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| **Gaza WASH Needs Overview**  WASH Cluster Palestine  Version 1.0, 19 September 2016**f MM, YYYY** |
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**List of acronyms**

**WASH** Water, Sanitation and Hygiene

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SECTION I – BACKGROUND & CONTEXT

The WASH situation in Gaza is complex, affected by several underlying and interlinked challenges that have been well-documented by a number of institutions:

|  |  |
| --- | --- |
| Blockade | The Israeli blockade on Gaza has been in place since 2007, limiting the entry of ‘dual use’ materials that might be used for a military purpose. This situation has been exacerbated since the cut-off of cheap fuel supplies from Egypt, limiting the availability of fuel for electricity generation, and the ability to source key technical equipment.  This impacts both the advancement of development and reconstruction projects, in addition to the power supply to keep existing infrastructure working. Although the Gaza Reconstruction Mechanisms established following the 2014 Operation Protective Edge is allowing large amounts of construction materials into Gaza, key technical equipment for the WASH sector remains problematic leading to significant delays.  In addition, to ensure minimum service levels additional fuel is needed to ensure water provision, solid waste collection, and hospital power. Given the high costs and perpetual need, there has been perpetual difficulty in ensuring sufficient funds to provide this fuel to the facilities. Currently, funding from xxxxxxxx is ensured only until xxxxxxxx 2017. |
| Aquifer depletion | Gaza relies almost exclusively on the underlying Coastal Aquifer for all water requirements for households, agriculture and industry. The aquifer is being overexploited beyond its sustainable yield, leading to a deterioration in water quality, and lasting damage to the aquifer proper, as it will take years to recover.  As a direct consequence, the quality of water pumped from the aquifer is largely undrinkable, with high levels of chlorides and nitrates, which also affects its use for agricultural irrigation. Most drinking water for households and key institutions (health centers, schools, etc.) is supplied from small scale desalination plants produced and distributed through service providers and private water producers.  Although the PWA and CMWU have developed a strategic plan, involving large-scale desalination and the treatment and reuse of storm- and waste-water, progress is slow given the blockade, and will continue to be affected by the power-crisis. |
| Recurrent conflict | Since the establishment of the blockade, military incursions have occurred notably in 2009 (Operation Cast Lead), in 2012 (Operation Pillar of Clouds), and in 2014 (Operation Protective Edge). These conflicts have led to direct damages to both the power, water, and waste-water infrastructures, effectively destroying significant development investments made previously, and impacting not only household access but also institutional, agricultural and industrial access.  In addition, these conflicts have led to the displacement of thousands of families and the destruction or damage of thousands of dwellings. Two years on from the most recent conflict, a significant proportion of those affected by the conflict remain displaced from their original dwellings, or continue to face reduced levels of access. |

SECTION II – IMPACT

WATER

JMP 1995 – 2015 trend

***Insert***

Groundwater Resources

 Long term analysis is complicated by the destruction of agricultural wells during military incursions over the decades – which are used for groundwater monitoring – nonetheless, available trends demonstrate a fluctuating but gradual decrease to the north and south of Gaza city, and a steady decline in the north and south in areas where municipal wells are concentrated. Finally, some wells in eastern Khan Yunis show an upward trend, possibly due to upward infiltration from the lower Eocene.

The chloride concentrations highlight salinity levels from seawater intrusion, and trends indicate an exponential rate of increase in the west, with a steady rate of increase in the center and east to the current levels. As can be seen, few areas fall within the WHO norm of <250 mg/l. ***Implications for crops – particularly longer-term***

Nitrate levels over time fluctuate at a steady rate, reflecting infiltration from agricultural activities, and waste-water infiltration in urban areas. As with chloride concentrations, few areas fall within the WHO norm of <50 mg/l. In fact, a GIS-based statistical study by the PWA in 2015 found strong correlations between nitrate levels and reported cases of parasitic infections and Hepatitis A.

***Implications for health / hygiene particularly longer-term***

***Water quality testing is complicated by a complex institution arrangement, and limited resources / materials……***

Water Production

Water production statistics from the CMWU capture production from municipal and UNRWA wells, in addition to the volumes purchased from the Mekerot company.

While the total volume produced would theoretically achieve the WHO recommended optimum to promote health of >100 l/p/d piped into the dwelling, however, when factoring in estimated system losses across localities, the theoretical consumption per capita falls significantly short, and masks fluctuations in service, and in geographical and socio-economical variations in access.

Water Consumption

HH level surveys conducted by ACF in 2016 clearly illustrate this differential access both within and across Governorates. Deir al Balah would appear to have the worst level of access overall, with over half of HHs consuming less than 60 litres per person per day. Overall, just over 30% of HHs across the Gaza Strip have the same low level of access.

Frequency of Service

OCHAs vulnerability profiling (2015), implemented through key informants at community level, suggests that most localities do not receive a continuous supply of water, with less frequent service during the summer months in some Governorates.

Continuous water supply is a key element of the WHO optimum level for health. In 2010, the PHG-UNICEF household survey found that 48.8% of HHs receive water 4 – 7 days a week, with a further 40.5% receiving water 1 – 3 days a week, and a final 10.4% of HHs connected to the network but receiving water less than once a week.

More recent household surveys do not have information on frequency of service, nevertheless, the situation inside Gaza remains similar to 2010, as indicated by the PCBS household environment study (2014), which found 18% receive water twice a week or less, and just over 51% receive water 3-4 times a week.

Domestic Water Storage

Given irregular water supply for most households in the Gaza strip, household level storage tanks become essential to ensure a degree of continuity in household supply. Critically, many households require both water supply and *simultaneous* electricity supply to be able to fill elevated storage tanks, where ground-level tanks are not in place.

Domestic water storage availability is widespread: the ACF household survey (2016) found an average of 5% of households lacking domestic water storage; and the OCHA IDP profiling (2015) found an average of 7% of IDP households lacking domestic water storage – though it should also be noted that 65% of IDP households considered the water storage available to be insufficient for their needs.

Indeed, while one might expect to see an inverse correlation between water frequency and storage (i.e. the more infrequent, the higher the storage), the GVC-PHG-UNICEF household survey (2015) suggests that domestic water storage volume is influenced by household income quintile, HH type, and the gender of the head of household, as indicated in the graphs below.

Coping Strategies

Coping strategies for domestic water typically involve the reduction of consumption, followed by increasing storage capacity, purchasing drinking water for domestic use, or doing nothing, with a small proportion implementing other measures.

Although minor variations occur across other factors, across the income quintiles, the ability to increase storage capacity is understandably higher in the richer quintiles, while the largest proportion with no coping strategy available is found in the lowest quintile.

Drinking Water Source

As the quality of groundwater decreased, a number of smaller-scale desalination plants have been constructed, in addition to a growing number of private producers, both licenses and unlicensed. Desalinated water is a key aspect of the PWA strategy in the Gaza Strip, with ongoing work on a larger-scale plant. While, the GVC and OCHA studies indicate variations in drinking water sources across Governorates, it is clear that the overall majority (≈95%) rely on desalinated water from either tankers or filling points, a finding supported by the PCBS (2014), OCHA profiling (2015), GVC HH survey (2015) and the ACF HH survey (2016).

Accross HH types, WASH-underserved areas (GVC, 2015) and IDP households (OCHA, 2015) appear to rely more on public filling points than other groups, with findings of 16% and 18% respectively. Furthermore, Across locality types, rural areas and camps appear to rely more heavily on public filling points than urban areas, reflecting …..

In addition, income quintile also plays a role – with a corresponding trend in HH drinking water storage (see next section) – with the richest quintile accessing the greatest variety in sources, and 88% of the top two quintiles using tankered water as a drinking water source.

Private producer quality

Tankered drinking water has been a feature of Gaza life for some years and represents the main source of drinking water. Indeed, the UNICEF-PHG HH Survey (2010), and the UNICEF MICS (2010) found an average of 82.7% and 84.7% respectively of HHs primarily obtained drinking water from water tankers and private vendors. Nonetheless, regulation of the private water production sector has been limited, and a series of studies over the years have drawn attention to the quality of drinking water supplied.

In 2015, two interconnected studies were conducted – a PWA study sought to explore the capacities of public and private water producers both licensed and unlicensed at the production site, and an NRC facilitated study sampled 95 separate water chains across the Governorates. Coliforms were found in 68% of HH drinking water storage tanks, and that contamination was attributed to different stages of the trucked drinking water supply chain as outlined in the graph.

The findings would appear to suggest that nearly 60% of the population drink potentially contaminated water, nonetheless 92% consider such water to be safe for consumption. While these is scope to improve and regulate safe water production and chlorination, a frequently cited obstacle to chlorination (where this does not occur) is an apparent dislike for the taste amongst their clients, and a general lack of awareness of the importance of chlorination for disinfection and the prevention of contamination.

Drinking water storage and cleanliness

Drinking water storage across the Governorates varies reflecting broader socio-economic and demographic trends, and as such similar trends to that of domestic water storage can be seen.

The proportion of households with greater drinking water storage capacity increases by HH income quintile. In addition, female-headed households tend to have a lower volume of storage as compared to male-headed households – a trend that is recurrent with regards materials items.

Those HH affected or displaced by the conflict and those in under-served areas tend to have a lower storage capacity as compared to HHs unaffected by the conflict. However, where IDP HHs were broadly on par with war-affected HHs in terms of domestic water storage, in terms of drinking water storage, they appear more on par with WASH-affected HHs. Indeed, the proportion of IDPs with very limited storage is statistically consistent with the IDP Registration Survey finding, and their distribution reflects the HH Surveys distribution across the Governorates.

In relation to drinking water storage cleanliness, the GVC-UNICEF HH survey found an average of 8.3% of HHs either lacked a tank cover, or do not clean their storage container. This was found to be most closely correlated to income and education? levels.

It should however be noted that the OXFAM KAP baseline for targeted war-affected areas in 2015 shows considerable variation in the *method* of cleaning practiced, ranging from simple drainage and rinsing to the use of soap or disinfection materials. Furthermore, the KAP baseline in 2015 indicated that only 33% of HHs cleaned the tap as well as the tank. This would help to explain earlier studies findings that up to XX% of HH drinking water storage tanks were poorly maintained – *was it this or simply that had contamination & so fits with NRC et al study*?

SANITATION & DRAINAGE

Sewerage & Wastewater

Wastewater infrastructure is not as developed as water infrastructure across the Gaza Strip. While XX% of HHs are estimated to have access to sanitation, the nature of wastewater disposal varies across geographic areas. Comparing the results of UNICEF MICS, PCBS Household Environmental, CMWU estimates, UNICEF-supported HH Surveys, and Cluster partner HH surveys, there is considerable variation in estimates notably affecting Deir Al-Balah and Khan Yunis Governorates. The relatively high proportion from the 2015 HH survey may indicate the impact of the 2014 conflict, combined with an oversampling of WASH underserved areas compared with unaffected areas. Nonetheless, together they broadly support estimates of sewerage network coverage from the CMWU (2014), and correlate with the findings of the IDP reregistration survey.

Nonetheless, connection to a sewer line belies the condition of the sewerage network and treatment system. X waste-water treatment plants exist, with an estimated XXXX capacity to deal with a volume of XXXXX. In reality the treatment capacity is greatly reduced due to cuts in power, and degradation of equipment. As a consequence, an estimated XXXX of raw or partially treated sewerage flows into the Mediterranean. The capture, treatment and reuse of storm and wastewaters for irrigation or recharge is an important element of the PWA strategy for the Gaza Strip, however, in the interim, the impact of the current situation on HHs, institutions, and groundwater quality has been noted in other sections.

With regards those HHs unconnected to the sewerage network the UNICEF-GVC HH survey found varying means of desludging, suggesting relatively limited reach of municipal services, notably in WASH-underserved areas, and a sizable privately-funded market, though no specific studies with regards desludging practices could be identified.

Flood risk areas

The VPP suggests that a relatively high proportion of the population is at risk of flood events in the various Governorates. This risk has been confirmed by WASH Cluster partners, who have built on detailed flood risk mapping by ACF and UNRWA over the last years, identifying multiple areas, causes, and populations at risk.

Flood events are associated with a variety of factors, including: storm surges and poor storm water drainage infrastructure; clogging of natural and constructed drainage channels; limited infiltration capacity in certain wastewater ponds; collection in depression areas; electricity cuts and fuel shortages affecting pumping stations; and relatively limited equipment for service providers to adequately respond to flood events. Furthermore, larger flood events in the recent past have typically led to the temporary displacement of affected households to UNRWA shelters.

Flooding represents a seasonal risk in the Gaza Strip, intrinsically linked to inadequacies in both the storm and waste-water infrastructure, which are often mixed. Nonetheless, it should be noted that given these inadequacies, small-scale flooding by wastewater remains a year-round risk in certain areas, due to electricity cuts and fuel shortages at key wastewater pumping stations. Indeed, although the Cluster estimates some 26% of the population at *direct risk* of flooding, the UNICEF-GVC HH survey noted that nearly 60% of respondents had experienced flooding of the sewerage network *near to their homes*, frequently occuring during both summer and winter months.

SOLID WASTE

Solid Waste management is a long-standing issue and remains a major challenge throughout the Gaza Strip. Solid waste is disposed of in X(3) landfills, 1 site for hazardous wastes, and X(5) small recycling centers. Household waste is typically collected in communal containers or open spaces and removed through a variety of means (cart, truck, crane), either directly to a landfill or to secondary holding areas. These services are ensured by municipalities, joint service councils, or UNRWA depending on the location.

Although interventions over recent years have helped improve the situation and maintain a level of service, long-term solutions are complicated by increasing waste production, limited space for new landfills, and limited recycling of waste[[1]](#footnote-1), in addition to a complex regulatory environment[[2]](#footnote-2). Furthermore, with limited segregation of industrial and medical wastes, these may find themselves mixed within the flow of regular household waste, exposing populations and the environment[[3]](#footnote-3). While not directly comparable, the results of the PHG-UNICEF (2010) and GVC-UNICEF (2015) HH surveys suggest similar levels or improvements in waste collection frequency.

The UNICEF-GVC HH Survey conducted in 2015 found that the majority of HHs reported disposing of household waste in an open space near where they live. Combined with relatively infrequent collection and removal, this poses a health risk providing a breeding ground for various vectors. In addition, where wastes pile up in open spaces or secondary holding spaces, a common practice is to burn the waste to make room for more[[4]](#footnote-4), and given the mix of waste streams this may have health implications for nearby HHs.

Waste disposal methods are on average related to geographical location rather than income or specific HH types, although as might be presumed war-affected areas have less access to waste containers, and less frequent collection on average compared to other areas. Indeed, from the graphs below, it is clear that on average solid waste disposal and collection services are best in UNRWA served refugee camps, and worst in rural areas both in terms of disposal method and frequency of collection.

It should also be noted that there has been little change in the proportion of the population living in close proximity to solid waste accumulations. Indeed, comparing the PHG and GVC HH level surveys, an increase in the proportion of the population living in close proximity to solid waste accumulations is indicated, and while the fluctuations are not statistically significant, over 10% of the population are affected.

HYGIENE & MHM

Bathing practices

While most HHs report showering more 4 or more times a week during summer months, however, this decreases substantially in winter months though most HHs reporting bathing at least once a week.

Comparing across income quintiles, a difference in means of water heating becomes apparent – in addition to the most common method of electrical heating, the upper quintiles use more solar power, the middle and lower quintiles use more gas, and the lowest quintiles use more wood, and winter bathing frequency increases with each quintile. This should also be considered against the existence and state of showers, explored in the WASH in Shelter section below, whereby access to showers also increases with each quintile.

Handwashing Practices

Comparing the PHG HH survey (2010) and the GVC HH survey (2015), handwashing practices have improved over considerably, notably at the critical moments before eating, and to a lesser degree before cooking. Both studies also showed high levels of handwashing after using the toilet, with an average of 99% in 2015.

However, handwashing after cleaning babies remains relatively low at 32%, a finding in line with the OXFAM baseline study (2015) which found just 25% of women in targeted war-affected areas washed their hands after changing nappies. It should also be noted that the OXFAM baseline study 2015 found that 28.6% of the population in the targeted war-affected communities did not wash their hands effectively when washing their hands (1 of 3 steps), and just 14.7% washed their hands using all 3 steps.

Cleaning and Hygiene Materials

The VPP also suggests that a large number of HHs could benefit from basic cleaning and hygiene items, a perception confirmed by the GVC-UNICEF HH survey where a significant proportion cite hygiene materials as a priority hygiene need. Nonetheless, taking toilet cleanliness as a proxy, the 2015 HH study found a significant proportion of toilets were found to be in a poor state of cleanliness, notably in WASH-underserved areas and amongst the poorest quintile.

Building on the proxy of a poor state of toilet cleanliness, the following proportions of HHs also lacked soap, and placed a high priority on hygiene materials, suggesting a real need for hygiene material support and promotion, primarily amongst marginalised and poorer households.

Menstrual Hygiene Materials

With regards access to menstrual materials, similar trends can be seen across HH type and income quintile, as shown in the graphs below.

WASH & GENDER?

***+ Anything from the EMMA Report 2014?***

WASH IN SHELTER

The VPP suggests, and the UNICEF-GVC HH Survey clearly indicates the non-existence or poor quality of key household WASH facilities in a significant proportion of the population – including hand-washing sinks, dish-washing sinks, showers, and washing machines. These findings are further supported by the ACF HH surveys (2016) in North Gaza and Gaza Governorates. Clear trends can be seen with regards the HH type and the income quintile, and while the graphs presented below represent the findings related only to the condition of showers, similar proportions can be seen across the HH WASH facilities. Together, these suggest that WASH under-served areas are significantly worse-off than war-affected and IDP HHs, which themselves are significantly worse-off than unaffected HHs.

With regards toilets at a HH level, a significant proportion of the population in each Governorate was found to have insufficient toilets – based on the numbers of users, or shared facilities – as outlined in the graph.

WASH IN SCHOOLS

The PCBS Environmental Study in Educational Facilities (2015) suggests that most schools (99%) have water storage tanks, and that these are generally cleaned at least annually (94%), although only 18% clean their tanks every quarter, and 6% clean their tanks less than once a year.

The majority of schools are connected to the sewerage network and solid waste is removed several times a week. Nonetheless, these services reflect distributions of service levels for the broader population, described in sections above.

It should be noted that a significant proportion of school facilities report exposure to smells from solid waste or sewerage water on an occasional to regular basis – reinforcing the situation indicated above with regards sewerage and solid waste piles at a HH level.

***Insert / replace from the UNICEF KAP – waiting for raw data***

Furthermore, information from the MoEHE in the Gaza Strip have identified at least 19 of 270 PA institutions are at risk of flooding, with some 34 schools requiring the construction of additional or new WASH facilities, while 118 require the rehabilitation of existing facilities. Furthermore, in 68 institutions, the school cafeterias require a rehabilitation of existing WASH facilities to ensure sanitary conditions.

WASH IN HEALTH CENTERS

The PCBS Environmental Study in Health Facilities (2014) suggests that medical waste management remains a widespread weakness

***Any other studies???***

PUBLIC HEALTH

Diarrhoeal Incidence

Epidemiological statistics collected by the Ministry of Health from participating facilities indicates a steadily increasing trend in <3 diarrheal incidence in the Gaza Strip, with a drop in 2014 explained by a decrease in service access followed by a spike and above monthly average rates following to the conflict.

Drawing on UNRWA epidemiological surveillance, a similar pattern can be seen around the conflict, and returning to a fluctuating but steady state over the past two years.

UNRWA surveillance data since 2007[[5]](#footnote-5) also appear to support the trends seen in the MoH data, with an increase to a new plateau from 2007 – 2009, and has remained relatively constant since amongst the refugee population in Gaza. This elevated yet relatively steady state is also indicated by UNICEF-supported representative household surveys conducted in 2010 and 2015[[6]](#footnote-6). The apparent increase is not statistically significant overall, though with minor significant increases in Gaza and Rafah.

A case-control study in 4 major health centers across the Governorates identified urban residence, lower family income, complementary feeding and early weaning as major risk factors of diarrhea for under-fives. This conclusion is partially supported by the Household Survey (2015) findings as seen below: while there is an apparent correspondence in income quintile, rural areas were found to have a higher incidence than urban areas and camps – perhaps suggesting a bias inherent to the provenance of case & control in the urban health centers. In addition, the relative risk for HHs displaced by the conflict, or living in underserved or war-affected areas, is greater risk than those HH in unaffected areas.

Finally, although the MoH data suggest a low incidence rate amongst >5s, this may reflect behavioral trends amongst the population, as both UNRWA surveillance, and the UNICEF-GVC Household Survey (2015) indicate a comparable situation for the >5 population.

***Insert from the WASH/Health/Nut study***

***Pending raw health surveillance data***

SECTION III – CONTINGENCIES

FLOOD PREVENTION & MITIGATION

WASH Cluster members provide support to municipal authorities in a variety of flood mitigation and prevention activities. This support typically includes:

* Hiring of heavy equipment, cash-for-work or other means of clearing of drainage channels before, after the first rains, and at another point during the rainy season.
* Small-scale constructions / rehabilitations of drainage network
* Provision of fuel for dewatering pumps, generators
* Provision of fuel for mobile dewatering equipment and transport
* Engaging in contingency planning and preparedness with municipal authorities

|  |  |  |  |
| --- | --- | --- | --- |
| **Governorate** | **People at risk** | **Users of affected schools / hospitals** | **Estimated budget** |
| North Gaza | 52,900 | 40,100 | 419,000 |
| Gaza | 275,000 | 17,450 | 440,000 |
| Middle Area | 10,500 |  | 25,800 |
| Khan Yunis | 111,224 | 56,200 | 135,000 |
| Rafah | 55,907 | 15,000 | 350,000 |
| **Total** | **505,531** | **128,750** | **1,369,800** |

WASH CONTINGENCY PLANNING

WASH Cluster contingency planning exercises conducted in 2016 assumes the following potential impact of a new military incursion, drawing on past experiences:

* An estimated 1,100,000 people affected and in need of assistance.
* WASH services required for 600,000 people including IDP’s – approximately 400,000 people will lack access to safe drinking water, 200,000 in need of basic sanitation and hygiene services.
* Extensive damages to the water systems, wastewater facilities, water points and storage.
* An estimated 500 key water and sanitation facilities in need of repairs.
* Additional electricity disruptions resulting in greater need for fuel to operate WASH facilities.
* Restricted and unsafe movement for WASH staff conducting manual operation and repairs n WASH facilities.

WASH Cluster members collectively identified the following materials required to complement existing contingency stocks amongst cluster members to be able to ensure an immediate response to an escalation of armed hostilities in the Gaza Strip. The prepositioning of stocks within the Gaza Strip is essential given difficulties importing supplies during a conflict, and potential backlogs immediately following the conflict.

|  |  |  |  |  |
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| **ORGANIZATION** | **MATERIALS** | **QUANTITY** | **BUDGET** | **LOCATIONS** |
| **CMWU, PWA, UNICEF, ACF, GVC, Save the Children, OXFAM GB World Vision, UNRWA, PHG, other WASH Cluster Partners** | Collapsible water tanks 5 m3 and 10 m3 | 3 of each | $9,100 | **Gaza City, Beit Hanoun, Beit Lahia, Jabalia, Gaza City, Middle Area, Khan Younis, Rafah** |
| Collapsible Jerry cans 20l | 8,500 | $21,000 |
| Chlorine (10-12% concentrate)[[7]](#footnote-7) | 50 m3 | $80,000 |
| Water testing kits | 20 | $72,000 |
| Chlorine tablets | 3,000,000 | $13,500 |
| Mobile toilets/showers[[8]](#footnote-8) | 14 | $65,800 |
| Generators 50kvA | 10 | $86,000 |
| Water tanks for domestic and drinking water 1,5m3 | 200 | $247,000 |
| Additional spare parts for CMWU (see annex III) | n/a | n/a |
|  | **TOTAL** |  | **$593,100** |  |

DESIGNATED EMERGENCY SHELTERS

As part of the Inter-Agency Contingency Plan to provide shelter for people should a military incursion occur, and building on the experience and lessons of the 2014 conflict – at the height of which over 500,000 were displaced from their homes – the DES initiative seeks to increase the emergency shelter capacity to 300,000. In complement to the existing 50 UNRWA Emergency Shelter, 20 MoEHE schools have been identified for upgrade to potentially serve as shelters for up to 2,000 persons each, and have been included in the GRM mechanism.

The WASH upgrades are the largest costs given the construction and rehabilitation works, though will also serve to address some of the needs identified in the WASH in Education section above, as several of the identified DES schools are amongst those requiring WASH facility construction or rehabilitation. Nonetheless, at present only 5 have been funded.

|  |  |  |  |
| --- | --- | --- | --- |
|  | **# of DES** | **Budget USD** | **IDP Capacity** |
| **Total** | 20 | 3,347,092 | 22,509 |
| **Funded** | 5 | 922,751 | 7,074 |
| **Un-funded/Gap** | 15 | 2,424,341 | 15,435 |

SECTION IV – INFORMATION GAPS & NEEDS

Data

WASH in Health Centers + WQM

Epidemiological monitoring – regular with geographic breakdown

Studies

Desludging market

Medical Waste today

SECTION V – KEY DOCUMENTS & REFERENCES

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1. [↑](#footnote-ref-1)
2. [↑](#footnote-ref-2)
3. [↑](#footnote-ref-3)
4. [↑](#footnote-ref-4)
5. As published in the UNRWA epidemiological bulletins [↑](#footnote-ref-5)
6. Incidence of diarrhoea in the two weeks preceeding the HH interview [↑](#footnote-ref-6)
7. HTH 67-70% concentrate would be a better choice but is not allowed to enter Gaza [↑](#footnote-ref-7)
8. Mobile toilets/showers to be used in 14 Designated Emergency Shelters identified in addition to the UNRWA emergency shelters [↑](#footnote-ref-8)