Background

The Mosul dam was constructed in 1982 in order to provide hydro power and water resources for agricultural purposes in Iraq. It also served the very important function of controlling significant periodic flooding of the Tigris river that negatively affected the country. The dam is the biggest in Iraq with a reservoir of 11.1 billion cubic meters and a 113 meters high and 2.21 kilometers long earth embankment. It was finalized and became operational in 1985 and concerns were immediately raised regarding the structural integrity of the soil holding the dam. The dam is built on soft rock foundation containing gypsum and anhydrite (both soluble materials) in addition to limestone and pre-existing limestone caves that act to speed up the dissolution process.

The humanitarian community in Iraq has been closely following the possibility of a dam collapse; an UNDAC team was mobilized in April 2016 to discuss with all relevant stakeholders and analyse different flooding scenarios in order to predict the impact of the flood levels. The most common scenario being used is for a breach to occur at a water reservoir level of 315 meters above sea level (MASL). In such circumstances, the flooding will reach Mosul city in 2.35 hours with an initial wave height of 21 meters, whereas water will reach Baghdad in 3 to 4 days (83 hours) with an initial wave height of 7.5 meters. Based on calculations made by the Logistics Cluster to determine the population in need, it is likely that up to 8 million people could be impacted, with more than 4 million potentially displaced as a result of the flood waves. The Logistics Cluster is building on previous studies and missions to determine the cluster-specific emergency preparedness and response plan to ensure it will be able to provide the needed logistics support and services to the humanitarian community.

In case of a Mosul dam fault resulting in a major humanitarian emergency, the Logistics Cluster will aim to provide and facilitate common storage, including prepositioning in strategic areas and emergency transport to the humanitarian community, and ensure a coordination and information management role to maximise the use of available resources in-country and establish a more coordinated and cost-effective operational approach and humanitarian response.

Logistics Gaps and Bottlenecks

The main bottlenecks that may arise in regards to the Mosul dam breach scenario are linked to the fact that the current operational response centers in the governorates along the Tigris river will be directly impacted. Locations such as Tikrit, Samarra, and Baghdad are expected to be severely affected by the flooding thus rendering them inoperable for the humanitarian response. In addition, the scale of the emergency will likely require significant incoming aid and massive coordination efforts. It is therefore estimated that international support will be required to address the needs and that response operations will be coordinated from neighboring areas, such as the Diyala and Najaf governorates. Specifically, the following potential logistics gaps have been identified:

- Limited storage capacity for prepositioning and contingency/emergency stocks in the Diyala and Najaf governorates.
- Limited number of humanitarian organizations acting in Diyala and Najaf.
- Increasing needs for logistics coordination and information due to a fluid situation and the movement of internally displaced persons (IDPs) to hard-to-reach locations.
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- Restriction of movement due to multiple checkpoints along the routes of displacement and response locations.
- Lack of commercial transport and increased costs to reach certain operational areas.
- Lack of airport capacity for additional incoming cargo flights, clearance and temporary storage.
- Delays in customs and clearance procedures for incoming and in-country commodities.
- Increasing need for power generating capacity due to the collapse of one of the major hydroelectric dams in country.
- Lack of adequate logistics infrastructure to scale up the emergency treatment centers, including cold chain and temperature-controlled storage.
- Coordination and circulation of timely and reliable logistics information.

Currently, few humanitarian organizations have warehousing facilities across Diyala and Najaf. The actual warehousing capacity in these two governorates is 404 m² in Baqubah-Diyala through IRCS (Iraqi Red Crescent Society) and 4,376 m² in Najaf divided as follows: International Committee of the Red Cross (2,166 m²), IRCS (210 m²) and Iraqi Salvation Humanitarian Organization (2,000 m²).

Objectives

Based on the expected logistics needs and gaps, the Logistics Cluster aims to provide the humanitarian community with facilitated access to sufficient and reliable logistics services and consolidated information related to logistics capacities, to ensure a timely and uninterrupted supply of life saving relief items to affected populations and enhance the capacity of the humanitarian community to deliver relief items to difficult to access locations.

Planned Activities

The following range of activities and services are not intended to replace the logistics capacities of individual agencies or organizations, but rather to fill identified gaps in the humanitarian supply chain and enhance the response of the humanitarian community through the provision of common services, based on need.

1. Coordination:

The following coordination services will be provided to minimize duplication:

- Setting up a central logistics coordination cell in Erbil and at sub-national levels to bring together the main responders in order to coordinate logistics movement into and within the country.
- Regular and ad hoc Logistics Cluster coordination meetings held in Erbil, Dahuk, Najaf and Baqubah.
- Coordination of inter-agency humanitarian convoys and airlifts, when needed and depending on access constraints, prevailing security restrictions and required approvals.
- Liaison with authorities and relevant national and international parties on behalf of the humanitarian community, to raise any logistics issues of common concern.
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- Deploy specialised staff in response areas and at major entry points, mainly Erbil airport and Najaf airport, for the facilitation of timely delivery and avoidance of major bottlenecks.

- Deploy an expert to work with the Government of Iraq (GoI) and the Kurdistan Regional Government (KRG) for a simplified ‘fast track’ procedure for the customs clearance of humanitarian items. While a One Stop Shop in the Kurdistan Region of Iraq (KRI) has been established, work with the central government and relevant federal authorities is needed to ensure that the simplified customs approval process (included in the UNDAC proposed protocols) is activated.

- Coordination with other Clusters and agencies for incoming commodities and pipeline information for planning purposes and scale up where/if required.

- Deploy a Civ/Mil Coordination Officer, should additional support be required in facilitating humanitarian convoys/airlifts.

2. Information Management (IM):

The following information management services will be provided:

- A dedicated Information Management Officer to ensure that relevant and up-to-date logistics information is made available to humanitarian organizations.

- Dedicated IM function attached to the logistics coordination cell.

- Consolidation and sharing of updated operational information, including Meeting Minutes, Access Constraints Maps, Customs Snapshots, Situation Updates, Monthly Overviews and Infographics.

- Information sharing platforms including a common mailing list, and a dedicated Iraq Operation webpage maintained on the Logistics Cluster website to disseminate information products to the humanitarian community: http://www.logcluster.org/ops/irq14a.

- A dedicated Skype group to enhance daily communication and exchange among humanitarian actors.

3. Logistics Services:

The services made available by the Logistics Cluster are not intended to replace the logistics capacities of other agencies, organizations or of the local market but rather to enable partners through the provision of common services. Access permitting, the following services will be provided at no cost to the user, dependent on the availability of funds. Reference Standard Operating Procedures (SOPs) available here: http://www.logcluster.org/document/iraq-standard-operating-procedures-sop-transport-and-storage-april-2017.

Warehousing

- Scale up the current warehouse capacity in Erbil and Dahuk.

- Identify warehousing/secure space to increase warehousing options in Baqubah and Najaf.
Deploy and erect additional mobile storage units (MSUs) using emergency stocks already in country.

Establish additional strategic forward operating bases as common storage for prepositioning and emergency distributions along the response locations, mainly in the Diyala and Najaf governorates.

Support the health emergency response scale up and facilitate the access to cold chain and temperature-controlled storage capacity.

Procure additional MSUs.

MSUs can be made available on loan to organizations requesting additional storage space outside the strategic hubs and if supplies permit.

Organizations requesting storage services must complete a Service Request Form (SRF) available at: [http://logcluster.org/document/service-request-form-6](http://logcluster.org/document/service-request-form-6) and submit it to Iraq.ClusterCargo@wfp.org.

Road Transport

- Provision of initial road transport for incoming emergency humanitarian supplies and where limited transport options are available.

- Support the humanitarian community in planning and coordinating inter-agency humanitarian convoys, depending on access potential and the provision of necessary approvals.

- Provision of emergency transport of fuel to field locations where need for alternative power generating capacity has been identified as priority.

Air Services

- Provision of air-bridge services and internal airlifts (rotary and fixed wing assets) for priority items, facilitation of airport cargo services, and coordination with airport services and humanitarian agencies and actors.

- Facilitate the establishment of a Humanitarian Staging Area to strengthen the capacity of coordinating and receiving cargo flights and prepositioning relief commodities, by supporting with cargo handling equipment, deploying support staff at key airports, ensuring smooth cooperation with airport authorities, based on needs/if required.
Annex I: ConOps Map for the Mosul Dam Preparedness
Annex II: Humanitarian Community Warehousing Capacity (March 2017)

For further details on the storage capacity of each humanitarian organization, please contact the Logistics Cluster.