liberated areas and who will be responsible for covering their own transportation costs to those areas will also be seriously affected, as fuel prices are likely to increase.

As long as the Turkish border stays open, all traders and **bakers** are confident that there will be a sufficient supply of wheat flour, even if there is a large number of IDPs. Most bakers interviewed have the capacity to increase their production (enough storage and wheat flour is available). The main challenges to increasing production by 50 or 100 percent will be the need for more gas and electricity, and the price of gas might go up. All bakers are ready to work with aid agencies.

8.3. RECOMMENDATIONS

This section details recommendations for responses based on the market and gap analysis of the wheat flour market system. For recommendations on ongoing market system monitoring, please refer to section 9.1.3.

Recommendations for preparedness

- Join/participate in the Rapid Response Mechanism Consortium¹.
- Support the transportation capacity of millers (by advocating for the PDS to partly retake responsibility for or support transport).
- Support bakers (provide loans or grants to increase their rolling stock of wheat flour).
- Form partnerships with millers and silos to offer paid internships for young people.
- Advocate with all the NGOs operating in Northern Iraq to Turkey's Minister for Trade and Customs to ensure 'emergency' circulation permits for wheat importers.
- Advocate with other NGOs to better target non-registered IDPs.

Recommendations for emergency response:

- First-line response:
 - Conduct a multi-sectoral market analysis to support appropriate multi-purpose cash assistance (MPCA) to new IDPs and displacement-affected households (according to post-distribution monitoring (PDM) data for the Iraq Cash Working Group, food is the primary expenditure for those receiving MPCA).
 - Provide vouchers for bread or wheat flour to affected households (depending on the preferences of local communities).
- Second-line response:
 - Support the establishment of bakeries in host communities and in camps (investigate opportunities to link with existing or new savings groups).
 - Support the transport capacity of millers (through fuel vouchers or grants/loans to transport wheat from the silos), if the PDS has not retaken responsibility.
 - Support bakeries (through loans/grants to increase their rolling stock of wheat flour).

TABLE 6: RESPONSE RECOMMENDATIONS FRAMEWORK – WHEAT FLOUR MARKET SYSTEM

Response recommendations Framework – Wheat Flour Market System				
Response activities or combinations of activities	Key risks and assumptions	Likely effect on the market system and target groups	Timing	Implementation
<ul style="list-style-type: none"> Join/participate in the Rapid Response Mechanisms Consortium 	<ul style="list-style-type: none"> Active collaboration among aid agencies Practical discussion involving national and local stakeholders 	<ul style="list-style-type: none"> IDPs in the first days of the crisis are informed on the assistance available Improve coverage and timeliness of the response Avoid duplication and admin delays Mitigate protection issues 	<ul style="list-style-type: none"> Preparedness phase (asap) 	<ul style="list-style-type: none"> Understand what others are planning to do to respond Discuss these response options with other NGOs Share agreed assumptions with government/PDS Assess government ability to pay for farmers' crops and adequately store them, for wheat transport from silos to mills and from mills to food agents Agree on likely gaps
<ul style="list-style-type: none"> Preparedness phase: advocate for PDS to partly retake responsibility for or support transport Emergency response: if PDS has not retaken responsibility, support millers by providing transport vouchers (from silos to mills and from mills to food agents) and providing mobile milling units 	<ul style="list-style-type: none"> This used to be under the responsibility of the PDS, so has to be agreed with government, though it is a sensitive issue and a cumbersome process Risk of resource diversion or elite capture 	<ul style="list-style-type: none"> Would contribute to freeing up space in the silos and increase the volume of local wheat flour in the PDS Reduced stress on central storage system; people could have their wheat milled and stored at local level; lower transportation costs (income-generating activity opportunities for youth) 	<ul style="list-style-type: none"> Preparedness phase (if shock doesn't happen before the harvest) Emergency phase 	<ul style="list-style-type: none"> Mix of grants and loans to transport wheat from the silos to the mills, and from the mills to the food agents Provide mobile milling units to offer grinding capacity at local levels in order to save on transport costs
<ul style="list-style-type: none"> Partnership with millers and silos to offer paid internship for young people 	<ul style="list-style-type: none"> Silos and millers said that they had the infrastructure to increase production, but they lack the labour force, as many staff (Christians and Yazidis in particular) have fled High demand for job opportunities for young people 	<ul style="list-style-type: none"> Could provide additional labour in case of a sudden increase in demand for labour 	<ul style="list-style-type: none"> Preparedness phase 	<ul style="list-style-type: none"> Technicians can support young men and women to carry out (not too technical) tasks, to allow them to earn a mix of salary and in-kind benefits

Response recommendations Framework – Wheat Flour Market System				
Response activities or combinations of activities	Key risks and assumptions	Likely effect on the market system and target groups	Timing	Implementation
<ul style="list-style-type: none"> Partnership with bakers to: Prepare agreements with bakers to deliver bread at checkpoints and transitory passage (first days of the emergency) Establish bakeries in host communities and in camps Vouchers for bread to affected HHs 	<ul style="list-style-type: none"> Assumes bakers will be willing to travel to camps Need to ensure that bakers have the permission to travel to areas close to IDPs facing movement restrictions; Transport costs to be considered when supporting bakers to deliver bread. May reinforce encampment policies which oftentimes put communities more at risk. 	<ul style="list-style-type: none"> Facilitates access to bakeries for IDPs with limited movement capacity, and decreases distances Meets immediate HH needs in the first months, before they eventually receive their PDS rations This would also contribute to supporting existing bakers and newly established ones 	<ul style="list-style-type: none"> Preparedness phase Emergency phase 	<ul style="list-style-type: none"> Provide loans to increase their rolling stock of wheat flour to act as a buffer in a case of an emergency, and have an agreement with them for rapid distribution of bread during the first days of the displacement Preparedness plans for bread distribution in the first week, for IDPs on the move (checkpoints) and in their new location Investigate opportunities to link with existing or new savings and loans groups Experienced bakers can train youth and women in smaller bakeries
<ul style="list-style-type: none"> Partnership with traders: Vouchers for top up wheat flour (to mix it with local wheat flour) Bring traders inside and close to camps and villages where movement is restricted 	<ul style="list-style-type: none"> Assumes traders will be willing to travel to camps Assumes camps will allow traders in May reinforce encampment policies which oftentimes put communities more at risk 	<ul style="list-style-type: none"> Facilitates access to wheat flour traders for IDPs who have the capacity to bake bread but have limited movement capacity, and decreases distances Meets immediate HH needs in the first months, before they eventually receive their PDS rations 	<ul style="list-style-type: none"> Preparedness Phase Emergency phase 	<ul style="list-style-type: none"> Introducing point-of-payment technology with smart cards or mobile transfer
<ul style="list-style-type: none"> Advocacy with all NGOs operating in Northern Iraq to Turkey's Minister for Trade and Customs to ensure 'emergency' circulation permits for wheat importers 	<ul style="list-style-type: none"> Geopolitics, sensitive issues, current Iraq–Turkey tensions may be barriers 	<ul style="list-style-type: none"> Ensures flow of truck to provide wheat flour to affected areas 	<ul style="list-style-type: none"> Preparedness phase 	
<ul style="list-style-type: none"> Conduct a multi-sectoral market assessment to check the appropriateness of multi-purpose cash assistance to new IDPs and host communities 	<ul style="list-style-type: none"> Without proper information on the capacity of markets to absorb large-scale multipurpose cash programmes, assistance can distort economic circuits and support inflation. 	<ul style="list-style-type: none"> Helps humanitarian actors understand risks linked to MPCA. Ensure appropriate decisions over best modality to provide assistance. 	<ul style="list-style-type: none"> Emergency phase 	<ul style="list-style-type: none"> Cash delivery mechanisms need to be mapped.

Section 9. Monitoring and updating the results

Monitoring the critical market systems studied in this PCMA and updating its results are key to ensuring that the present findings and recommendations remain relevant, as well as to make sure that they are adjusted if the situation evolves. Key recommendations on these activities are explained below.

9.1. MARKET MONITORING

Ongoing monitoring of the critical market systems aims to identify any major changes in how the market functions which might have implications for programming. Markets are dynamic in nature, and if the shock analysed here does not occur immediately, it will be crucial to monitor how markets behave over time in order to keep the findings and recommendations up to date. Regular monitoring is essential, and the following monitoring plans provide suggestions as to what to monitor and how to do it, for each critical market system.

As this PCMA was a multi-agency exercise, participating agencies should coordinate to share responsibilities for data collection linked to the monitoring plans, and try as far as possible to include some of these indicators in existing monitoring efforts (e.g. PDMs, any planned baseline or needs assessments, regular price monitoring), so as to optimize time and resources.

Local leaders/government and local NGOs should be involved to the greatest extent possible. Visits to traders should occur in person in the initial round to develop rapport with them. After that, phone calls can be arranged to optimize time and resources (but in-person visits should take place again after a few months to maintain rapport).

A small technical working group could be set up for participating agencies to follow up monthly on the ongoing monitoring results and to discuss needs for adjustments to findings and recommendations. A dedicated person should be appointed to oversee data compilation and analysis¹².

Wherever possible, indicators in these monitoring plans should be checked against data that are already being collected through other assessments and monitoring activities conducted by other humanitarian actors, so as to avoid duplicating efforts.

9.1.1. CREDIT MARKET SYSTEM MONITORING PLAN

TABLE 7: CREDIT MARKET SYSTEM MONITORING PLAN

Type of indicator	Indicators	When	Who to talk to	Method for data collection
HH level indicators	% of HH accessing credit	Every 3 months	HH	HH surveys and FGDs (separate target groups – IDPs, host communities)
	Last source of credit accessed (relatives, traders, banks, etc.)			
Market system level indicators	Number of local traders providing credit	Monthly	Local traders	HH surveys
	Number of savings/lending groups existing in areas	Every 3 months	HHs and key informants (KIs) (<i>mukhtars</i>)	HH surveys Phone calls to KIs (<i>mukhtars</i>)
Market place level indicators	Number of banks providing loans to target groups	Every 3 months	Bank managers	Phone call
	Number of functioning MFIs	Every 3 months	MFI managers	Phone call
	Change in check point travel permission requirements for IDPs (especially in Arab communities and villages close to the frontline)	Monthly	Security officers	Observation

9.1.2. WATER MARKET SYSTEM MONITORING PLAN

TABLE 8: WATER MARKET SYSTEM MONITORING PLAN

Type of indicators	Indicators	When	Who to talk to	Method for data collection
HH level indicators	HH access to water : quantity and quality, sources	Every three months	HH	HH survey over the phone or in person Separate target groups (IDPs, host households)
	HH access to market			
	HH income level			
	HH water storage			
	HH reporting water borne disease			
Market system level indicators	Water factory working hours	Monthly	Life Tiyar Mazi	Phone call to 3 factories in Dohuk. Remember seasonality issues!
	Exchange rate USD/IQD	Monthly	RT Bank Hawala in Dohuk	Phone call.
	Fuel price IQD per litre	Monthly	Private fuel station	Observe
	Price monitoring - pack of 12 x 500ml Life	Every three months	Intermediary supplier Small vendor	Observe Remember seasonality issues!
	Price monitoring - 1,000 litres trucked	Monthly	3 x water truckers	Phone call
	Number of boreholes functioning and not functioning in target area.	Monthly	Water Directorate	Visit
	Average hours per day that the borehole is functioning	Monthly	<i>Mukhtar</i> – three villages	Phone call
	Average quantity of water pumped per day (boreholes)	Monthly	<i>Mukhtar</i> – three villages	Phone call
	Average cost of storage tank	Monthly ¹³	<i>Mukhtar</i> – three villages	Phone call
	Market place level indicators	Number of days per month Turkey border closed and consequences on fuel imports	Monthly	International NGO Safety Organisation (INSO)
Change in check point travel permission requirements		Monthly	Security officers	Observation

Some specific changes in the functioning of the market system will have implications for the response recommendations:

- If access to markets and/or travel permissions become difficult ⇒ update around the use of cash transfer programming.
- If factories reduce working hours and/or the price of bottled water rises significantly ⇒ update around the use of bottled water or vouchers.
- Where boreholes are not functioning and if cases of waterborne disease increase ⇒ update around the use of community-level boreholes.
- If fuel prices increase and in the event of Turkey border closures ⇒ update around distance that water can be trucked.

9.1.3. WHEAT FLOUR MARKET SYSTEM MONITORING PLAN

TABLE 9: WHEAT FLOUR MARKET SYSTEM MONITORING PLAN

Type of indicators	Indicators	When	Who to talk to	Method for data collection
HH level indicators	% of HHs receiving food assistance	Every month	Food security cluster Agencies implementing projects (WFP, REACH, ACF etc)	
	% of HHs from host communities receiving full PDS basket			
	% of HHs IDPs receiving full PDS basket			
Market system level indicators	Time needed for arriving IDPs to register with MODM and receive assistance	Every month	Ninewa MoDM Food security cluster twice a month IDP camp manager <i>Mukhtars</i> (once a month)	Active participation to cluster meetings Phone calls
	Volume of wheat flour imported from Turkey	Every month	WFP and INGOs logistic department wholesaler/Importer in Zakho Media	Phone calls/meetings
	Wholesale Price of MT of imported wheat flour	Every month	WFP and INGOs logistic department wholesaler/Importer in Zakho Media	Phone calls /meetings
	Volume of new harvest	June/July	Grain Board	Phone calls /meetings
Market place-level indicators	Retail price of MT of imported wheat flour	Monthly	Traders WFP VAM	Field visit, observation
	Local wheat flour being resold	Monthly	Traders <i>Mukhtars</i>	Field visit, observation
	Fuel / gas / gasoline prices (for transportation, generator, cooking/ baking)	Monthly	Price index Traders <i>Mukhtars</i>	Field visit, observation
	Purchase price of 10 pieces of bread	Monthly	Bakers <i>Mukhtars</i>	Field visit, observation, phone calls

9.2. UPDATING OF RESULTS

The results of this PCMA should be updated in two events: when the shock occurs and displacement starts, and when (if) the context changes significantly (outside normal patterns monitored in the market monitoring plans). When the shock occurs, the scenario-affected market maps should be updated (the maps showing the situation as of February 2016 will not change). The objective is to verify the anticipated impacts of the shock on critical markets and to update recommendations for response accordingly.

The trigger for a rapid post-crisis assessment to update the shock-affected market maps will be when displacement starts and once it is fairly clear where displaced households are moving to. Ideally, this should be conducted by staff who have been part of this PCMA. At least two people from each market team (at least six people in total for all three markets, plus two technical supervisory staff) should conduct key informant interviews and some visits to market actors in the areas where IDPs are settling or camps are being established, as security permits. Interviews should focus on the impact of the shock on the relevant market system, thus refining the crisis map. The outcome should be an updated crisis-affected market map with a brief report focusing on the key findings, which have either been confirmed (from this initial PCMA) or have been revised, as well as a revision of the emergency response recommendations. This can be done within 2–3 days.

Any needs assessments that occur in IDP camps should include questions about market actors and the impact of the shock on their business and their capacity to supply wheat flour, water or credit.

If it is found that there are significant differences between the anticipated effects of the shock scenario (in the initial PCMA) and the observed impacts (in the update), agencies should consider conducting a more in-depth PCMA.

If another shock occurs, and if the priority needs of the affected population are different from those identified during the PCMA, agencies should consider using a post-shock market analysis tool such as EMMA or Market Analysis Guidance (MAG). Results of this PCMA can then be used as secondary data.



Photo: Oriot Andres

Annex 1. Terms of Reference



NORTHERN IRAQ PRE-CRISIS MARKET ANALYSIS (PCMA) TERMS OF REFERENCE

Assessment dates: 31 January–16 February 2016 (approx.)

Host agency: International Rescue Committee / Oxfam GB

Participating agencies: This will be a multi-agency endeavour to which staff from interested NGOs that operate in and around the assessment area will be invited to participate. Please express interest in participating in this PCMA by contacting Corrie Sissons, Oxfam.

PCMA overview and objectives

The Pre-Crisis Market Analysis (PCMA) is a practical, step-by-step resource to guide market analysis practitioners and team leaders to conduct market assessments prior to emergencies in order to anticipate how markets will respond after a shock occurs. The PCMA was developed in 2014 by the IRC and Oxfam with the support of the European Union through the Enhanced Response Capacity Mechanism and the American People through the United States Agency for International Development (USAID), and builds on earlier experiments with market baseline mapping and analysis conducted in pre-crisis settings. Although based loosely on the EMMA methodology, the PCMA does not replace existing market analysis tools; rather it is intended to provide a guide to applying those tools in pre-crisis contexts, particularly in contexts that are prone to recurring humanitarian crises.

PCMA is designed to help agencies to improve preparedness, feed into contingency planning efforts and contribute to the design of disaster risk reduction programmes by identifying certain parts of market systems that may be vulnerable to shocks. Increasing the speed of emergency responses or strengthening market systems ahead of emergencies would potentially reduce the disaster impact on lives and livelihoods, and begin to address the longer-term or chronic nature of poverty and vulnerabilities.

In Northern Iraq, the ongoing conflict with ISIS has resulted in more than 3 million people being internally displaced, on top of the previous influx of 250,000 Syrian refugees prior to 2014. Large population shifts, as well as a large portion of Iraq's cereal belt becoming a battlefield, have put a strain on markets. Market purchase remains the main source of food for many Iraqis in displacement, with markets on the whole continuing to function across the country, albeit with inflated prices or limited availability of items. Facing protracted displacement, households are increasingly resorting to corrosive coping strategies to survive; however, markets do appear to be able to continue to meet people's needs if they have the purchasing power to access them.

Mosul, Iraq's second largest city, was captured by ISIS in June 2014 and until now remains under their control. The Iraqi army has vowed to recapture Mosul and speculations are that a counter-offensive is imminent. All scenarios for this military operation have dramatic humanitarian implications; according to some estimations, between 500,000 and 1.5 million civilians could flee into either the surrounding areas or into ISIS-controlled Syria. If new IDPs flee towards the Ninewa plains, this would have an impact on markets in the area, and those markets in turn should be understood in order to meet humanitarian needs in an appropriate and effective way, while doing no harm.

This PCMA will focus on two commodity market systems and one labour market system, still to be determined. Selected market systems will be critical for supporting the basic needs and livelihoods recovery of potential future IDPs and vulnerable conflict-affected host communities in the Ninewa plains whose lives may be disrupted by a future counter-offensive on Mosul. The huge predicted influx of IDPs into these areas will inevitably affect the market systems for host communities. Using a PCMA methodology to understand how markets are currently functioning is therefore key to any response options for those who may flee Mosul in the coming months, as well as market support activities, if a counter-offensive occurs.

The analysis of the commodity market systems will focus on identifying both direct emergency response programming options that work through markets where possible, as well as indirect responses targeting key market actors to help restore and support market function, which is expected to ultimately benefit IDPs and host community families. The main objective for the labour market portion of the assessment is to assess and identify appropriate and relevant options for enhancing existing livelihoods strategies and restoring and developing new income-earning opportunities for people affected by displacement within the selected labour market system.

The specific market systems to be analysed during the assessment will be determined based on inputs and levels of interest from participating agencies, feasibility of undertaking the analysis and potential programming and appropriateness to the context in Iraq. Oxfam/IRC are currently intending to use the EMMA toolkit for this particular PCMA study; however, this may be modified in consultation with the external consultant leading the process and participating agencies if deemed necessary.

Main objectives

- To identify through a pre-crisis market analysis appropriate responses to meet emergency and early livelihood recovery needs, with a particular emphasis on market support activities.
- To strengthen the market analysis capacity of both national and international NGO staff.
- To build agency experience in applying market analysis to response analysis and design within contingency planning within the Iraq context.

Desired results of the PCMA

- 'Pre-Crisis' and Emergency Market Maps of selected critical markets
- Analysis of market trends in a representative past displacement
- Seasonal calendar for critical markets
- Report of key findings and recommendations for each critical market system analysed, including specific contingency planning and possible new programmatic intervention recommendations around Mosul.
- Brief report on learning related to the PCMA approach and guidance document for replication of approach in other geographic areas of Iraq.

Key findings and recommendations will be presented widely at the close of the assessment. Presentations by assessment team members at field- and Erbil-level coordination structures will be encouraged, and the final report will be made available online through the EMMA website (emma-toolkit.org), and the Markets in Crises Dgroup list serve.

Geographical area of assessment



The PCMA assessment will take place in district- and sub-district-level markets in selected areas of the Ninewa plains in Ninewa governorate that are likely to see a huge influx of IDPs as the result of a future offensive on Mosul. Specific locations and markets to be assessed will be identified in further consultation with both the country team and the different agencies participating in the exercise.

Critical markets for analysis

Due to the logistical, financial and analytical limitations, the number of critical markets to be analysed during this exercise will be limited to three different market systems: one market for a staple food commodity, one household consumable commodity and one key labour market system. In the preparation phase of the PCMA, participating agencies will decide on specific critical markets to be the focus of the fieldwork and analysis. The type of critical markets to analyse depends on the sectoral interests of participating agencies and the number of participants available to take part throughout the assessment process in the Ninewa plains.

Potential market systems for analysis include:

- Key labour market systems (e.g. agricultural and/or non-agricultural labour)
- Staple food items (e.g. wheat flour)
- Household consumables (e.g. hygiene items).

Assessment team members

The Iraq PCMA will be facilitated by an external consultant with support from Oxfam and IRC HQ-level advisors and in-country teams. It is expected that 10–15 additional people will participate in the exercise; these participants will be divided into three sub-teams to analyse the specific market systems identified. Each market team will be led by a Critical Market Team Leader to be identified once participant lists are finalized. Market team members should have a good understanding of humanitarian programming and basic market principles, analytical and writing skills and experience with field-level data collection. In addition, an experienced staff member from Oxfam/IRC or one of the participating agencies will serve as a Market Focal Point leading up to and during the exercise; this individual will oversee the country team in preparatory analysis before the assessment and will apply his/her local knowledge to assist/guide the assessment design and data analysis and interpretation processes.

Each market-specific sub-team will be expected to analyse assessment data and to prepare a draft report of findings and recommendations in line with the PCMA methodology (see below). Significant support for this analysis will be offered by the Critical Market Team Leaders; however, staff or personnel participating in the assessment must be strong in data analysis and capable of writing complete assessment reports independently.

Having previously attended an EMMA training is not a requirement to participate in this assessment, but previous market analysis training or experience is highly desired. The training, facilitation and presentation of results will take place in English.

Agencies interested in participating in the PCMA are asked to identify staff members to be a part of the assessment who would have the skill-set and capacity to replicate the approach within their respective organizations. More senior/experienced staff would have the opportunity to function as Critical Market Team Leaders. **Agencies and individual staff must be willing and able to commit to being a part of the PCMA team for the duration of the assessment, including pre-assessment training, field-based data collection and analysis stages of the process.**

Additionally, agencies providing staff are asked to cover the costs of personnel (including salaries, per diems, etc.) and to contribute to logistical support for those personnel during the data collection exercise (communications, vehicles and fuel, field overnights, etc.). **If your agency will be able to provide personnel or logistical support to the assessment, please indicate the level of support available when expressing interest in being a part of the PCMA.**

Duration of assessment and working hours

- Approximately 18 days from late January to mid-February 2016. Please see schedule below.
- Participants should anticipate long working hours and be prepared and willing to work outside normal business hours for the duration of the PCMA.
- All participants should agree to work the length of the assessment, without a break if necessary to complete the work on time. Team members should expect to work Saturdays. Please inform us immediately if this is likely to be difficult or if there are any outstanding issues that need addressing.

Methodology

The assessment will use the methodology in the PCMA guidance document, comprising 15 steps. To the extent possible, Steps 1–6 will be conducted by the facilitation team, in consultation with participating agencies, before the full field team assembles in-country in late January 2016. While a plan for Step 13 will be outlined during the PCMA, it will be the responsibility of in-country staff from each agency to ensure that monitoring continues after the official exercise ends.

ASSESSMENT METHODOLOGY

1. Understanding the context	Identify the likely crisis scenario; target population needs and profiles.
2. Setting scope and objectives	Set objectives and operational questions for PCMA; identify knowledge gaps; ensure relevance of PCMA.
3. Ensuring managerial and organizational buy-in	Determine composition of assessment team, including Market Focal Point; identify and confirm availability of in-country resources needed for assessment; secure country team management approval of the exercise and resulting potential response strategies; confirm that results will be integrated into contingency planning.
4. Critical market selection and key analytical questions	Pre-selection of critical market systems; identification of draft key analytical questions for each system; select geographic area to be covered by the assessment.
5. Mapping and gathering existing information	Gather information on selected critical markets, target groups, livelihoods in assessment areas; identify information gaps.
6. Preparing and planning for the market assessment and analysis	Confirm team composition; develop timeframe and draft agenda; set budget; finalize TOR.
7. Finalizing the frame of the analysis	Review and validate Steps 1–6 with full assessment team; finalize assessment locations with team; identify markets to visit and market actors to interview with team.
8. Preliminary analysis and mapping	Production of initial profiles, seasonal calendars, maps of the market system; identification of key informants or leads.
9. Data collection	Develop questionnaires; conduct fieldwork activities and regular debriefings.
10. Final mapping	Finalize baseline and emergency maps, seasonal calendars; description of key features, bottlenecks, constraints.
11. Gap and market analysis	Comparison of household economic profiles, analysis of priority needs, access and gaps.
12. Selection of response options	Exploration of response options, cash and other intervention feasibility; response recommendations and their logic.
13. Market monitoring	Determine different market indicators to monitor; develop monitoring plan.
14. Communication of results	Prepare and disseminate results via report and in-person presentation(s).
15. Updating a PCMA	Conduct follow-up assessments as needed.

Communications

Most Iraq-based staff have local mobile phones, and these will be used during the exercise. Team leaders will be provided with phone credit. Any international participants should seek the necessary SIM cards and/or will be provided with phones by Oxfam Iraq in-country as needed. At the start of the fieldwork, all participants' mobile numbers will be collected and shared.

Administration and resources required

There is no cost for participation; however, participating agencies are expected to cover the costs of accommodation, travel expenses and per diems for individual participants for the duration of the PCMA. Oxfam and IRC's Erbil offices will provide logistical and administrative support related to the Erbil-based training sessions.

TENTATIVE ASSESSMENT SCHEDULE

Date (approx)	Agenda
Early-mid January 2016	Identification of assessment team; desk research and initial analysis
30th January	Assessment team arrives in Erbil
January 31-February 3	Introduction to PCMA; training on PCMA in practice; developing data collection tools and preparing for fieldwork
February 4-11	Data collection at field level – household, market actor and key informant interviews
February 13-16	Preliminary analysis of field data and development of recommendations
February 16	Presentations of key findings and recommendations
Late Feb 2016	Final report published

Annex 2. Bibliography

PCMA revised guidance:

http://www.emma-toolkit.org/sites/default/files/bundle/PMCA_FINAL_WEB.pdf

EMMA Toolkit:

<https://live-emma-toolkit.pantheon.io/toolkit>

Action Contre La Faim, *Context and Assessment Report, North Tilkaif and Shikhan districts, Ninewa Governorate*, May 2015

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ACF, FAO, *Rapid Assessment of Agricultural Livelihoods, Tilkaif district, Ninewa Governorate*, September 2014

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WFP, *VAM Bulletin*, December 2015

Annex 3. Team Composition

Name	Agency	Role	Role in PCMA
Emmeline Saint	Independent	Consultant (emmelinesaint@gmail.com)	PCMA Core Team
Corrie Sissons	Oxfam	EFSVL Coordinator	PCMA Core Team
Alexandre Gachoud	Oxfam (HQ)	EFSVL Advisor – Markets	PCMA Core Team
Emily Sloane	IRC (HQ)	Emergency Markets Officer	PCMA Core Team
Mirela Kuljanin	IRC	ERD/NFI Coordinator	PCMA Core Team
Qahreen Ahmed	CRS	Education Programme Officer	Wheat Flour Team Leader
Rachel Rigby	Tearfund	Duhok Area Coordinator	Water Team Leader
Yahya Hussein	Oxfam	MEAL Officer	Credit Team Leader
Wassan Ali	Relief International	Business/Microfinance coach	Wheat Flour Team Member
Harman Nasir	IRC	ERD/NFI Manager	Wheat Flour Team Member
Ahmed Husain	Save the Children	MEAL Officer	Wheat Flour Team Member
Ihsan Habash Abboosh	REACH	Duhok Team Leader	Wheat Flour Team Member
Honar Jammel Hassan	ACF	Head of WASH Project	Water Team Member
Hawree Raof	Oxfam	WASH Officer	Water Team Member
Alan Mostafa	IRC	Duhok Programme Assistant	Water Team Member
Muhsin Ali Rashow	ACF	Distribution Team Leader	Water Team Member
Karveen Mohammed	DRC	Livelihoods Officer	Credit Team Member
Jiya Adnan Ali	Big Heart	Assessment and Data Quality Advisor	Credit Team Member
Nour Ahmad	IOM	Community Revitalization Programme Assistant	Credit Team Member
Dilkhosh Abdulaziz	WVI	AM&E Officer	Credit Team Member

Herish Rasheed (IRC) provided logistical support, and Muqatil Nabil (IRC) provided technical support for the mobile data collection system.

Chris Shultz (Oxfam) offered valuable security guidance throughout the fieldwork.



Annex 4. List of actors interviewed

Credit Market System		
Type of actor	Actor	Number of interviews
Key informants	NGOs	2
	<i>Mukhtars</i>	In all villages covered
	IDP focal point / camp manager	3
	Bank director	1
	Mayor	1
Market actors	Formal credit providers (MFIs)	5
	Informal credit providers (traders)	17
Target groups	Host households (FGDs)	5
	IDPs (FGDs) – in and off camps	12
Total		44

Water Market System		
Type of actor	Actor	Number of interviews
Key informants	Water directorate (Duhok and Ninewa)	2
	Water authority (Shikhan town)	1
	<i>Mukhtars</i>	2
Market actors	Water truck station operator	2
	Water trucker	8
	Bottled water supplier	4
	Bottled water vendor	5
Target groups	Host households	4
	IDPs	12
Total		40

Wheat Flour Market System		
Type of actor	Actor	Number of interviews
Key informants	Directorate of Agriculture (KRG)	1
	Directorate of Agriculture (Ninewa)	1
	General Company for Grain Trading	1
	Directorate of Wheat Flour Distribution (PDS)	1
	WFP	1
	ACF	1
	<i>Mukhtars</i>	In all villages covered
Market actors	Silos	2
	Millers	3
	Traders	10
	Bakeries	4
Target groups	Host households (FGDs)	3
	IDPs (FGDs) – in and off camps	12
Total		42

NOTES

- 1 The Rapid Response Mechanism forms the initial emergency response, which is then quickly followed up by cluster-specific first-line responses that are coordinated through the Inter-Cluster Coordination Group. The Rapid Response Mechanism responds to emergency needs when there is rapid, large-scale population displacement. It delivers immediate, life-saving supplies to families on the move as they flee conflict.
- 2 In this pre-crisis context, the market mapping process is actually the reverse of the one found in a typical post-shock EMMA. When EMMA's are conducted after a shock has occurred, the 'current' maps show how the emergency has affected the market system, and the baseline map is retroactively produced to show how the system functioned before the shock.
- 3 See the detailed list in Annex 3 for the composition of the team. Participating agencies included Oxfam, IRC, ACF, CRS, Tearfund, World Vision International, Big Heart, Relief International, Save the Children, IOM, the Danish Refugee Council and REACH (a local NGO).
- 4 For a detailed map of interview locations, see https://bphillips.cartodb.com/viz/7e613986-e11a-11e5-b4a4-0e5db1731f59/public_map
- 5 See list of actors interviewed in Annex 4.
- 6 IOM Ninewa Governorate Profile, May–August 2015.
- 7 A hawala is an informal money transfer system found across the Middle East region and elsewhere. It operates outside of traditional banking, financial and remittance systems, and depends upon honour and trust across a large network of money brokers that debts will be settled at a later date.
- 8 ACF Baseline Assessment, December 2015.
- 9 An initial map of boreholes in the target area according to their functionality and accessibility to water trucks is shown in Annex 5.
- 10 Tearfund's WASH assessments, 2015.
- 11 After the presentation of findings that was held on 25 February 2016, participating agencies met up to share plans and their commitment to pursue market analysis efforts. These monitoring activities should form an integral part of these follow-up plans.
- 12 This can be every month initially and then every three months if prices seem stable in the first semester of monitoring.

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This executive summary and the full report available on the following link

<http://www.emma-toolkit.org/report/pcma-northern-iraq-credit-water-wheatflour> was written and compiled by Emmeline Saint, humanitarian consultant, with invaluable insight and feedback from Corrie Sissons (Oxfam), Alexandre Gachoud (Oxfam), Emily Sloane (IRC), Rachel Rigby (Tearfund), Jenny Lamb (Oxfam), Rachel Sider (Oxfam) and Kwok Lee (Oxfam).

The geographic map can be accessed with the following link:

https://bphillips.cartodb.com/viz/7e613986-e11a-11e5-b4a4-0e5db1731f59/public_map

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Front cover: A Baker in Baa'dre, Shikhan district, Iraq. Photo: Alexandre Gachoud



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