

ZINJIBAR

City Profile



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Cover photo:

Credit: Roundabout of the three Jumanat in Zinjibar.
UN-Habitat, 2020.

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ZINJIBAR

City Profile

Urban Profiling Yemen

This project is part of a Profiling Project that aims to develop city profiles of 7 cities in Yemen. These cities include Aden, Sana'a, Sa'dah, Ta'iz, Al Hodeidah, Al Hawtah and Zinjibar. All profiles and data developed in this profile are accessible on the Yemen Mapping and Data Portal.

<https://yemenportal.unhabitat.org/>

Sa'dah
 Sana'a
 Al Hodeidah
 Ta'iz
 Zinjibar
 Al Hawtah
 Aden



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Acronyms

ADSL	Asymmetric Digital Subscriber Line	MoHESR	Ministry of Higher Education and Scientific Research
AQAP	Al-Qaeda in the Arabian Peninsula	MoHM	Ministry of Housing and Municipalities
AYF	Abyan Youth Foundation	MoI	Ministry of Interior
AWSLC	Abyan Water and Sanitation Water Corporation	MoLA	Ministry of Local Administration
CFP	Community Focal Point	MoPHP	Ministry of Public Health and Population
CCIF	City Cleaning and Improvement Fund	MoT	Ministry of Transport
CRPD	Convention on the Rights of Persons with Disabilities	MoTEVT	Ministry of Technical Education and Vocational Training
CSO	Central Statistical Organization	MPWH	Ministry of Public Works and Highways
EC	European Commission	MTIT	Ministry of Telecommunications and Information Technology
ERW	Explosive Remnants of War	MW	Megawatt
GIS	Geographic Information System	MWE	Ministry of Water and Environment
GOAM	General Organization for Antiquities and Museums	NGO	Non-Governmental Organization
GOPHCY	General Organization for the Preservation of Historic Cities of Yemen	NNGO	National Non-Governmental Organization
GBV	Gender-Based Violence	NSSWM	National Strategy for Solid Waste Management
GoY	Government of Yemen	NWRA	National Water Resources Authority
GPS	Global Positioning System	NWSSIP	National Water Strategy and Investment Program
HC	Host Community	PEC	Public Electricity Corporation
HeRAMS	Health Resources and Services Availability Monitoring System	PDRY	People's Democratic Republic of Yemen
HFO	Heavy Fuel Oil	PV	Photovoltaic
HH	Household	SAM	Severe Acute Malnutrition
HLP	Housing, Land, and Property	SBF	Security Belt Forces
HNO	Humanitarian Needs Overview	SFD	Social Fund for Development
HQ	Headquarter	STC	Southern Transitional Council
ICT	Information and Communications Technology	SWM	Solid Waste Management
IDP	Internally Displaced Person	TEVT	Technical Education and Vocational Training
IFAD	International Fund for Agricultural Development	UAE	United Arab Emirates
IHL	International Humanitarian Law	UN	United Nations
IHRL	International Human Rights Law	UNDP	United Nations Development Program
INGO	International Non-Governmental Organization	UNESCO	United Nations Educational, Scientific and Cultural Organization
IOM	International Organization for Migration	UNFPA	United Nations Population Fund
IRC	International Rescue Committee	UNICEF	United Nations Children's Fund
IRG	Internationally Recognized Government	UNOCHA	United Nations Organization for the Coordination of Humanitarian Affairs
ISDN	Integrated Services Digital Network	UNOPS	United Nations Office for Project Services
JRC	Joint Research Center	UNOSAT	UNITAR's Operational Satellite Applications Program
KfW	kreditanstalt für wiederaufbau	USD	United States Dollar
KI	Key Informant	UNOSAT	United States Dollar
LAEO	Literacy and Adult Education Organization	WASH	Water, Sanitation and Hygiene
LAL	Local Authority Law	WHO	World Health Organizations
LC	Local Council	WTO	World Trade Organization
MENA	Middle East and North Africa	YEMAC	Yemen Mine Action Center
MoAI	Ministry of Agriculture and Irrigation	YER	Yemeni Rial (currency)
MoE	Ministry of Education		
MoHUD	Ministry of Housing and Urban Development		

Executive Summary

Zinjibar is the capital of Abyan Governorate, located on the southern coast of Yemen, bordering Aden to the east. This city profile describes and analyses the situation in the city of Zinjibar across a variety of sectors. It addresses key themes and findings made prominent by the impact of the ongoing conflict, its toll on the city's population, and ability of institutions to provide basic services. Each section paints a picture of the prevailing situation and the needs of the city's residents through triangulation of different data types and sets, including secondary data analysis which draws on available publications and media reports, remote sensing, and structured interviews with community leaders and sector experts. The aim of this profile is to provide partners with the widest possible canvas of relevant information, assisting them in their operating programming and strategic policy development. Key findings include:

- The political and security situation remains fragile in most of the southern governorates; there is an evident power vacuum in terms of law and order. Late May 2011, Al-Qaeda in the Arabian Peninsula (AQAP) took control of Zinjibar city following clashes with forces loyal to Yemeni Leader Ali Abdullah Saleh. Mid-June 2012, the Yemeni army retook control over Zinjibar with support from local militias, known as Popular Committees. Since the onset of the conflict, nearly 40,000 households (HHs) have been displaced in Abyan Governorate and the livelihood of another 30,000 – 35,000 have been destroyed.¹ Civil unrest, in some instances involving violence, has severely disrupted the delivery of basic social services, exacerbating widespread and chronic vulnerabilities.
- Zinjibar's Local Council (LC) had one of the most dynamic urban areas in pre-conflict Yemen, outperforming others on most dimensions in terms of operational capacity. Currently, LC members state they mainly face challenges in terms of having capacity gaps due to a shortage of qualified staff; additionally, the LC has inadequate resources to perform its functions, due to poor financial resources at the district level and furthermore reports shortage of furniture, equipment and work tools.²
- Prior to the outbreak of the conflict, Zinjibar was a tourist destination and contains numerous historical and natural monuments and landmarks. The National Museum of Zinjibar has been pillaged and largely cleared of its collections³; many records have been looted or stolen. Though the extent is unclear, many sites have undergone further damages since the onset of the current conflict. In order to mount reconstruction work, a comprehensive damage assessment would need to be conducted, a comprehensive management strategy would need to be set up, and training of staff is required.
- In 2017, it was estimated approximately 43 percent of Zinjibar's housing sector had been damaged; houses make up the largest share of damaged buildings in the city. Damages to the housing sector and corresponding challenges have exacerbated existing grievances in Abyan as a government relief program that was intended to repair the damages to Zinjibar and relieve the plight of the local population was seen as slow and inadequate. Furthermore, landmines have long posed a threat to the inhabitants of Zinjibar and continue to do so⁴ despite past campaigns to remove them.
- The electricity infrastructure in Zinjibar city has been significantly affected as a result of conflict dynamics. Following the 2012 conflict, the power supply network sustained severe damage. While partial supply was later restored, fuel shortages result in limited electricity availability. The electricity and street lighting infrastructure are either partially or fully damaged in both Zinjibar and Khanfar districts.
- Zinjibar city hosts nine health facilities, out of which four are not functioning. Several health services are not available in the city, including emergency, major and minor surgery and the outpatient department. The numbers of hospital beds as well as medical staff have decreased in recent years, resulting in most of the households just barely meeting healthcare needs.
- All communications facilities in Zinjibar city are fully functioning, while three ICT facilities in Khanfar district are not functioning. Internet cafes in Yemen remain an important point of access to internet services; at a governorate level, there are six internet cafes and 262 call centers in Abyan. These numbers remained unchanged since 2011, suggesting that while no critical operational constraints were encountered, there also were no new service providers during these years.
- Roads in Zinjibar and Khanfar districts are damaged, hindering mobility for people and vehicles. According to primary data, damage to physical infrastructure is the first most serious problem in the transportation sector which requires immediate intervention, followed by security challenges, lack of funding, insufficient public transport vehicles and cars not carrying number plates. As of January 28, 2020, the National Highway (N4) connecting Aden and Zinjibar is open and accessible, while the road to the east, along the seacoast towards Shuqrah is difficult to access.⁵ Since 2011, no new asphalt roads have been built.

1 IRIN, Yemen: Abyan Governorate emerges from war, July 16, 2012, <https://www.refworld.org/docid/500536b32.html> (accessed March 16, 2020).

2 Ibid.

3 Deborah Lehr and Ahmed Awad Bin Mubarak, "The U.S. art market for stolen antiquities from Yemen must be shut down", *The Washington Post*, January 1, 2019, https://www.washingtonpost.com/opinions/the-us-art-market-for-stolen-antiquities-from-yemen-must-be-shut-down/2019/01/01/c3df44aa-db9d-11e8-85df-7a6b4d25cfbb_story.html (accessed March 11, 2020).

4 Xinhua, "At least 2 killed, 4 injured in landmine explosion in southern Yemen", September 21, 2019, http://www.xinhuanet.com/english/2019-09/21/c_138410954.htm (accessed March 19, 2020).

5 Yemen Logistics Cluster, Yemen Access Constraints as of 28 January 2020 Dashboard, January 2020. <https://logcluster.org/map/yemen-access-constraints-map-28-january-2019> (accessed February 2020).

Figure 1: Geographic Location of Zinjibar in Yemen



Zinjibar_Date Created: 26 March 2020, Datum/Projection: WGS_84, Data sources: OCHA
 Disclaimer: The boundaries, names and designations used in this map do not imply official endorsement or acceptance by IMMAP.

The port city and historical trading center of Zinjibar⁶, located 60km northeast of Aden in southcentral Yemen, is the capital of Zinjibar District and Abyan Governorate. Long considered a strategic entry point to Aden, Zinjibar is in the Abyan Project Delta, an artificial spate irrigation delta comprising approximately 40,000 hectares of irrigable land, found between Wadi Bana and Wadi Hasan. Following the introduction of cotton in the 1940s, Abyan quickly became the country's biggest agricultural area.⁷

Over the course of the conflict in Yemen, the city has seen fierce clashes between warring factions, leading to numerous damaged buildings, crippled infrastructure, and a power and water network left for ruins. City residents frequently warn visitors not to try and approach certain areas within the city because of the overwhelming presence of landmines.⁸ Late May 2011, AQAP took control of Zinjibar city following clashes with forces loyal to Yemeni Leader Ali Abdullah Saleh. Mid-June 2012, the Yemeni army retakes control over Zinjibar with support from local militias, known as Popular Committees; at the time, it was estimated 27.5 percent of the urban population had been displaced.⁹

At the time of writing, the political and security situation remains fragile in most of the southern governorates; there is an evident power vacuum in terms of law and order. Since the onset of the conflict, nearly 40,000 HHs have been displaced in Abyan Governorate and the livelihood of another 30,000 – 35,000 have been destroyed.¹⁰ Civil unrest, in some instances involving violence, has severely disrupted the delivery of basic social services,

exacerbating widespread and chronic vulnerabilities. While a number of Internally Displaced Persons (IDPs) have returned, there is a likelihood of tensions between different population groups within Abyan Governorate, mainly between IDPs, returnees and the host community. The slow restoration of basic services has the potential of creating frustration within the local community in Abyan that could lead to further unrest.¹¹

With a total population of 513,701, Abyan Governorate is considered the stronghold of the Zomra elite. The Governorate is the home province of President Hadi and it is understood by some observers that the region is largely in support of the Hadi government.¹² However, despite this alignment, fighting between pro-Hadi and pro-Southern Transitional Council (STC) forces manifested itself in Abyan, where the Security Belt (SBF) – a force trained and backed by the United Arab Emirates (UAE) – made significant territorial gains.¹³ By the end of March 2015, pro-Hadi Popular Committees joined forces with AQAP elements which led to periodical peaks of heavy clashes with Houthi-Saleh forces. By August 2015, pro-Hadi forces had regained control over Zinjibar.¹⁴

6 This profile examines Zinjibar city, which is the same district of Zinjibar in Abyan governorate.

7 Robert Stephens, *The Arabs' New Frontier* (Routledge, 2019).

8 IRIN, *Yemen: Abyan Governorate emerges from war*, July 16, 2012, <https://www.refworld.org/docid/500536b32.html> (accessed March 16, 2020).

9 Ibid.

10 Ibid.

11 *The World Bank Group*, *Yemen Dynamic Needs Assessment (DNA): Second Phase Report*, (Washington, DC: 2017).

12 ACLED, *Yemen's Fractured South: Aden, Abyan, and Lahij*, December 18, 2019, https://reliefweb.int/sites/reliefweb.int/files/resources/Yemen%E2%80%99s%20Fractured%20South_%20Aden%2C%20Abyan%2C%20and%20Lahij.pdf (accessed June 24, 2020).

13 Ibid.

14 BBC, *Yemen crisis: Rebels driven out of key city of Zinjibar*, August 9, 2015, <https://www.bbc.com/news/world-middle-east-33839735> (accessed June 24, 2020).

Figure 2: Zinjibar Conflict Timeline

ZINJIBAR WITHIN YEMEN CONTEXTUAL TIMELINE OF CONFLICT



THE CITY OF ZINJIBAR was founded by Sultan Hussein bin Ahmed bin Abdullah, and was called Abyan, then his grandson, Sultan Abdul Qadir bin Ahmed bin Hussein, changed the name to Zinjibar, after his visit to the island of Zinjibar in Tanzania.

1962

Zinjibar became the capital of Fadhli Sultanate which has signed an agreement with Great Britain earlier and became part of the British Aden Protectorate.

FEBRUARY 20, 1994

About 150 soldiers from the Giants Brigade, one of the largest armoured northern brigades, surrounded several public and governmental institutions. After receiving information of changing the current governor from the north with another one from the south, clashes occurred with southern armoured units, killing an unspecified number of soldiers, and a number of wounded civilians.

AUGUST 13, 1994

The northern forces entered Zinjibar, capital of Abyan, and secured the link road between Aden and the city.

AUGUST 25, 2010

The first battle of Zinjibar: Yemeni army claimed to regain control of the city which was in the grip of Al-Qaeda in Arabian Peninsula (AQAP) after days of clashes with the army.

MAY 27, 2011

The second battle of Zinjibar which took place during the Arab spring, however AQAP has gained full control over the city.

JUNE 21, 2011

Battles raged between the army and suspected AQAP forces for control of Zinjibar, as the number of soldiers killed passed the 100 mark. Two militants were killed in the southern province of Abyan.

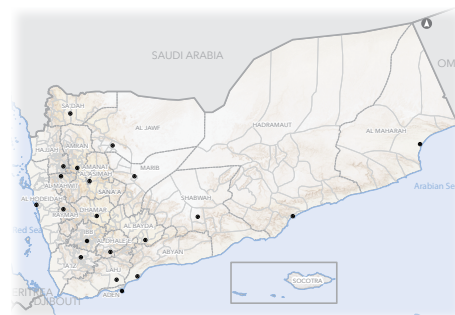
JANUARY 14, 2012

Residents of Zinjibar, who fled nearly eight months of fighting between the army and Islamists, began returning home, escorted by Al-Qaeda-linked fighters.

MAY 12, 2012

The army began a major offensive to retake all areas of Abyan beyond its control, and Zinjibar was regained on June 12. The fighting lasted more than a month, during which 567 people were killed, including 429 AQAP fighters, 78 soldiers, 26 tribal fighters and 34 civilians.

ABYAN was home to one of the first strongholds of al-Qaeda established in Yemen, as well as of some of the first jihadist organisations, such as the Aden-Abyan Islamic Army. In 2012 extremist militants took over two districts in Abyan (Ja'ar and Zinjibar), encouraging the government to launch a military campaign to regain control. In 2015 some of coastal Abyan temporarily came under jihadist influence once again - but most of the governorate is now under Southern Transitional Council (STC) control.



JUN 30, 2012

Yemeni officials said six bodies were found outside Zinjibar. On a different note, the number of deaths caused by landmines dropped following a military offensive had reached 81 casualties. Engineering teams have removed some 3,000 landmines from the area.

MARCH 28, 2015

As the Houthi-Saleh alliance penetrated Abyan and captured Zinjibar.

AUGUST 9, 2015

Pro-government forces in Yemen are reported to have retaken the city of Zinjibar from Houthis.

DECEMBER 2, 2015

Hundreds of AQAP fighters seized two major cities in Yemen, Zinjibar and Ja'ar, after hours of clashes, part of the terror group's effort to expand its presence in southern regions of the war-torn country.

MAY 5, 2016

AQAP fighters withdrew from the city of Zinjibar and Ja'ar after negotiation with pro-government loyalists. Since then, it has repeatedly withdrawn and returned. On 14 August, the cities were fully captured by pro-government forces which dislodged the militants from them.

AUGUST 18, 2019

STC fighters seized a special forces base from IRG loyalists in Abyan; two days later, they moved on Ataq in Shabwah, before being pushed out and subsequently losing control of all their bases in the province to IRG forces.

AUGUST 22, 2019

Heavy clashes broke out between Security Belt and Special Security Forces in Zinjibar where the former is trying to take over the area. Several fighters from both sides were injured.

AUGUST 23, 2019

Coalition-sponsored agreement to hand over military police and special security buildings in Abyan to its former leadership.

AUGUST 28, 2019

Clashes were reported between the STC and Hadi loyalists inside Aden but the secession-ists had largely restored their control over the city, as well as Zinjibar, by the following day. Later on, IRG forces subsequently restored their control over Zinjibar after heavy clashes.

SEPTEMBER 1, 2019

The Abyan Provincial Security Department said that 27 prisoners accused of criminal cases managed have escaped from the central prison in Zinjibar city after the sudden withdrawal of prison security guards.

1 Conflict Dynamics

Since the 1980s, several Islamist movements have emerged in Abyan and over the past decade, AQAP has increasingly seized opportunities which emerged as a result of conflict dynamics and instability.¹⁵ In 2011 – 2012, the group capitalized on unrest following Yemen's Arab Spring and declared small emirates in parts of Abyan (and Shabwah) governorates, including in Zinjibar. The resurgence of AQAP in Abyan (and Zinjibar) reached its peak in March 2015, when pro-Hadi Popular Committees joined forces with AQAP elements which led to periodical peaks of heavy clashes with Houthi-Saleh forces. However, by August 10, 2015, after just two days of fighting, pro-Hadi forces had regained control over Zinjibar city.¹⁶

However, AQAP's local branch Ansar Al Shariah recaptured control over Zinjibar city by December 2015, taking advantage of the local power vacuum and quickly declared an Islamic emirate in parts of Abyan. Residents of Zinjibar city first demonstrated against AQAP's presence in April 2016; demonstrators called for the liberation of Zinjibar from AQAP, stating they would not allow for their city to become a base for militant activity. Additionally, residents expressed their discontent about service delivery in the city and demonstrated in part against authoritarian AQAP policies that aimed to repress freedom of speech and other basic human rights.

Late April 2016, AQAP agreed to withdraw from Zinjibar city on the condition that government forces would not enter the city, local militias would not resume their activities, and that its members would not be criminally prosecuted. Having previously reinforced positions in western areas of Abyan Governorate, AQAP elements began to withdraw from the city early May. While the threat of AQAP dwindled, numerous militants remained present in the area which led to further clashes in Zinjibar between AQAP and elements loyal to Hadi. In 2018, AQAP activity in Zinjibar declined though another round of clashes for control of Zinjibar (and other prominent cities throughout the governorate – including Shuqrah, Lawdar, Mudiya, and Al Mahfad) erupted between pro-Hadi forces and the Security Belt Forces (SBF) in August 2019, as the dynamics of the "third battle of Aden" reached Abyan.

In May 2020, international media reported clashes again emerged on the outskirts of Zinjibar city between the STC and the internationally recognized government after the launch of an offensive by pro-government troops.¹⁷ Unconfirmed reports state that the attack was carried out by the military wing of the al Islah party, which is allied with the government. After weeks of intermittent clashes near Zinjibar, which led to heavy casualties reported for both sides¹⁸, parties agreed to a ceasefire late June 2020; however, at the time of writing, Zinjibar continues to witness clashes while negotiations between the STC and Hadi government remain ongoing in Riyadh.

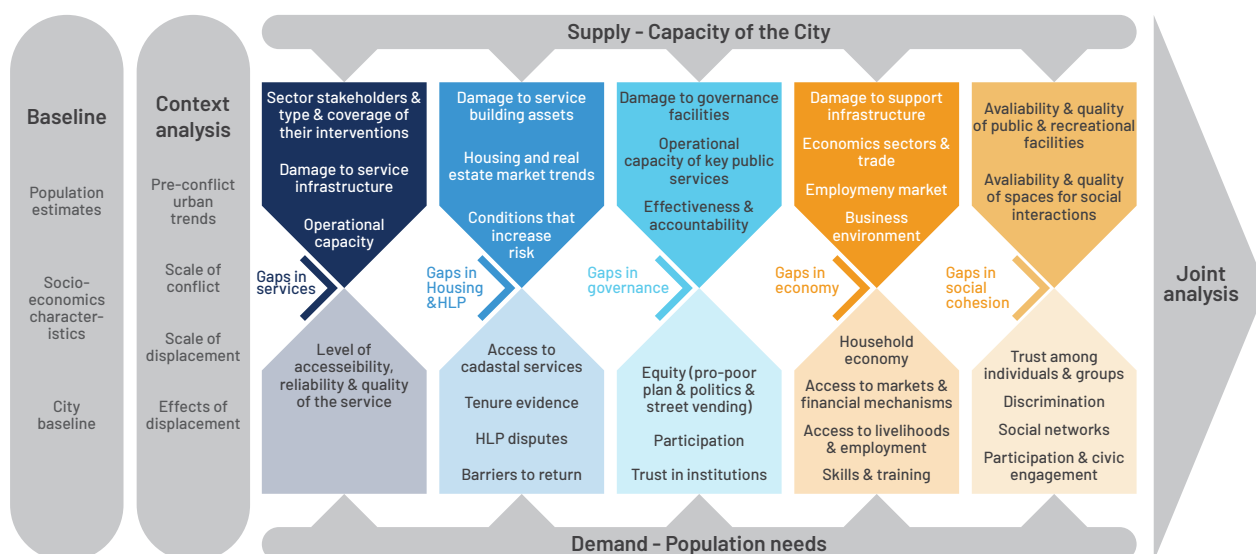
15 *Middle East Institute*, CONTEMPORARY JIHADI MILITANCY IN YEMEN, July 2018, https://www.mei.edu/sites/default/files/publications/MEI%20Policy%20Paper_Kendall_7.pdf (accessed June 24, 2020).

16 *BBC*, Yemen crisis: Rebels 'driven out of key city of Zinjibar', August 9, 2015, <https://www.bbc.com/news/world-middle-east-33839735> (accessed June 24, 2020).

17 *Al Jazeera*, Yemen gov't vows to fight separatists as clashes erupt in south, May 12, 2020, <https://www.aljazeera.com/news/2020/05/yemen-gov-vows-fight-separatists-clashes-erupt-south-200512071049827.html> (accessed June 24, 2020).

18 *GardaWorld*, Yemen: Fighting between government and separatist forces reported in Abyan province on June 23/ update 1, June 24, 2020, <https://www.garda.com/crisis24/news-alerts/353966/yemen-fighting-between-government-and-separatist-forces-reported-in-abyan-province-on-june-23-update-1> (accessed July 7, 2020).

Figure 3: Analytical Framework



Data Compilation

This city profile describes and analyzes the situation in the city across a variety of sectors. Using an **area-based** approach, each individual section paints a separate picture through the latest available data. These are then synthesized to provide the most up-to-date holistic information backed by contextual information and analysis. The aim of the profile is twofold. First, it provides partners with the widest possible canvas to support future rehabilitation plans and prioritization of investments. Second, it assists them in their operational programming and strategic policy development. Urban profiling rests on different sets of elements and pillars, which jointly provide an integrated analysis that assess the city's capacities as well as its population's needs. The main elements of urban profiling – in **bold** – are discussed below:

1. **Secondary Data Review** Secondary data draws on available publications and media to create a **context-specific** background of information on pre- and post-conflict trends and baselines, against which the full array of primary data is weighed. This provides a better understanding of focal events in the city's own history, thus allowing the triangulation of analysis with primary data results.
2. **Primary Data Collection** Background contextual evidence and area analysis are insufficient material that do not fully capture individual and community experiences. Therefore, a series of structured interviews were conducted in Zinjibar in March 2020 with different stakeholders from a variety of fields to obtain both intersectoral and people-centered data.

Sector Experts/ Key Informants (KIs)

21 current or retired government officials, professionals, business leaders, Non-Governmental Organizations (NGOs) staff, economic stakeholders were identified and selected as key informants because of their practical experience and knowledge of the city. Intersectoral interviews were conducted focusing on education, healthcare, access to services, housing, the city's infrastructure, safety and security, and the like.

Community Focal Points (CFPs)

25 community leaders and elders were identified and selected for interviews because of their long-standing ties to and knowledge of their community needs. Themselves residents representing a geographically distinct locality – a block, neighborhood, or a district – the CFPs are ideally suited to provide accurate, people-centered, answers about their community needs, as well as about the quality, availability, and accessibility to basic services. To ensure the widest possible city-wide coverage, the selected CFPs are those who represent the largest number of the HHs and enjoy ties to the city's government.

Figure 4: Primary Data Collection tools



3. Remote Sensing

Background contextual evidence and area analysis are insufficient material that do not fully capture individual and community experiences. Therefore, a series of structured interviews were conducted in Zinjibar And Khanfar in March 2020 with different stakeholders from a variety of fields to obtain both intersectoral and people-centered data.

- **Asset Verification** Observational Data was collected on a variety of municipal public assets, like facilities, roads, schools, hospitals and the like. The primary objective is to gather information and quantify the degree of damage that asset has suffered and assess its operational capacity. Sectors include governance; Water, Sanitation, and Hygiene (WASH); Solid Waste Management (SWM), energy, health, education, communications, cultural heritage and transportation.

During this exercise, some of the damaged buildings were photographed in order to assess the damage, this included: private, public or government buildings of a services provision nature. The rapid field asset verification did not aim to assess all or most of the damaged buildings owing to the difficulty of implementing such an assessment given the fluid situation in Yemen. Therefore, random sampling of the buildings within the predetermined areas was adopted. This approach was based on the relative distribution of the number of buildings, the level of damage shown in satellite imagery, and their approachability relative to distance from battle lines. Over 150 varying buildings were included in the assessment. These structures were evaluated based on the level of damage, ownership and nature of use while excluding all security or military buildings, as well as those that serve any other specific national security purpose.

Field images of damaged or demolished buildings were compared with satellite images by utilizing geographic coordinates taken in the field using the Global Positioning System (GPS) Explorer application installed on mobile devices. These were later office-based corrected using Google Earth. After that, buildings were assessed more accurately through field images according to below classification:

- No Visible Damage (class 1): assigned to the structures that appear to have complete structural integrity, i.e. when the walls remain standing and the roof is virtually undamaged;
- Moderate damage (class 2): visible damage level, i.e. buildings with a largely intact roof characterized by presence of partial damage (collapse of chimneys or roof tiles detach) or surrounded by large debris/rubble or sand deposit;

- Severe Damage (class 3): assigned to structures with part of the roof collapsed and serious failure of walls;
- Destroyed (class 4): assigned to structures that are total or largely collapsed (>50%). This category is also assigned when only a portion of the building has collapsed to the ground floor. In these cases, the original building structure is no longer distinguishable.

The satellite-based methodology described, has been developed based on the experience of European Commission (EC) - Joint Research Center (JRC) with assessing damages in numerous crisis areas (e.g. Georgia, Gaza strip, Lebanon).

In some cases, the interpretation is straightforward, and the risk of error is low (industrial and touristic areas), there are also borderline cases in which the assessment is difficult to discern (informal settlements and congested areas). To avoid individual bias linked to the personal judgment of a single image interpreter, collaborative work is particularly encouraged while interpreting borderline cases.

However, for this methodology to be appropriate and efficient, the quality and timing of the image acquisition are of high importance. Specifically, it should be acknowledged that the time of the year for which assessments are made is a source of important challenges with respect to monitoring damages during prolonged conflict situations - the acquisition angle and the acquisition season, both of which impede the satellite damage assessment.

The build-up pattern of Yemeni cities is also a source of important challenges. Urban density undermines the possibility of detecting damage concealing the presence of debris among other important criteria to detect affected areas.

Ground truth photographs, of the satellite images, and field visits remain very important in high density areas where satellite images have limitations. For instance, building facades affected by artillery shells may never be visible in satellite imagery.

Additionally, enumerators faced difficulties on the ground due to inaccurate positioning and GPS error margins, both of which cause navigational discrepancies.

3 Demographics and Population Movement

Available data is essentially directed at the governorate level, and it is difficult to obtain up to date population data at city level. However, with some calculations based on displacement data and Central Statistical Organization (CSO) projections we can estimate the population of Zinjibar in 2019 to be approximately 38,715 inhabitants, of which about 7,500 (or 20 percent) are IDPs, which is a significant 18 percent increase compared to 2017.¹⁹ Compared to 2004 data, this shows a very high annual growth rate of 4.5 percent. Recent displacement data suggests that about one fifth of a total of 2,940 of the people that were displaced from Zinjibar district have moved to Aden, the nearest location for displacement. It is important to note that individuals who moved to Zinjibar district are mainly from Al Hodeidah and Ta'iz Governorates.

Figure 5: Total (Estimated) Population in Zinjibar, 2004, 2017, and 2019

Year	Total Number of Population	Source
2004	19,879	Population and Housing Census 2004
2017	31,203	Population and Housing Census projections
2019	38,715	Rectified population numbers per IOM, DTM round 37 data

Source: Population Census 2004, IOM, DTM Round 37, 2019.

According to the 2004 Population and Housing census, Zinjibar's population numbered 19,879 inhabitants. According to the majority of CFP respondents (80 percent), the total population in Zinjibar city has increased over the past six months, whereas 20 percent state that the total population has approximately remained the same; no respondent indicated that the population had decreased in the past six months.

Figure 6: Top 10 Governorates with Displaced Individuals from Zinjibar District, 2019, UN-Habitat (2020)

Governorate	Sum of Total IDPs Individuals	Percentage
Aden	594	20%
Shabwah	378	13%
Dhamar	336	11%
Ibb	336	11%
Hadramawt	270	9%
Abyan	258	9%
Amran	216	7%
Ma'rib	120	4%
Ta'iz	90	3%
Al Bayda	84	3%

IOM, DTM Round 37, 2019.

Figure 7: Top 5 Governorates of Origin of Displaced Individuals to Zinjibar District, 2019, UN-Habitat (2020)

Governorate	Total IDP individuals	Percentage
Al Hodeidah	4,974	66%
Ta'iz	2,508	33%
Amanat Al Asimah	30	0%
Al Bayda	24	0%
Ibb	6	0%
Lahj	6	0%

Source: IOM, DTM Round 37, 2019.

According to the reports released by the Government, IDPs from outside Abyan Governorate are mainly from Al Hodeidah, Ta'iz, Sana'a, and Al Bayda. The gross IDP movement within Zinjibar district is estimated at +14.73 percent relative to the pre-crisis population in the district. The Humanitarian Needs Overview (HNO) data estimates that IDPs make up 19.91 percent of the total estimated population in Zinjibar district whereas CFP respondents estimate that 25 percent of the city's population are IDPs. IDPs in Zinjibar district are mainly residing in Al-Tameesi, Amoudia, Ba Shaharah, Bajedar, Dahl Ahmed and Shaddad Fort.

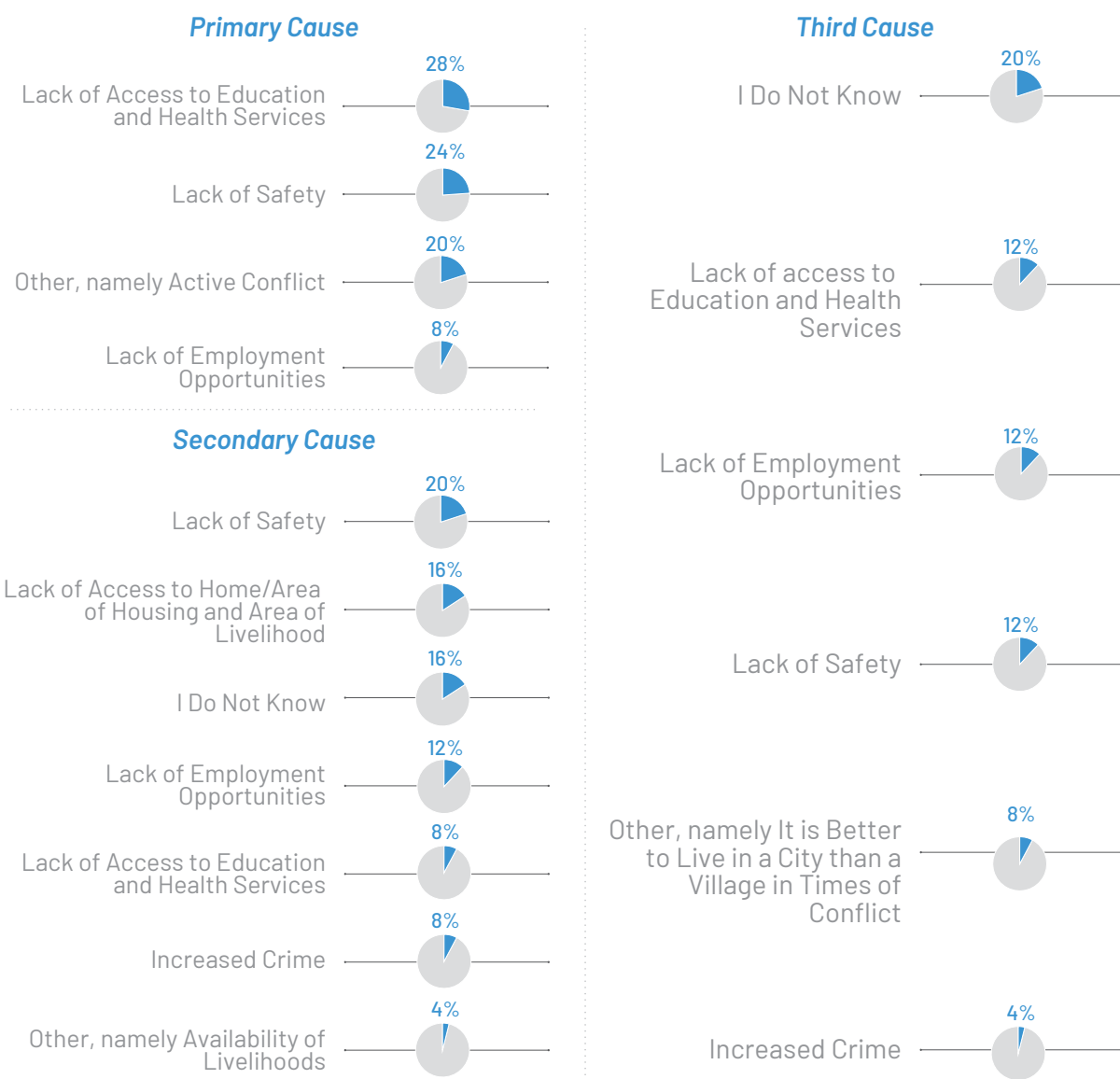
¹⁹ Methodology for reaching these numbers can be found here: https://pngk.org/docs/yemen-urban-data/urban_indicators/#percentage-idps.

Figure 8: IDPs Location and Number, UN-Habitat (2020)



Source: IOM, DTM Round 37, 2019.

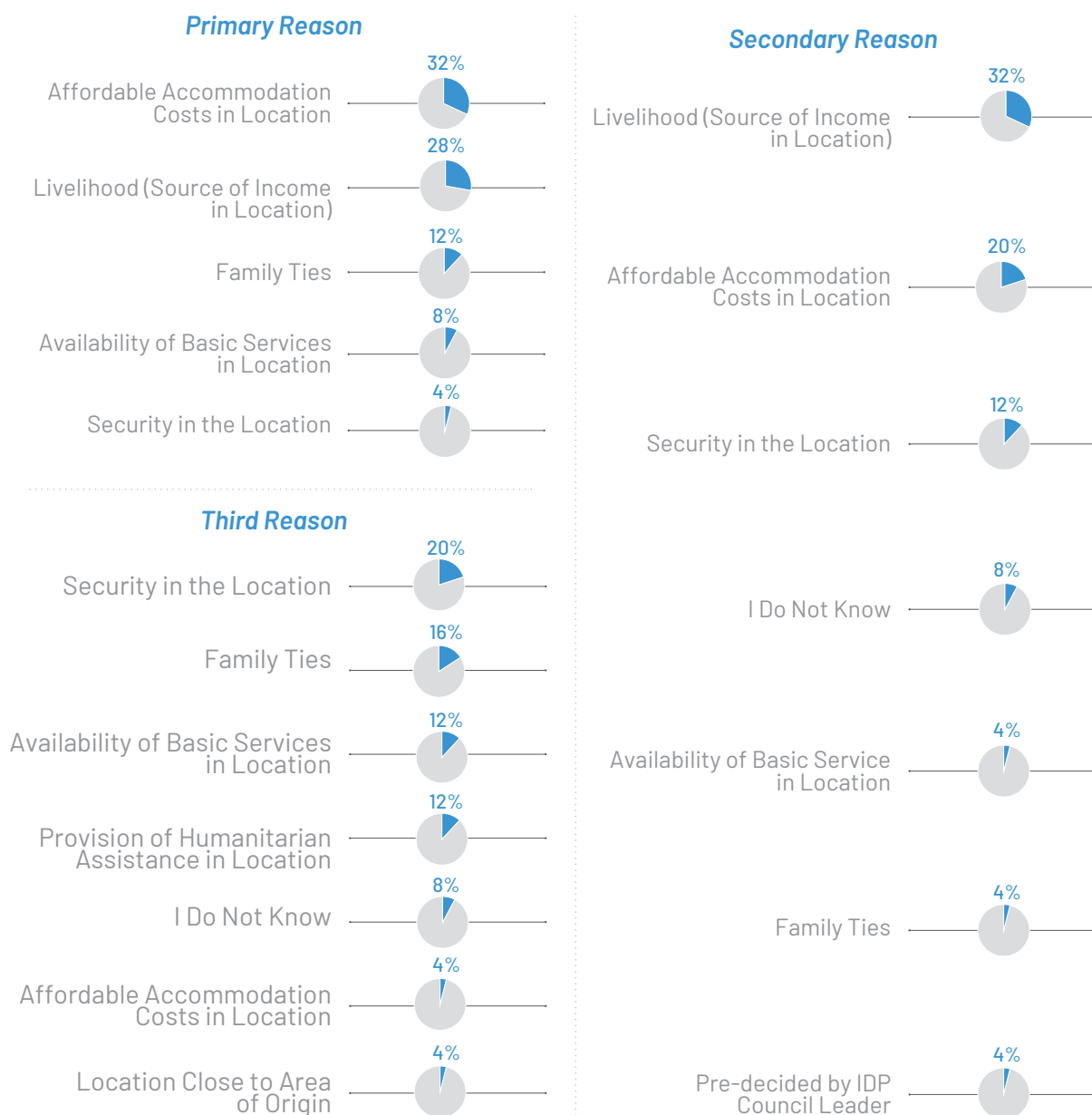
Figure 9: Primary, Secondary, and Third Main Causes Named for Displacement in Zinjibar city, 2020



Source: CFP Survey, March 2020.

Following CFP data, the main primary reasons for displacement, in order of importance, include lack of access to education and health services, closely followed by lack of safety, active conflict, lack of employment opportunities, and death of husband/family reasons. Secondary reasons include, in order of priority, lack of safety, lack of access to home/area of housing and area of livelihood, lack of employment opportunities, increase of crime, and lack of access to education and health services. Several respondents stated they did not know the answer. As third reasons, CFP respondents, in order of importance, named lack of access to education and health services, lack of employment opportunities, lack of safety, and other reasons, namely that living in cities is better than living in villages in time of conflict. Interestingly, increase of crime levels have been mentioned as secondary and third main causes of displacement to and in Zinjibar city.

Figure 10: Primary, Secondary, and Third Reasons Named for Coming to Current Location of Residence in Zinjibar city, 2020



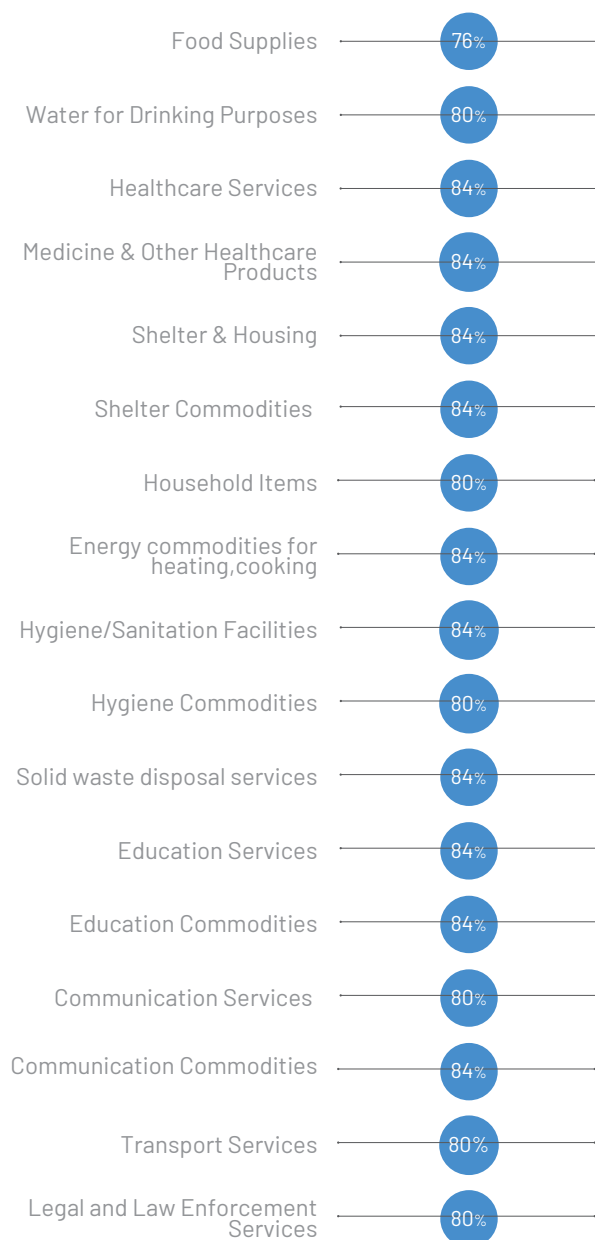
Source: CFP Survey, March 2020.

In terms of IDPs choosing their current location of residence, primary reasons in order of importance include affordable accommodation costs, livelihood (source of income in location), family ties, availability of basic services in location, and security in the location. Secondary reasons as to choosing current location of residence, in order of importance, include livelihood (source of income in location), affordable accommodation costs in location, security in the location, availability of basic services in location, family ties, and the situation where it was pre-decided by the IDP Council Leader. Interestingly, economic and/or financial reasons appear to be the main primary and secondary reasons as to IDPs choosing their current locations of residence.

ZINJIBAR RAPID CITY PROFILE

In terms of needs, CFP data reports that overall IDPs are the population group which faces most challenges in satisfying their needs, closely followed by the host community. Needs which are most challenging to satisfy for IDPs in Zinjibar city include healthcare services, medicine and other healthcare products, shelter and housing, shelter commodities, energy commodities for heating, cooking, hygiene/sanitation facilities, solid waste disposal services, education services, and education commodities.

Figure 11: Percentage of the IDPs Which Face Challenges in Satisfying Needs in Zinjibar city, 2020



Source: CFP Survey, March 2020.

Migrants Mapping (and Contextual Analysis)

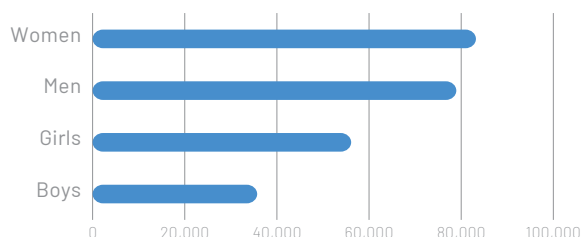
Yemen has a complex migration history, acting as a country of origin, transit and destination that spans decades, and has often been interminably linked to Yemen's political and security situation as well as the broader regional context. Despite the on-going conflict, a renewed epidemic of cholera, and near famine conditions in much of the country, Yemen's proximity to the Horn of Africa means that the southern coastal governorates of Aden, Lahj, and Abyan remain significant transit points and destinations for migrants seeking livelihoods and opportunities. The International Organization for Migration (IOM) early November 2019 reports that, from July to September, 23,403 migrants arrived in Yemen, making the total number of arrivals recorded by IOM since the start of 2019 to be 107,781, out of which 4,000 migrants were in Abyan. Their ultimate destination is not Yemen, but rather Saudi Arabia and other wealthy Gulf countries where they hope to find paid employment. Though specific information on migration in Zinjibar is not readily available, it should be assumed Zinjibar is a migrant arrival point due to its proximity to the coast.

Yemen, including Zinjibar, is facing the world's largest protection crisis, with potential widespread violations of International Humanitarian Law (IHL) and International Human Rights Law (IHRL), forced displacement, and weak rule of law.

Latest available HNO data estimates the current population in Abyan Governorate at 615,154 out of which 127,825 (21 percent) are in acute need and 144,150 (23 percent) are in moderate need in terms of protection assistance.²⁰ Comparison between 2018 and 2019 HNO data indicates that the caseload of people in acute need has significantly increased in the protection cluster area (up by 26 percent).²¹ In Abyan Governorate specifically, those most in need of protection assistance are women (83,199 – 16 percent), followed by men (78,940 – 13 percent), girls (56,117 – 9 percent), and then boys (53,719 – 9 percent).²²

Limited access to protection leads to negative coping mechanisms, including child recruitment into armed groups, increased child labor, and early marriage. The Protection Cluster in Yemen, on November 25, 2019, reported that 76,341 people had been reached in Abyan Governorate between January and October 2019.²³ More specifically, HNO data estimated the 2019 population in Zinjibar district at around 40,000 out of which 32,566 (80 percent) are in acute need; it was reported no persons were in moderate need in terms of protection assistance.

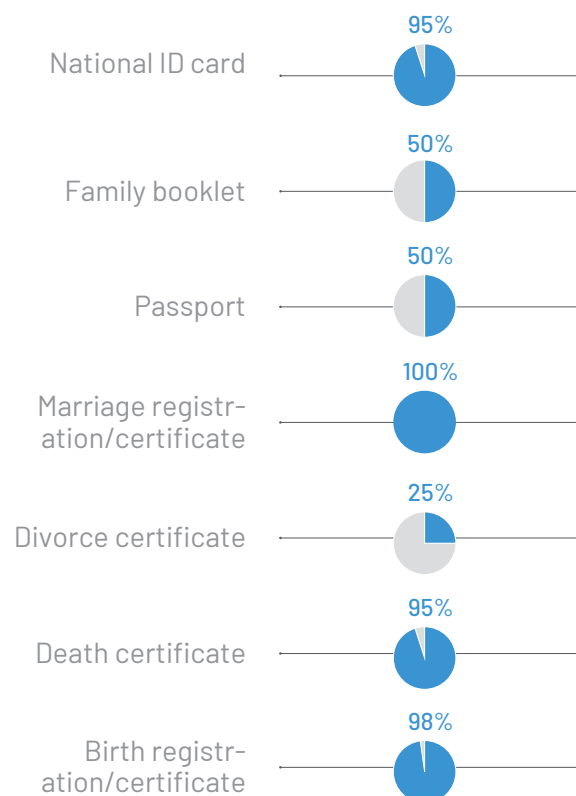
Figure 12: Population in Need of Protection Assistance in Abyan Governorate, 2019



Source: HNO data, 2019.

According to CFP data, 95 percent of the population is currently in possession of a national ID card; additionally, 100 percent of the population is in possession of their marriage registration/certificate, but only 25 percent of the population is in possession of their divorce certificates. Moreover, 98 percent of the population is currently in possession of their birth registration/certificate. However, 50 percent of the population is currently in possession of a passport and 50 percent of the population is in possession of a family booklet. However, an approximate 15 percent of IDPs is in possession of their family booklet. According to CFP respondents, an approximate 75 percent of IDPs is in possession of birth registration documentation.

Figure 13: Percentage of the Population Currently in Possession of Documentation in Zinjibar city, 2020



Source: CFP Survey, March 2020.

However, it should be noted that according to KI data, there are no civil registry facilities in Zinjibar city (and the civil registry in Khanfar is reported not operational) which would lead to the city's residents currently facing difficulties in having birth declarations, recognition of deaths and matrimonial matters processed, and registrations of divorce cases recorded and handled. The courts however are reported as operational by KI respondents, both in Zinjibar city as well as Khanfar.

20 UNOCHA, HNO, 2019.

21 UNOCHA, Humanitarian Update Covering 24 January – 19 February 2019, Issue 3, https://reliefweb.int/sites/reliefweb.int/files/resources/Issue_03FINAL.pdf (accessed March 15, 2020).

22 UNOCHA, HNO, 2019.

23 Protection Cluster Yemen, RESPONSE AND GAP ANALYSIS, November 25, 2019, https://reliefweb.int/sites/reliefweb.int/files/resources/pc_yemen_-_response_and_gap_analysis_as_of_oct_2019.pdf (accessed March 15, 2020).

1. Children

Children are bearing the brunt of the conflict; at the time of writing, it is estimated that country-wide a total of 12.24 million children (under 18 years old) is in need.²⁴ At least one child dies every ten minutes in Yemen because of preventable diseases such as diarrhea, malnutrition and respiratory tract infections.²⁵ In December 2019, the United Nations Children's Fund (UNICEF) reported that over 368,000 children under five years are suffering from severe acute malnutrition (SAM)²⁶; pre-conflict (2013) data states that 39.9 percent of children under the age of five years were underweight.²⁷ Damage and closure of schools and hospitals are threatening children's access to education and health services, rendering them vulnerable to serious protection concerns. HNO furthermore reports that conflict is significantly undermining children's psychosocial well-being with at least 35 percent of child protection incidents reported to social workers in 2018 being related to mental health and psychosocial issues.²⁸

According to CFP data, there are two unaccompanied boys in Zinjibar city while there are no unaccompanied girls reported. In terms of separated children, CFP data mentions 20 separated boys and 9 separated girls. Additionally, in terms of children being exploited through work, CFP data reports a total number of 12 boys and 8 girls. Moreover, CFP data reports 58 child-headed households (either because the rest of the members of the household unit recognize the child as head of household or because a child is living by him-/herself).

2. Women and Girls

According to CFP data, there are 937 pregnant/lactating women or girls. Additionally, CFP data states there are 269 households where a woman is head of household (either because other members of the household recognize the woman as head of the household unit or through the situation where a woman is living alone). According to the governmental reports, there are 841 widows in Zinjibar district and 225 divorcees. KI data furthermore indicates that local authorities have imposed restrictions on street vending which mostly apply to vulnerable groups, including women and the elderly.

For women specifically, it is challenging to secure and maintain a job. According to approximately 85 percent of CFP respondents, the main barriers faced by women in taking on a greater role in the local economy is the raising of children and domestic work. Additionally, CFP respondents, in order of importance, have named not enough jobs, not enough skills, and limited access to finance as first main barriers faced by women in terms of taking on a greater role in the local economy in Zinjibar city. Though cultural and religious reasons are not mentioned as a first main barrier, it is mentioned as a factor in the second and third pillar at a relatively low percentage.

24 UNICEF, Humanitarian Action for Children 2020 – Yemen, December 3, 2019, <https://reliefweb.int/report/yemen/humanitarian-action-children-2020-yemen> (accessed March 15, 2020).

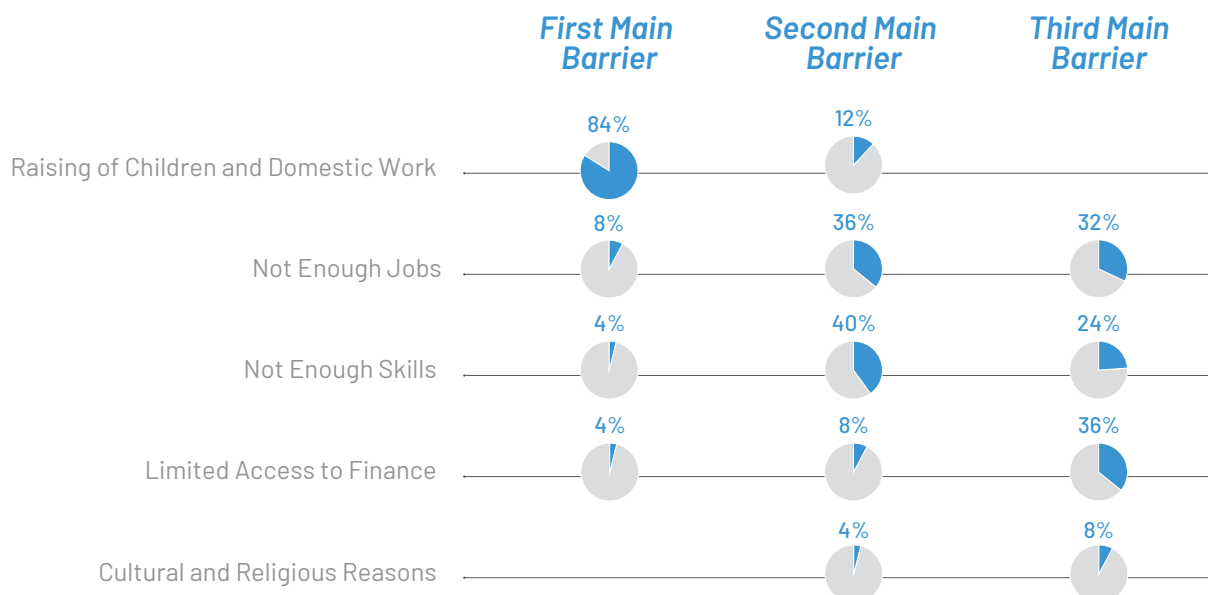
25 UNOCHA, Humanitarian Needs Overview 2019, https://reliefweb.int/sites/reliefweb.int/files/resources/2019_Yemen_HNO_FINAL.pdf (accessed March 15, 2020).

26 UNICEF, Humanitarian Action for Children 2020 – Yemen, December 3, 2019, <https://reliefweb.int/report/yemen/humanitarian-action-children-2020-yemen> (accessed March 15, 2020).

27 CIA The World Factbook, Yemen, <https://www.cia.gov/library/publications/the-world-factbook/geos/ym.html> (accessed March 15, 2020).

28 Protection Cluster Yemen, RESPONSE AND GAP ANALYSIS, November 25, 2019, https://reliefweb.int/sites/reliefweb.int/files/resources/pc_yemen_-_response_and_gap_analysis_as_of_oct_2019.pdf (accessed March 15, 2020).

Figure 14: First, Second, Third Main Barriers that Women Face in Taking a Greater Role in the Local Economy in Zinjibar city, 2020



Source: CFP Survey, March 2020.

3. People with Disabilities

Yemen is a state party to the Convention on the Rights of Persons with Disabilities²⁹ (CRPD) and its Optional Protocol, which it signed in 2007 and ratified in 2009. In June 2019, the United Nations Security Council (UNSC) unanimously adopted the first resolution on the protection of persons with disabilities in armed conflict³⁰; the resolution calls on states and parties to armed conflict to protect persons with disabilities in conflict situations and to ensure they have access to justice, basic services, and unimpeded humanitarian assistance. At a national level, articles on disability are included in the Constitution (e.g. Article 56); an overarching national disability law has been established in 2002, namely Law No. 2 creating the Disabled Care and Rehabilitation Fund for people with disabilities³¹; and in 2014, a National Disability Strategy was adopted.³²

CFP data reports there are a total of 214 people with disabilities residing in Zinjibar city.

4. Marginalized Groups

Marginalized groups have existed in Yemen for centuries but are now increasingly struggling to survive. One of the most vulnerable groups identified is the Muhamasheen community (locally referred to as 'Akhdam'), Yemen's most marginalized group³³, who suffer from caste-based, socio-economic, and political discrimination and fall outside established tribal and societal structures. While there are no official statistics on the size of the community, in 2002, it was estimated there were 200,000 Muhamasheen³⁴, and in 2014, UNICEF estimated the Muhamasheen population constituted some 10 percent of the population.³⁵

Historically, the Muhamasheen have mostly lived in very poor conditions in segregated slums on the periphery of urban areas, including Zinjibar city. Slums consist of small huts haphazardly built of wood and cloth where few basic services were available. Many Muhamasheen are unemployed; Muhamasheen are generally excluded from public sector jobs (except in waste management and as street cleaners); in the private sector, they are often confined to menial, low-paid jobs such as shoe-shining and car washing.³⁶

29 United Nations, CONVENTION ON THE RIGHTS OF PERSONS WITH DISABILITIES, <https://www.un.org/disabilities/documents/convention/convoptprot-e.pdf> (accessed March 15, 2020).

30 UNSC, Resolution 2745 (2019), S/RES/2475 (2019), June 20, 2019, [https://undocs.org/s/res/2475\(2019\)](https://undocs.org/s/res/2475(2019)) (accessed March 15, 2020).

31 Social Protection, National Union of Yemeni Disabled Associations, <https://www.socialprotection.org/connect/stakeholders/national-union-yemeni-disabled-associations> (accessed March 15, 2020).

32 WHO Mindbank, National Disability Strategy 2014 – 2018, March 12, 2014, <https://www.mindbank.info/item/5981> (accessed March 15, 2020).

33 EC, Case Study Yemen, Guidance Package on Social Protection across the Humanitarian-Development Nexus, May 27, 2019, <https://europa.eu/capacity4dev/sp-nexus/documents/span-2019-case-study-yemen> (accessed March 16, 2020).

34 M. Colburn, The Republic of Yemen: Development Challenges in the 21st Century, CIIR, 2002, 63.

35 UNICEF, Yemen: Breaking social barriers to reach marginalized communities, October 15, 2014, <https://www.unicef.org/mena/press-releases/yemen-breaking-social-barriers> (accessed March 16, 2020).

36 Sana'a Center for Strategic Studies, The Historic and Systematic Marginalization of Yemen's Muhamasheen Community, June 4, 2019, <https://sanaacenter.org/publications/analysis/7490> (accessed March 16, 2020).

5. Survivors of Violence

Reported cases of the Gender-Based Violence (GBV) in Yemen increased by 36 percent between 2016 and 2017 and by an additional 70 percent in 2018, which does not account for cases missed due to chronic underreporting.³⁷ The escalation of the conflict and economic pressure are increasing risks of GBV and have led to a near collapse of protection mechanisms and an increased vulnerability to violence and abuse. The latest available GBV Information Management System data indicates that women and girls received nearly 85 percent of all services for GBV survivors, including psychological, legal, health and shelter support; approximately 12 percent of these services were provided to displaced women and girls.³⁸ The United Nations Population Fund (UNFPA), in December 2018, reported that country-wide, GBV incidents included physical assault (46 percent), psychological abuse (22 percent), denial of resources (17 percent), child marriage (11 percent), sexual abuse (3 percent), rape (1 percent).³⁹ It should be noted that reporting on sexual violence in Yemen remains particularly difficult because of social conservatism and stigma. In terms of response, the International Rescue Committee (IRC) in January 2019 reports that current gaps and challenges in the provision of GBV services – particularly availability, quality, and appropriateness – are largely the result of the inadequate inclusion of gender perspectives into Yemen’s humanitarian programming cycle across all sectors, including protection.⁴⁰

³⁷ UNFPA, Psychosocial Support for Women Survivors of Violence in Yemen, October 4, 2019, <https://www.unfpa.org/sites/default/files/resource-pdf/19-255-MHPSS-Case-YE-MEN-2019-10-04-1718.pdf> (accessed March 16, 2020).

³⁸ UNOCHA, Humanitarian Needs Overview 2019, https://reliefweb.int/sites/reliefweb.int/files/resources/2019_Yemen_HNO_FINAL.pdf (accessed March 16, 2020).

³⁹ Ibid.

⁴⁰ IRC, Protection, Participation and Potential Women and Girls in Yemen’s War, January 2019, <https://www.rescue.org/sites/default/files/document/3550/yemenwomenandgirlspolicybrieffinalreadyfordissemination.pdf> (accessed March 16, 2020).

Highlights

In the recent past, Zinjibar has witnessed several peaks of conflict activity, most of which left behind a great deal of distrust among locals who in turn aligned with different political and/or security actors. These local suspicions threaten to further negatively impact on the social cohesion fabric which binds families, neighbors and communities together throughout Zinjibar. Any interventional project must first aim at building social mobilization and linkages between community structures and actors.

- With the increasing humanitarian needs in Yemen, international support mainly focuses on the humanitarian response. Efforts to develop mechanisms and models for local governance and to further social cohesion have remained insufficient, uncoordinated and have so far involved a limited number of players.
- With current available funds, the LC cannot deliver anticipated services. Dedicated funds to local governance entities should be managed and properly planned;
- Continue the coordination between humanitarian actors and local councils as locals know the area's best and could easily coordinate with the people there.
- Independence of the local council from the fighting factions on the ground is crucial to be able to provide services without interruptions to all people equally.

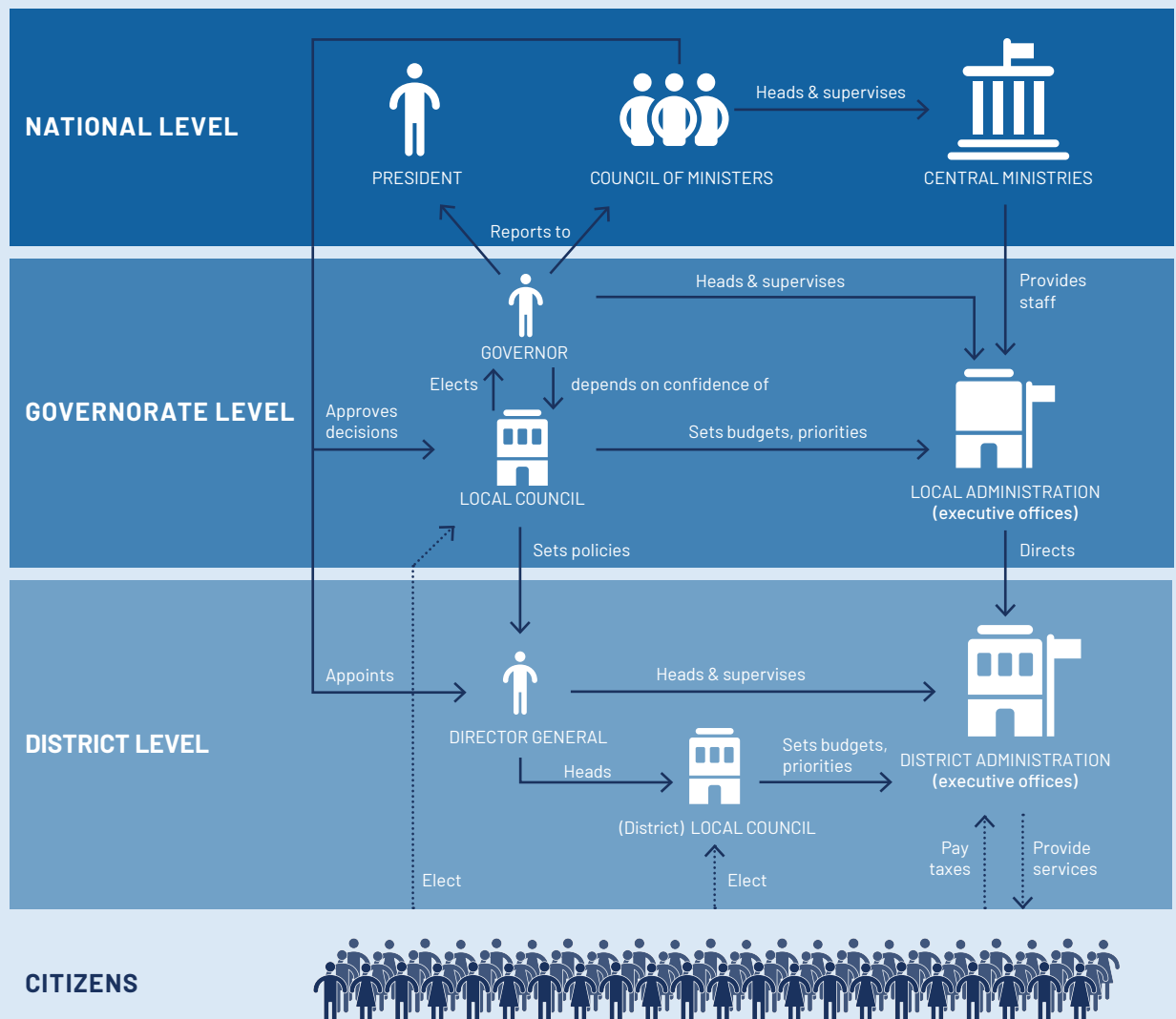
1. Legal Framework

During the interim years between 1990 (unification) and 2001, the new united Yemen organized three national elections, two parliamentary and one presidential and following the civil war in 1994, former president Saleh carried out a large-scale restructuring of the southern administration. To begin with, he ended the central administrative role that the former capital, Aden, had played in the five outlying southern provinces: Lahj, Abyan, Shabwah, Hadramawt and Al Maharah consolidating power and resources in Yemen at the central level.⁴¹

The state had previously responded to calls for decentralization in 2000 with the Local Authority Law (LAL) where LCs were introduced at governorate and district levels; there were 21 governorates and one municipality in Sana'a, the upper tier, and 333 districts, the lower tier. Two LCs elections took place in 2001 and 2006.

41 Stephen Day, Barriers To Federal Democracy In Iraq: Lessons From Yemen, *Middle East Policy Council*, Fall 2006, <https://mepc.org/journal/barriers-federal-democracy-iraq-lessons-yemen> (accessed March 23, 2020).

Figure 15: Local Governance in Yemen According to Laws 4/2000 and 18/2008



Source: Berghof Foundation Operations GmbH, 2019.

After 2002, when LAL established the LCs, the latter were intended to simplify this structure. In theory, they represented a mechanism of stability which, on the one hand would allow for a reduction in the authority of the national government by transferring some administrative and financial functions over to local administrations (i.e. LCs) and, on the other, it would enable the local population to elect their own representatives. However, decentralization was reliant upon the degree of political will.

There has been considerable confusion as to whether "decentralization" referred to the transfer of authority from central to local governing bodies, or simply the delegation of responsibilities and tasks downwards while retaining final authority in the hands of central national bodies. Consequently, there was no clear definition of hierarchical administrative powers and prerogatives.

While this structure appears to preserve the relative powers of local government, thus confirming a positive political decentralization, central control over local decision-making remains strong as the president and the central government reserved the right to veto any of the local activities.

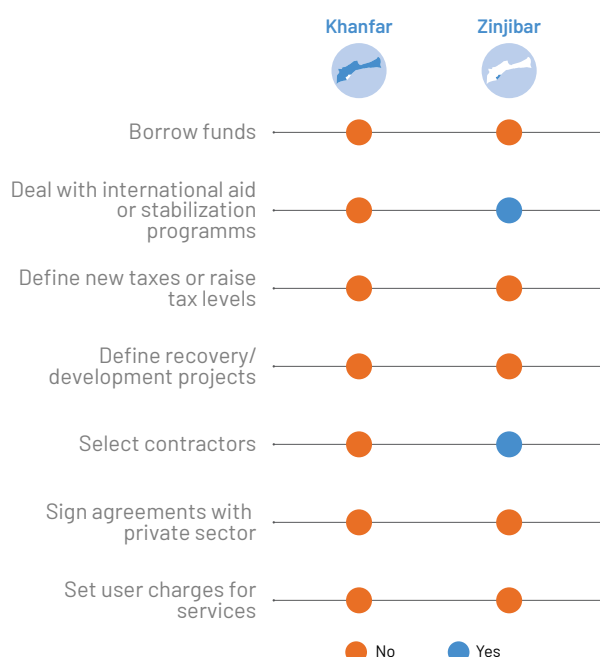
Additionally, while elected officials were able to discuss public issues in various Governorate and District Council meetings, and discuss with district residents, Local Council members lacked the authority to fire centrally appointed local officials (e.g., directors of health, education, security). Local Council members can submit a vote of no confidence to make sure that terms of local officials are not further extended.⁴²

Furthermore, as per the LAL amendment in 2002, provincial and local councils were no longer in charge of overseeing the police chiefs in their respective communities who historically come from outside southern Yemen.⁴³

42 Daniel R. Green, *Defeating Al-Qaeda's Shadow Government in Yemen* (The Washington Institute for Near East Policy, 2019), 14.

43 Ibid.

Figure 16: Activities that Local Government Can Do/Implement Without Permission from Government, 2020



Source: KI survey, March 2020.

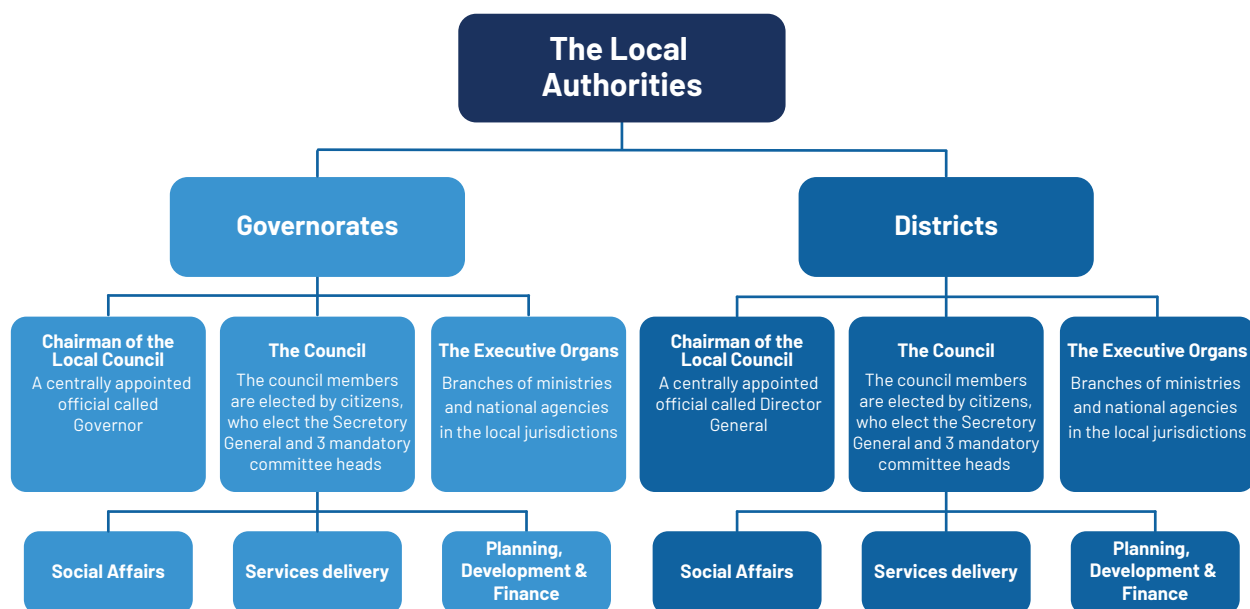
2. Government Structure

Although the local government structure is based on the general organizational structure of governorates, it also departs from it in several significant ways. Broadly, organizational units (offices and bureaus) are either tied directly to the Office of the Governor or managed by the Office of the Deputy Governor. The Office of the Governor, which ranks as a government minister, exercises executive control over the governorate, either directly or through his deputies.⁴⁴

The district local authorities have a similar structure at the governorate level except that the head of the District LC and all civil servants and public employees in the district is called Director General, who is appointed centrally, and the organization units are tied directly with the ones at the governorate level.⁴⁵

The election process divides the districts' population into sub-districts depending on each one's density. Residents cast ballots for their representative at the LC as well as the president of the LC who, in turn, represents them at the governorate council. To serve as councilor, the elected councilor must be a natural-born Yemeni citizen, a Muslim, at least 25-years-old, and be a resident of the district which they seek to represent. Upon election, their mandate is limited to four years in office, it was extended to six years in 2006, though they may run for reelection at the end of that term.

Figure 17: The System of Local Government in Yemen



Source: The World Bank Group, 2018.

⁴⁴ El Basti, A City Development Strategy, 24 – 30.

⁴⁵ Joshua Rogers, Local Governance in Yemen: Theory, Practice, and Future Options (Berghof Foundation Operations GmbH, 2019), 13 – 16.

Until 2008, governors were appointed by presidential decree. Following significant political pressure, an amendment was added that year which granted LCs, at both the governorate- and district- level, the right to elect governors. According to Article 38, after the electoral college elects the governor, the announced winner is confirmed to the post by a presidential decree. Yet, because governors rank as cabinet ministers, in practice, few have ever been elected in this manner. Former president Ali Abdullah Saleh initially reluctantly upheld the letter of the law for most of Yemen's governorates, except for Ad Dali' and Sa'dah, where he appointed his loyalists. The contradictions stem from the inherent ambiguities within LAL itself. For instance, Article 105 specifies that if the Ministry of Local Administration fails to elect a governor, the President may appoint a person of his choice among the members of the governorate's local council. The same law upholds the right of the president to appoint officials at lower district posts as well. Since the 2011 revolution and the political crisis that followed 2014, new elections for local councils never took place in 2012 as planned meaning that council members which were elected in 2006 are still in office.⁴⁶

3. Budget and Financing

In theory, LAL empowers governorates- and districts- councils to generate their own revenues through a series of tariffs and taxes. It specifies four main sources of revenues for the councils: firstly, district's local revenues (illustrated in the visual "Main Sources of Revenue" as per KI Survey results in Zinjibar); secondly, joint revenues gathered by the district and the governorate; thirdly, joint public resources; and forth, financial support by the central government. The budget of local councils, however, is neither distinct nor separate from the national state budget. They are, in fact, a subset of the latter which vertically integrates and consolidates taxation and finance from district to governorate to the national budget. This setup considerably limits the authority of the municipalities to amend budgets or reallocate resources to address crises as they arise. In addition, the LCs have no discretion to set the amount of taxation and must share whatever is collected with the governorate authorities, which, in turn, must share it with the central government. Revenues from the last two sources are, in theory, redistributable downwards to the local councils based on a set of criteria ranging from priority of need, population density, poverty levels, availability of resources, etc. In practice, it is unclear to which degree these funds are sufficient to address and alleviate local issues.

Figure 18: Main Sources of Revenue in Zinjibar District



Source: KI survey, March 2020.

Although the LCs are in theory entitled to financial support from the central government for capital investments and recurring operating expenses, in practice, the conflict has considerably reduced that aid. LC income is ordinarily generated from commercial taxes: fees on sports' events, tourism, building permits, registrations; state-operated utilities, such as water and electricity bills, property transfers, car registrations, entertainment venues, and the like. Yet, income from these resources is meager. The LCs have not enjoyed the authority to set a budget that would cover operations and adapt to deal with challenges as needed. They have been reliant on central government funding to cover operations and projects' costs, wages, infrastructure maintenance, investments, development programs, and capital transfers.⁴⁷

Zinjibar had one of the most dynamic urban LC in pre-conflict Yemen, outperforming others on most dimensions of operational capacity. Prior to the conflict, the DLA had both electronic and hardcopy databases and its own warehouse. Even though it did not maintain an integrated archive, it relied instead on originals from the general departments and civil service office of the governorate.⁴⁸

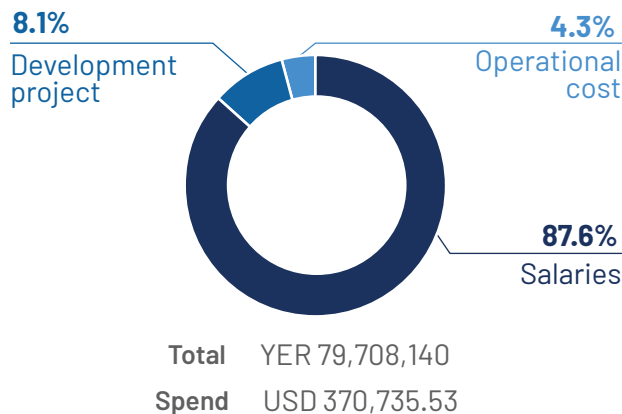
The Zinjibar LC complained of capacity gaps due to a shortage of qualified staff. However, the LC staff was directly involved in both preparing and implementing the annual plan and budget. Unlike in most other LCs, the governorate level did not seem to adjust district plans and budgets after approval at district-level. The LC was also in the practice of implementing projects outside its annual plan.⁴⁹

46 Ibid.

47 El Basti, A City Development Strategy, 24 – 30; al-Awlaqi and Maged al-Madhaji, Local Governance, 35 – 41.

48 The World Bank Group, Yemen Dynamic Needs Assessment (DNA): Second Phase Report, (Washington DC: World Bank, 2017), 153.

49 Ibid.

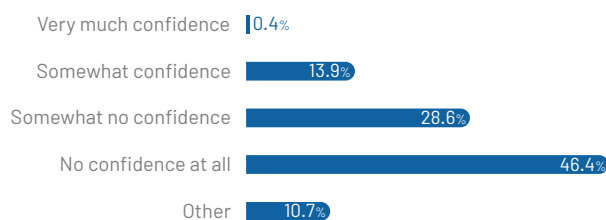
Figure 19: Governorates Office Expenditure in Abyan Governorate, 2014

Source: UNDP, *Impact of the War on Local Governance*, April 2016.

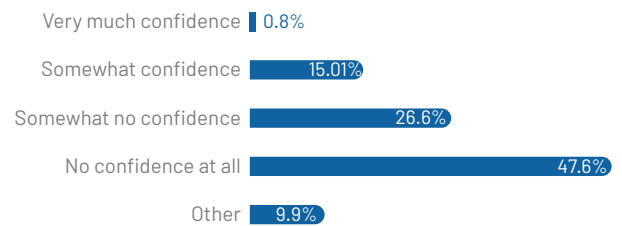
While branches of executive organs within Zinjibar received direct instructions from their counterparts at the governorate level, the District Director General submitted periodic reports to the governor on their performance. The LC complained that they had somewhat inadequate resources to perform its functions, due to poor financial resources at the district level and shortage of furniture, equipment and work tools.⁵⁰ According to the United Nations Development Program (UNDP), 78.6 percent from the governorate office expenditures are salaries.

4. Current Operations

Zinjibar has a lack of basic services, and the government plays little or no part in providing security or humanitarian aid as it lacks the capacity and infrastructure. Instead the SBF patrol the streets. As per a survey conducted by UNDP in 2016, the majority of respondents had no confidence at all in local authorities in Abyan Governorate.

Figure 20: Abyan Residents Confidence in Local Authorities (Executive Organs), 2016

Source: UNDP, *Impact of the War on Local Governance*, April 2016.

Figure 21: Abyan Residents Confidence in Local Councils, 2016

Source: UNDP, *Impact of the War on Local Governance*, April 2016.

Since its emergence in 2017, the STC has evolved into a state-like entity with an executive body (the Leadership Council), a legislature (the Southern National Assembly), and armed forces (SBF), although the latter are under the virtual command structure of the IRG's Interior Ministry. Despite partially taking control of the city, the STC could neither improve public services nor manage the work of local authorities.

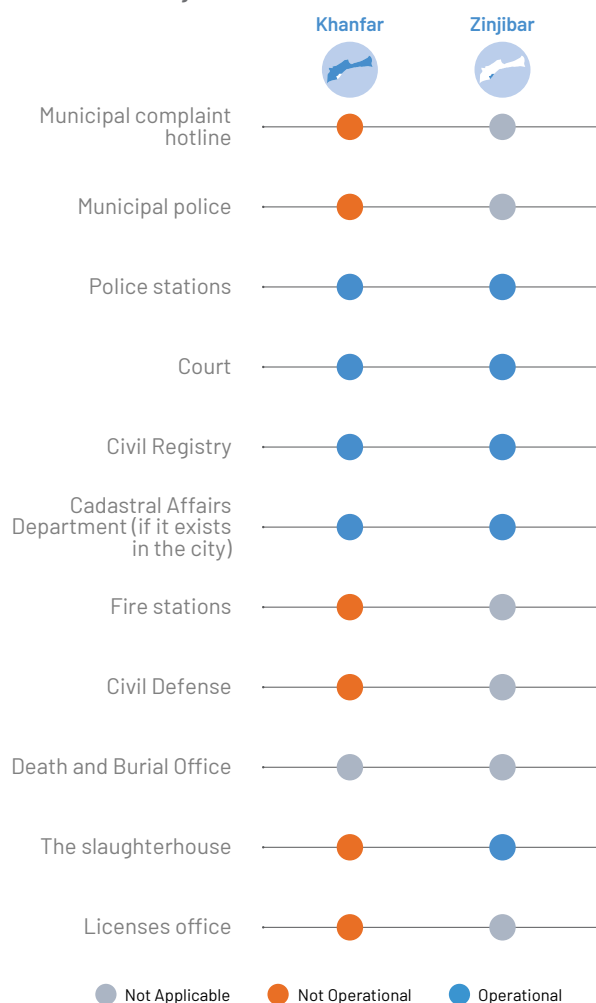
AQAP on the other hand continued to expand its territorial control in several other southern governorates, including Abyan. AQAP had seemingly learned from its previous experience controlling parts of Abyan and Shabwah governorates in 2011 – 2012, when it alienated large segments of the local populations by harshly imposing its rule. In 2015, AQAP attempted to integrate itself among local communities, especially through the provision of social welfare programs.⁵¹ The group employed this tactic to good effect in Al Mukalla by providing essential food and water to the local population despite shortages in other areas.

Financial support from the central government to local councils was cut in half in 2015, while local councils were instructed to keep only the basic operating costs of their business which has deleteriously impacted the LC's ability to provide essential services to their communities, thus undermining the trust of Yemeni citizens in state institutions.

51 Wadhah al-Awlaqi and Maged al-Madhaji, *Local Governance in Yemen amid conflict and instability*, Sana'a Center for Strategic Studies, in coordination with the project partners Deep-Root Consulting and CARPO – Center for Applied Research in Partnership with the Orient, July 2018, https://carpo-bonn.org/wp-content/uploads/2018/09/Rethinking_Yemens_Economy_white_paper_2.pdf (accessed March 10, 2020).

50 Ibid.

Figure 22: Status of Services Offered by Local Authorities in Zinjibar and Khanfar districts, 2020



Source: KI Survey, March 2020.

Evidence on the ground shows that Zinjibar LC continues to function until at least May 2017. Imagery analysis indicates that the facility has sustained some damage as of April 2017. Moreover, social media sources indicate that the physical location of the LC office may have changed. Access to major streets throughout Zinjibar city has been restricted due to presence of landmines, sewage flooding and debris. Imagery analysis also shows debris on the road south of the LC compound which likely impedes the local flow of traffic.⁵²

Meanwhile, like in most cities, Zinjibar's LC is also likely to have been severely impacted by the city-wide disruptions in terms of electricity and water. Prior to the conflict, the LC exclusively depended on the public delivery of electricity and water. Additionally, strikes and salary issues seem to have affected the functioning of the Zinjibar LC. Reports state that dwindling local council budgets are now exclusively used to pay employee salaries.⁵³ There are also reports that the LC received funds from UAE to pay LC staff salaries.⁵⁴

Nevertheless, the local councils have played a major and extremely important role in alleviating the impact of the war and its effects on the population as they played mediating roles between armed groups, which resulted into local ceasefires; facilitated safe pathways for delivery of humanitarian aid on the frontlines; and facilitated prisoner exchanges between different groups which strengthened the coherence of social fabric.

Additionally, they supported in distributing aid directly to beneficiaries in coordination with humanitarian actors. In April 2016, 2.1 million people regained access to a reliable source of water after fuel was supplied to the local water companies in eight governorates: Sana'a, Al Hodeidah, Amran, Hajjah, Sa'dah, Abyan, Lahj and Ma'rib.⁵⁵

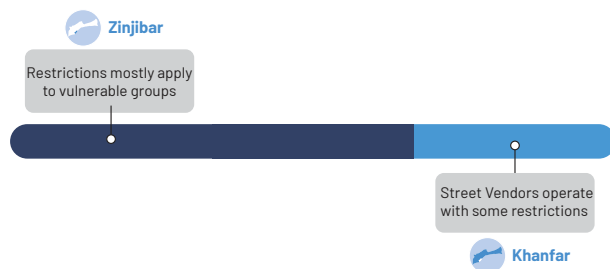
Another factor to consider is the relationship of the local authority and street vendors as the informal employment sector is an integral part of urban economies, especially for those have less employment opportunities, including marginalized groups. As per the visual "Street Vendors' Relationship with Local Authorities in Zinjibar and Khanfar districts, 2020", KI data shows there are different dynamics in each district; it is noteworthy restrictions on street vending mainly apply to vulnerable groups (including women and marginalized groups) in Zinjibar whereas no distinction seems to exist for restrictions imposed in Khanfar district; street vendors in general operate with some restrictions. Unfortunately, there is no further information available as to why vulnerable groups face restrictions in Zinjibar city.

⁵² The World Bank Group, Yemen Dynamic Needs Assessment (DNA): Second Phase Report, (Washington DC: World Bank, 2017), 153.

⁵³ Ibid.

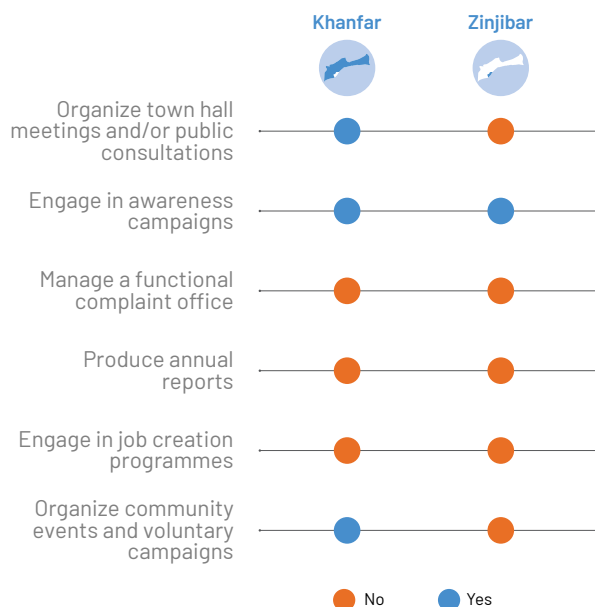
⁵⁴ Ibid.

⁵⁵ Adam Baron et. al., The Essential Role of Local Governance in Yemen, Adam Smith, October 2016, <https://sanaacenter.org/publications/main-publications/3770> (accessed March 10, 2020).

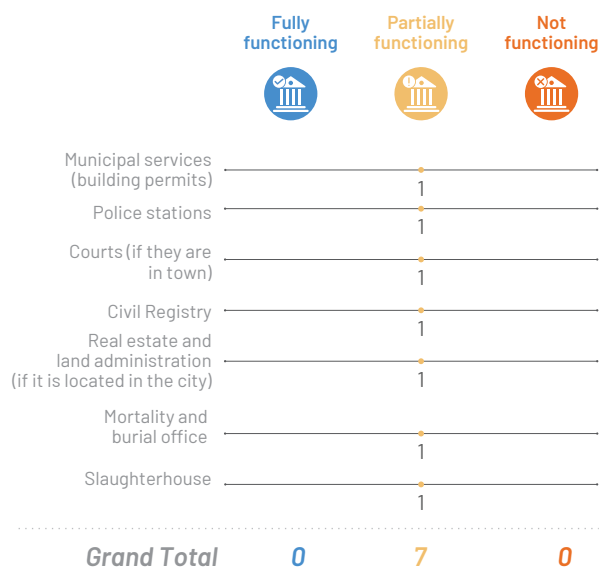
Figure 23: Street Vendors' Relationship with Local Authorities in Zinjibar and Khanfar districts, 2020

Source: KI Survey, March 2020.

Lastly, KI respondents described how transparent the LCs are in terms of public announcements being made in Zinjibar and Khanfar districts. From KI data it appears that very little public announcements are made by Zinjibar LC, the LC only engaging in awareness campaigns. Khanfar LC also engages in awareness campaigns, but furthermore organizes town hall meetings and/or public consultations and organizes community events and voluntary campaigns which is not the case in Zinjibar. Additionally, town hall meetings are not organized by Zinjibar LC; there is no functional complaint office, no production of annual reports, no engagement in job creation programmes, and no organization of community events and/or voluntary campaigns by Zinjibar LC. It is unclear whether this is solely due to lack of funding or whether there are additional factors which need to be taken into consideration (e.g. functionality of the office).

Figure 24: Public Announcements Made by the Local Council in Zinjibar and Khanfar districts, 2020

Source: KI Survey, March 2020.

Figure 25: Total Number of Governance Facilities and Their Functionalities in Zinjibar city, 2020

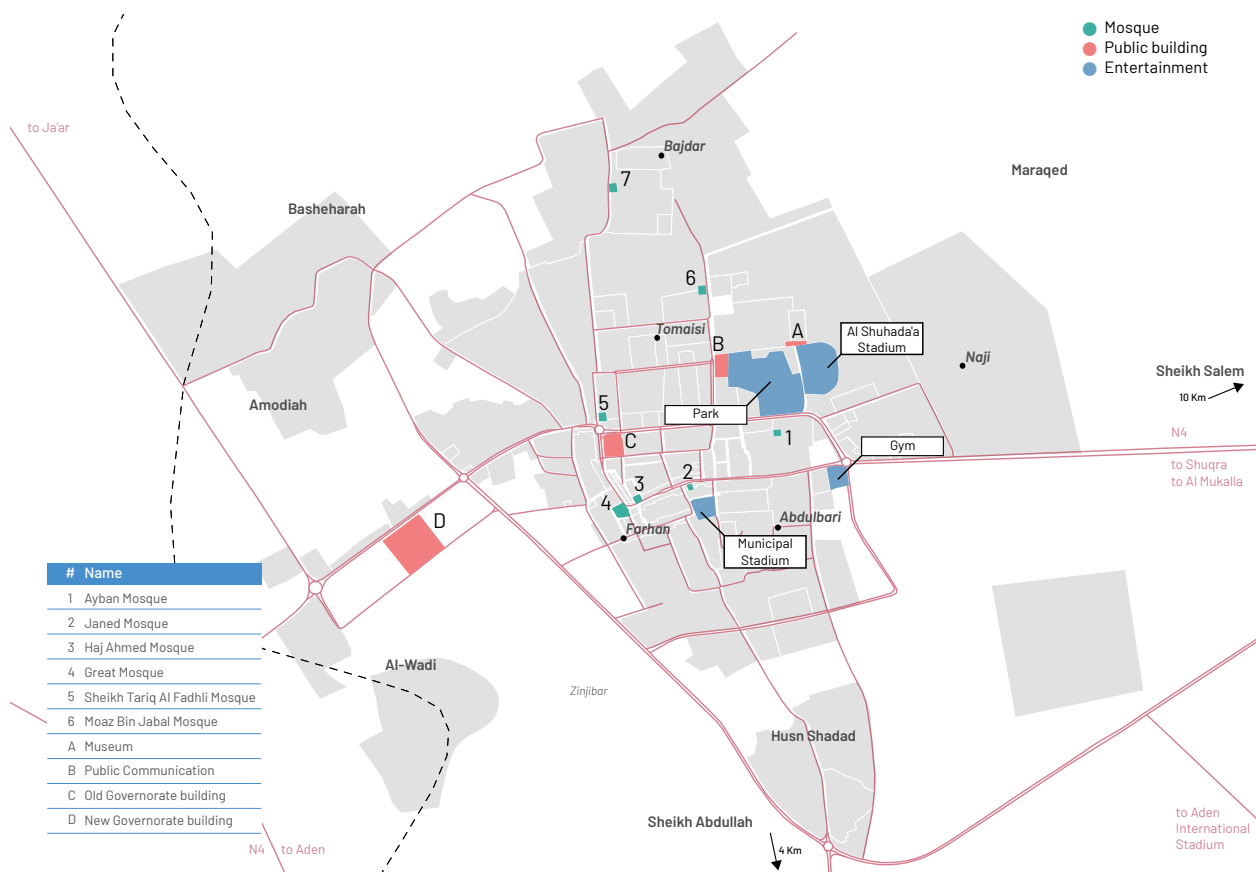
Source: KI Survey, March 2020.

5. Status of Governance Facilities

KI data collected in March 2020 provided a picture that further captures the presence (or absence) of governance facilities and the extent of damage inflicted upon said facilities. In Zinjibar city, there are a total of 7 governmental facilities out of which 100 percent are partially functioning. Interestingly, numerous governmental facilities are not available in Zinjibar city, which

e.g. include a Municipal Complaints Office (as well as Complaints Offices – hotlines), Municipal Police, a Municipal Complex, Fire Station, Civil Defense, and Licenses Office. Though there is no municipal police, partially functioning police stations are present in the city and courts are partially functioning as well.

Figure 26: List of Main Public Buildings and Mosques in Zinjibar, UN-Habitat (2020)



Source: Wikimapia, OpenStreetMap.

Highlights

Empowering communities and community mobilizers to facilitate an integrated community analysis and map resources and conflict triggers can only support the processes of decision making and prioritization of initiatives. These combined will mitigate expected negative results.

- Humanitarian actors should be mobilized at the local-level to initiate a scalable and all-inclusive local governance model for bottom-up planning and actions for an integrated preparedness, resilience, conflict resolution, and humanitarian response to the needs of a vulnerable people that relies heavily on an agricultural/fishing industry – both of which have been severely choked by the ongoing conflict on the ground, airstrikes and sea blockade.

Tribal Affiliations

Social capital in Yemen is informed primarily by tribal affiliation, particularly in rural areas and in the north, but it is also important to appreciate that tribes are neither homogeneous nor ubiquitous. Other important social capital sources include faith-based institutions, local community solidarity initiatives, civil society organizations and support from the Yemeni diaspora (although remittance has been difficult to access).

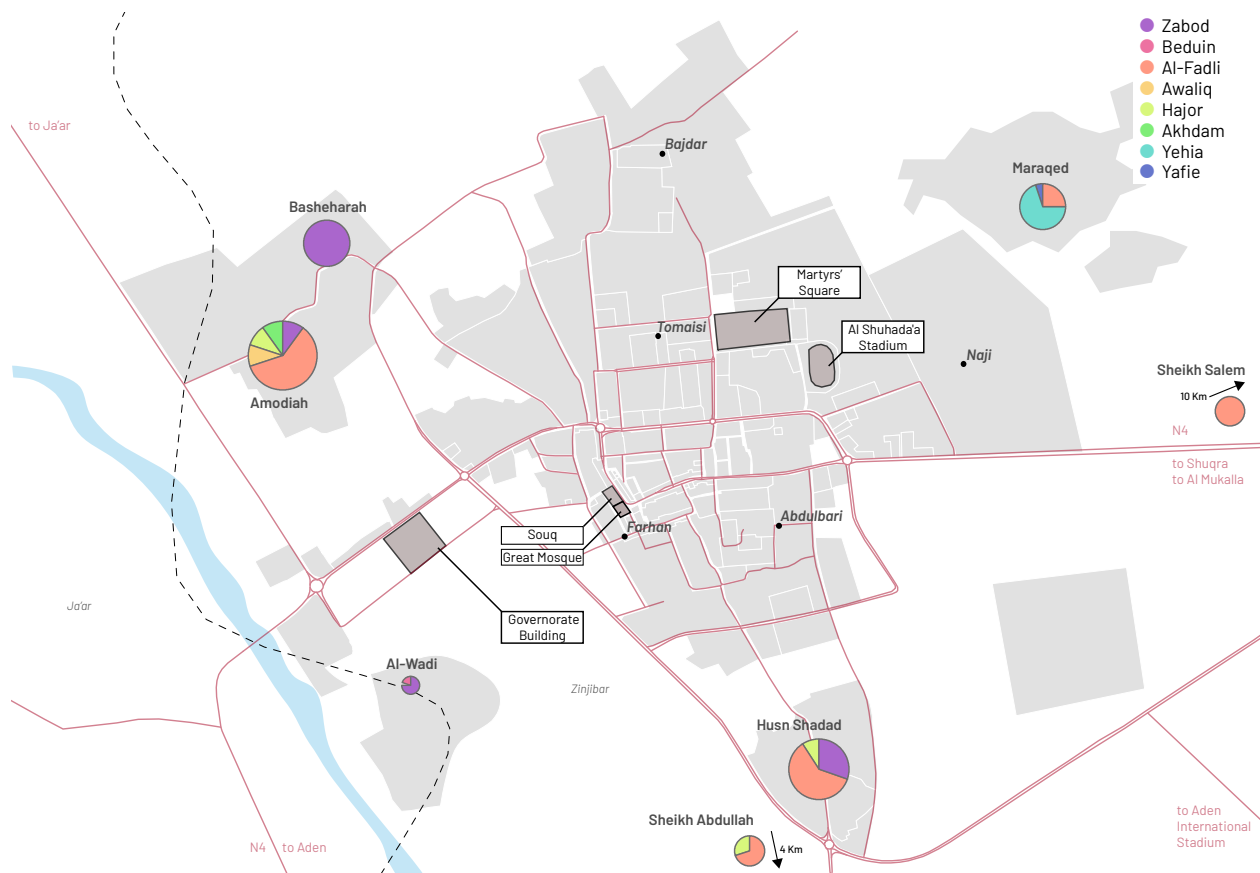
While tribal structures are relatively strongest in the northern highlands and weakest in southern Yemen, they are still utilized to resolve issues in several southern districts. Since Yemen is a patriarchal society, where tribal ideology and leadership have been male dominated historically, women in Yemen have had much less power in society than men.⁵⁶ Throughout the past, tribal rules of conduct may well have fostered strong traditions of deliberative decision making, dispute resolution mechanisms, principles for balancing private and collective interests for beneficial resource use, and protecting the interests of the socially vulnerable, but recent political, social and economic changes have eroded social capital, changing patterns of social inclusion and exclusion while pitting tribes against one another in intra state conflict and instigating political instability.

After years of uninterrupted conflict, social dynamics within communities have begun to change, tending to increase social polarization and forcing an unequal access to social safety nets. There is a lingering fear among the population that even if the war stops, local violent disputes may well continue (especially those tribal feuds). Armed groups throughout the country are becoming entrenched and equally powerful (but unaccountable) authorities in their areas. With a stagnant economy and an overwhelming majority of the youth unemployed and actively looking for any means to support their families, individuals may suffer from reprisals for cooperating with one group over another even after the conflict subsides.

According to national media, former residents of Zinjibar returning after years of displacement continue to complain about the absence of any signs of a real solution to their hardships. Many families now reside in vacant and damaged government buildings. In Bajdar block, which witnessed some of the fiercest battles over the years, most houses have been razed to the ground. With the chronic lack of effective governance, these families find it nearly impossible to petition either a federal or local government to receive compensation for the damages incurred, leaving them effectively homeless. Hundreds of families have been displaced to neighboring governorates such as Aden and Lahj over the years. Often these families would be forced to take up residence with relatives who are already strained financially, which in turn could instigates interfamilial disputes and conflicts, though information about this is not readily available. Furthermore, individuals accused of being collaborators with warring factions continue to face social stigma in their communities to this day. This cycle augments both pre- and post-conflict displacement.

⁵⁶ Becky Carter, Social capital in Yemen (Brighton, UK: Institute of Development Studies, 2017), <https://assets.publishing.service.gov.uk/media/5975f1b0e5274a2897000012/138-Social-capital-in-Yemen.pdf> (accessed June 28, 2020).

Figure 27: Tribal Breakdown of Villages Surrounding Zinjibar, UN-Habitat (2020)



Source: UNOCHA, Community Profiles, 2013.

Responsibilities

From the legislative side, the Ministry of Culture has the ultimate responsibility for Yemen's national heritage, including the protection, conservation, and monitoring of archaeological, historic, and other cultural sites; the establishment and maintenance of museums; and cultural tourism. It consists of two main institutions, the General Organization for Antiquities and Museums (GOAM) and the General Organization for the Preservation of Historic Cities of Yemen (GOPHCY).

Zinjibar was a tourist destination and contains numerous historical and natural monuments. It was also the capital of the Sultanate of Fadhli, who was among the few sultans that signed protection agreements with Britain in the early twentieth century to become part of the British Aden Protectorate.

The most prominent monuments and landmarks in Zinjibar include:

- Qurayyat site: an open archaeological site located 5km northeast of the city, with an area of 650 square meters, which includes sites and monuments from different time periods, some of which date back to prehistoric times, and some to the caliphate states located west of Wadi Hassan;
- Al-Qaru site: a site located 600 meters to the northwest of the city. Pottery pieces of blue porcelain were found there, brought from China during the Islamic ages. Next to it was the house of the English government advisor during the British Mandate period⁵⁷;
- The National Museum of Zinjibar: opened in 1981, and includes the ruins of Abyan Governorate, most of which are Islamic monuments and collections reflective of old customs and traditions;
- Sulfurian spring: one of the most important tourist attractions around Zinjibar, where people go to benefit from healing properties in Al Hami region, about 178km from Zinjibar.⁵⁸

Prior to the outbreak of the conflict, there were 27 public museums in Yemen. These national museums, including in Aden, Dhamar, Ta'iz, and Zinjibar, as well as provincial authorities in Sana'a, had extensive records. Approximately a dozen of the national museums has been damaged or destroyed due to the armed conflict, or simply suffered from negligence. Along with their collections, many of the records have been looted or destroyed.⁵⁹ Other antiquities and priceless collections have been stolen or clandestinely excavated, or illicit exported abroad. The National Museum of Zinjibar too has been pillaged and largely cleared of its collections.⁶⁰

The above are among many issues that KIs have described in the survey with regards to the challenges and needs as it pertains to culture and heritage sites in Zinjibar and Khanfar districts which is further illustrated in the visual "Situation and Status of Culture and Heritage Sites in Zinjibar and Khanfar districts, 2020". Issues which are relevant in both Zinjibar and Khanfar districts include the closure of culture and heritage sites, the random demolishing of culture and heritage sites, the looting and destruction of culture and heritage sites/assets, loss of historic documents, archival records, or databases, and the interruption of basic infrastructural services (including electricity and water services).

57 Arab feed, "أين تقع زنجبار اليمن", September 20, 2019, http://www.arabfeed.com/2015/09/20/%D8%A3%D9%8A%D9%86-%D8%AA%D9%82%D8%B9-%D8%B2%D9%86%D8%AC%D8%A8%D8%A7%D8%B1-%D8%A7%D9%84%D9%8A%D9%85%D9%86/?Posts_page=6 (accessed March 11, 2020).

58 Open Souq, "مدينة زنجبار في اليمن", <https://read.opensooq.com/%D9%85%D8%AF%D9%8A%D9%86%D8%A9-%D8%B2%D9%86%D8%AC%D8%A8%D8%A7%D8%B1/>, (accessed March 11, 2020).

59 "Request by the Republic of Yemen to the Government of the United States of America for Imposing Import Restrictions to Protect its Cultural Patrimony under Article 9 of the 1970 Convention", October 2, 2019, Bureau of Educational and Cultural Affairs, https://eca.state.gov/files/bureau/yemen_public_summary_final.pdf (accessed March 11, 2020).

60 Deborah Lehr and Ahmed Awad Bin Mubarak, "The U.S. art market for stolen antiquities from Yemen must be shut down", *The Washington Post*, January 1, 2019, https://www.washingtonpost.com/opinions/the-us-art-market-for-stolen-antiquities-from-yemen-must-be-shut-down/2019/01/01/c3df44aa-db9d-11e8-85df-7a6b4d25cfbb_story.html (accessed March 11, 2020).

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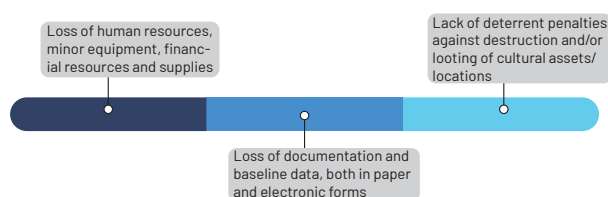
Figure 28: Situation and Status of Culture and Heritage Sites in Zinjibar and Khanfar districts, 2020



Source: KI Survey, March 2020.

In Zinjibar city specifically, KI respondents state that the loss of human resources, minor equipment, financial resources and supplies is the main issue when it pertains culture and heritage sites within the city. The second main issue reported is the loss of documentation and baseline data, both in paper and electronic forms. The third main issue mentioned by respondents is the lack of deterrent penalties when it comes to the destruction and/or looting of cultural assets and locations.

Figure 29: Main Issues Requiring Immediate Intervention in Zinjibar city, 2020

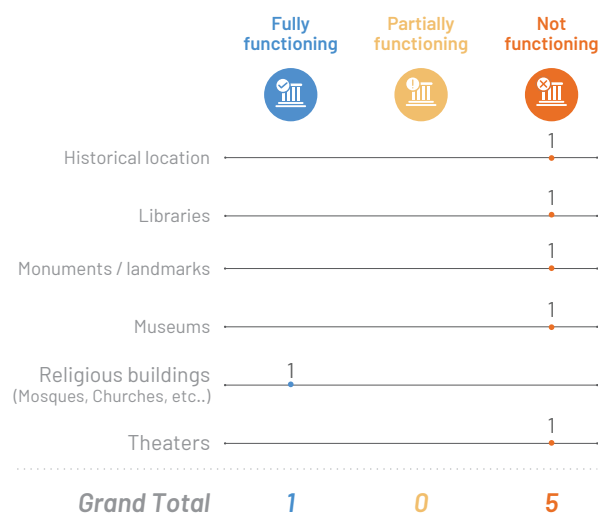


Source: KI Survey, March 2020.

Status of Cultural and Heritage Sites

KI surveys collected in March 2020 further captures the extent of damage inflicted upon the sector in Zinjibar as a result of subsequent battles on the ground. KIs identified five non-functioning cultural and historical sites in Zinjibar whereas only one site is fully functioning. The adjacent district Khanfar reported the same.

Figure 30: Total Number of Culture and Heritage Infrastructure and Their Functionalities in Zinjibar city, 2020



Source: KI Survey, March 2020.

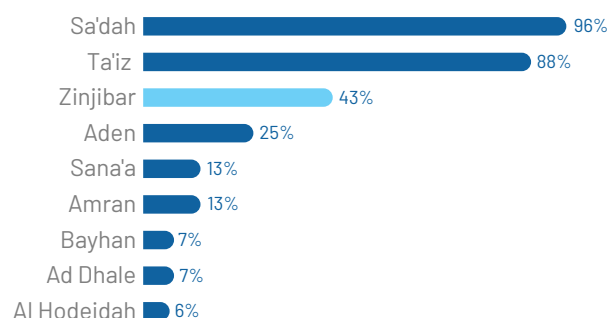
8 Housing, Land, and Property (HLP)

Highlights:

- While the Local Council (LC) remains functional, corruption and a lack of rule of law and governance have led to inequitable housing damage reimbursements. Citizens who are not politically affiliated have been further marginalized in the process.
- Recurrent sewage flooding poses a significant threat to the structural integrity of houses, intra-city transportation and public health.

While projected population estimates vary, according to the Statistical Yearbook, 2007 there are an estimated 3,990 housing units in the city. Approximately 77.5 percent of the population lives in urban areas compared to 22.5 percent residing in the surrounding rural area.⁶¹ The Abyan War in 2011- 2012 significantly damaged Zinjibar and its surrounding areas where houses make up the largest share of damaged buildings in the city.⁶²

Figure 31: Percentage of Housing Stock Damage in Zinjibar and Other Yemeni cities, 2017



Source: World Bank, DNA: Yemen Dynamic Needs Assessment, Phase 2, 2017.

Damages to the housing sector and corresponding challenges have exacerbated existing grievances in Abyan as a government relief program that was intended to repair the damages to Zinjibar and relieve the plight of the local population was seen as slow and inadequate. The Yemeni government quickly promised to compensate refugees to assist them in rebuilding their homes. However, reports emerged that some of the engineers responsible for assessing the damages to houses and calculating the amount of compensation that was to be paid to affected households demanded bribes to record the actual (or higher) costs of reconstruction.⁶³ Furthermore, landmines have long posed a threat to the inhabitants of Zinjibar and continue to do so⁶⁴ despite past campaigns to remove them. It is unclear whether recent reports of landmine damages can be attributed to previously planted mines or new ones.

61 Republic of Yemen, Statistical Yearbook Data, (Aden, Yemen: 2007).

62 Belqees TV, "أهالي زنجبار وجعار في أبين يشكون تكديس النفايات في الأحياء والشوارع", July 19, 2017. <https://belqees.tv/yemen/%D8%A7%D8%A8%D9%8A%D9%86-%D8%B2%D9%86%D8%AC%D8%A8%D8%A7%D8%B1.html> (accessed March 17, 2020).

63 Anne-Linda Amira Augustin, Spaces in the Making: Peripheralization and Spatial Injustice in Southern Yemen, *Middle East Topics & Arguments*, May 2015, <https://meta-journal.net/article/download/3526/3662/> (accessed March 16, 2020).

64 Xinhua, "At least 2 killed, 4 injured in landmine explosion in southern Yemen", September 21, 2019. http://www.xinhuanet.com/english/2019-09/21/c_138410954.htm (accessed March 19, 2020).

Figure 32: Damage Assessment in Zinjibar, UN-Habitat (2020)


Source: UNOSAT, 2019.

Note: About 285 damaged structures (132 destroyed, 89 severely damaged, 84 moderately damaged) can be observed through satellite imagery analysis. As reportedly most of the damage on the ground concerns partial damage, this is likely to be a gross underestimation of the actual amount of damaged buildings.

Along with a continued lack of public services and security, and a chronic mishandling of public resources, corruption has also taken its toll on progress and reconstruction in Zinjibar's urban neighborhoods. At the expense of their own safety, citizens frequently protest the lack of progress in the provision of basic services, reconstruction and development projects in their city. Public accusations also target the engineers commissioned by the District LC to assess housing damages, who are accused of providing preferential allocation of compensation and funds for those connected to the local government, while devaluing damages to houses of other citizens who are politically unaffiliated.⁶⁵ Reportedly, citizens who protest in Zinjibar are usually met by unlawful arrests carried out by local authorities.⁶⁶ However, according to some reports, the LC had moved to set up 26 Community Committee Teams comprising 112 local members from Zinjibar to conduct household surveys and number buildings to establish a local database of indicators that can be relied upon for preparing development and service plans.⁶⁷

Figure 33: Sewage Flooding in Zinjibar


Source: Alkhabar AlYemeni, 2019.

65 *Al Thawrah*, "النازحون يسكنون في المرافق الحكومية في زنجبار"، *بانتظار إعادة الإعمار والعمل الإداري*, September 23, 2013, <http://althawrah.ye/archives/57886> (accessed March 17, 2020).

66 *News Yemen*, "محافظ أبين يسجن موظفين كشفوا عن وقائع فساد"، February 16, 2020, <https://www.newsye-men.net/new/51761> (accessed March 15, 2020).

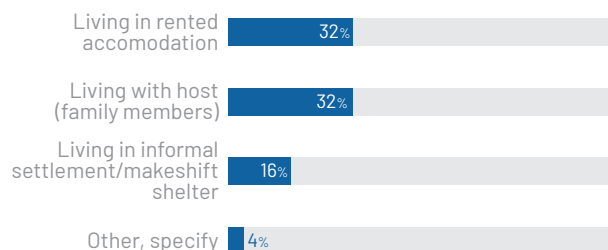
67 *From Yemen*, "بدء عملية حصر شامل وتأسيس قاعدة بيانات لمدينة"، *زنجبار في أبين*, March 16 2020, <http://www.from-yemen.com/alymn/list-1360503.html> (accessed March 16, 2020).

1. Land Ownership Rights

Complications of land ownership rights emerged shortly after Yemen's unification in 1990 and caused a great deal of conflict that remains ongoing until today. Following their take over in the south, the People's Democratic Republic of Yemen (PDRY) issued laws that dispossessed influential families and former sultans and benefited small holders and landless households. After 1990, nationalized land was returned to legitimate previous owners and other people pretending to be the "rightful owners". In addition, new decrees and investment regulations reorganized land ownership throughout the South. The 1991 "September Directive" facilitated the distribution of state land, but in some cases different government departments, such as the Ministry of Construction, the Ministry of Agriculture, and the General Investment Authority, distributed the same land plots to different people. Furthermore, these ministries along with other actors distributed land in the southern areas to loyal supporters of the Sana'a regime, state employees, army officers, and civil servants.⁶⁸

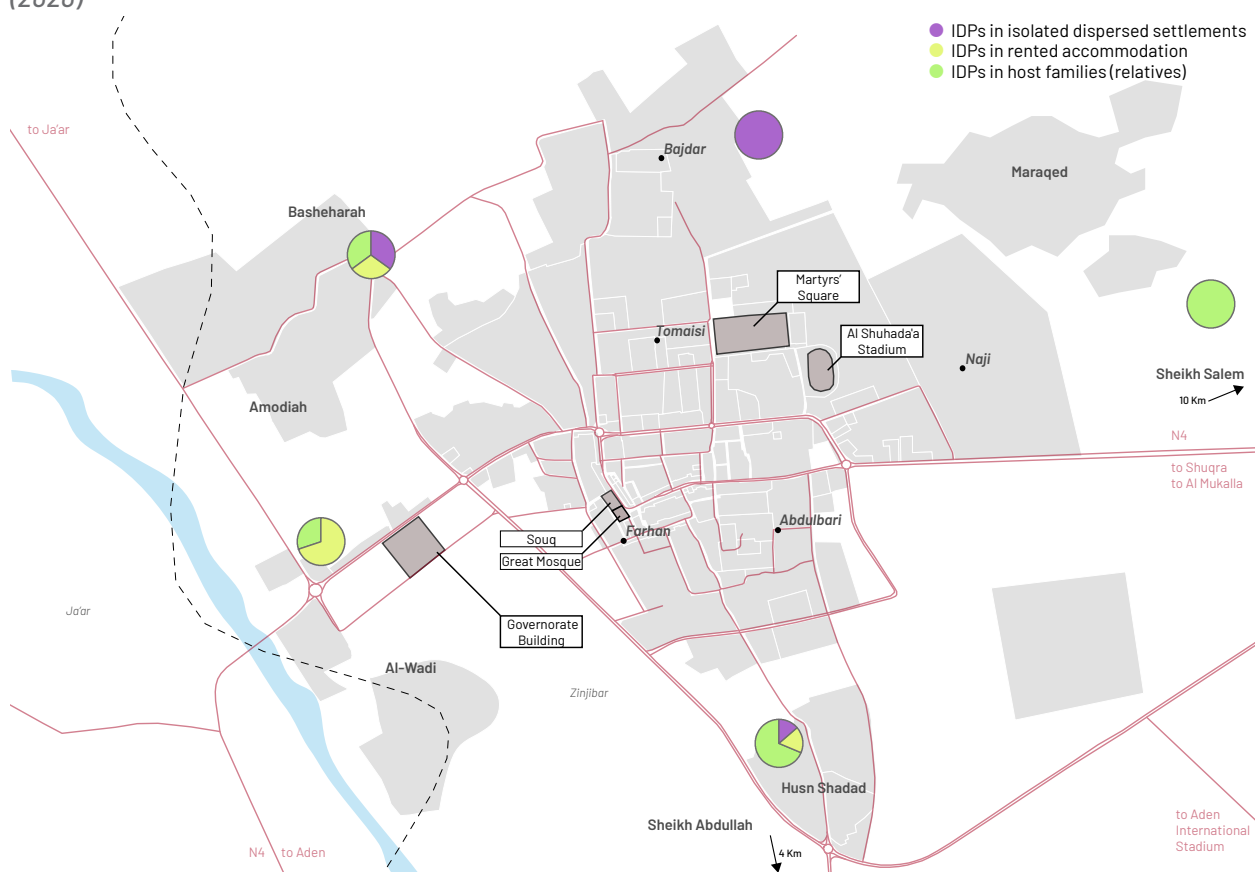
2. Housing Tenures

Figure 35: Current Housing Tenure Types in Zinjibar city, 2020



Source: CFP Survey, March 2020

Figure 34: IDPs Accommodation Typology, UN-Habitat (2020)



Source: IOM, DTM Round 37, 2019.

68 Anne-Linda Amira Augustin, "Spaces in the Making: Peripheralization and Spatial Injustice in Southern Yemen", May 2015. *Focus. Middle East Topics & Arguments*, <https://meta-journal.net/article/download/3526/3662/> (accessed March 16, 2020).

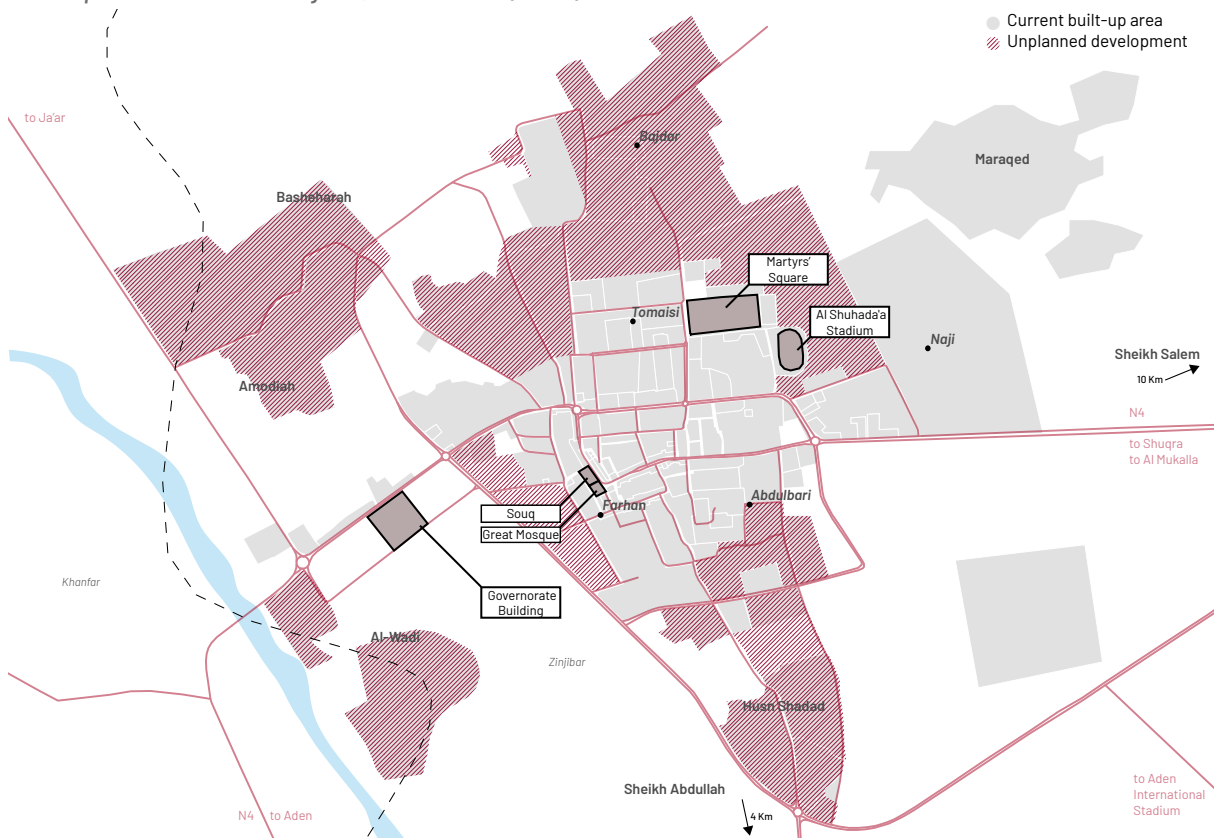
ZINJIBAR RAPID CITY PROFILE

Rented accommodations and living with host (family members) are the predominant tenure types for IDPs in Zinjibar. Approximately 30 percent of respondents to the March 2020 CFP Survey indicated that IDPs rent accommodation or stay with family members within the host community. An additional 16 percent pointed to IDPs occupying informal settlements and makeshift shelters. In general, residential tenures are increasing, a trend confirmed by 80 percent of respondents to the same survey.⁶⁹

IDPs in Zinjibar mainly reside on the outskirts of the city as per the below visual; IDPs mainly reside in isolated dispersed settlements in the northern areas on the outskirts of the city whereas IDPs mainly reside with host families (relatives) in the northeastern and southern outskirts of the city.

In the past, Zinjibar has grown to absorb a few surrounding villages. However, in recent years urban growth patterns related to 'slum' informal areas can also be observed. It is likely that these areas are not connected to regular networks for water, sewage and electricity. Other urban challenges in Zinjibar leading up to the crises included migration of youth to other areas in Yemen. Within Zinjibar, a spatial imbalance in the population growth, distribution, and density in the residential neighborhoods exists which is more evident in Naji neighborhood compared to the increase in the population density in the al-Tomaisi and Abdulbari neighborhoods.⁷⁰ Throughout Abyan Governorate, IDPs end up living either in make-shifts shelters, in public buildings, renting or sharing residences with other families⁷¹— often stretching the host communities' capacities to the limit and exposing vulnerable groups to protection risks.

Figure 36: Urban Built-Up Areas with an Irregular Development Pattern in Zinjibar, UN-Habitat (2020)



Source: JRC and Google Earth.

⁷⁰ UN-Habitat and the Republic of Yemen, NATIONAL REPORT Third United Nations Conference on Housing and Sustainable Urban Development - HABITAT III, (Quito, Ecuador: 2016), <http://habitat3.org/wp-content/uploads/Yemen-National-Report-September-2016.pdf> (accessed March 15, 2020).

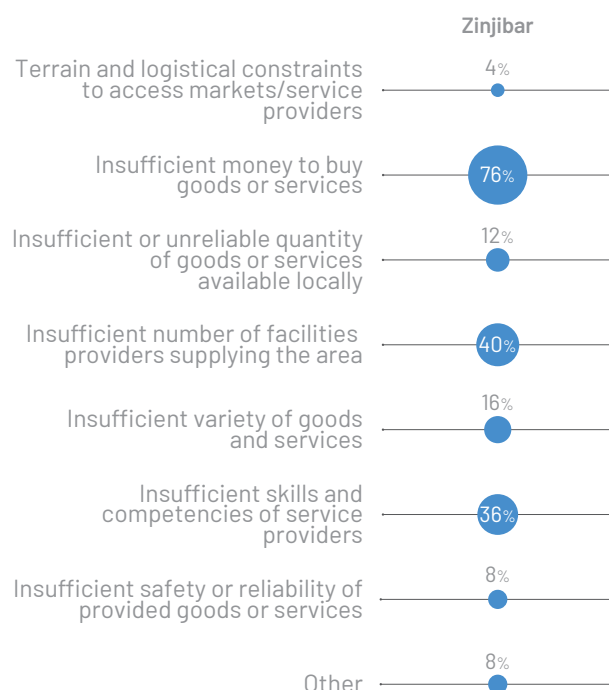
⁷¹ CFP Survey, March 2020.

⁶⁹ CFP Survey, March 2020.

Barriers to Securing Shelter and Housing

With dwindling economical means and a collapse of the job market and adequate opportunities for livelihoods, most residents in the city lack the financial means to secure suitable housing or shelter. Limited availability of supply within the housing market is further restricting access to housing. Approximately 80 percent of the respondents to the CFP Survey carried out in March 2020 stated that lack of financial means was the major obstacle in their search for adequate shelter.⁷²

Figure 37: Main Barriers to Meet/Secure Shelter and Housing Needs (Rent, Purchase, Construction, Etc.) in Zinjibar city, 2020

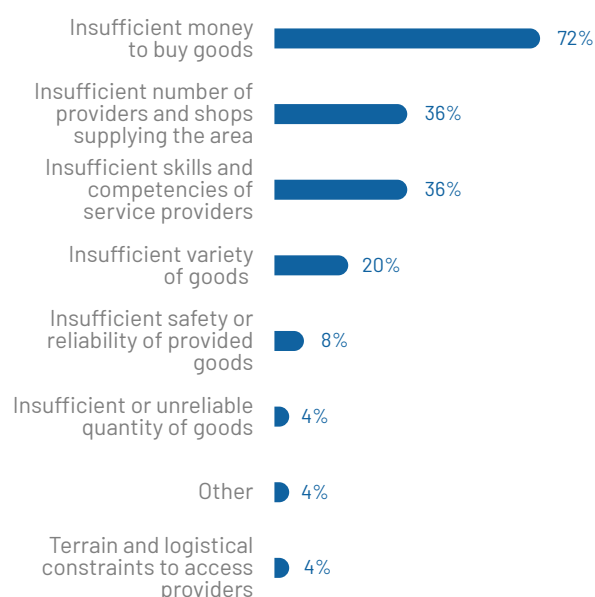


Source: CFP Survey, March 2020.

Barriers to Accessing Household Items

In the same Survey, most respondents pointed to three main barriers in terms of accessing household items in the city. An approximate 70 percent stated that financial hardship and a continuous lack in money obstructed their ability to access the market; 36 percent suggested that there was an insufficient number of providers, and where these providers were available, they lacked the skills to anticipate the local market's needs.⁷³ Since most locals rely on providers available in their immediate vicinity, neither safety nor logistical constraints emerged as an immediate concern.

Figure 38: Main Barriers to Meet/Secure Household Items (Kitchen Utensils, Mats, Mosquito Nets, Blankets, Etc.) in Zinjibar city, 2020



Source: CFP Survey, March 2020.

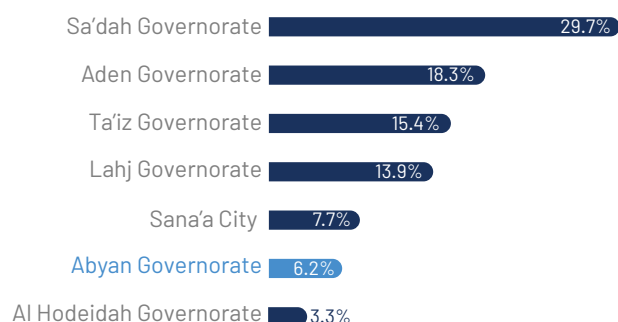
72 CFP Survey, March 2020.

73 Ibid.

1. Background

Abyan Governorate, in 2005 – 2006, had an urban poverty rate of 31.37 percent (compared to a national average of 20.7 percent), and a rural poverty rate of 50.44 percent (compared to a national average of 40.1 percent).⁷⁴ In 2015 it was estimated that the Abyan Governorate had an unemployment rate of 7.8 percent.⁷⁵ Out of the total population employed in 2015, 49 percent was employed in agriculture. CFP respondents report that the impact of the conflict on the livelihoods for the majority of households in Zinjibar city has been either extreme (72 percent of respondents), high (24 percent of respondents), or low (4 percent of respondents).

Figure 39: Unemployment Rate Yemen, 2015



Source: ILO, *Demographic and Labour Market Trends in Yemen, 2015*.

An overwhelming majority of CFP respondents (92 percent) state that, before the outbreak of the conflict, fisheries constituted the main active sector of economy in Zinjibar city, closely followed by artisanal works (according to 84 percent of respondents), public sector as well as construction (according to 76 percent of respondents), agriculture (according to 64 percent of respondents), and port and shipping industry (according to 4 percent of respondents). According to CFP respondents, the only economic sector currently active in Zinjibar city is the public sector. Prior to the onset of the conflict, the main first sources of money included income generating activities (informal employment, sales), followed by safety nets (pension, insurance), and income generating activities (formal employment).

Zinjibar shares one of Yemen's biggest challenges, which is the staggering poverty that has plagued the country for decades, even prior to 2015. When the former northern and southern states – the Yemen Arab Republic and the People's Democratic Republic of Yemen – unified in 1990, less than a fifth of the population lived under the 'breadline'. Years later, it was estimated that more than half of Yemenis continue to live on less than \$2 a day. Complicating matters further is Yemen's topography which leads to low connectivity between cities; in Zinjibar, only three roads lead in and out of the town, namely towards Aden, Ja'ar and Shogra respectively, each of which has seen their share of structural and infrastructural devastation, political instability and economic disintegration – leaving little hope for Zinjibarians to find refuge elsewhere. Many life-coping strategies have been exhausted. Economic hardships are palpable throughout the city, so dismal is the quality of life that 85 percent of IDPs reported that the main reason for not having access to soap is that they cannot afford to buy it whereas 73 percent of the host community reports the same.⁷⁶

While the town supports one sea-side resort, it relies largely on the local fishing and farming industry which has been severely crippled by the conflict. Furthermore, the small port that supports the city was all but completely shut down due to the damage incurred by airstrikes and an ongoing blockade that paralyzed the local fishing industry that the residents relied upon for self-sustenance.

⁷⁴ WFP, YEMEN: Secondary Data Analysis on Food Security and Vulnerability, August 2009, <https://documents.wfp.org/stellent/groups/public/documents/ena/wfp207839.pdf?iframe> (accessed April 26, 2020).

⁷⁵ Ibid.

⁷⁶ Yemen WASH Cluster Assessment (Zinjibar District, Abyan Governorate, Yemen), November 2018, https://reliefweb.int/sites/reliefweb.int/files/resources/reach_yem_fs_zingibar_wash_cluster_assessment_november_2018.pdf (accessed June 28, 2020).

Figure 40: Zinjibar in the Region, UN-Habitat (2020)



Source: OpenStreetMaps.

Note: Zinjibar lies at the end of an agricultural area enclosed by two Wadis, on a distance of approximately 4km from the sea. The nearest cities are Al Kawd (5km), Ja'ar (12km), Al Hisn (20km) and Aden (40km).

Economic Activities

The economy of Abyan depends highly on agriculture, livestock, fisheries and people working in the private and public sector. Zinjibar city is surrounded by thousands of hectares containing large farms whose owners grow a variety of vegetables and fruits. Before the onset of the conflict, Zinjibar was known as the food-basket of Yemen, and was famous for producing bananas, cantaloupes, sesame corn, cotton, mango and a wide range of citrus fruits. Cash crops such as cotton or sesame are usually grown only after a staple crop has been harvested and a minimum annual income has been achieved.⁷⁷ Prior to the conflict, agricultural crops grown in Zinjibar constituted 4.4 percent of the total agricultural production in the country; most of the fruits and vegetables were sold in Aden. Throughout the conflict, many of the farms have been destroyed while the irrigation systems and other farming tools have been looted during the war.

Prior to the conflict, a total of 3.6 percent of Abyan Governorate was cultivated; 47 percent of this area was cultivated with cereals, while cash crops (17 percent), alfalfa (14 percent) and vegetables (13 percent) accounted for the majority of the remaining acreage. Most of Abyan and Zinjibar's population works in agriculture and fish production activities. As water resources are not readily available, farm irrigation and cultivation has long been dependent on the rainy season and successful management of flash floods. It is reported that decades ago, hundreds of farms took part in building a succession of great sand barriers which would divert flood waters leading off from the wadi and into the fields.⁷⁸ Moreover, in 1949-50, a cotton ginnery was built in Zinjibar city, and by the mid-1960s, over 50,000 acres of land had been irrigated.⁷⁹ As a consequence, long staple cotton from Abyan fetched some of

78 A. Hartley, *The Zanzibar Chest: A Story of Life, Love, and Death in Foreign Lands*, December 13, 2016, <https://books.google.jo/books?id=IbI0DgAAQBAJ&pg=PT149&lpg=PT149&dq=%D8%B2%D9%86%D8%AC%D8%A8%D8%A7%D8%B1+abyan&source=bl&ots=ErJbiSUZHg&sig=ACfU3U2D4gq-fK0FGvkoPYCZnJPRZ7xt4jA&hl=nl&sa=X&ved=2ahUKew-jAm5-g0PnnAhWN50AKHaiaDEc4ChDoATAFegQICh-AB#v=snippet&q=abyan&f=false> (accessed March 16, 2020).

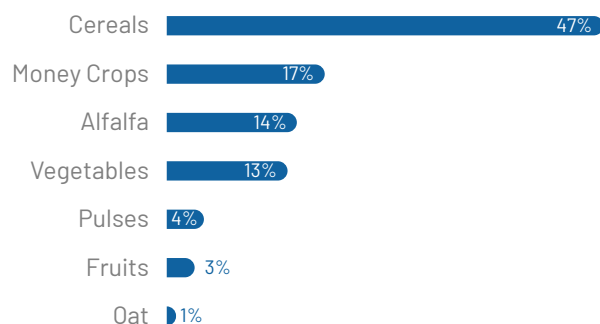
79 F. Halliday, *Arabia Without Sultans*, 4 October 2013, <https://books.google.jo/books?id=VkyhBQAAQBAJ&pg=PT94&lpg=PT94&dq=abyan+economy&source=bl&ots=VOZM-WcuEbZ&sig=ACfU3U38dh7ige3A8NMHer25EokfT3fxl-w&hl=nl&sa=X&ved=2ahUKewj9SvmfznAhUix4UKHXop-C1o4ChDoATAEegQICRAB#v=onepage&q=zinjibar&f=false> (accessed March 16, 2020).

77 Van Steenberg, F. et al., *Guidelines on Spate Irrigation, Irrigation and Drainage Paper*; Food and Agriculture Organization of the United Nations (FAO): Rome, Italy, 2010.

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the highest prices in the world market in the 1950s and 1960s.⁸⁰ Production and the market collapsed after the 1962 revolution and never recovered to its prior status. In addition to agriculture, there is honey production, animal husbandry, and off the coast, fishing.⁸¹ In the city itself, residents additionally rely on civil and military employment as well as ownership of small businesses.

Figure 41: Cultivation in Abyan Governorate, 2009

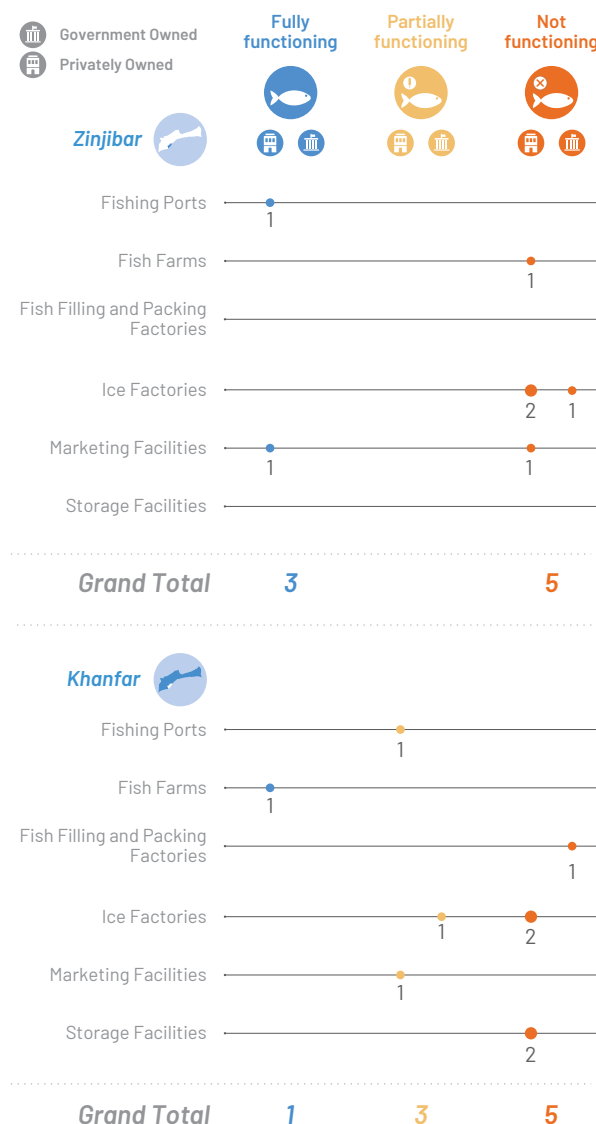


Source: ILO, *Demographic and Labour Market Trends in Yemen, 2015*.

Despite the Abyan Delta receiving enough water to be the largest and most productive agricultural region in the country, 50 percent of the rural population in Abyan still faces poverty.⁸² Unfortunately, the absence of clear water rights combined with local resource inequalities has resulted in an unbalanced water allocation system and extensive contention between influential upstream farmers and less privileged downstream users in the area – in fact 70-80 percent of the conflicts which occur in Yemen's rural areas are rooted in disagreements concerning water use.⁸³

KI data further stipulates there is one government-owned slaughterhouse in Zinjibar city which is partially functioning. According to KI data, there is one privately owned fishing port which is fully functioning, one privately owned fishing farm which is not functioning, one government-owned ice factory and two privately owned ice factories which are all three not functioning, and two government-owned marketing facilities out of which one is fully functioning and one is not functioning. Furthermore, KI data stipulates there are approximately 200 registered boats in Zinjibar city. In Khanfar district, there is one privately owned fishing port which is partially functioning, one privately owned fish farm which is fully functioning, one government-owned fish filling and packing factory which is not functioning, one government-owned and two privately owned ice factories out of which one is partially functioning and two are not functioning, two privately owned storage facilities which are both not functioning. Additionally, there are 600 registered boats in Khanfar district.

Figure 42: Total Number of Fishing Facilities and Their Functionality in Zinjibar and Khanfar Districts, 2020



Source: KI Survey, March 2020.

⁸⁰ Ibid.

⁸¹ G. King & C. Tonghini, A Survey of the Islamic Sites Near Aden and in the Abyan District of Yemen, 31 August 2005, <https://books.google.jo/books?id=8aNgVFK26AwC&pg=P-P17&lpg=PP17&dq=abyan+economy&source=bl&ots=EwQr-rqIQEP&sig=ACfU3U0ToxQ8QS3-ewAbdmlMwMyMUsN-mWA&hl=nl&sa=X&ved=2ahUKewi0ruyvmPznAhXH3YUKH-QXsALQ06AEwAnoECAYQAQ#v=onepage&q=abyan%20economy&f=false> (accessed March 16, 2020).

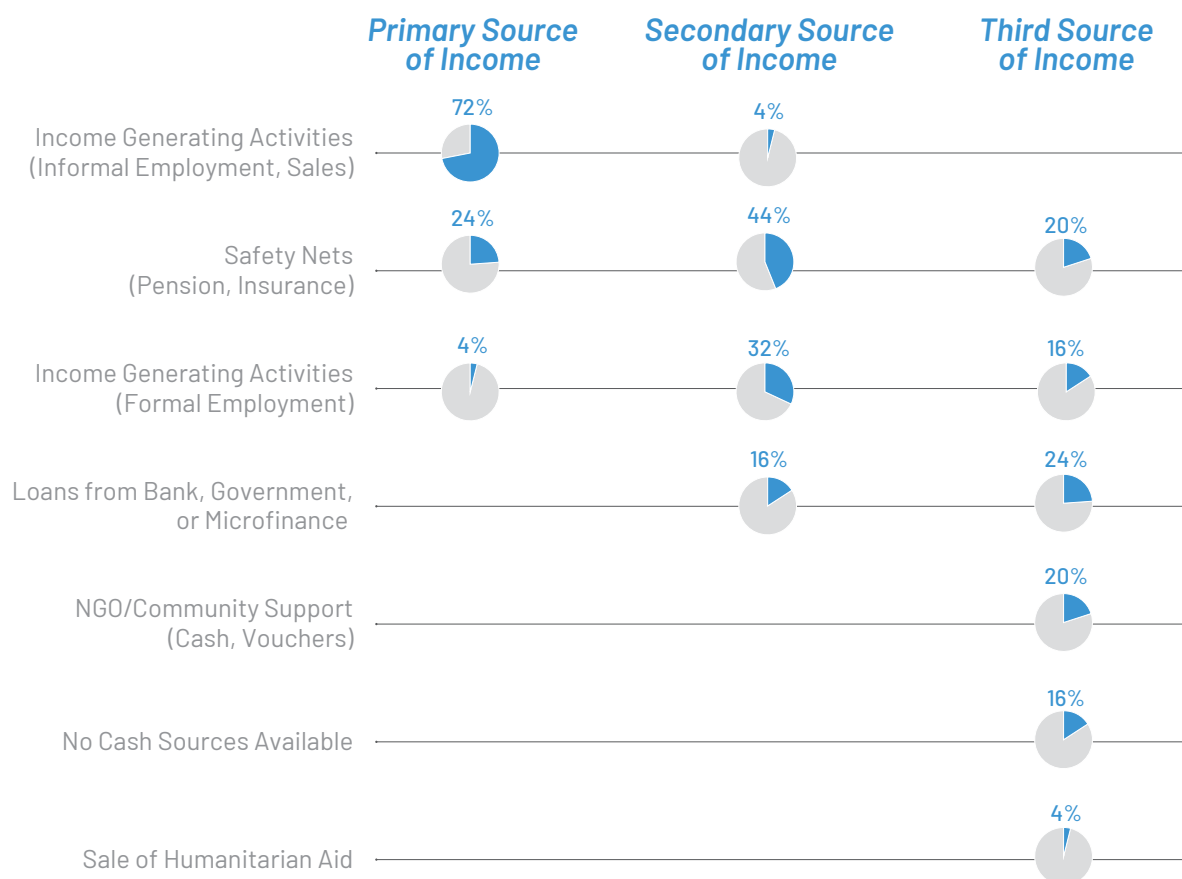
⁸² IFAD, Republic of Yemen Economic Opportunities Program; The International Fund for Agricultural Development: Rome, Italy, 2010.

⁸³ Haidera, M., et al., Water scarcity and climate change adaptation for Yemen's vulnerable communities, *Local Environment*. Int. J. Justice Sustain. 2011, 16, 473 – 488.

In Zinjibar city, CFP data reports that the majority of residents are employed in casual labor (agriculture, construction, domestic work), closely followed by salaried employment with the government. Additionally, 4 percent of CFP respondents report that there are no regular income generating activities when asked what the first common source of livelihoods is. Salaried employment with the government is reported as the main secondary means of employment, followed by casual labor (agriculture, construction, domestic work), self-employment (fishing/selling fish), and self-employment (business owner, petty trade, agriculture and livestock sales). The main perceived obstacles as to finding employment in order of importance are a lack of business start-up training, a lack of technical/vocational training, difficulties in continuing or completing education, challenges in obtaining business loans under favorable conditions, securing contacts with other employers, and securing fishing areas/zones.

According to CFP data, primary sources of income the past 30 days in Zinjibar city mainly consisted of income generating activities (informal employment, sales), followed by safety nets (pension, insurance), and income generating activities (formal employment.). As a secondary source of income, Zinjibar city's residents mainly rely on safety nets (pension, insurance), closely followed by income generating activities (formal employment), loans from bank, government or microfinance, income generating activities (informal employment, sales), and remittances from abroad. As third sources of income, CFP respondents state that the population of Zinjibar city mainly relies on loans from bank, government or microfinance, closely followed by NGO/community support (cash, voucher), safety nets (pension, insurance), income generating activities (formal employment), and the sale of humanitarian aid. An approximate 15 percent of CFP respondents state cash sources are not available as a third source of income and 4 percent of CFP respondents state the population relies on the sale of items obtained through humanitarian aid. Interestingly, assistance from family and friends is never mentioned as a source of income.

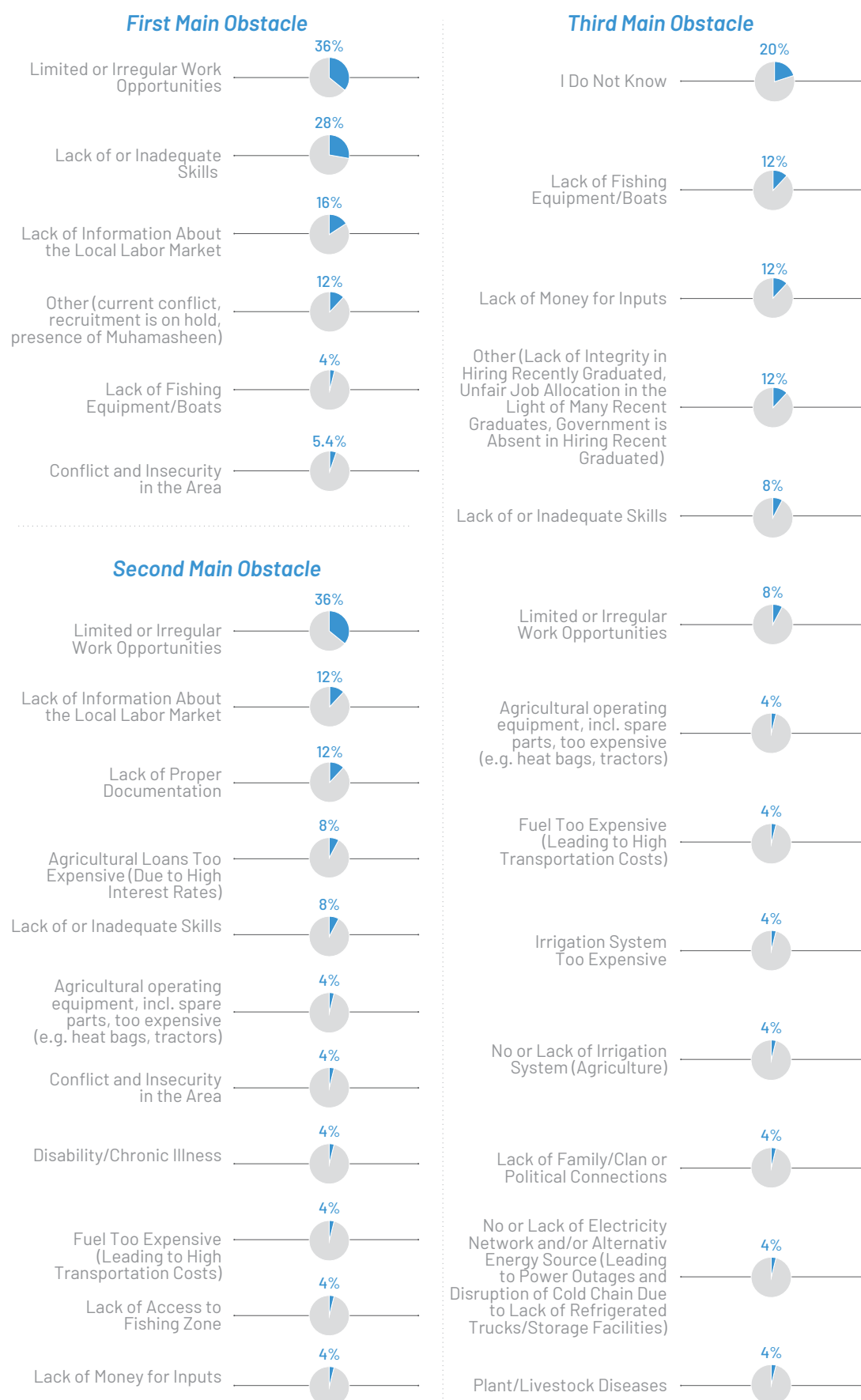
Figure 43: Primary, Secondary, Third Sources of Income in the Past 30 Days in Zinjibar City, 2020



Source: CFP Survey, March 2020.

In terms of main obstacles which households face in securing a job in Zinjibar city, approximately 35 percent of CFP respondents as a first main obstacle mention limited or irregular work opportunities, followed by lack of or inadequate skills, lack of information about the local labor market, and other reasons which include the current conflict, recruitment being on hold, and presence of Muhamasheen which are often employed in low paid menial jobs. CFP respondents, in terms of second main obstacles, mention job-market related challenges such as limited or irregular work opportunities (which is mentioned as a third main obstacle as well), lack of information about the local labor market, and lack of or inadequate skills, lack of proper documentation, issues concerning agriculture which include agricultural loans being too expensive (due to high interest rates) and agricultural operating equipment being too expensive, issues surrounding access such as conflict and insecurity in the area and lack of access to fishing zone, financial issues including fuel being too expensive and people lacking money for inputs. Additionally, disability/chronic illness is named as a second main obstacle by 4 percent of CFP respondents. Interestingly, as a third main obstacle, 12 percent of CFP respondents mention that newly graduated individuals face obstacles in securing a job in Zinjibar city, due to a lack of integrity in the hiring process, unfair job allocation, and the government being absent in terms of hiring those recently graduated.

Figure 44: First, Second, Third Main Obstacles that Households Face in Securing a Job in Zinjibar city, 2020

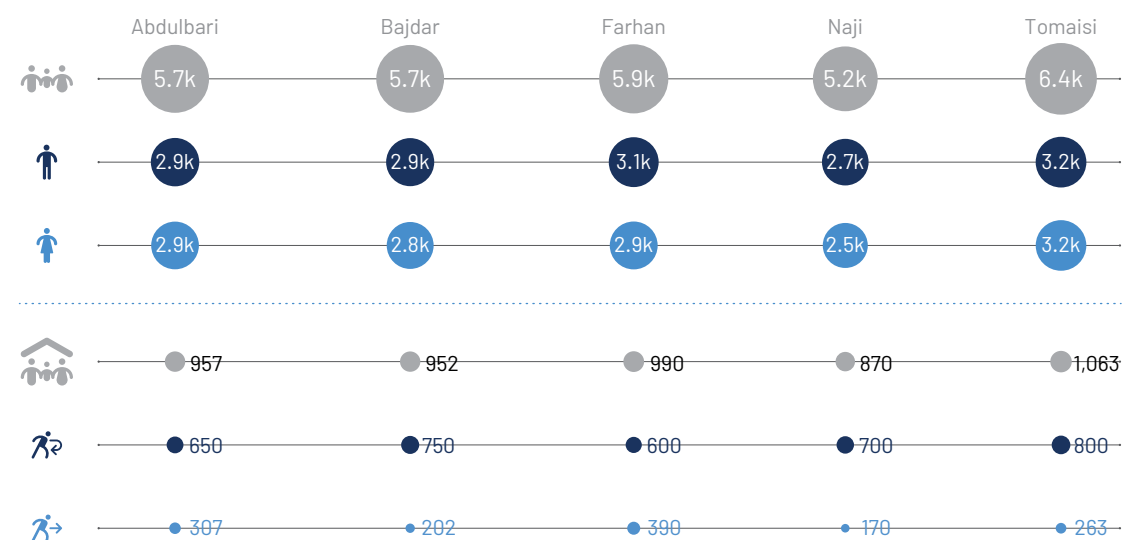


Source: CFP Survey, March 2020.

Urban Neighborhoods Within the City and Economically Active Population

Zinjibar is split up in five main neighborhoods: (i) Abdulbari, (ii) Badjar, (iii) Farhan, (iv) Naji and (v) Tomaisi. Most of the population in these neighborhoods rely on agriculture as a main source of income while others are split between public service and small business ownership. In recent years, Zinjibar has experienced a relative decline in the economically active population group (ages 15 to 64). Reports from the University of Aden estimate that only about 60 percent of this category have remained in the city, while the remaining have migrated to pursue work opportunities in more advanced urban economies in Yemen. The continued decline of the working class is one of the most prominent challenges facing the city's economic recovery.⁸⁴

Figure 45: Demographics Zinjibar Urban Neighborhoods, 2013

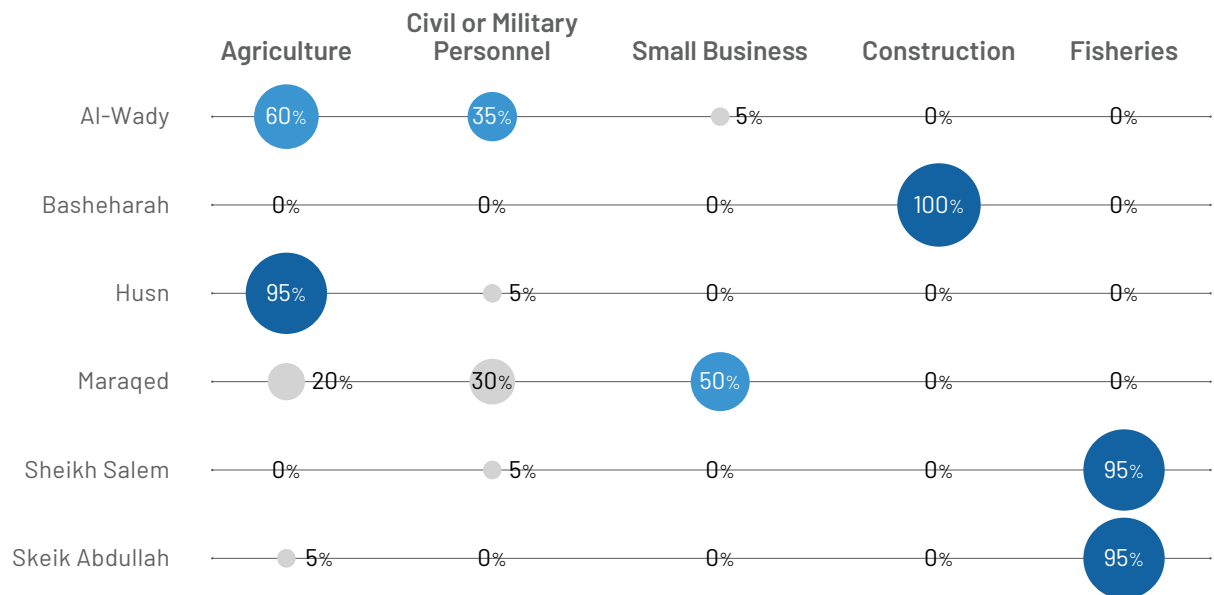


Source: UNOCHA, *Community Profiling Governorate of Abyan Zinjibar & Khanfar Districts, 2013*.

84 UN-Habitat, University of Aden (Academic Team), *The State of Yemeni Cities Development Report, Draft 1, 2019*.

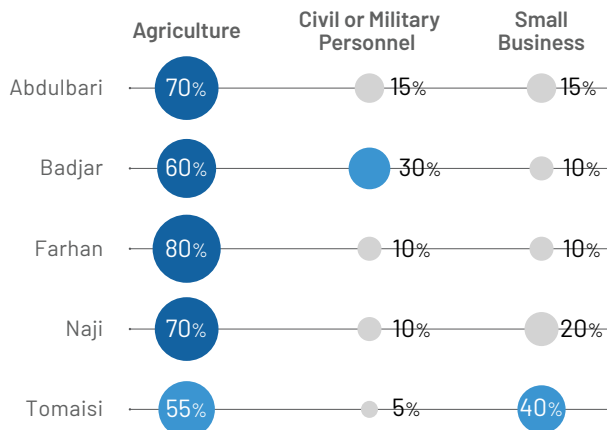
Rural Neighborhoods

Figure 46: Income by Rural Neighborhood Surrounding Zinjibar city, 2013



Source: UNOCHA, Community Profiling Governorate of Abyan Zinjibar & Khanfar Districts, 2013.

Figure 47: Zinjibar Income By Urban Neighborhood, 2013



Source: UNOCHA, Community Profiling Governorate of Abyan Zinjibar & Khanfar Districts, 2013.

Six rural neighborhoods extend around the urban center of Zinjibar, respectively these are: (i) Al Wady, (ii) Basheharah, (iii) Husn, (iv) Maraqed, (v) Sheikh Salem and (vi) Sheikh Abdullah – each of which can be further classified by source of livelihood since most of the inhabitants rely either on agriculture, public service, small businesses, construction or fisheries.⁸⁵

The conflict has impacted the rural community around Zinjibar which were situated on main frontlines of clashes between several warring factions. As a result, most of the villagers lost their principal source of income and were forced to leave the area in pursuit of safety and access to basic services elsewhere, with many ending up at make-shift shelters in schools in Aden and Lahj.⁸⁶ Some of those who returned after the Abyan War in 2014 were also reported to be living in public facilities because their homes had been destroyed.⁸⁷ Since 2012, most of the farms in Zinjibar have been damaged and their irrigation systems as well as other farming tools were looted. Coupled with the lack in financial means, most farm owners have been incapable of repairing their properties or generate new income – already in 2013, 70 percent of the community in Zinjibar identified a lack of income or livelihood as a serious problem.⁸⁸ While many households had indeed returned to their villages, a significant number of families remain displaced and unaccounted for.⁸⁹

86 Ibid.

87 General Assembly, "Situation of human rights in Yemen Report of the United Nations High Commissioner for Human Rights", Human Rights Council Twenty-Seventh Session, August 27, 2014.

88 IOM, "Humanitarian Compendium 2013". <https://www.iom.int/files/live/sites/iom/files/pbn/docs/IOM-Humanitarian-Compendium-2013.pdf> (Accessed March 15, 2020).

89 Ibid.

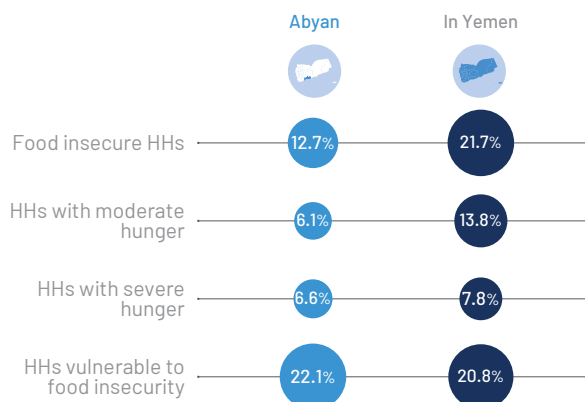
85 UNOCHA, Community Profiling Governorate of Abyan Zinjibar & Khanfar Districts, 2013, <https://www.humanitarianresponse.info/sites/www.humanitarianresponse.info/files/documents/files/Zinjibar%20and%20Khanfar%20Community%20Profiles.pdf> (accessed March 16, 2020).

Food (In)Security

Zinjibar district was home to around 40,000 residents in 2019 out of which 17,000 were in acute need of food security and agricultural assistance, whereas 11,000 were in moderate need, meaning that 68.8 percent of households were generally food insecure. The total population in Abyan Governorate is estimated at 615,614 out of which 209,500 individuals are in acute need of food security and agricultural assistance, and 190,500 are in moderate need, meaning that 65 percent of people are in need of some level of food security and agricultural assistance at governorate level (meaning that the percentage of people needing assistance in Zinjibar district are slightly above the governorate's average). Available 2003 data estimated the number of food insecure households in Abyan Governorate at 12.7 percent (compared to a national average of 21.7 percent).⁹⁰ Approximately 6.1 percent of households were facing moderate hunger, 6.6 percent of households faced severe hunger, and 22.1 percent of households in Abyan Governorate were vulnerable to food insecurity.⁹¹ In terms of nutrition, 5,328 people are in acute need in Zinjibar district, whereas 4,595 are in moderate need, translating into 9,923 people requiring nutrition assistance in the district.

Figure 48: Food Security Situation in Abyan Governorate (and Yemen), 2003

Food Security Situation Abyan Governorate (and Yemen), 2003



Source: World Food Program, YEMEN: Secondary Data Analysis on Food Security and Vulnerability, August 2009.

In terms of walking distance to obtain food items (staple food, fresh vegetables and fruit, meat, etc.), the majority of CFP respondents state that Zinjibar city's residents spend less than 20 minutes of travel time. Almost a quarter of CFP respondents state that the population spends 20 – 40 minutes to obtain food items and approximately 5 percent of respondents, state that the city's residents spend more than 40 minutes. All CFP respondents stated the population purchases food items themselves and no one relies on aid distribution.

Figure 49: Travel Time to Access Food Items in Zinjibar city 2020



Source: CFP Survey, March 2020.

⁹⁰ WFP, YEMEN: Secondary Data Analysis on Food Security and Vulnerability, August 2009, <https://documents.wfp.org/stellent/groups/public/documents/ena/wfp207839.pdf?iframe> (accessed May 20, 2020).

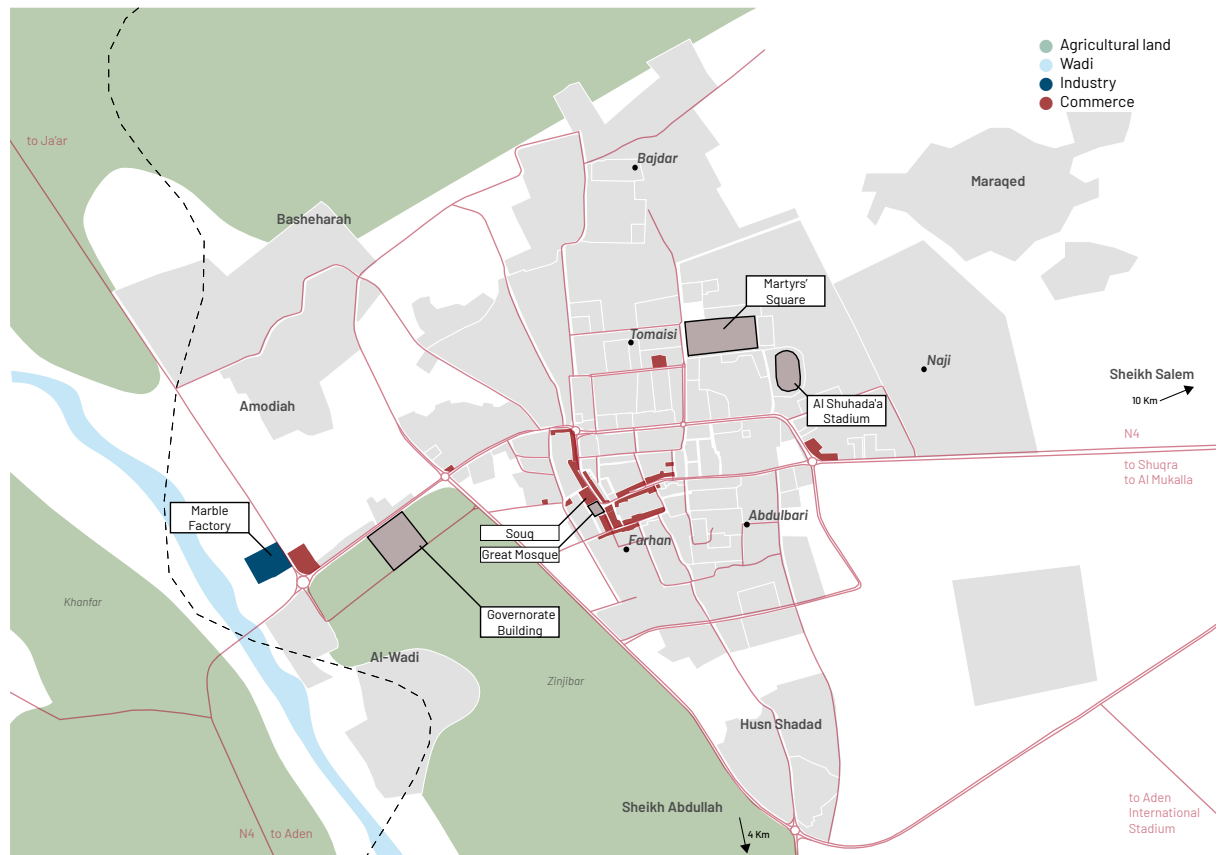
⁹¹ Ibid.

Humanitarian Interventions

A multi-donor program – “Enhanced Rural Resilience in Yemen” (ERRY) (2016 – 2019) – aims to enhance the resilience and self-reliance of crisis-affected rural communities in Abyan, Hajjah, Hudaydah, and Lahj Governorates. Activities include equipping communities to raise awareness of local sources of conflict and empowering them to establish sustainable conflict management systems. There is a focus on the most vulnerable (women, the unemployed, youth, the Muhamasheen, IDPs and stressed host

communities). From March – December 2016, completed activities included establishing or reactivating 185 village cooperative councils, 30 water use associations and 181 community self-help initiatives. The security situation continues to be the main challenge to the program, and its coverage does not match the extremely high number of vulnerable households that need resilience and livelihoods support.

Figure 50: Agricultural Land, Industrial and Commercial Activities in Zinjibar, UN-Habitat (2020)



Wikimapia, OpenStreetMap, JRC.

Note: The main markets are located in the west of the city near the major road which leads to Aden.

Highlights

- Insufficient money to pay for healthcare services and buy medicine and medical commodities, as well as the high cost of these services is one of the main issues affecting the health sector in Zinjibar.
- Several health facilities sustained damage and are not functioning, hindering access and availability of the services. Lack of certain types of services was reported in both Zinjibar and Khanfar districts.
- Irregular or no supply of medicines was identified as one of the three most serious problems affecting the health sector in both Zinjibar and Khanfar.
- There is a lack of equipment and specialized medicine, which is especially acute during outbreaks of diseases, forcing some to seek treatment in Aden.
- Displacement and irregular payment of salaries to the health workers led to a rapid decrease of the available health personnel. Across Abyan governorate, the ratio of health workers per 10,000 population has decreased by 30 percent in just two years between 2016 and 2018.

1. Overview

Across Yemen, almost 20 million people lack access to adequate healthcare, and a half of the health facilities are either partially functioning or not functioning at all. Amongst the functioning health facilities, almost 60 percent are supported by humanitarian organizations through incentives payment and covering operational costs. The country has also been hit by several outbreaks, such as cholera, acute watery diarrhea, and dengue fever.

Zinjibar district has been significantly affected by the conflict. The city hosts nine health facilities, out of which four are not functioning. Several health services are not available in the city, including emergency, major and minor surgery and the outpatient department. The numbers of hospital beds as well as medical staff have decreased in recent years, resulting in most of the households just barely meeting healthcare needs.

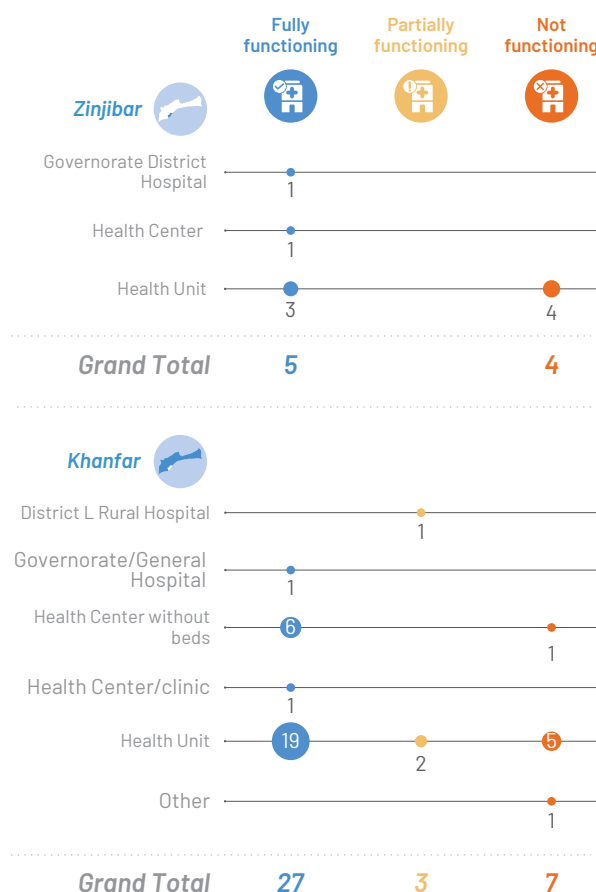
Institutional and Legal Framework

Article 55 of the Constitution of the Republic of Yemen guarantees the right of health care for all Yemeni citizens. The Ministry of Public Health and Population (MoPHP) is the main body responsible for managing the health sector at the national level. Following Parliament approving the Local Authority Law (LAL) in February 2000, governorate health offices became responsible for providing healthcare at the governorate level, while district health offices manage the local level.⁹² Pre-conflict, the health sector already heavily relied on private financing, with 76 percent of the health expenditure coming from out-of-pocket sources.⁹³

Infrastructure and Operational Capacity

In Zinjibar district, there is one governorate hospital, one health center without beds, and seven health units (out of which four are not functioning). In Khanfar district, there is one governorate hospital, one district hospital (partially functioning), one health center, seven health centers without beds (one of them is not functioning), and 26 health units (out of which five are not functioning and two are partially functioning).⁹⁴ Several health facilities have sustained partial damage. Lack of healthcare workers, equipment and specialized medicines is also observed in the city. The main hospital which serves the population of Zinjibar is currently functioning. In 2013, when the hospital was temporarily put out of operation, residents used the Al-Razi hospital, located in the city of Ja'ar, 20 minutes' drive away.⁹⁵

Figure 51: Functionality of Health Facilities in Zinjibar



Source: WHO, HeRAMS data, 2019.

92 Republic of Yemen, Law. No. (4) of 2000 Concerning the Local Authority, August 2000, <http://constitutionnet.org/sites/default/files/2019-10/Law%202000%20local%20authorities.pdf> (accessed March 11, 2020).

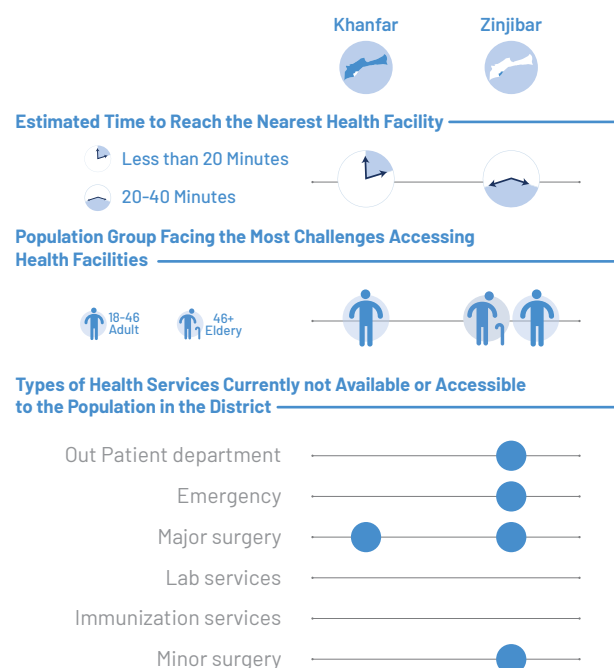
93 Qirbi, N., and Ismail, S.A., "Health system functionality in a low-income country in the midst of conflict: the case of Yemen," in *Health Policy and Planning* 32, 6 (2017), 911–922.

94 HeRAMS data 2019.

95 UNOCHA, Community Profiling Governorate of Abyan Zinjibar & Khanfar Districts, 2013, <https://www.humanitarianresponse.info/sites/www.humanitarianresponse.info/files/documents/files/Zinjibar%20and%20Khanfar%20Community%20Profiles.pdf> (accessed January 18, 2020).

According to the study conducted at the Aden University, the quality of services at the governmental hospitals is weak compared to the private ones due to the shortage of medical equipment and qualified staff. Secondary data also suggests that some of the health facilities built by the Ministry of Health in the city prior to the conflict have never been fully staffed or equipped.⁹⁶ Several health facilities sustained damage throughout the conflict.⁹⁷ Two out of five health facilities in Zinjibar (40 percent) sustained partial damage, while the remaining three reportedly sustained no damage.⁹⁸

Figure 52: Health Needs per district



Source: KI Survey, March 2020.

According to primary data, service availability is better in Khanfar district as compared to Zinjibar. KIs reported that only major surgery is not available in Khanfar district, while outpatient department, emergency, major and minor surgery are not available in Zinjibar district. It is important to note, however, that there are more health facilities in Khanfar district, as compared to Zinjibar. When asked about the priority health needs amongst the population, acute and chronic disease treatment and mental health services were reported in both districts. At a governorate level, 2016 data suggests that communicable diseases, maternal and newborn health and non-communicable diseases and mental health services were not available in almost half of the facilities in Abyan governorate.⁹⁹ As for travel time, most CFPs reported that it takes less than 20 minutes for the population to access healthcare services and health commodities (this was reported by 60 percent and 68 percent of CFPs respectively), while almost a quarter (24 percent) stated that it takes between 20 and 40 minutes. All KIs, however, reported that the travel time to reach the nearest health facility is between 20 and 40 minutes in Zinjibar and less than 20 minutes in Khanfar district.

Figure 53: Number of Hospital Beds in Abyan Governorate (2013-2018) per 10,000 people



Sources: Calculations based on the CSO, Statistical Yearbook, 2013; WHO and Ministry of Public Health & Population, Service Availability and Health Facilities Functionality in 16 Governorates, 2016; and WHO, Ministry of Public Health and Population, Yemen: Health Resources and Services Availability Mapping System 2018 (HeRAMS), 2018.

Prior to the conflict (2013), there were an estimated 11 beds per 10,000 people in Abyan Governorate. The situation significantly deteriorated by 2016, when the ratio fell to 6.8 beds per 10,000 people. More recent data indicates that the situation has slightly improved and as of 2018, there were eight inpatient and maternity beds per 10,000 people in Abyan Governorate, which is, however, still below the World Health Organization (WHO) recommended threshold of 10.¹⁰⁰

96 The World Bank Group, Yemen Dynamic Needs Assessment (DNA): Second Phase Report, (Washington DC: World Bank, 2017), 69.

97 Ibid.

98 Ibid.

99 WHO and Ministry of Public Health & Population, Service Availability and Health Facilities Functionality in 16 Governorates, 2016.

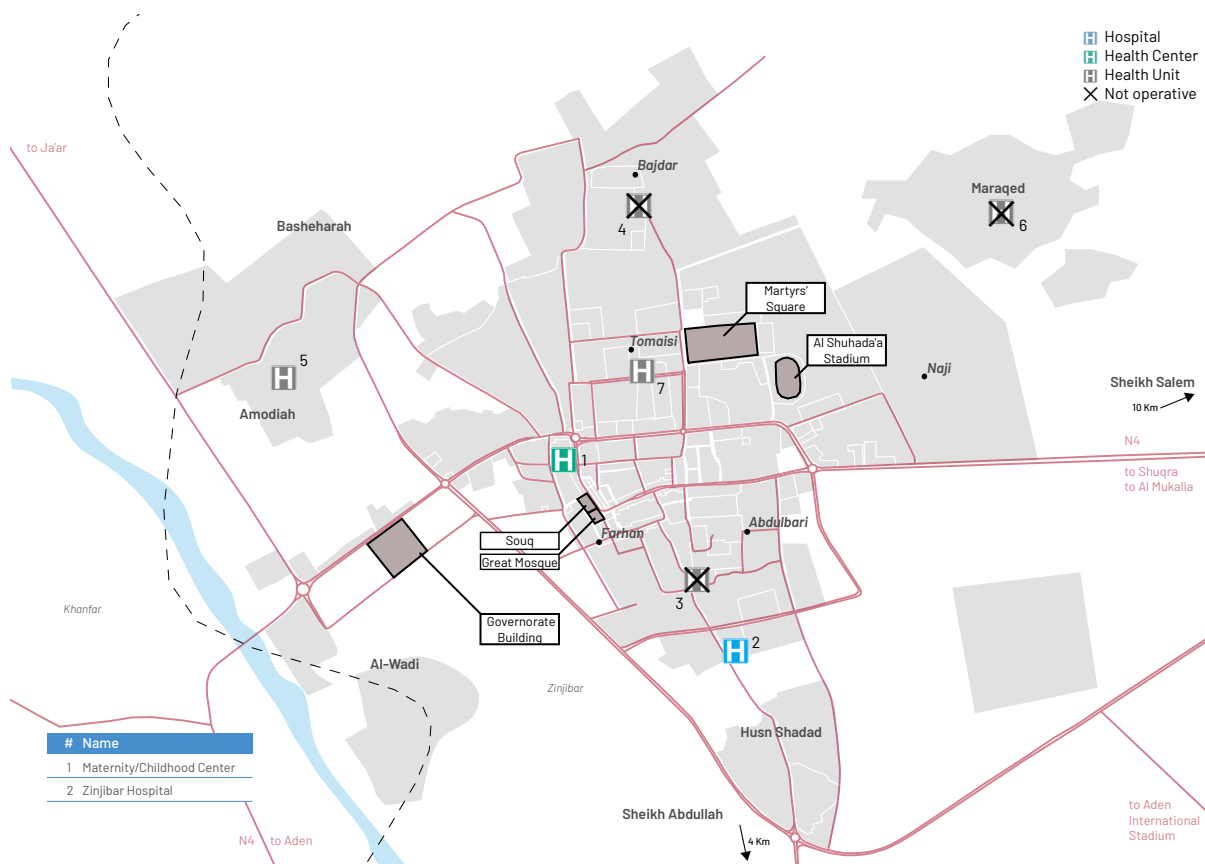
100 WHO, Ministry of Public Health and Population, Yemen: Health Resources and Services Availability Mapping System 2018 (HeRAMS), 2018.

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Protracted crisis and instability have affected the number of health workers in the city. In 2012, there were 16 doctors per 10,000 people in Zinjibar district.¹⁰¹ While more up to date statistics are not available for Zinjibar district, at a governorate level, in 2016, there were 27 health staff per 10,000 people in Abyan Governorate. Indeed, Abyan was one of the five governorates in Yemen¹⁰² meeting the WHO recommended threshold of 22 health workers.¹⁰³ However, by 2018, the ratio fell to 19 health workers per 10,000 people.¹⁰⁴ Challenges related to the retention of health personnel include displacement and non-payment of salaries to health workers across Yemen since the end of 2016.¹⁰⁵ In late 2019, local media reported that health workers at Zinjibar

hospital appealed to improve their working conditions.¹⁰⁶ Many of them have been volunteering at the hospital for years without an official contract and salary. Some of the volunteers stated that while they receive incentives payments from NGOs, this is irregular as it depends on the project. Following this protest, the head of Transitional Council in Abyan visited the hospital and formed a preliminary committee to address some of the issues raised.¹⁰⁷

Figure 54: Main Health Facilities in Zinjibar city, UN-Habitat (2020)



Source: Wikimapia and OpenStreetMap.

101 CSO 2012, in UN-Habitat, University of Aden (Academic Team), *The State of Yemeni Cities Development Report, Draft 1, 2019*.

102 Other governorates include Aden, Ma'rib, Shabwah and Lahj.

103 WHO and Ministry of Public Health & Population, *Service Availability and Health Facilities Functionality in 16 Governorates, 2016*.

104 WHO, Ministry of Public Health and Population, Yemen: Health Resources and Services Availability Mapping System 2018 (HeRAMS), 2018.

105 The World Bank Group, *Yemen Dynamic Needs Assessment (DNA): Second Phase Report*, (Washington DC: World Bank, 2017), 65.

106 Yemen Youth TV Chanel, "متطوعو مستشفى زنجبار في أبين", *يتأشدون وزارة الصحة باستيعابهم*, November 3, 2019, <https://www.youtube.com/watch?v=91quIKmJXGw> (accessed January 18, 2020).

107 Al-Ayyam, "انتقالي أبين ينجح في حل قضايا مستشفى زنجبار", November 21, 2019, <https://www.alayyam.info/news/80B5IX-IB-N22EGQ-3DDE> (accessed January 18, 2020).

Table 1: The Most Serious Problems the Population Face Associated With Health Facilities and Access to Them in Zinjibar City

	1st	2nd	3rd
Zinjibar	No specialized medical staff; Price of consultation/treatment and medicines is too expensive	Closest health facilities were damaged/destroyed by the war; Lack of type of services	Irregular or no supply of medicines, shortage of staff, free medicines, and operational budget
Khanfar	Lack of type of services	Irregular or no supply of medicines	Price of consultation/treatment is too expensive

Source: KI Survey, March 2020.

Population Needs

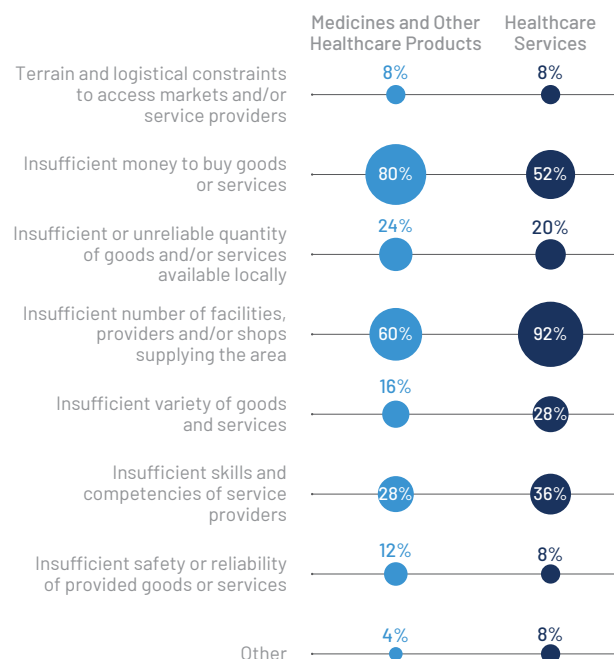
Latest HNO data (2019) estimates that there are 5,190 people in need of health services in Zinjibar District, in addition to 916 people in acute needs, representing 15 percent of the population.¹⁰⁸ In contrast, in 2018, 28,451 people (80 percent of the population) were in need of healthcare service (all acute), suggesting that the situation has significantly improved during the last year.¹⁰⁹

¹⁰⁸ UNOCHA, HNO Yemen PiN Data 2019, <https://data.humdata.org/dataset/yemen-humanitarian-needs-overview> (accessed January 18, 2020).

¹⁰⁹ Ibid.

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Figure 55: Main Barriers to Meet/Secure Healthcare Services and Goods in Zinjibar city, 2020

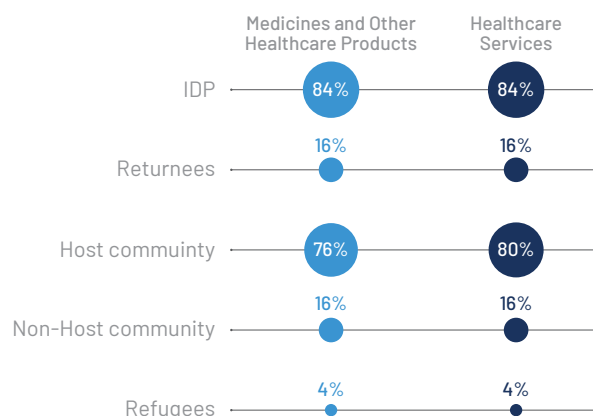


Source: CFP Survey, March 2020.

Currently, between 44 percent and 56 percent of CFPs in Zinjibar perceive that healthcare services, medicine and other healthcare products are not readily available in the city. Most of the households just barely meet these needs, as reported by 70-85 percent of CFPs. While availability of healthcare services seems to be better than that of health commodities, it is important to note that more population obtains it via aid, as compared to the health commodities. When asked where the majority of the population receives these from, half of CFPs (52 percent) reported that health services are obtained via purchasing them, while 44 percent stated that the population obtains it through aid, and the remaining 4 percent reported that it is obtained via family and friends. As for the health commodities, such as drugs and devices, 84 percent of CFPs stated that it is purchased, while 16 percent reported that items are obtained via aid.

The main barrier to secure healthcare services was reported as insufficient number of facilities and providers supplying the area. For medicine and other healthcare products, the main barrier was reported as insufficient money. IDPs and the host-community were identified as the population groups facing the biggest challenges securing healthcare services and commodities.

Figure 56: Population Groups Facing the Biggest Challenges Satisfying/Accessing Healthcare Services and Good in Zinjibar city, 2020



Source: CFP Survey, March 2020.

Several disease outbreaks were observed in the city in the last years. In autumn 2016, dengue fever outbreak hit the city, claiming eight lives. The situation was further exacerbated by the lack of the specialized medicines in the city, which forced some to seek treatment in Aden.¹¹⁰ During the same time, Cholera outbreak hit the city.

Humanitarian Interventions

Between January and December 2019, there were four Health Cluster partners operating in Zinjibar, including two United Nations (UN) Agencies and two National Non-Governmental Organizations (NNGOs).¹¹¹ They have been supporting the provision of healthcare services, including reproductive healthcare and child health, as well as operational support, including pharmaceuticals and capacity building. In both districts (Zinjibar and Khanfar), KIs reported that the humanitarian assistance offered partially meets priority needs.

¹¹⁰ The World Bank Group, Yemen Dynamic Needs Assessment (DNA): Second Phase Report, (Washington DC: World Bank, 2017), 69.

¹¹¹ Health Cluster Yemen, Health Cluster Dashboard, <https://www.humanitarianresponse.info/en/operations/yemen/health> (accessed January 18, 2020).

Highlights

- The education sector in Zinjibar city is affected by a variety of issues. Most households just barely meet this need in relation to education services. Priority issues include lack of infrastructure, teaching materials and teachers.
- Several schools in Zinjibar city are characterized by their poor physical state. Some have sustained damage at various stages of the conflict and have not been properly rehabilitated since then. Coupled with poor maintenance, this led to the establishment of alternative classroom space, including tents, in some schools.
- Insufficient money to pay for education services and buy education commodities is a significant barrier faced by the population, which is especially affecting IDPs and the host-community.
- Historically, female enrollment and literacy rates have been significantly lower than those for males; this is due to a combination of social, economic and cultural factors.

1. Overview

Across Yemen, an estimated two million children are out of school.¹¹² Over 250 schools sustained total damage, while over 1,400 were reported as partially damaged at the beginning of 2017.¹¹³ Furthermore, around 150 schools were hosting IDPs, and 23 schools were occupied by armed groups. In the following year, the context changed, with a total of 2,000 schools affected by the conflict in 15 governorates, mainly as they are occupied by IDPs (48 percent), located at frontlines (20 percent), were partially or completely damaged (16 percent and 15 percent), or were occupied by armed groups (1 percent).¹¹⁴ In Abyan governorate specifically, 69 schools have been affected. In Zinjibar city, several years of conflict coupled with the lack of available finance have significantly affected the education sector. Many schools are in poor condition, with some reported to be near collapse.¹¹⁵ For instance, in early 2017, it was reported that two schools sustained total damage, however, both were functioning, with one holding classes outside of the building.¹¹⁶ In addition, three schools have been vacated from IDPs.

Organizational Structure

Key legislation includes the Education Act (1964), which establishes different levels of education, and the Education Act (1965), which sets up scholarships and fellowships.¹¹⁷ Prior to the conflict, the education system was highly centralized. Currently, there are several ministries that manage the education system at different levels. General education falls under the purview of the Ministry of Education (MoE). Vocational schools and community colleges are managed by the Ministry of Technical Education and Vocational Training (MoTEVT), first introduced in the 1970s under the MoE, but then established as a separate system in 2001.¹¹⁸ Finally, the tertiary level is managed by the Ministry of Higher Education and Scientific Research (MoHESR), first established in 1990 and, after a brief hiatus, reestablished in 2001.¹¹⁹ The government of Yemen subsidizes public education at all levels.¹²⁰ The Literacy and Adult Education Organization (LAEO), is an autonomous technical agency within the MoE that measures and reports on national literacy rates.

Structure of the Education System

The education cycle in Yemen begins at early childhood, or preschool, which, however, is non-obligatory. Next, basic education is compulsory for all children, generally starting at the age of six or seven. Following nine years of basic education, students proceed either through a general secondary path or a vocational path (which consists of either vocational secondary or vocational training education).¹²¹ Secondary school lasts for three years. The first year is general education and consists of literary and scientific subjects.¹²² During the second year, students may choose to pursue either humanities or exact sciences. After the general secondary education, students may choose to pursue higher education at a university, a teachers' institute, a community college, or receive a technical education. To be admitted to postgraduate studies, one must complete a bachelor's degree amongst other prerequisites. Entering into the labor market is possible following any level after the completion of basic education. Following vocational secondary education, the student may opt for a technical education.¹²³

112 UNOCHA, HNO, 2019.

113 *Education Cluster Yemen, Affected Schools in Yemen database*, 2017, <https://data.humdata.org/dataset/affected-schools-in-yemen> (accessed January 21, 2020).

114 UNOCHA, HNO, 2019.

115 *The World Bank Group, Yemen Dynamic Needs Assessment (DNA): Second Phase Report*, (Washington DC: World Bank, 2017).

116 *Education Cluster Yemen, Affected Schools in Yemen database*, 2017, <https://data.humdata.org/dataset/affected-schools-in-yemen> (accessed January 21, 2020).

117 *World Bank, Yemen – Education status report: challenges and opportunities* (English), June 2010, <http://documents.worldbank.org/curated/en/182051468154759836/pdf/571800WP0Yemen10Box353746B01PUBLIC1.pdf> (accessed January 21, 2020).

118 Ibid.

119 Ibid.

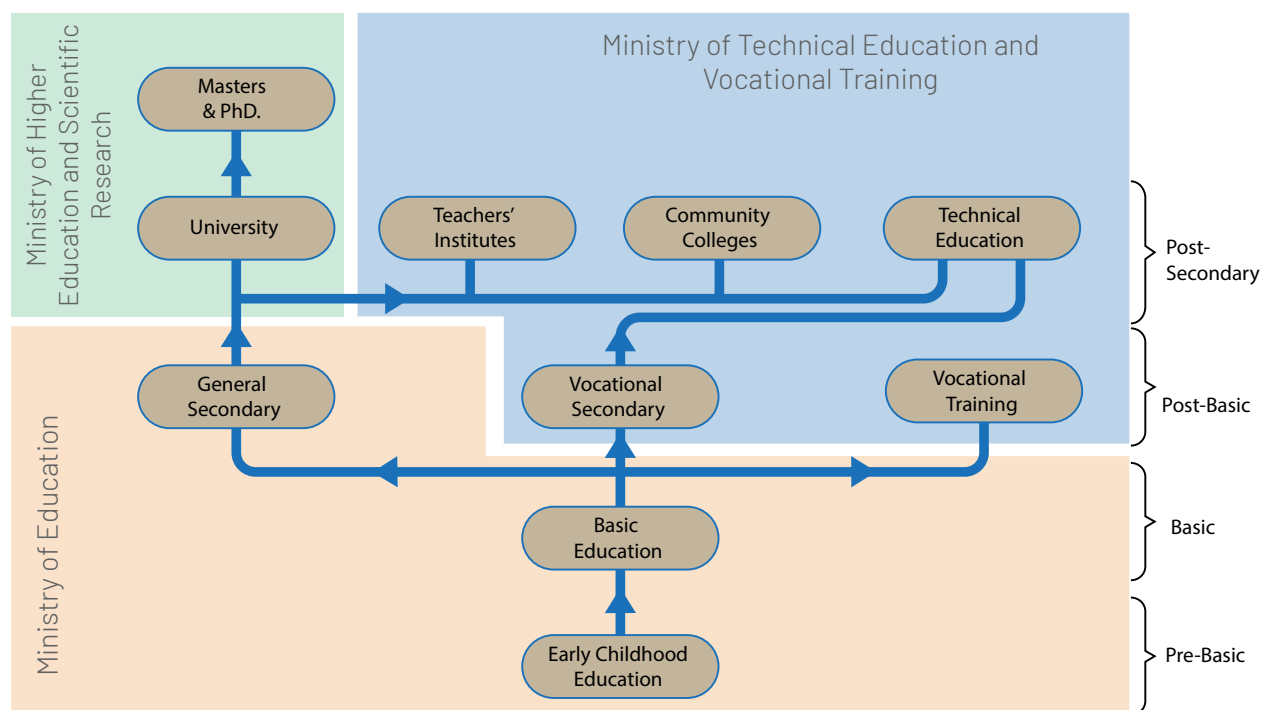
120 Ibid.

121 *ILO, Demographic and Labor Market Trends in Yemen*, 2014, https://www.ilo.org/wcmsp5/groups/public/-arabstates/-ro-beirut/documents/publication/wcms_358144.pdf (accessed January 15, 2020).

122 Ibid.

123 Ibid.

Figure 57: Educational System in Yemen



Source: UNESCO, *World Data on Education VII Ed., 2010/2011* and *The World Bank, Yemen – Education status report : challenges and opportunities (English), 2010*.

Admissions and Progression

The regulations governing admissions and progression are complex and can prevent students from obtaining further education. Already prior to the conflict, the number of students repeating a school year in Yemen was high. According to a 2010 World Bank report, it took 15.9 years on average to complete the compulsory nine years of education.¹²⁴ Students who choose to proceed to vocational education upon the completion of basic education legally lose the opportunity to attend university in the future.¹²⁵ Moreover, both the Technical Education and Vocational Training (TEVT) post-basic and TEVT post-secondary institutions have set age limits for admission purposes. Since most students require more time to progress out of basic education, some might not even qualify for a TEVT path solely due to age restrictions.

Furthermore, there are no regulations allowing for reentry into the basic education system following a dropout.¹²⁶ In such instances, the only possible path is Alphabetical Programs, whose mandate is only to teach reading and writing. To be admitted to a public university, a secondary education diploma is required. However, upon finishing secondary education, graduates cannot directly apply or enroll for a tertiary education. A one-year-long hiatus is legally mandated. Although unclear, the reason is generally attributed to the obligatory performance of the national military service upon reaching the age of 18 years old. After the year has elapsed, secondary education graduates have only up to three years to apply for admittance to the university. If unable, they lose the privilege to attend a tertiary education institution for life.¹²⁷ The complexity of the system thus prevents not only further education but also the attainment of qualifications necessary to transition into the labor market.

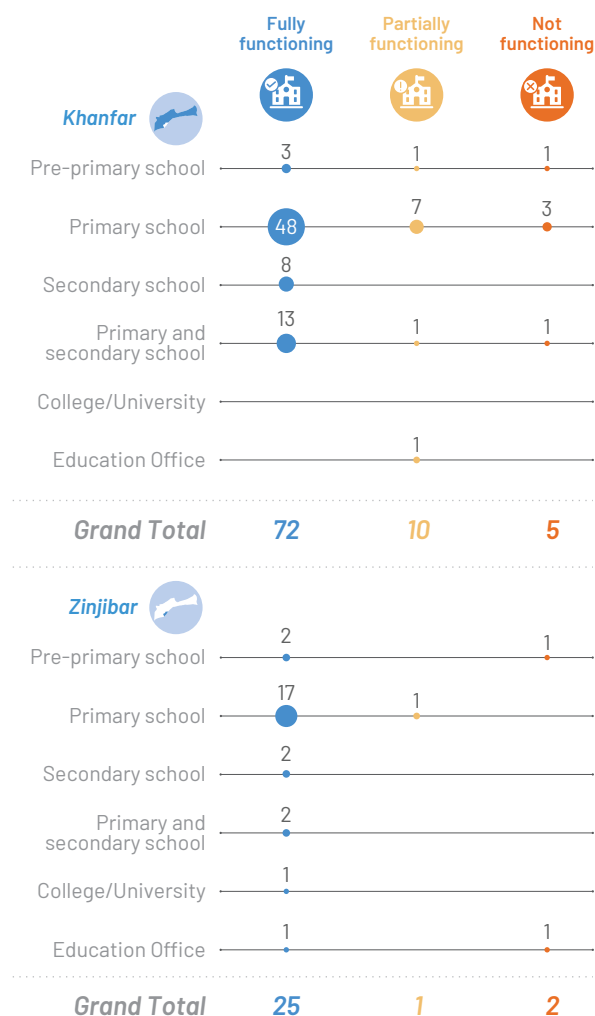
¹²⁴ World Bank, *Yemen – Education status report: challenges and opportunities (English)*, June 2010, <http://documents.worldbank.org/curated/en/182051468154759836/pdf/571800WP0Yemen10Box353746B01PUBLIC1.pdf> (accessed January 15, 2020).

¹²⁵ Ibid.

¹²⁶ Ibid.

¹²⁷ Ibid.

Figure 58: Total Number of Education Facilities and their Functionality in Zinjibar and Khanfar districts, 2020.



Source: KI Survey, March 2020.

There are three pre-primary, 18 primary, 2 secondary and 2 primary and secondary schools in Zinjibar city. Out of these, two pre-primary schools and one primary school are private, and the rest are public.¹²⁸ Functionality-wise, almost 90 percent of education facilities in Zinjibar district are fully functioning. In Khanfar the functionality is lower with 83 percent of education facilities fully functioning. Five schools are boys-only (3 primary and 2 secondary), and 4 schools are girls-only (2 primary and 2 primary/secondary), while nine elementary schools are mixed. There is one school for children with disabilities.

At a governorate level, there are nine kindergartens, 391 basic schools, 28 basic secondary and 42 secondary schools in Abyan.¹²⁹ The number of education facilities in Abyan increased between 2011 and 2017 by 50 percent for kindergartens, 14 percent for basic schools, 56 percent for basic/secondary schools and 11 percent for secondary schools. The highest increase was observed in 2012, when 48 new basic schools, nine basic/secondary and five secondary schools opened. The average class size in Abyan governorate stood at 27 students per class at a basic education level and 34 students per class at a secondary education level during the 2016 – 2017 academic year, significantly lower than the average class size at a national level. It should be noted, however, that enrollment rates in the governorate are low, especially for female students.

As a result of fighting within the district, when the Government of Yemen (GoY) retook the city from AQAP in 2012, most of the schools sustained damage or were looted.¹³⁰ During 2015, the school process for many children was once again disrupted, as many fled Zinjibar and Khanfar districts to Aden and Lahj governorates.¹³¹ Surveys of the IDPs children in Lahj suggest that approximately two-thirds of IDPs children were not enrolled in school at that time. As of 2017, out of 22 education facilities assessed in Zinjibar city, over half (55 percent) were partially damaged with another 5 percent completely destroyed.¹³² The remaining 41 percent sustained no damage. Most of the damage reportedly occurred due to the previous conflict-related damage, lack of maintenance and repair and poor overall construction. It was also reported that according to school officials, several facilities are near collapse, which prompted the establishment of temporary tents to deliver classes.

Rehabilitation of partially damaged schools was reported as one of the shortages to the education sector in Zinjibar by the study conducted by the professors at Aden University as a part of The State of Yemen Cities Report. In addition, shortage of financial resources, and lack of textbooks affect the education sector in Zinjibar. The need for broader social activities and provision of psychosocial support and healthcare for students and teachers was also highlighted.

129 CSO, Statistical Yearbook 2017, <http://www.cso-yemen.com/content.php?lng=english&cid=131> (accessed January 18, 2020).

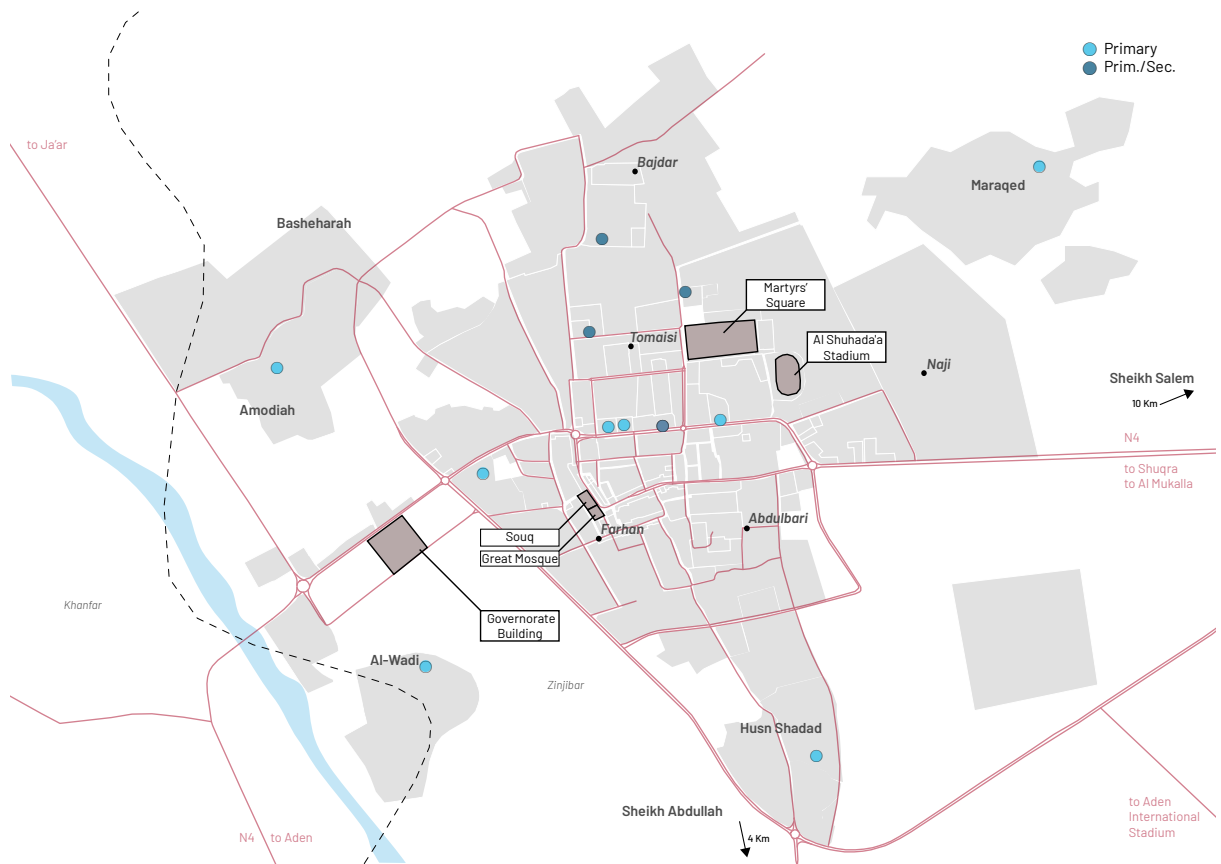
130 OCHA, Community Profiling Governorate of Abyan Zinjibar & Khanfar Districts, 2013, <https://www.humanitarianresponse.info/sites/www.humanitarianresponse.info/files/documents/files/Zinjibar%20and%20Khanfar%20Community%20Profiles.pdf> (accessed January 18, 2018).

131 UNHCR, Policy Paper 26, No More Excuses: Provide Education to All Forcibly Displaced People, 2016, <https://unesdoc.unesco.org/ark:/48223/pf0000244847> (accessed January 18, 2020).

132 The World Bank Group, Yemen Dynamic Needs Assessment (DNA): Second Phase Report, (Washington DC: World Bank, 2017), 23.

128 KI Survey, March 2020.

Figure 59: Main Education Facilities in Zinjibar, UN-Habitat (2020)



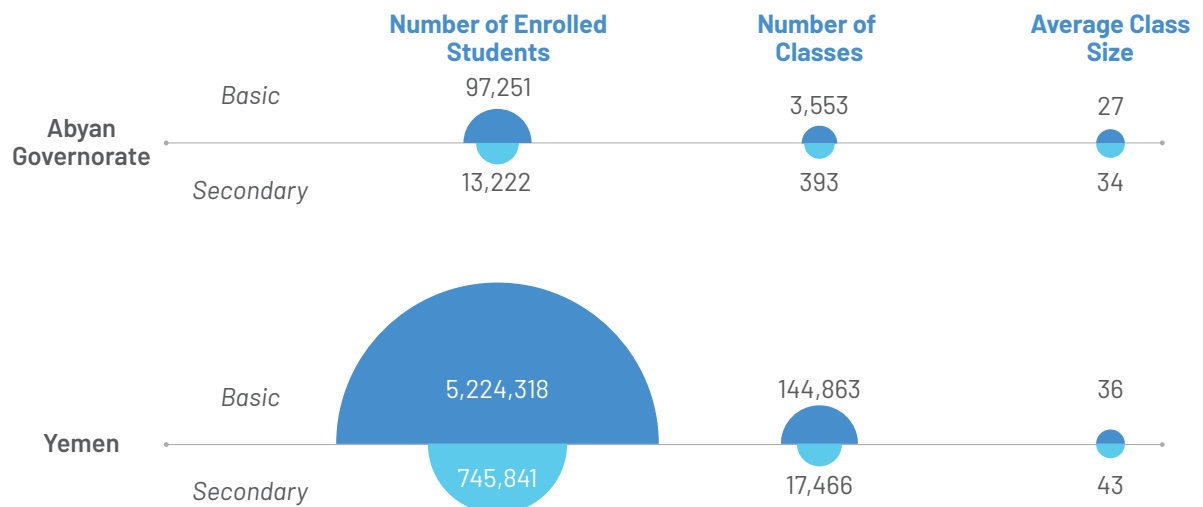
Source: Wikimapia, OpenStreetMaps.

2. Enrollment Rates

The net enrollment ratio across Yemen stood at 84 percent for primary education and 48 percent for secondary education level as of 2016.¹³³ While secondary school education is not obligatory in Yemen, and students can instead opt out for the technical and vocational training and education, secondary school diploma is a requirement for those who wish to attend university at a later stage. The enrollment rates amongst female students are significantly lower, with only 79 percent vs. 89 percent for primary education and 40 percent vs. 55 percent for secondary education. Low participation of female students in the education process is primarily attributed to early marriage and lack of female teachers, especially in rural areas.¹³⁴

¹³³ UNESCO data platform, Yemen statistics, <http://uis.unesco.org/en/country/ye> (accessed January 12, 2020).

¹³⁴ World Bank, Yemen – Education status report: challenges and opportunities (English), June 2010, <http://documents.worldbank.org/curated/en/182051468154759836/pdf/571800WPOYemen10Box353746B01PUBLIC1.pdf> (accessed January 14, 2020).

Figure 60: Number of Enrolled Students, Number of Classes and Average Class Size in Abyan Governorate, 2016 – 2017

Source: CSO Statistical Yearbook, 2017.

According to the reports released by the government, in Zinjibar city specifically, there are almost 10,000 students and numbers of male and female students are almost identical. Around eight percent of the students enrolled are displaced students, and around 4 percent of students have special needs. According to the same reports, the drop-out level is around 10 percent. The main identified reasons are family conditions, early marriage for girls, lack of classrooms in rural areas, distance to the education facilities, family problems, poor academic level and the general situation in the country. According to the Yemen Human Development Report 2013, the literacy rate for females in Zinjibar stood at 49 percent.

3. Higher Education

There are five training and technical institutes in Abyan Governorate: three institutes offering a vocational diploma, two offering a technical diploma and one vocational high school. During the 2016 – 2017 academic year, there were 371 students enrolled in these institutions, with only 22 female students (six percent).¹³⁵ One of the several Education Colleges of Aden University is located in Zinjibar. The Education College was opened in November 1979 and aims to improve the capacity of teachers in Yemen.¹³⁶ Initially, the college offered diploma-level courses in two specializations: Arabic and English. The following year a Scientific Department was opened, offering dual specializations in Biology, Chemistry, Sociology, Physics and Mathematics.¹³⁷ In 1988, the college started offering Bachelor-level degrees, and diploma courses have been abandoned. Since the same year, the university has replaced the dual specialization system with one major and another supporting one for the scientific facilities, in addition to restructuring and unifying the curricula of education facilities.

Students were offered the following courses: Biology and Chemistry, Mathematics and Physics, Geography and History, and single majors in Arabic and English. In the 1999 – 2000 academic year, Islamic Education Diploma course was introduced, and in 2006/2007, a diploma course in Computer Programming was launched, with the support of the Computers Department at the University of Aden.¹³⁸ According to the official webpage of Aden University, there are 10 academic departments in the college: Department of Biology, Department of Chemistry, Department of Physics, Department of Mathematics, Department of Geography, Department of History, Department of Arabic Language, Department of English Language, Department of Islamic Education, Department of Education and Psychology.¹³⁹ The college reportedly sustained damage in 2012, which deemed it non-operational. Following the rehabilitation, the facility was reopened for entrance exams in September 2016.¹⁴⁰ Currently, local media reports suggest that the facility is operational.¹⁴¹

¹³⁵ CSO, Statistical Yearbook 2017, <http://www.cso-yemen.com/content.php?lng=english&cid=131> (accessed January 14, 2020).

¹³⁶ Aden University Webpage, <http://www.aden-univ.net/> (accessed January 14, 2020).

¹³⁷ Ibid.

¹³⁸ Ibid.

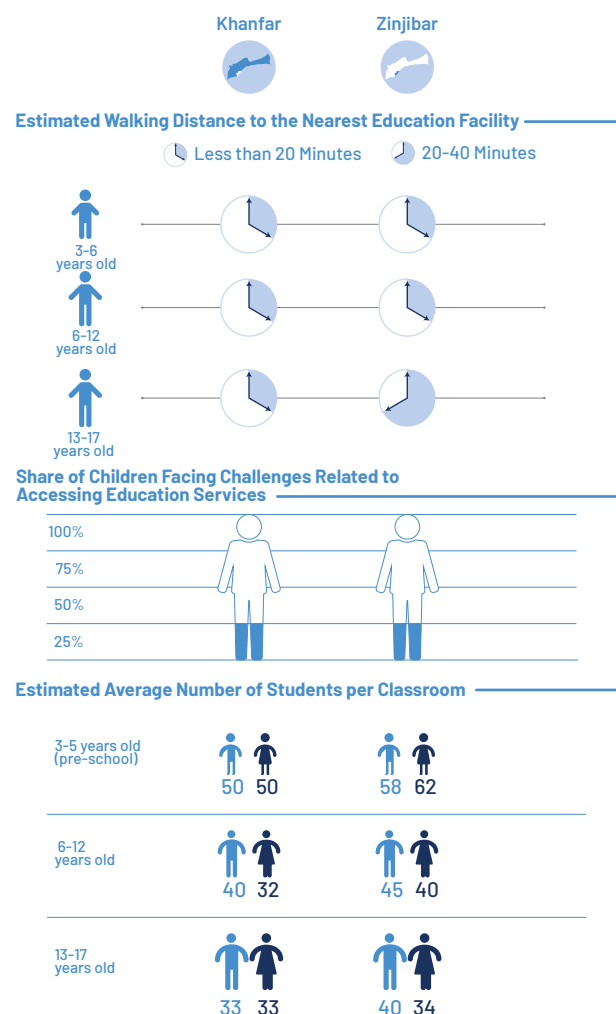
¹³⁹ Ibid.

¹⁴⁰ The World Bank Group, Yemen Dynamic Needs Assessment (DNA): Second Phase Report, (Washington DC: World Bank, 2017), 32.

¹⁴¹ See for example 4 May Electronic Newspaper (مايو الإلكتروني), "تدشين العام الجامعي 2019-2020م في جامعة #أبين", <http://www.4may.net/news/30762> (accessed January 18, 2020).

Population Needs

Figure 61: Education Needs per district



Source: KI Survey, March 2020.

According to the latest HNO (2019), there are 7,938 people in need of education services in Zinjibar District, representing 20 percent of the district's population.¹⁴² Compared to 2018 data, the number has increased by 4 percent.¹⁴³

According to primary data, almost a quarter of children in Zinjibar and Khanfar face challenges related to accessing education services.¹⁴⁴ When asked about the ability of the households to obtain education services and commodities, almost all CFPs (92 percent) stated that most households just barely meet this need in relation to education services, while all CFPs stated so in relation to education commodities. While services seem to be largely available (as only 8 – 16 percent of CFPs stated that the education services and commodities are not readily available in the city), the majority of CFPs stated that insufficient money to buy goods and services is the main barrier the population faces in relation to education services and commodities.

KIs answers about the main issues related to education varied. Insecurity or fear of physical injuries was reported as the first reason for all age groups in Zinjibar district. In addition, lack of money to pay school fees, lack of infrastructure, teachers, and teaching materials, access constraints such as a bad terrain, distance or transport constraint, and families having other priorities for children, such as collecting water or working were widely reported as one of the three main issues. In Khanfar district, insecurity or fear of physical injuries was reported as a first issue for male and female children aged 6-12 years old, while lack of infrastructure (school buildings or classrooms) to accommodate all students was reported for children aged 13-17 years old. Bad terrain, distance or transport constraints are the main issue for 3-5-year-old children. Lack of teaching materials is the second main issue for 13-17-year-old male and female students and male students 6-12 years old, while families having other priorities for children, such as collecting water or working was reported as a second main issue for 6-12-year-old female students. Lack of money to pay the school fees was also reported. Other issues reported include lack of funding and administrative difficulties.¹⁴⁵ For instance, lack of unified curriculum results in uneven education of local students.

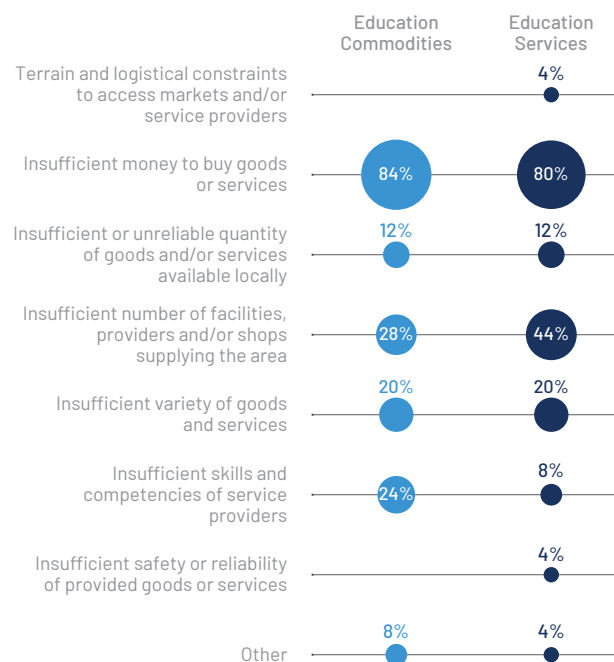
¹⁴² OCHA, *HNO Yemen PiN Data 2019*, <https://data.humdata.org/dataset/yemen-humanitarian-needs-overview> (accessed January 18, 2020).

¹⁴³ Ibid.

¹⁴⁴ KI Survey, March 2020.

¹⁴⁵ *The World Bank Group, Yemen Dynamic Needs Assessment (DNA): Second Phase Report*, (Washington DC: World Bank, 2017), 32.

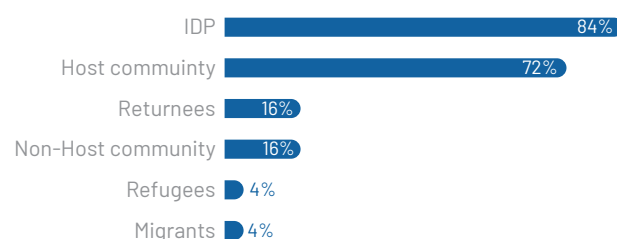
Figure 62: Main Barriers to Meet/Secure Education Services and Commodities in Zinjibar city, 2020



Source: CFP Survey, March 2020.

As for travel time, KIs reported that the travel time to the nearest education facility is less than 20 minutes for all age groups, except for students aged 13-17 in Khanfar district. This is in line with CFP perceptions, as most CFPs (80 percent) reported that it takes less than 20 minutes to access education services, while 16 percent stated that it takes between 20 and 40 minutes and 4 reported that it takes over 40 minutes.

Figure 63: Population Groups Facing Biggest Challenges in Meeting/Securing Education Services and Commodities in Zinjibar city, 2020

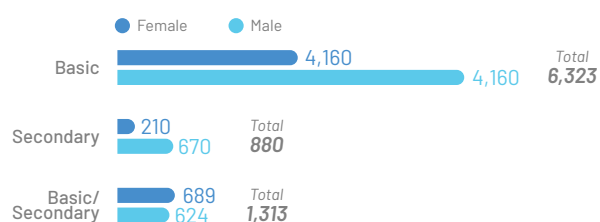


Source: CFP Survey, March 2020.

IDPs and the host-community were identified as the population groups facing the biggest challenges accessing education services and commodities by the majority of CFPs (84 percent and 72 percent respectively). In addition, 16 percent of CFPs stated that returnees and the non-host community also face the biggest challenges when accessing education services, while 4 percent reported so for refugees and migrants.

The number of female teachers in Abyan governorate is significantly lower than male teachers. During the 2016-2017 academic year, out of 8,516 teachers within the governorate only 3,062 (36 percent) were female. Lack of female teachers is especially acute in secondary schools, where less than a quarter of teachers are female. Interestingly, according to reports released by the government the situation in Zinjibar city is reversed, as there are a total of 1070 teachers, out of whom 63 percent are female. Based on the numbers provided, the teacher-to-student ratio stands at 9. The payment of teachers' salaries was reportedly affected as well, with the Zinjibar Office of Education unable to pay salaries in August and November 2016, causing protests.¹⁴⁶

Figure 64: Number of Teachers in Abyan Governorate, 2016 – 2017



CSO, Central Statistical Yearbook, 2017.

4. Humanitarian Interventions

As of December 2019, there were eight Education Cluster partners operating in Zinjibar, including three UN Agencies, three International Non-Governmental Organization (INGOs) and two NGOs.¹⁴⁷ Provided activities include schools rehabilitation, provision of school supplies and desks, establishment of temporary (alternative) learning spaces, provision of hygiene kits (or cleaning materials) and hygiene awareness, and provision of breakfasts and snacks for children.¹⁴⁸

Abyan Youth Foundation (AYF) is the leading community organization in the city. As reported by national media, during one of their projects, which ran between April 15, 2019 and January 14, 2020 in Zinjibar and Khanfar districts, they supplied school desks to 250 students, rehabilitated another 1200 desks, established 14 alternative education classes, supported the restoration and rehabilitation of nine schools and 30 bathrooms, and 250 whiteboards, 50 first aid kits, and 650 school bags, and conducted trainings on education in emergencies to over 1,900 individuals, including students, teachers, parents, and other NGOs.¹⁴⁹

Another initiative was launched in January 2020 in Bajdar block in Zinjibar, with the aim to provide free tutoring through remedial classes to school children in the area. As reported by national media, the project started with 10 teachers, many of whom are recent university graduates.¹⁵⁰ Moreover, with the support of the Yemeni-Kuwaiti Relief Agency, four colleges at the University of Aden in December 2016, including Education College Campus located in Zinjibar, were rehabilitated in 2016.¹⁵¹

In Zinjibar district, two KIs stated that the humanitarian assistance offered to education services partially meets priority needs, while one KI in Zinjibar district and the KI in Khanfar district stated that it does not meet priority needs. Priority areas, identified by KIs, which require immediate intervention are outlined in the table below. According to reports released by the government other urgent needs include operating budget for the Education office and schools; furnishing the Education office; addition of classes, completion of the construction and furnishing of several schools; installation of the school shade sails; and installation of a solar energy system for all schools in the district.

Table 2: The Most Serious Issues that Require Immediate Intervention

	1st	2nd	3rd
Zinjibar	Lack of learning space (infrastructure, building, maintenance, etc.) at reasonable distance; Lack of safety and security for children in school or on their way to school	Lack of teaching material and/or learning materials	Lack of teachers
Khanfar	Lack of learning space (infrastructure, building, maintenance, etc.) at reasonable distance	Lack of teaching material and/or learning materials	Lack of basic amenities (clean water, segregated toilets, heat, electricity)

Source: KI Survey, March 2020.

147 Education Cluster Dashboard 2019, <https://www.humanitarianresponse.info/en/operations/yemen/education> (accessed January 18, 2020).

148 Ibid.

149 Aden Al-Ghad, "مشروع دعم التعليم في زنجبار وخنفر بمحافظة أبين ... 28 معالجة لعدد من هموم التعليم في المديرية", <http://adengd.net/news/433114/#ixzz6UoXAo1ab> (accessed January 23, 2020).

150 Al Araby, "اليمن: مبادرة نسوية تقدم دروس تقوية مجانية لطلبة المدارس أبين", <https://bit.ly/310NRla>, 6 January 2020, (accessed January 23, 2020).

151 The World Bank Group, Yemen Dynamic Needs Assessment (DNA): Second Phase Report, (Washington DC: World Bank, 2017), 32.

12 Water, Sanitation and Hygiene (WASH)

Highlights

- Almost two thirds of the water and sanitation infrastructure in Zinjibar city sustained some degree of damage and is either not functioning or functioning at a decreased capacity.
- Between 40 and 70 percent of the population lost access to the WASH infrastructure as a result of the conflict. Almost half of the population consumes less than 15 liters of water per day and some have reportedly reduced water consumption for drinking and HH purposes.
- The condition of the sewage system is poor and requires rehabilitation. Sewage flooding has been reported on several occasions in the last years. There is no sewage plant in the city and wastewater is discharged untreated into a lagoon in the city center, posing serious health threats and resulting in environmental concerns.
- The availability of water and households' abilities to meet this need appears to be better as compared to some other critical services. This said, around a third of households just barely meet this need or do not meet this need at all. The main barrier, as perceived by CFPs, is insufficient money.

1. Overview

The water and sanitation infrastructure sustained damage during the various stages of the conflicts and needs rehabilitation. An estimated 40-72 percent of the population in the city lost access to public water and sewage networks in Zinjibar. According to primary (CFP and KI) data, most of the population has enough water for drinking and household purposes; however, the daily public water supply is inconsistent in various parts of the city. There is no wastewater treatment plant in Zinjibar. The city faces severe issues with wastewater management, as much of it is discharged untreated to the lagoon, often in close proximity to residential areas.

WASH Management

Management of water resources and uses falls under the oversight of several government entities. First, the National Water Resources Authority (NWRA, established in 1995) is a decentralized government agency with wide ranging legal powers to implement water laws and regulations, allocate water rights, approve permits for drilling wells, and undertake various other water resource management functions. Second, the Ministry of Water and Environment (MWE), established in 2003) is the cabinet-level supervisory body that brings the water sector as a whole, and water management in particular, under the purview of the central government, thus facilitating the allocation of necessary funds. Yet, the responsibility of water uses for irrigation purposes falls under, the third, the Ministry of Agriculture and Irrigation (MoAI), which shares jurisdiction over surface water infrastructure with the MWE.¹⁵²

The Water Law, ratified in 2002, is one of the two main regulations that deal with the exploitation and protection of water resources and its distribution among the population.¹⁵³ The second relevant regulation, the National Water Sector Strategy and Investment Program (NWSSIP), was the outcome of a multi-stakeholder initiative led by the MWE to prepare a consolidated strategy, an action plan, and an investment program for the sector as a whole. NWSSIP's mandate aimed to ensure coordination among the stakeholders, unify policies regarding water supply in both urban and rural areas, ensure equitable allocation of funds, integrate sustainable policies and poverty reduction, monitor the performance of water supply utilities, and ensure effective financing.¹⁵⁴ The provision of urban water and sanitation services is the responsibility of the local corporations, which have a board, formed with the representatives of central and local government and community.¹⁵⁵

152 Republic of Yemen, MWE, *National Water Sector Strategy and Investment Program*, (2004), <http://extwprlegs1.fao.org/docs/pdf/yem147103.pdf> (accessed September 14, 2019).

153 Naif Mohammad et al., *Water Supply in a War Zone, A Preliminary Analysis of Two Urban Water Tanker Supply Systems in the Republic of Yemen* (Washington DC: The World Bank, 2018), 6, <http://documents.worldbank.org/curated/en/434091532620702995/pdf/128907-WP-P165727-Water-Supply-in-a-War-Zone-PUBLIC.pdf> (accessed May 26, 2019).

154 Ibid.

155 Tiwari, Sailesh et al, *Dire straits : the crisis surrounding poverty, conflict, and water in the Republic of Yemen*, (Washington, D.C.: World Bank Group, 2017), <http://documents.worldbank.org/curated/en/429601499145081869/Dire-straits-the-crisis-surrounding-poverty-conflict-and-water-in-the-Republic-of-Yemen> (accessed November 11, 2019).

2. Infrastructure and Operational Capacity

The Abyan Water and Sanitation Local Corporation (AWSLC) was established in 2006 and is a public body responsible for the provision of water services to urban areas within the governorate.¹⁵⁶ In addition to Zinjibar city, the AWSLC covers some parts of Khanfar district, including the city of Ja'ar and villages located along the water transmission lines. The service area of the AWSLC is divided into 12 water supply zones, five of them covering Zinjibar district.¹⁵⁷ Around 80 percent of the population living in these areas are connected to the public water supply, while 44 percent are connected to the sanitation system. Since September 2016, AWSLC workers have received salaries on a regular basis. However, the salaries to the AWSLC staff were not paid between December 2015 and September 2016 and remain 10 months overdue.¹⁵⁸

AWSLC receives water from 39 wells located in the northern Al Rwa, Ja'ar and Zinjibar wells fields.¹⁵⁹ As of March 2017, 26 of these wells were operational, while five wells were under rehabilitation. The water to Zinjibar city is supplied from five wells located in Samah wells field and Al Salidi well. All wells were reportedly operational and did not sustain damage as of 2017. The nominal water production from these six wells stands at 6.3 m³ per day, while current production stands at 5.1 m³ per day, as they are operating for 16 hours instead of 20.¹⁶⁰ The water is then transported either directly to the customers, or initially collected at the elevated reservoir, located within an education facility yard. The reservoir has a capacity of 288 m³ and has needed rehabilitation since 2017.¹⁶¹

According to AWSLC estimations, water production more than doubled between 2014 and 2016 and stood at 2,380,518 m³ in 2016.¹⁶² Reported water consumption stands at 186 liters per capita per day as of the first quarter of 2017, more than triple as compared to the 52 liters per capita per day reported in 2014. At the same time, the amount of non-revenue water decreased from 40 percent in 2016 to 38 percent in early 2017. However, it is important to note that due to the absence of domestic water meters and only partial functionality of the bulk meters in Zinjibar and Ja'ar, 2016 and 2017 data can be deemed unreliable, and much lower water consumption numbers should be expected, while non-revenue water is likely to be higher.¹⁶³

The AWSLC is also responsible for the rehabilitation of the sewage network and provision of equipment, however, overall the sanitation services in Abyan are managed by the LC.¹⁶⁴ According to a study conducted by Aden University, the wastewater in Al-Kud area is collected by a sufficient network and then discharged to a treatment plant (stabilization ponds) with a capacity of only 500 m³ per day. However, a new plant is needed for the wastewater pump station. The wastewater in Al Husn area is discharged untreated to the valley. In Zinjibar and Ja'ar cities, the network is old and is in poor condition; the wastewater is untreated and discharged directly into a wadi in Ja'ar and to a lagoon located in the city center of Zinjibar, which can pose serious health threats to the population. Others use individual cesspits to discharge the wastewater. According to the same study, there are plans to replace and extend the sewerage network by 48 km of plastic pipes.



Source: UN-Habitat, University of Aden (Academic Team), *The State of Yemeni cities Development Report, Draft 1, 2019*.

Many of the water and sanitation infrastructure in Abyan was heavily destroyed during the conflict in 2012, including the AWSLC's Headquarter (HQ) office (located in Zinjibar) water reservoirs, store building and valve chambers. The new AWSLC main office was built, with the financial support from the KfW, in a different location.¹⁶⁵ Following the rehabilitation works conducted by the General Water Cooperation, partial water supply was restored; however, many residents still relied on water trucking services, with a reported price of 2000-2500 YER as of 2013.¹⁶⁶

¹⁵⁶ Dorsch International Consultants GmbH, Yemen Water Sector – Damage Assessment Report of Twelve Water Supply and Sanitation Local Corporations (LCs) and their Affiliated Branch Offices and Utilities – Stage III, Annex 1: Technical Assessment Report for LC Abyan, (Bonn and Eschborn: GIZ, September 2018).

¹⁵⁷ Ibid.

¹⁵⁸ Ibid.

¹⁵⁹ Ibid.

¹⁶⁰ Ibid.

¹⁶¹ Ibid.

¹⁶² Ibid.

¹⁶³ Ibid.

¹⁶⁴ Ibid.

¹⁶⁵ GIZ, Technical Assessment Report for LC Abyan, September 2018.

¹⁶⁶ UNOCHA, Community Profiling Governorate of Abyan Zinjibar & Khanfar Districts, 2013.

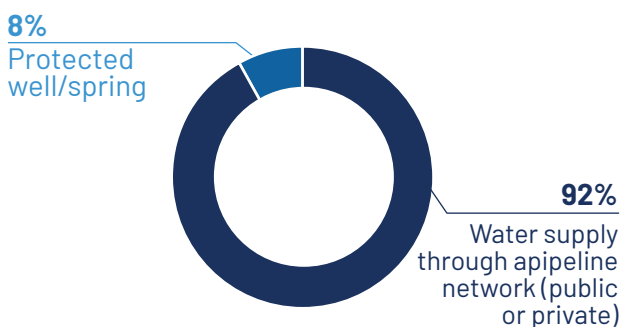
As of 2017, 20 percent of WASH facilities in Zinjibar were reportedly completely destroyed.¹⁶⁷ This includes two Water Tanks/Towers, one storage reservoir, one water/sanitation office, ten machinery and equipment and one sanitation laboratory. In addition, another 20 percent of the WASH infrastructure is partially damaged, including six machinery and equipment and one store. Functionality data matches that of damage, with almost two-thirds (61 percent) of facilities fully functioning, 20 percent partially functioning and another 20 percent not functioning.¹⁶⁸

3. Population Needs

Reports indicate that an estimated 40-72 percent of the population in the city has lost access to public water and sewage networks in Zinjibar due to the sustained damage to the infrastructure.¹⁶⁹ Average water consumption per person per day currently stands at 26 liters amongst the host-community population and 20 liters amongst IDPs.¹⁷⁰ However, only around half of the population (58 percent of the host-community population and 46 percent of IDPs) meet SPHERE minimum standard of 15 liters per person per day. Yet, most households reported having enough water to meet their needs.¹⁷¹ Currently, according to primary (CFP and KI) data between 80 and 100 percent of the population have enough water for drinking and household purposes in Zinjibar and Khanfar districts. Elderly people in both districts face the most severe issues related to the WASH sector, as well as the adult population in Zinjibar.¹⁷² Furthermore, KIs reported that the number of the sick people has increased.

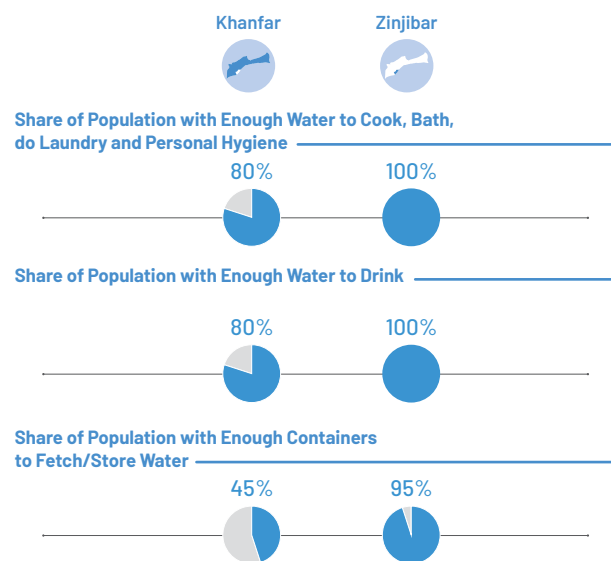
4. Water Supply

Figure 65: Main Sources of Water in Zinjibar city, 2020



Source: CFP Survey, March 2020.

Figure 66: Share of the Population with Enough Water to Cook, Bathe, Do Laundry, and Personal Hygiene in Zinjibar and Khanfar districts, 2020



Source: CFP Survey, March 2020.

Almost all households in Zinjibar use an improved water source as a main source for drinking.¹⁷³ As indicated by 92 percent of CFPs, water supplied through the pipeline is the main source of water for the population. When asked about the daily water supply, almost half of CFPs (48 percent) indicated that the water is available between 12 and 18 hours, while 22 percent stated that it is available between 6 and 12 hours, 17 percent reported that it is available for over 18 hours, and 9 percent stated that it is available for less than 6 hours. KIs also reported that the piped water supply is the primary source of water for both drinking and household purposes. Bottled packaged water was reported as the secondary source in Zinjibar district for drinking purposes. Meanwhile in Khanfar district, tanker-truck or cart was reported as a second source of water and protected well/spring as a third source water for both drinking and household purposes. Other water sources used in Khanfar district include unprotected well/spring and rainwater.

Overall, KIs reported that the entire population has enough water to drink and cook, bathe, do laundry and personal hygiene in Zinjibar district, while the same was true for 80 percent in Khanfar district. In contrast, while only four percent of CFPs stated that water for drinking purposes is not readily available and 64 percent of CFPs reported that in most households this need is either fully or largely met, 28 percent reported that most households barely meet this need and one CFP (4 percent) reported that most households are unable to meet this need. The share of the population with enough storage containers is lower, with 95 percent of the population in Zinjibar and 45 percent of the population in Khanfar district having enough containers. In fact, when asked about common issues affecting the community, KIs in both districts reported that storage containers are too expensive. Other issues reported in Khanfar district are lack of the water points and long waiting times, as well as that the water points are too far.

167 The World Bank Group, Yemen Dynamic Needs Assessment (DNA): Second Phase Report, (Washington DC: World Bank, 2017), 136.

168 Ibid., 128.

169 Ibid., 136.

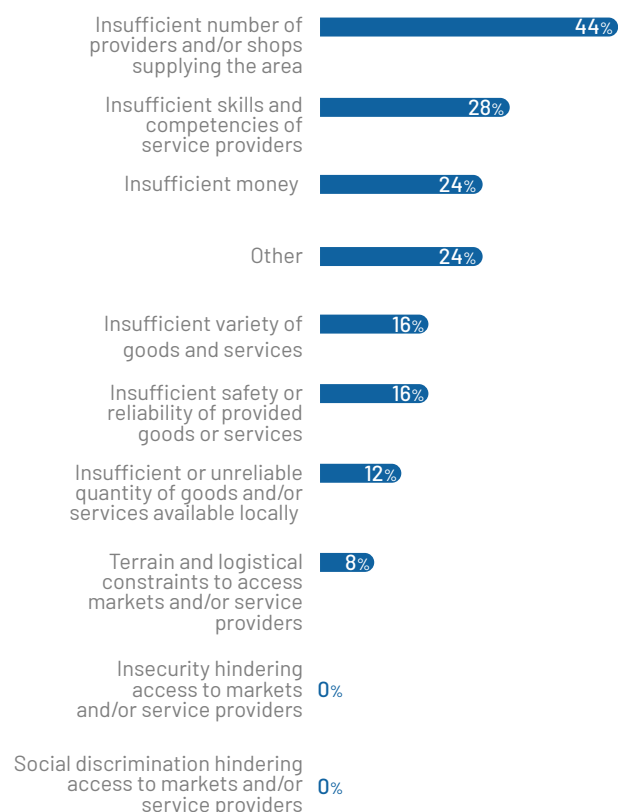
170 WASH Cluster and Reach, Yemen WASH Cluster Assessment, Zinjibar District, Abyan Governorate, Yemen, November 2018, https://www.impact-repository.org/document/reach/ad3298b9/reach_yem_factsheet_wash_cluster_assessment_november_2018_0.pdf (accessed January 18, 2020).

171 Ibid.

172 KI Survey, March 2020.

173 WASH Cluster and Reach, Yemen WASH Cluster Assessment, Zinjibar District, Abyan Governorate, Yemen, November 2018.

Figure 67: Main Barriers to Meet/Secure Water for Drinking Purposes Needs in Zinjibar city, 2020



Source: CFP Survey, March 2020.

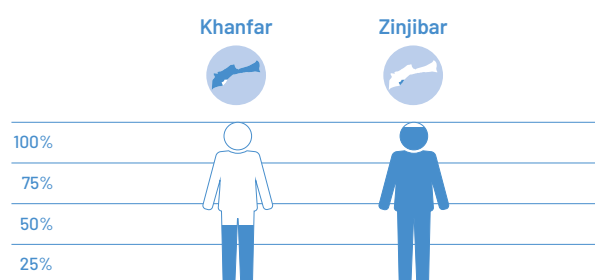
Insufficient numbers of providers and shops supplying the area is the main barrier related to securing water for drinking purposes needs, followed by insufficient skills and competencies of service providers, and insufficient money, as well as other barriers, as perceived by CFPs. Some of the other barriers noted by CFPs include intermittent electricity supply, which affects the water distribution network, and poor water quality. In addition, it was noted that some houses are not connected to the water network and that the water network should be expanded due to urban sprawl. In Zinjibar, most CFPs (84 percent) reported that it takes less than 20 minutes to obtain potable water, while 12 percent stated that it takes between 20 and 40 minutes and the remaining four percent indicated that it takes more than 40 minutes. To cope with the lack of water, most households opt for fetching water from a farther water point than usual, followed by reducing water consumption for drinking and household purposes, which may lead to negative health consequences amongst the population.¹⁷⁴ IDPs and the host-community face the biggest challenges meeting water for drinking purposes needs, as was reported by 80 percent and 72 percent of CFPs respectively.

5. Water Quality

Most CFPs (72 percent) reported that the water quality is adequate, 60 percent stated that the population does not treat water before drinking it, while the remaining 40 percent stated that they do not know. However, earlier reports indicate that approximately half of households in Zinjibar faced issues related to taste, smell or appearance of water sources.¹⁷⁵ Still, only 16 percent of the host-community households and 6 percent of IDP households were treating drinking water.¹⁷⁶ Approximately half of the households reported that there was no need for treating drinking water, while almost a third stated that they did not know any methods for treating water. In addition, between 10 and 15 percent of the host-community and IDP households did not have the necessary materials. It is important to note, however, that according to the KIs, increasing the treatment of drinking water is one of the key priority areas for intervention within the WASH sector.

6. Hygiene

Figure 68: Share of the Population with Access to Functioning Handwashing Facilities in their Household in Zinjibar and Khanfar districts, 2020



Source: CFP Survey, March 2020.

Overall, over two-thirds of CFPs (72 percent) reported that most households just barely meet their needs when it comes to hygiene commodities, such as clothing, washing, soap, toothbrush, pads, diapers and other, while one CFP (4 percent) stated that this need is not met at all. In fact, only a fifth of CFPs stated that this need is either fully or largely met in most of the households.

¹⁷⁴ Ibid.

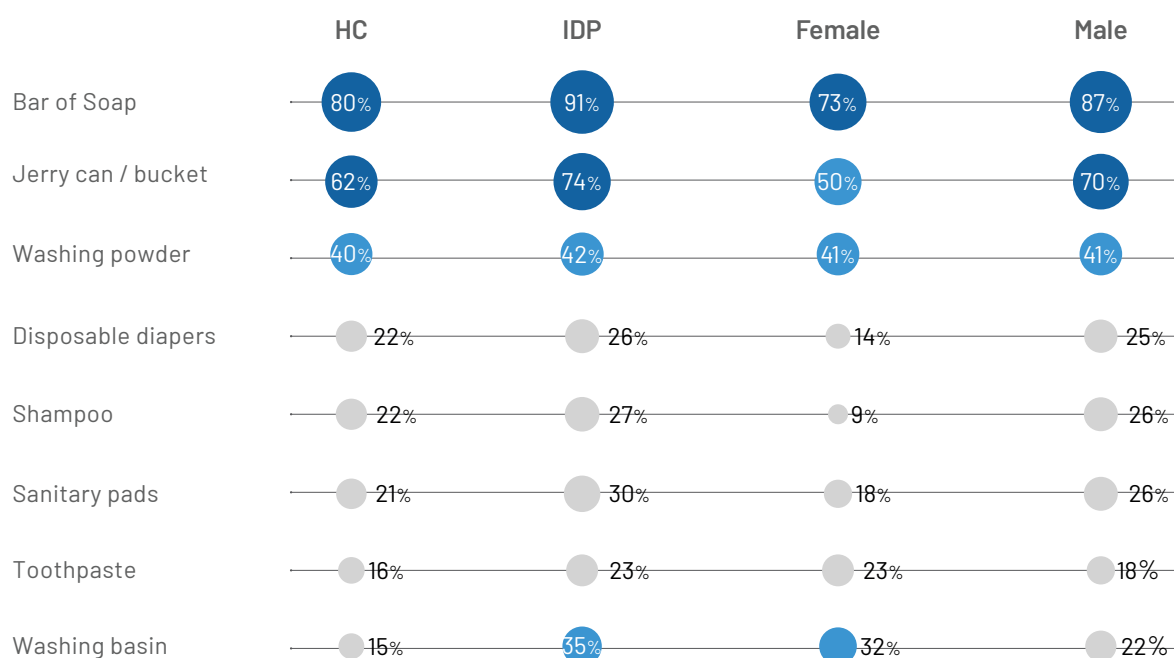
¹⁷⁵ Ibid.

¹⁷⁶ Ibid.

An estimated 95 percent of the population in Zinjibar and 35 percent of the population in Khanfar have access to functioning handwashing facilities in their household.¹⁷⁷ In both districts, most people use soap and do have soap in their households.¹⁷⁸ Insufficient money is the main barrier to secure hygiene commodities and hygiene and sanitation facilities in Zinjibar district.¹⁷⁹ Other commonly reported issues include insufficient or unreliable quantity of goods and services available locally, insufficient skills and competencies of service providers, and insufficient variety of goods and services. Earlier assessments indicate that over two-thirds of households in Zinjibar were not able to access or afford at least one hygiene item. Half of the host-community households reported not having handwashing facilities, while a quarter stated that they did not have soap. The numbers were higher amongst IDPs, where a vast majority (88 percent) had no hand-washing facilities in their households and three-quarters reported not having soap.¹⁸⁰

The majority of CFPs reported that it takes less than 20 minutes to obtain/secure hygiene items and hygiene and sanitation facilities. When asked about the population groups facing the biggest challenges related to hygiene commodities, and hygiene and sanitation facilities, IDPs and the host-community were reported in both Khanfar and Zinjibar district by the majority of CFPs.

Figure 69: Share of Households Unable to Afford Hygiene Items in Zinjibar city, 2018



Source: WASH Cluster Yemen and REACH, Yemen WASH Cluster Assessment Dashboard. Available at <https://reach-info.org/yem/>.

177 KI Survey, March 2020.

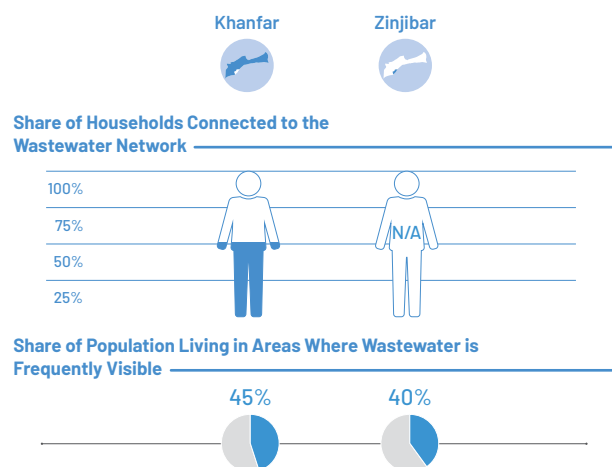
178 Ibid.

179 CFP Survey, March 2020.

180 WASH Cluster and Reach, Yemen WASH Cluster Assessment, Zinjibar District, Abyan Governorate, Yemen, November 2018.

7. Sanitation

Figure 70: Share of Households Connected to the Wastewater Network, 2020



Source: CFP Survey, March 2020.

The condition of water drainage and sewage system is poor across Zinjibar city. Severe sewage flooding of the streets was reported throughout 2016 and early 2017, leading to the closure of certain streets and posing serious health threats to the residents.¹⁸¹ Urgent repairs and maintenance of the sewage network and drainage system is required to prevent overflowing. Residents of Zinjibar city frequently complain of sewage flooding that accumulates and forms swamps and ponds that jeopardize the overall health of its population and further limit transportation. The flooded sewage has become a major source of pollution and a threat to the health and wellbeing of Zinjibar's citizens.¹⁸² There is no sewage plant serving Zinjibar and all sewage water is discharged untreated into the lagoon close to the city.

Earlier assessments indicated that almost half of the host-community households (43 percent) and more than a quarter of IDP households (28 percent) reported visible wastewater close to their house.¹⁸³ According to primary (CFP and KI) data the situation did not improve, as between 40 and 45 percent of the population currently lives in areas where wastewater is frequently visible. The situation is worse in Zinjibar, where sewage and wastewater management issues are constant and extreme, while in Khanfar issues were described as frequent and of high severity.¹⁸⁴ However, answers of CFPs varied, with 44 percent stating that issues are observed sometimes, while another 40 percent stated that they are constant and the remaining 16 percent reported frequent issues. The discrepancy may point towards a different situation in various areas of the district.

Between 95 and 100 percent of the population have access to safe and functioning latrines.¹⁸⁵ When asked about the most common issues the population faces related to latrines, KIs reported constant sewer flooding as the first issue, and that the cesspits are full as a second issue for both the male and female population. In Khanfar district, the main issue is that there is no sewage system. Overall, lack of sanitation facilities, absence of drainage system, insufficient garbage collection and lack of funding are the most common sanitation issues in Zinjibar and Khanfar.

¹⁸¹ The World Bank Group, Yemen Dynamic Needs Assessment (DNA): Second Phase Report, (Washington DC: World Bank, 2017), 136.

¹⁸² Alkhabar AlYemeni, "أهالي زنجبار يشكون طفق مياه المجاري في شوارع المدينة", November 4, 2019, <https://www.alkhabaralyemeni.net/2019/11/04/66329/> (accessed March 17, 2020).

¹⁸³ WASH Cluster Yemen and REACH, Yemen WASH Cluster Assessment Dashboard, <https://reach-info.org/yem/> (accessed January 22, 2020).

¹⁸⁴ KI Survey, March 2020.

¹⁸⁵ Ibid.

Table 3: Main Sanitation Problems in the Community in Zinjibar and Khanfar districts, 2020

	1st	2nd
Zinjibar	Lack of Sanitation facilities (latrines/toilets) of facilities too crowded	Garbage is not collected and remains in the street
Khanfar	There is no damage system	Lack of funding

Source: KI Survey, March 2020.

Humanitarian Interventions

During 2019, there were five WASH cluster partners in Zinjibar, including two governmental organizations, two UN Agencies and one INGO.¹⁸⁶ Support included provision of household level water treatment options, distribution of hygiene kits, hygiene promotion and community engagement, community-led cleaning campaigns, and conducting needs assessments. Also, the Social Fund for Development (SFD) rehabilitated a water tank in Zinjibar, with a capacity of 720 m³, which has been out of operation for the last 36 years.¹⁸⁷

To respond to the cholera outbreak in the city in autumn 2016, the Zinjibar Health Ministry, supported by Islamic Relief and the WHO, treated cholera cases and chlorinated private and public water tanks in two neighborhoods, as well as in Zinjibar Hospital and one of the health units in the city.¹⁸⁸

In Zinjibar, KIs reported that humanitarian assistance offered partially meets priority needs, while in Khanfar it was reported that it does not meet priority needs. Overall, sanitation related issues were identified as priority areas for intervention in both Zinjibar and Khanfar districts, in addition to water quality issues reported in Zinjibar.

Table 4: Priority Areas for Intervention in WASH Sector in Zinjibar and Khanfar districts, 2020

	1st	2nd	3rd
Zinjibar	People who live in areas where wastewater is frequently visible (sewage problems)	People who live in areas where dumped garbage is frequently visible	People who do not treat their water before drinking it
Khanfar	People who live in areas where wastewater is frequently visible (sewage problems)	People who live in areas where dumped garbage is frequently visible	People who do not have access to functioning sanitation facilities (latrines/toilets)

Source: KI Survey, March 2020.

¹⁸⁶ WASH Cluster Yemen, WASH Cluster Partners Presence (4W Matrix) January – December 2019, <https://www.humanitarianresponse.info/en/operations/yemen/water-sanitation-hygiene> (accessed January 22, 2020).

¹⁸⁷ SFD-Yemen Twitter Account, <https://twitter.com/sfdyemen/status/976167158043627520> (accessed January 22, 2020).

¹⁸⁸ The World Bank Group, Yemen Dynamic Needs Assessment (DNA): Second Phase Report, (Washington DC: World Bank, 2017), 136.

Highlights

- The cities of Zinjibar and Ja'ar currently receive around 21.1 MW of supplies (from the power stations in Ja'ar and Aden), while the maximum load demand reaches 45 MW. The situation is expected to deteriorate within years, as the population grows, and the city will require an even higher supply.
- While damage to the electricity infrastructure in Zinjibar is minimum, the functionality is very low due to fuel shortages and lack of finances.
- Currently, the city receives between 6 and 12 hours of daily electricity supply. However, the city has faced several electricity outages during the conflict as a result of the fuel shortages and damage to infrastructure. Solar panels and private household generators are scarce.
- Electricity losses are estimated between 40 and 45 percent and constitute major problems, as the public electricity corporations struggle to collect revenues.

Institutional and Legal Framework

The cabinet-level agency responsible for administering Yemen's electric power and policy is the Ministry of Electricity and Energy. The Public Electricity Corporation (PEC) is a public enterprise responsible for energy generation, distribution, and transmission.¹⁸⁹ The central piece of national legislation for the electricity sector is the 2009 Electricity Law, which was introduced to improve power sector management, including facilitation of private sector environment.¹⁹⁰ The legislation also established the Rural Electrification Authority and the Electricity Sector Regulatory Board, with the latter responsible for setting business tariffs, monitoring compliance, and encouraging the use of renewable energy. As of 2016, the board has yet to convene.

In 2002, the Government of Yemen established a dedicated department within the Ministry of Electricity and Energy and reorganized it to also address renewable wind and solar energy sectors in 2009.¹⁹¹ The government plans to increase the use of renewable energy to 15-20 percent by 2025.

1. Overview

The electricity infrastructure in Zinjibar city has been affected due to conflict on several occasions. Following the 2012 conflict, the power supply network sustained severe damage. While partial supply was later restored, fuel shortages result in limited electricity availability. The electricity and street lighting infrastructure are either partially or fully damaged in both Zinjibar and Khanfar districts.

2. Infrastructure and Operational Capacity

Figure 71: Current Available Electricity in Ja'ar and Zinjibar

Power Station	Fuel Type	Current Production Capacity (MW)
Received from Aden		3
Ja'ar (Governmental)	Diesel	2.1
Ja'ar1 (Private)	Diesel	6
Ja'ar 2 (Private)	Diesel	10
Total		21.1

Source: UN-Habitat, University of Aden (Academic Team), *The State of Yemeni cities Development Report, Draft 1, 2019*.

There is no powerplant in Zinjibar city. The city receives electricity from the nearby stations located in the city of Ja'ar. Zinjibar also receives 3 MW from the power plant in Aden. In addition, the new power plant is under construction in Zinjibar city.¹⁹² The plant will be Heavy Fuel Oil (HFO)/gas fired and will have a capacity of 30 MW.¹⁹³

¹⁸⁹ *International Energy Charter*, Energy Investment and Business Climate Report for Observer Countries (Brussels: Energy Charter Secretariat, 2017), 12, https://energycharter.org/file-admin/DocumentsMedia/Occasional/Yemen_Investment_Report.pdf (accessed June 6, 2020).

¹⁹⁰ Ibid.

¹⁹¹ Ibid.

¹⁹² Al-Ayam, "مدیر كهرباء أبین: مديونيات المرافق الحكومية" بلغت January 7, 2020. <https://www.alayyam.info/news/826AN64H-A09SL5-3AD0> (accessed January 5, 2019).

¹⁹³ Towfick Sufian, *Post Conflict Reconstruction Strategy Study for the Electricity and Energy Sector of Yemen*, (Brussels: International Energy Charter, 2019).

According to the study conducted by Aden University, the current average generated capacity is 21.1 MW in Zinjibar and Ja'ar cities, while the maximum load demand stands at 45 MW. Consequently, there is a shortage of 23.9 MW. The same study forecasts the maximum load demand to reach 65.7 MW by 2030 due to the population growth. Several Solar Photovoltaic (PV) systems were installed in Zinjibar in the private hospital, schools and domestic sectors; however, solar systems remain scarce mainly due to associated costs. Given the forecasted load for Zinjibar and Ja'ar cities, as well as the need to secure electricity for agricultural purposes, the study recommended installation of the new power plant in either Zinjibar or Ja'ar with a capacity of 100 MW. Alternatively, the study recommended to wire some of the additional capacity recommended for the Aden Thermal power station to Zinjibar or Ja'ar. Usage of Solar PV in critical services, such as education facilities is also encouraged.

The electricity grid and street lighting infrastructure sustained some degree of damage in both Zinjibar and Khanfar districts. Damage to the electricity grid and inability to maintain and repair electricity infrastructure was reported as the first two priority areas for intervention by KIs, followed by the unreliable or intermittent electricity supply.

Electricity outages in the city were reported on several occasions due to the damage and fuel shortages. While currently electricity supply through the public grid is available for 6-12 hours daily, in March 2017 the city of Zinjibar had no access to public power supply at all.¹⁹⁴ While most (80 percent) of the power sector facilities did not sustain damage, none of the facilities were functioning as a result of fuel shortages and technical issues at the primary power plant in Abyan.¹⁹⁵ More recently, power outages were reported in the city in 2019, following the withdrawal of 5 MW from the power supply line from Aden, which feeds the station in Zinjibar.¹⁹⁶ The facility was reported to only have 16 MW and therefore introduced electricity rationing with two-hour intervals.

Table 5: The Most Serious Issues That Require Immediate Intervention in Electricity in Zinjibar and Khanfar districts, 2020

	1st	2nd	3rd
Zinjibar	Damage to electricity infrastructure	Inability to maintain and/or repair electricity infrastructure (lack of supplies, lack of qualified staff)	Unreliable or intermittent electricity supply
Khanfar	Inability to maintain and/or repair electricity infrastructure (lack of supplies, lack of qualified staff)	Damage to electricity infrastructure	Unreliable or intermittent electricity supply

Source: KI Survey, March 2020.

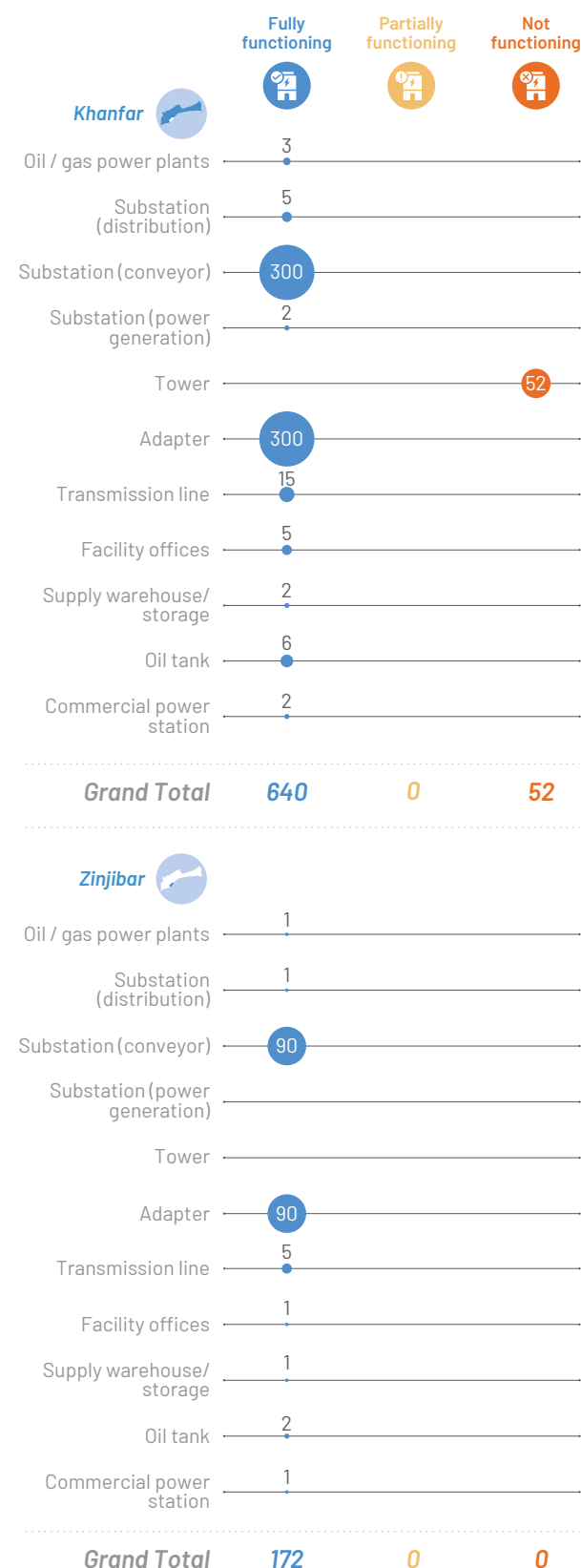
¹⁹⁴ Ibid, 44.

¹⁹⁵ The World Bank Group, Yemen Dynamic Needs Assessment (DNA): Second Phase Report, (Washington DC: World Bank, 2017), 44.

¹⁹⁶ Al-Ayam "سحب 5 ميغاوات بسبب أزمة كهرباء بزنجبار وخنفر", April 16, 2019, <https://www.alayyam.info/news/7RMAX0KG-4NJF70> (accessed January 5, 2020).

ZINJIBAR RAPID CITY PROFILE

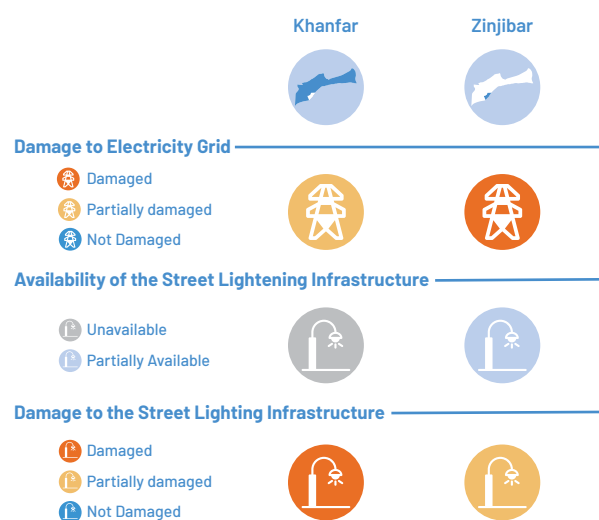
Figure 72: Total Number of Energy and Electricity Facilities and their Functionality



Source: KI Survey, March 2020.

However, even prior to 2017, power outages were frequent across Abyan governorate due to fuel shortages and technical issues at the main power plant.¹⁹⁷ For example, during the conflict in 2012, the electricity supply in the city was disrupted, when the public power supply network was completely damaged.¹⁹⁸ Some repairs and maintenance work were then conducted by the Ministry of Electricity, allowing for a partial power supply; however, many residents still relied on privately owned generators.¹⁹⁹ At times, some electricity from Aden power plant was supplied to Zinjibar, however, reports indicate that this agreement is no longer in place due to the shut-down of supplementary power facilities in Aden.²⁰⁰

Figure 73: Status of Energy Grid and Street Lights



Source: KI Survey, March 2020.

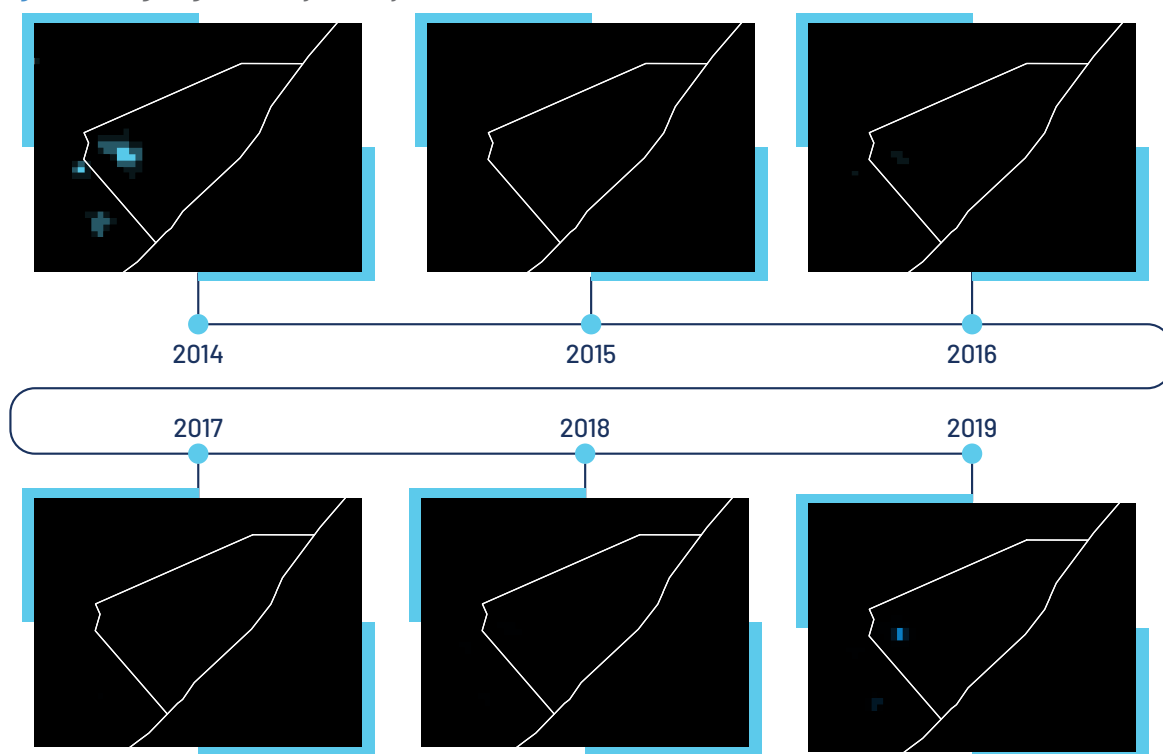
¹⁹⁷ The World Bank Group, Yemen Dynamic Needs Assessment (DNA): Second Phase Report, (Washington DC: World Bank, 2017), 53.

¹⁹⁸ UNOCHA, Community Profiling Governorate of Abyan Zinjibar & Khanfar Districts, 2013, <https://www.humanitarianresponse.info/sites/www.humanitarianresponse.info/files/documents/files/Zinjibar%20and%20Khanfar%20Community%20Profiles.pdf> (accessed January 5, 2020).

¹⁹⁹ Ibid.

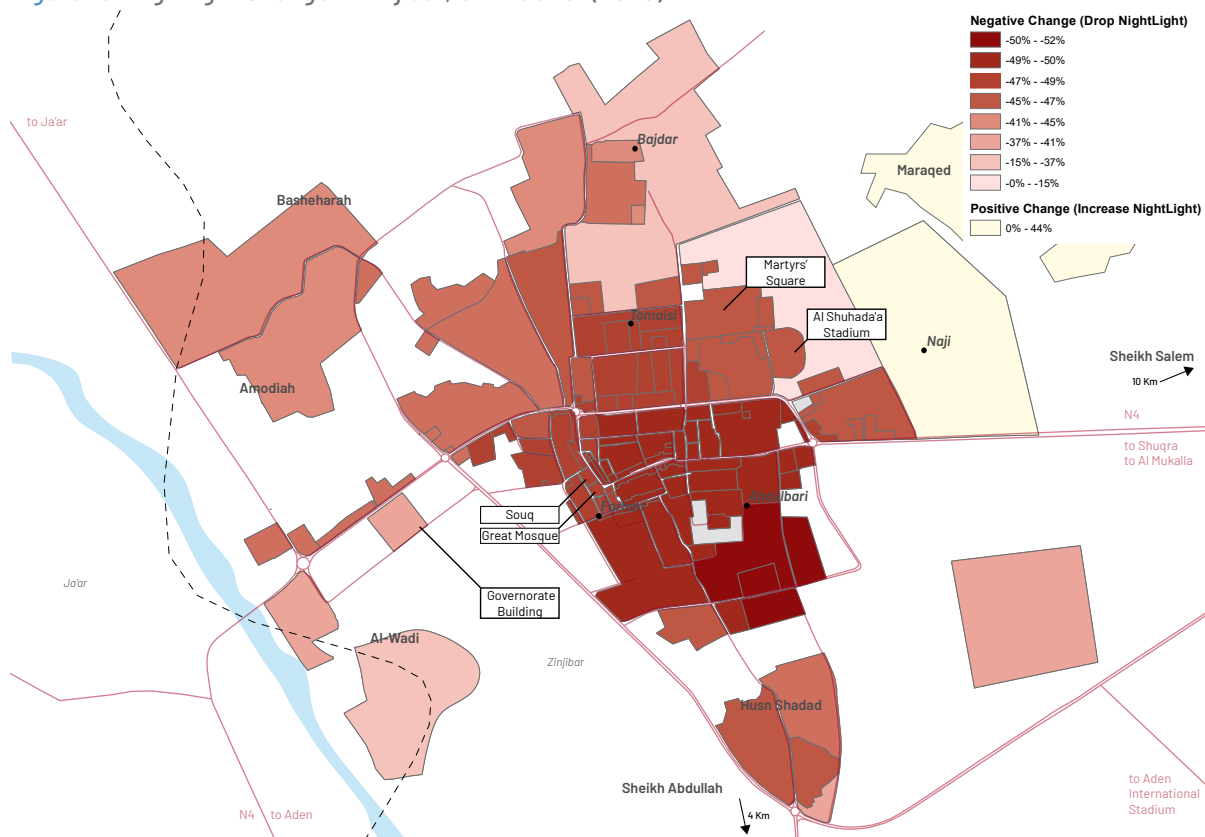
²⁰⁰ The World Bank Group, Yemen Dynamic Needs Assessment (DNA): Second Phase Report, (Washington DC: World Bank, 2017), 53.

Figure 74: Nightlights in Zinjibar city, 2014 – 2019, UN-Habitat (2020)



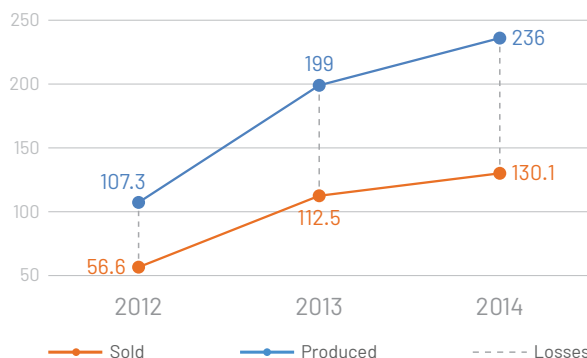
Source: Earth Observation Group, NOAA National Centers for Environmental Information.

Figure 75: Nightlight Change in Zinjibar, UN-Habitat (2020)



Source: Earth Observation Group, NOAA, National Centers for Environmental Information (2012 – 2019). Data processed by PNGK.

Figure 76: Sold and Produced Electricity in Abyan Governorate, 2012 – 2014



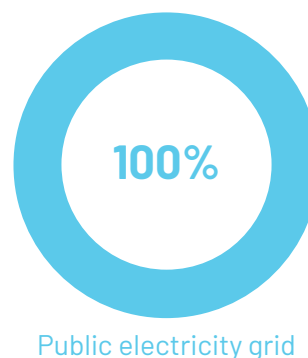
Source: CSO, Statistical Yearbook 2017.

While recent data is not available, the number of electricity subscribers were steadily increasing in Abyan governorate prior to the escalation of the conflict in 2015, from 45,800 subscribers in 2012 to 48,600 in 2013 and 50,700 in 2014.²⁰¹ The amount of the produced and sold electricity has also been increasing during the same years.

Electricity losses are high, representing 45 percent as of 2014, significantly higher than 40 percent across Yemen, reportedly due to a lack of maintenance, public investment, as well as illegal connections.²⁰² According to media reports, the PEC Director in Abyan mentioned that the electricity debt of public institutions and governmental facilities, including security and military agencies, is estimated at millions.²⁰³

3. Population Needs

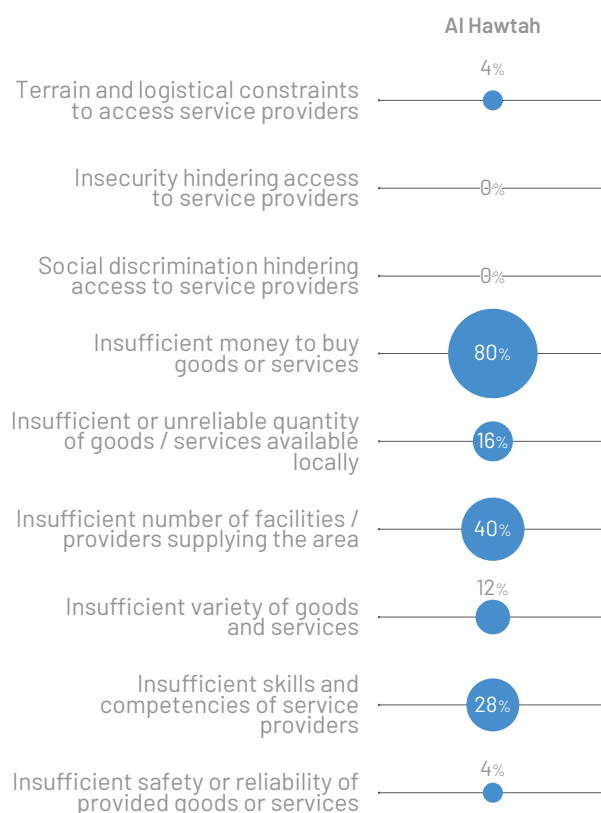
Figure 77: Main Source of Electricity in Zinjibar city, 2020



Source: CFP Survey, March 2020.

All CFPs reported that the public electricity grid is the main source of energy in the community. The daily electricity supply was reported between 6 and 12 hours. KIs also reported that the public electricity grid is the primary source of energy. In addition, private generators were reported as a secondary source, while energy storage batteries and solar energy were reported a third source.

Figure 78: Main Barriers to Meet/Secure Energy Commodities for Heating, Cooking, and Lighting in Zinjibar city, 2020



Source: CFP Survey, March 2020

201 CSO, Statistical Yearbook, 2017, <http://www.cso-yemen.com/content.php?lng=english&cid=131> (accessed January 23, 20)

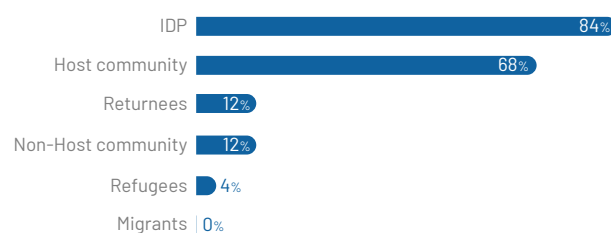
202 Dawud Ansari, Claudia Kemfert and Hashem al-Kuhlani, Yemen's Solar Revolution: Developments, Challenges, Opportunities, (Berlin: Deutsches Institut für Wirtschaftsforschung, 2019).

203 Al-Ayam, "مدير كهرباء أبين: مديونيات المرافق الحكومية", <https://www.alayyam.info/news/826AN64H-A09SL5-3AD0> (accessed January 23, 2020).

Generators became unsustainable as fuel prices have more than doubled in five years (pre-crisis cost: 150 YER per liter; August 2019 cost: 370 YER per liter). On the other hand, Abyan is one of the three Yemeni governorates (along with Ma'rib and Al Maharah) where very few households rely on solar energy.²⁰⁴ This differs from the private sector, where some farmers have recently managed to install solar panels and efforts are made to connect wells to public power networks.²⁰⁵ Solar panels are also increasingly used in agriculture to operate water pumps, at high costs ranging between \$12,000 and \$27,000.²⁰⁶

While energy commodities for heating, cooking and lighting appear to be largely available (as only one CFP reported that these are not readily available), almost 90 percent of CFPs reported that most households just barely meet this need. In fact, all CFPs reported that the population obtains energy commodities by purchasing it and insufficient money was reported as the main barrier to secure these commodities. This was followed by the insufficient number of facilities and providers supplying the area and insufficient skills and competencies of service providers. As for travel time, almost 85 percent of CFPs reported that it takes less than 20 minutes to access energy commodities, while 16 percent stated that it takes between 20 and 40 minutes. IDPs and the host-community were identified as the population groups facing the biggest challenges in securing these commodities.

Figure 79: Population Groups Facing the Biggest Challenges Satisfying/Accessing Energy Commodities for Heating, Cooking, Lighting in Zinjibar city, 2020



Source: CFP Survey, March 2020.

²⁰⁴ Percent for Polling Research, Solar Energy in Yemen, 2017, <https://www.facebook.com/percentyemen/photos/a.362248090513108/1573767599361145/?type=3&theater> (accessed January 12, 2020).

²⁰⁵ The World Bank Group, Yemen Dynamic Needs Assessment (DNA): Second Phase Report, (Washington DC: World Bank, 2017), 44.

²⁰⁶ Percent for Polling Research, Solar Energy in Yemen, 2017, <https://www.facebook.com/percentyemen/photos/a.362248090513108/1573767599361145/?type=3&theater> (accessed January 12, 2020).

14 Solid Waste Management (SWM)

Highlights

- The overwhelming majority of the population in the district dispose of garbage by leaving it in the streets where it is not collected, which leads to the accumulation of garbage piles in the city, causing health concerns.
- The solid waste is collected once every month or less. In addition, lack of cleaning equipment was reported on several occasions. Burning of solid waste is widespread, which contributes to the air pollution.
- The official dumpsite in Abyan Governorate is located in Wadi Hassan, there is no data on the operational capacity of the landfill and the physical status.
- Recent media reports indicate that garbage has been disposed of and accumulated at an area at the Wadi Bina, which raised certain environmental concerns, such as groundwater pollution.

1. Overview

Solid waste services across Yemen have significantly deteriorated since the start of the conflict. Garbage collection services have been on decline, leading to the accumulation of garbage piles in the streets. The sector has also been affected by the lack of cleaning equipment, decreased numbers of workers and damage to facilities.

In Abyan Governorate, already in 2012, garbage was reported to be seen in close proximity to where people live in 21 percent of urban areas.²⁰⁷ In Zinjibar city, the production of solid waste has been increasing over the last year due to population growth, putting additional pressure on the solid waste infrastructure. The accumulation of garbage piles in the streets of the city has been reported in recent years.

Stakeholders and Legal Framework

Following the unification of Yemen in 1990, SWM fell under the oversight of several governmental entities. Conventionally, the Ministry of Housing and Municipalities (MoHM) had been the agency responsible since its inception in the 1970s.²⁰⁸ After 1990, the MoHM was renamed the Ministry of Housing and Urban Development (MoHUD). In 1997, the administrative functions for SWM shifted to the Ministry of Public Works and Highways (MoPWH). Then, in 1999, Cities' Cleaning and Improvement Fund (CCIF), a public sector entity responsible for managing the financial aspects for SWM and city improvements, was established. The Public Cleansing Law (Law 39/1999) was passed the same year and a bylaw was drafted to provide detailed regulations for the Public Cleansing Law.²⁰⁹ Following the LAL of 2000, local authorities became responsible for waste collection and management, and in 2006, the responsibility for SWM came under the Ministry of Local Administration (MoLA) and the districts' LCs.²¹⁰

The National Strategy for Solid Waste Management (NSSWM) tasked MoLA with the authority to reorganize and manage policy making, coordinate at the national level, as well as the supervision of the work of LCs in their own districts.²¹¹ In 2008, the General Directorate for Solid Waste Management was established within MoLA as the supervising agency in charge of implementing the legal framework, issue national strategy and guidelines, coordinate with CCIFs, and distribute government funds. The NSSWM also recognized the need to revise the Public Cleansing Law and bring it in line with the decentralization process to transfer authority to MoLA and LCs. However, the escalation of the conflict in Yemen after 2015 prevented implementation.²¹²

The CCIFs are managed by the governorate council. According to the NSSWM, 83 percent of the capital investment for all CCIFs came from foreign donors, but also included monies allocated by the central government.²¹³ Cabinet Decree 236 of 2000 specified that at least 60 percent of the fund must be used to finance SWM activities, while the remainder should be used to finance other projects, such as urban rehabilitation and beautification. CCIF collects most of the fees through surcharges, such as a 5 percent surcharge on electricity bills and mobile credits.²¹⁴ While local taxation is the main source of revenue for CCIF, it also receives transfers from the central government. Income sources for CCIF include 5 percent surcharge to the electricity bill, mobile credit surcharge, and other 23 types of fees. Following the escalation of the conflict, lack of water and electricity, reduced mobile phone coverage, and interruption of banking services led to less revenues collected by CCIF. Consequently, this affected payment of salaries of civil service and private sector employees.

²⁰⁷ WASH Cluster Partners Assessment in Six Governorates Data, January 2012, <https://www.humanitarianresponse.info/en/operations/yemen/assessment/wash-cluster-partners-assessment> (accessed January 26, 2020).

²⁰⁸ MoLA, National Strategy for Solid Waste Management, 13 – 17.

²⁰⁹ Ibid.

²¹⁰ Ibid.

²¹¹ Ibid.

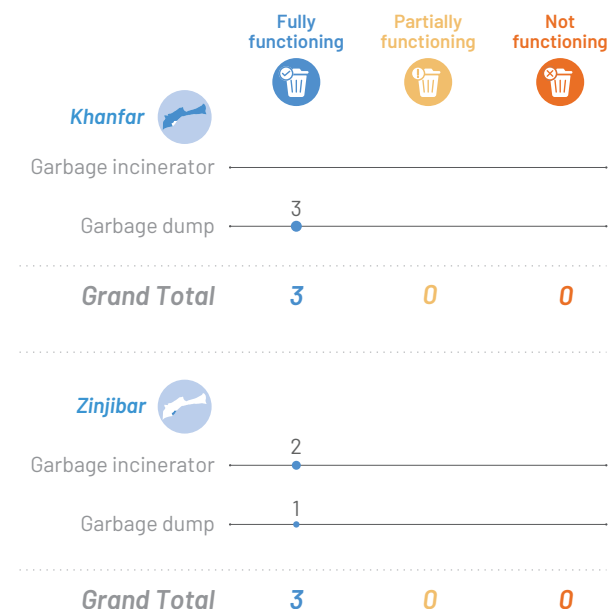
²¹² Ibid.

²¹³ Ibid.

²¹⁴ Ibid.

2. Infrastructure and Operational Capacity

Figure 80: Total Number of Solid Waste Management Facilities and their Functionality



Source: KI Survey, March 2020

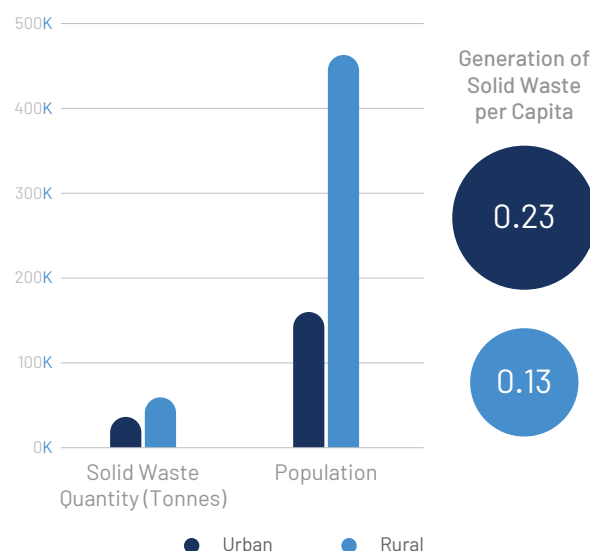
There is one official dumpsite in Abyan Governorate.²¹⁵ The landfill is located in Wadi Hassan, around 20km north of Zinjibar city. According to primary data, there is one dumpsite in Zinjibar district and three dumpsites in Khanfar district (all fully functioning).

Approximately 95,800 tons of solid waste are generated in Abyan Governorate annually.²¹⁶ Over 60 percent of it is produced in urban areas. The estimated generation of solid waste per capita in urban areas amounts to 0.23, which is almost 80 percent higher as compared to rural areas.

According to a study conducted at Aden University, the generation of solid waste per capita in Zinjibar City is estimated at 0.35 kg per capita, 52 percent higher than the average for urban households in the governorate. This amounts to 554 tons produced a month in the city. The composition of solid waste is primarily that of food waste (65 percent), while another 10 percent is plastics, 7 percent paper, 6 percent textile, 4 percent leather or rubber, 1 percent glass and 6 percent metal. Since an estimated 75 percent of solid waste is openly burnt, this leads to a considerable amount of the CO₂ emission in Zinjibar. Indeed, according to the study conducted in Aden University, solid waste is a secondary source of air pollution in Zinjibar city. Moreover, assuming that the production of solid waste per capita stays almost unchanged, the actual production of the solid waste in the city can be expected to increase due to the population growth.

According to KIs, all Solid Waste Management facilities in Zinjibar and Khanfar districts are fully functioning. However, lack of cleaning equipment was reported several times during the conflict. For instance, in 2011 and 2012 the cleaning equipment in Abyan Governorate was frequently stolen.²¹⁷ The need for waste removal equipment was also highlighted in 2018.²¹⁸

Figure 81: Estimated Quantity of Solid Waste Generation in Abyan Governorate, 2017



Source: CSO, Statistical Yearbook, 2017.

²¹⁵ CSO, Statistical Yearbook, 2017.

²¹⁶ Ibid.

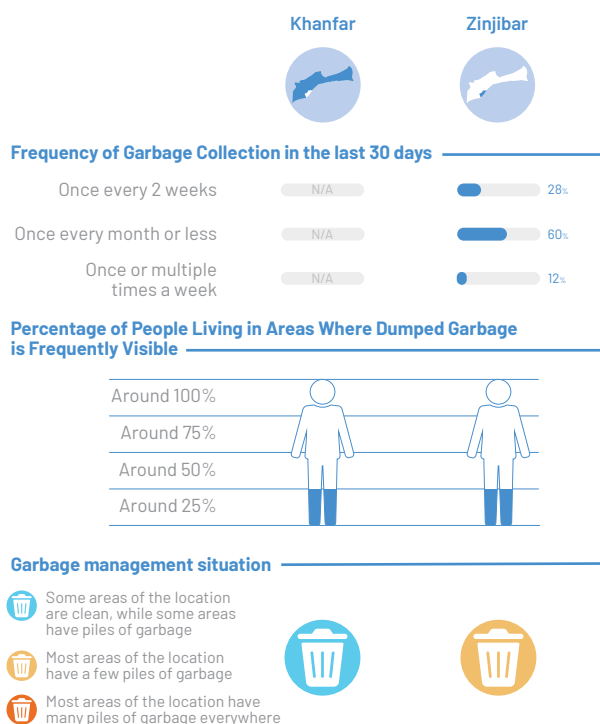
²¹⁷ SWEEPNET, Country Report on the Solid Waste Management in Yemen, January 2012. https://www.resource-recovery.net/sites/default/files/rapport_en_yemen_2012.pdf (accessed November 18, 2019).

²¹⁸ Emirates News Agency, "ERC examines humanitarian needs of Abyan Governorate in Yemen", April 9, 2018. <https://reliefweb.int/report/yemen/erc-examines-humanitarian-needs-abyan-governorate-yemen> (accessed February 12, 2020).

3. Population Needs

The majority of CFPs (86 percent) reported that waste disposal services, such as garbage collection and public streets cleaning, are not readily available. Around half of CFPs reported that most households just barely meet this need, while 16 percent stated that most households are not able to meet this need at all. In fact, only one CFP reported that this need is largely met, and the remaining 28 percent stated that this was not applicable. When asked about the frequency of garbage collection in Zinjibar district, over half of CFPs indicated that it is collected every month or less.

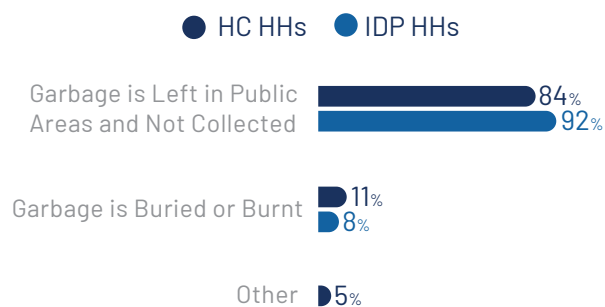
Figure 82: Garbage Management Situation



Source: KI and CFP Survey, March 2020

According to a WASH Cluster and REACH assessment conducted in 2018, the overwhelming majority of households (84 percent of the host-community households and 92 percent of the IDP households) dispose of garbage by leaving it in public areas, where it is not collected, while between 8 percent and 11 percent dispose of garbage by burning it.²¹⁹

Figure 83: The Most Common Way of Garbage Disposal in Zinjibar city, 2017



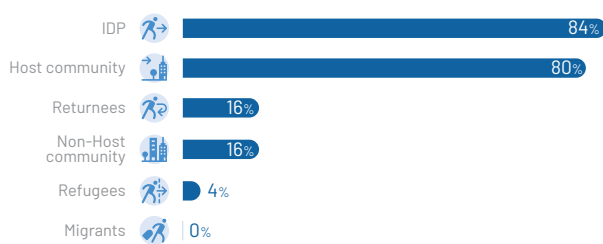
Source: WASH Cluster Yemen and REACH, Yemen WASH Cluster Assessment Dashboard. Available at <https://reach-info.org/yem/>.

219 WASH Cluster Yemen and REACH, Yemen WASH Cluster Assessment Dashboard, <https://reach-info.org/yem/> (accessed January 8, 2020).

Issues related to solid waste management and accumulation of garbage in the streets of Zinjibar have been reported on several occasions in recent years. For instance, in early 2017 accumulation of garbage was reported at the fish market, when the CCIF organized a campaign to remove it and transport it to the landfill.²²⁰ In early 2020, many parts of the city were again reportedly affected by large amounts of garbage piles, as workers of the CCIF stopped cleaning the streets and transporting waste to the landfill.²²¹ Accumulation of garbage on the streets can pose health concerns, as it attracts mosquitoes and other insects, which can lead to an increased risk of transmission of diseases. Moreover, accumulation of debris in the streets, alongside the sewage flooding led to the closure of certain areas and impeded the traffic flow.²²²

However, open source information from the same time indicate that a noticeable decline in the cleaning and improvement services led to the adoption of certain administrative amendments at the CCIF, which consequently led to an improvement in the overall situation. As a result, the CCIF organized several cleaning campaigns in the city to clean the streets and planting flowers and trees.²²³

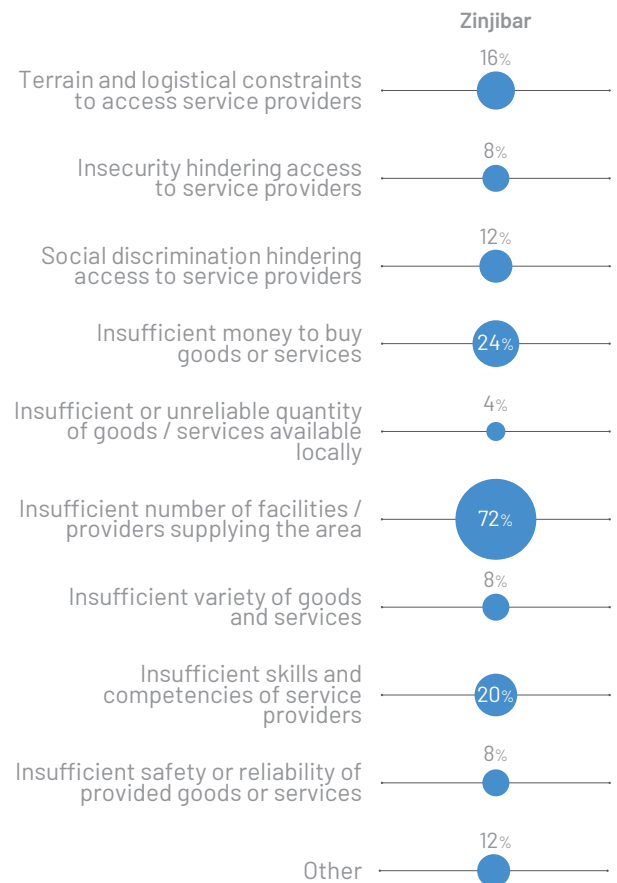
Figure 84: Population Groups Facing the Biggest Challenges Satisfying/Accessing Solid Waste Disposal Services in Zinjibar city, 2020



Source: CFP Survey, March 2020.

The main barriers to SWM services were reported as insufficient number of facilities and/or providers, followed by the insufficient money to buy goods, and insufficient skills and competencies of the service providers. IDPs and the host-community were reported as the population groups facing the biggest challenges in meeting the SWM needs.

Figure 85: Main Barriers to Meet/Secure Solid Waste Management Services Needs in Zinjibar city, 2020



Source: CFP Survey, March 2020.

It is important to note that in autumn 2019, local media reported that the CCIF has been disposing garbage collected during the cleaning campaign in some neighborhoods of Zinjibar in the area of Wadi Bina under the China Bridge, instead of the designated landfill in the Wadi Hassan.²²⁴ As Wadi Bina serves as the corridor for the flood water coming from the northern part of the city, concerns have been raised pointing to the fact that this activity may lead to environmental pollution, contamination of sea- and groundwater, and spread of diseases.²²⁵ It was also pointed out that accumulation of large quantities of solid waste in the area may ultimately lead to cracks in the physical structure of the bridge, which serves as the main route connecting Zinjibar with Aden and Lahj.

Zinjibar also exhibits all the signs of a debilitated public works system. Citizens are frequently forced to dispose of their garbage and others refuse by dumping this waste on public communal lands. Not only do these areas then become inaccessible, but they also become a breeding ground for rodents and insects that threaten the general state of public health in the city.

220 Aden Al-Gd, "نقل القمامات من سوق", *الاسماك الى مقلب القمامة بوادي حسان*, February 24, 2017, <http://adengd.net/news/246646> (accessed February 10, 2020).

221 Al-Ayyam, "تكدس القمامات بشوارع زنجبار", January 15, 2020, <https://www.alayyam.info/news/82HRJ9P7-Y5L2TI-B625> (accessed February 10, 2020).

222 The World Bank Group, Yemen Dynamic Needs Assessment (DNA): Second Phase Report, (Washington DC: World Bank, 2017), 153 – 154.

223 Al Ghad Yemen, "يطلق حملة نظافة شاملة في مدينة زنجبار", January 9, 2020, [link](https://www.ghad.net/news/86081) (accessed February 10, 2020).

224 Al Wattan Al Adeniya, "تحت (جسر الصين) مكب للنفايات", September 8, 2019, <http://alwattan.net/news/86081> (accessed February 10, 2020).

225 Ibid.

4. Humanitarian and Governmental Interventions

The CCIF has conducted several cleaning campaigns in the city during the recent years, removing the garbage from the streets and markets. Also, the SFD implemented several activities in the area of Alshouhada Square in Zinjibar city.²²⁶ Due to the poor maintenance some parts of the square turned into ruins, and excess of trees was a breeding environment for various insects, such as mosquitos. The SFD removed excess trees and implemented other activities to improve the state of the area.

Following the recapture of Zinjibar city by IRG forces in summer 2012, a decontamination campaign was conducted by the Yemen Mine Action Center (YEMAC) and army engineers. The city, as well as Khanfar district, were heavily affected by the Explosive Remnants of War (ERW) in 2012. This has prevented many displaced people from returning to their homes, as they heard about the threat of the landmines. In just over two weeks, landmine blasts claimed the lives of 42 people in Abyan governorate, out of whom 29 were killed in Zinjibar.²²⁷ According to one survey, 22 suspected hazardous areas contaminated with anti-personnel and anti-vehicle mines, ERW and booby-traps were identified in 2012.²²⁸

226 SFD, Newsletter- Edition No. 84, October – December 2018, <https://www.sfd-yemen.org/uploads/issues/EnglishNewsletter4thNL2018-20191202-201206.pdf> (accessed February 10, 2020).

227 *The New Humanitarian*, "Landmines stall IDP Returns in the South", June 27, 2012, <http://www.thenewhumanitarian.org/news/2012/06/27/landmines-stall-idp-returns-south> (accessed February 10, 2020).

228 *Landmine and Cluster Munition Monitoring*, Yemen Mine Action, November 2013, http://www.the-monitor.org/en-gb/reports/2013/yemen/mine-action.aspx#_ftn8 (accessed January 18, 2020).

Highlights

- Intracity roads in Zinjibar are in need of rehabilitation, as one third of the roads sustained some degree of damage.
- Approximately 30 percent of roads leading to Zinjibar are inaccessible as a result of damages sustained during conflict.
- Approximately 90 percent of CFPs reported that most households barely meet the transportation needs or are unable to meet this need at all. Insufficient money is perceived as the main barrier to secure transport services.
- No new vehicles were registered in Abyan Governorate in 2015-2016 (latest available data). In Zinjibar city specifically, media reports indicate that following the economic decline the price of motorcycles and spare parts drastically increased in the city, hindering access and availability.
- Traffic congestions were reported in the city as a result of the large accumulation of taxis in informal stations, and some roads rearrangement. While the agreement between the taxi drivers, shop owners and local authorities has been reached, no information is available on the implementation.
- As elsewhere in Yemen, fuel prices in Zinjibar increased since the escalation of the conflict and currently stand at 350 YER, a 120 percent increase as compared to pre-conflict prices.
- Media reports and local NGO reported the establishment of a new checkpoint at the entrance of Zinjibar city in early 2020, hindering the mobility of people of northern origin.
- Deficient means of trash disposal have exacerbated disease and hindered transportation.

1. Overview

Zinjibar city is the capital of Abyan governorate and is located along the coastline of the Arabian sea, approximately 60km from Aden. It owns its strategic importance being the main route to Aden from the East. The city of Zinjibar consists of five neighborhoods.²²⁹ The old town center is located in the Farhan neighborhood and is surrounded by the other four: Abdulbari, Bajdar, Naji, and Tomaisi. Eight nearby villages form the town suburbs. In addition to, Al-Kud and Al-Mosaimeer towns, located in Khanfar district, which play an important role in livelihoods and transportation needs. All neighborhoods forming the Zinjibar city, as well as most of the villages, can be accessed by the main paved road. The road network within the city consists of approximately 30 km of asphalt roads connecting the main neighborhoods of the town to the suburbs and the national highway. In addition, there are 7 km of gravel roads, while the rest of the inner town streets are earth roads.

Stakeholders and Legal Framework

The two main governmental authorities responsible for managing the transportation sector are the Ministry of Interior (MoI) and the Ministry of Transport (MoT). The former is responsible for inspecting and licensing vehicles and services while the latter sets policy and manages airport and port facilities.²³⁰ In addition, the MPWH supervises the overall road infrastructure, including development and maintenance.²³¹ Its role, however, is restricted to the network of rural roads. The Land Transport Law was introduced on 30 March 2003 to provide the regulatory framework for land transportation.²³² Prior to this, land transportation services were provided through two syndicates in the governorate (passenger and freight transport), for which companies had to register through a lengthy and expensive process. The new law sets guidelines for private companies on passenger and trucking transportation services:

- Trucking companies: the law specifies the possession of a minimum of 10 trucks, not more than two years old and a limited amount of 250 heavy trucks, 400 medium trucks or 300 light trucks per company. The MoT awards only one-year renewable licenses based on the information each company is required to submit, which includes policies, regulations and contracts among others. The law also allows companies to submit bank guarantees in lieu of registration fees. This led to a reduction of freight rates by 40 percent a year.
- Passenger transportation services: companies should own no less than 10 buses and have a number of passenger stations in various city points. All public bus companies in Yemen are private, apart from the state-owned Local Transport Corporation.

The law has never been fully enforced, mostly because of financial and technical issues but also because of absence in human resources capacity. For instance, while in theory the law requires all transportation vehicles to be examined, in practice many vehicles are considered unfit despite being in service.²³³ Further regulations were introduced in 2004 that deal with cargo and trucks freight transport, passenger (bus) transport, and car rentals.

230 World Bank Group, Yemen Transport Sector Input to the Yemen Policy Note no. 4. on Inclusive Services Delivery, October 4, 2017, <http://documents.albankaldawli.org/curated/ar/636961508411397037/pdf/120532-WP-P159636-PUBLIC-Yemen-Transport-Input-Note-4-10-17WE.pdf> (accessed February 14, 2020).

231 UNOPS, YEMEN INTEGRATED URBAN EMERGENCY SERVICES PROJECT, Environmental and Social Management Framework, May 9, 2018, <http://documents.worldbank.org/curated/en/494961526464057594/pdf/P164190-ESMF-Final.pdf> (accessed February 14, 2020).

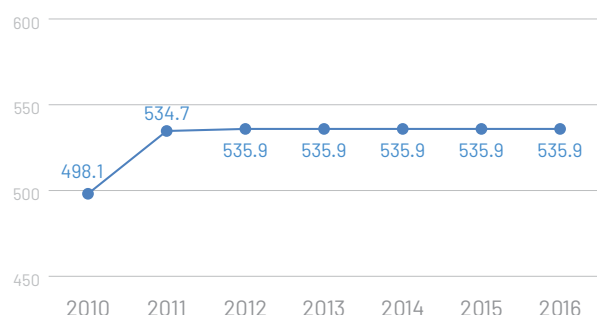
232 World Bank Group, Yemen Transport Sector Input to the Yemen Policy Note no. 4. on Inclusive Services Delivery, October 4, 2017, <http://documents.albankaldawli.org/curated/ar/636961508411397037/pdf/120532-WP-P159636-PUBLIC-Yemen-Transport-Input-Note-4-10-17WE.pdf> (accessed February 14, 2020).

233 Ibid.

229 UN-Habitat, University of Aden (Academic Team), *The State of Yemeni cities Development Report, Draft 1*, 2019.

2. Infrastructure and Operational Capacity

Figure 86: Length of Asphalt Roads in Abyan Governorate (Intra-City), 2010 – 2016



Source: CSO, Statistical Yearbooks, 2013–2017.

As of January 28, 2020, the National Highway (N4) connecting Aden and Zinjibar is open and accessible, while the road to the east, along the seacoast towards Shuqrah is difficult to access.²³⁴ Since 2011, no new asphalt roads have been built.

Roads in Zinjibar and Khanfar districts are damaged, hindering mobility for people and vehicles. According to a World Bank report, almost a third of the intra-urban roads sustained some degree of damage, with 10 percent completely destroyed.²³⁵

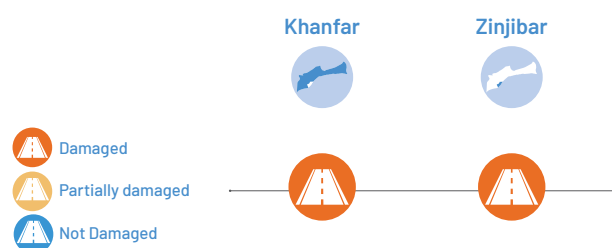
Table 6: The Most Serious Problem which Require Immediate Intervention in Transportation Sector, 2020

	1st	2nd	3rd
Zinjibar	Physical damage to the infrastructure; weak or underdeveloped planning process	Security challenges	Many cars do not carry number plates and do not obey traffic rules
Khanfar	Physical damage to the infrastructure	Lack of funding	Insufficient and/or inadequate public vehicles

Source: KI Survey, March 2020.

When asked about restoring connectivity with neighboring cities, lack of funding, physical damage to the infrastructure, security challenges, weak or underdeveloped planning process and lack of public transport vehicles were reported.

Figure 87: Current Condition of the Road Network



Source: KI Survey, March 2020.

KIs in both Khanfar and Zinjibar districts reported that damage to physical infrastructure is the first most serious problem in the transportation sector which requires immediate intervention, followed by security challenges, lack of funding, insufficient public transport vehicles and cars not carrying number plates.

²³⁴ Yemen Logistics Cluster, Yemen Access Constraints as of 28 January 2020 Dashboard, January 2020. <https://logcluster.org/map/yemen-access-constraints-map-28-january-2019> (accessed February 2020).

²³⁵ The World Bank Group, Yemen Dynamic Needs Assessment (DNA): Second Phase Report, (Washington DC: World Bank, 2017), 110.

Table 7: Main Challenges Related to the Rehabilitation of Roads Linking the Neighbouring Cities, 2020

	1st	2nd	3rd
Zinjibar	Lack of funding; physical damage to the infrastructure	Security challenges	Weak or underdeveloped planning process
Khanfar	Physical damage to the infrastructure	Lack of funding	Insufficient and/or inadequate public vehicles

Source: KI Survey, March 2020.

3. Public and Private Transport Vehicles

Figure 88: Number of Registered Vehicles in Abyan Governorate by Plate Number Issued, 1996 – 2016

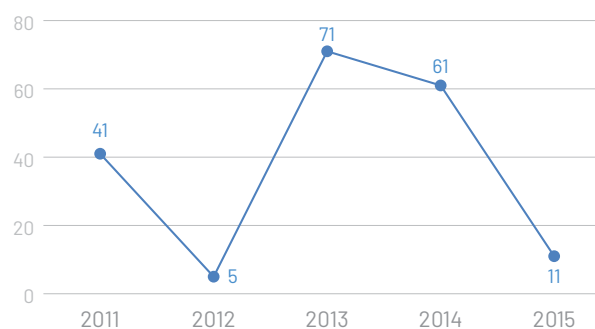
Source: CSO, Statistical Yearbook, 2017.

Between 1996 and 2016, 16,370 vehicles were registered in Abyan governorate, with similar shares amongst the public transport, private and taxi vehicles.²³⁶ Even though this suggests low car ownership amongst the population, many cars and motorbikes may not be registered. For example, no new vehicles were registered between 2015 and 2016.

Motorcycles are a popular means of transportation in Yemen, and, following the economic decline, have also become a source of livelihoods for many, with drivers offering transportation services. Between 2003 and 2011, 1,302 motorcycles were registered in Abyan Governorate. However, large demand for motorcycles coupled with the disrupted import, has led to an increase in prices: the average price for a motorcycle doubled by 2018 compared to pre-conflict prices,²³⁷ while the prices of spare parts also skyrocketed, as there is a general shortage on the market. In late 2019, local authorities effectively banned using a motorcycle after 10pm in the evening.²³⁸ The new measure, among others, was introduced as part of a wider campaign to bring security to the city. For example, in June 2010, following several AQAP attacks which used motorcycles, local authorities introduced a ban on

the usage of motorbikes in Abyan Governorate.²³⁹ As a result, no new plates for motorcycles were issued from 2011 onwards.²⁴⁰

A large accumulation of taxi drivers in the unofficial stations, Ja'ar and Al-Mosaimmer, are causing congestion in the city. Following the field visit of the transportation office director in the district, an agreement was reached with the taxi drivers to move to the newly designated station, located in the neighborhood Nasr.²⁴¹ Under the same agreement, the taxi owners operating from station Bajdar were asked to ensure that only one car at a time is entering the streets. This was to prevent traffic congestion which had been aggravated following the introduction of two lanes in the street. The shop owners were also asked to ensure that cars carrying stock will only enter the streets during the night hours, to avoid congestion caused by the unloaded stock.

Figure 89: Number of Traffic Accidents in Abyan Governorate, 2011 – 2015

Source: CSO, Statistical Yearbook, 2017.

The number of traffic accidents in Abyan governorates ranged between five and 71 during the recent years, with decreasing reported numbers during the years of active clashes. The latest available data for 2015 stands at 11. It is unclear whether this low reporting is because of the escalation of the conflict or due other reasons. It is important to note, however, that over 80 percent of persons involved in traffic accidents were male.

236 CSO, Statistical Yearbook 2017, <http://www.cso-yemen.com/content.php?lng=english&cid=131> (accessed February 24, 2020).

237 Aden Al-Gd, "مصدر رزق لمكافحة.. الدراجات النارية" وزيادة الطلب عليها باتت أسعارها تضاهي الفقر والبطالة والجوع. "أسعار السيارات", November 13, 2020, <http://adengad.net/news/348398/> (accessed February 26, 2020).

238 Al-Ayyam, "منع إطلاق الأعيرة النارية وحركة الدراجات يلقى تأييداً", January 15, 2020, <https://www.alayyam.info/news/82HRJ6G0-YFRVDS-E82B> (accessed February 26, 2020).

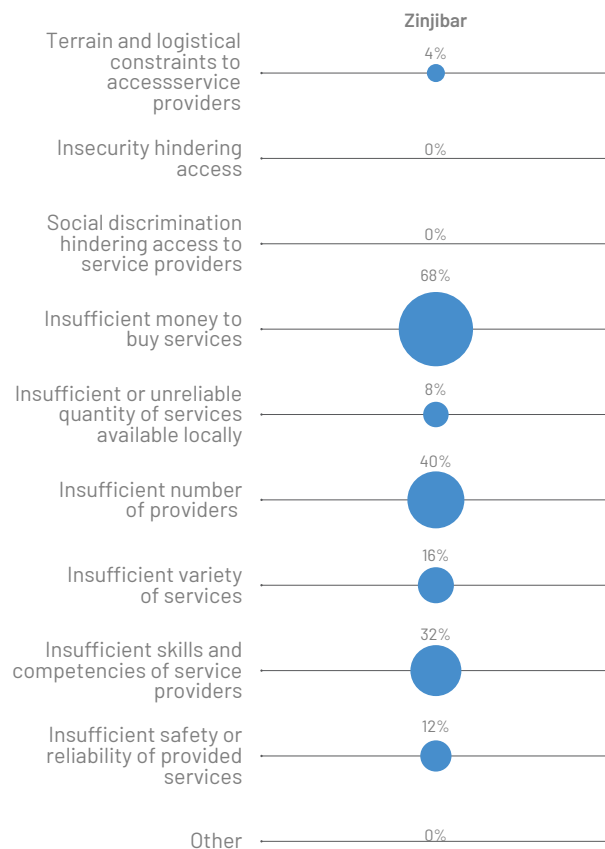
239 Al-Ittihad, "الدراجات النارية لخدمة 'القاعدة' في اليمن", October 8, 2010, [link](#) (accessed February 26, 2020).

240 CSO, Statistical Yearbook 2017, <http://www.cso-yemen.com/content.php?lng=english&cid=131> (accessed February 26, 2020).

241 Akhbar Ten, "مكتب النقل ينفذ نزول ميداني إلى الشارع الرئيسي", January 28, 2020, <https://news.akhbarten.com/arab/5461917.html> (accessed February 26, 2020).

4. Population Needs

Figure 90: Main Barriers to Meet/Secure Transportation Services in Zinjibar city, 2020

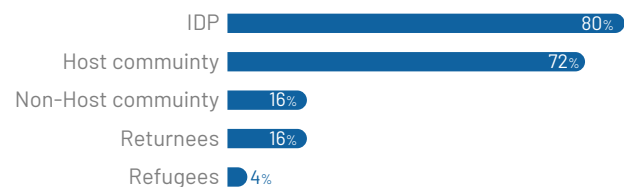


Source: CFP Survey, March 2020.

While only 1 CFP (4 percent) reported that transportation services in Zinjibar district are not readily available, an overwhelming majority of CFPs (76 percent) stated that most households just barely meet the transportation needs, while 12 percent reported that most households are unable to meet these needs at all. In fact, only two CFPs (8 percent) stated that this need was largely met in most of the households. All CFPs reported that the population obtains transportation services through purchasing, and insufficient money was reported by most of the CFPs as a barrier related to transportation services. This was followed by the insufficient number of providers and insufficient skills and competencies of the providers. IDPs and the host-community were reported to face the biggest challenges related to meeting the transportation service needs.

As elsewhere in Yemen, fuel prices in Zinjibar city saw a steady increase during the years of conflict, following the blockade and currency depreciation. Prior to the conflict, the petrol prices stood at 158 YER per liter.²⁴² Since the beginning of 2016, the prices at Zinjibar market varied between 185 and 588 YER per liter.²⁴³ The highest observed price was recorded in September and October 2018, following a sharp depreciation of the YER against USD, and reached 588 YER, a 272 percent increase as compared to the pre-crisis prices. According to the latest available numbers, as of December 2019 the price stood at 350 YER per liter of petrol. However, according to the media reports, the prices at the black market boomed in the beginning of the 2020, reaching 500 YER per liter, with general lack of supplies and a number of gas stations closed.²⁴⁴

Figure 91: Population Groups Facing the Biggest Challenges related to Transportation Services, CFP Perceptions (2020)



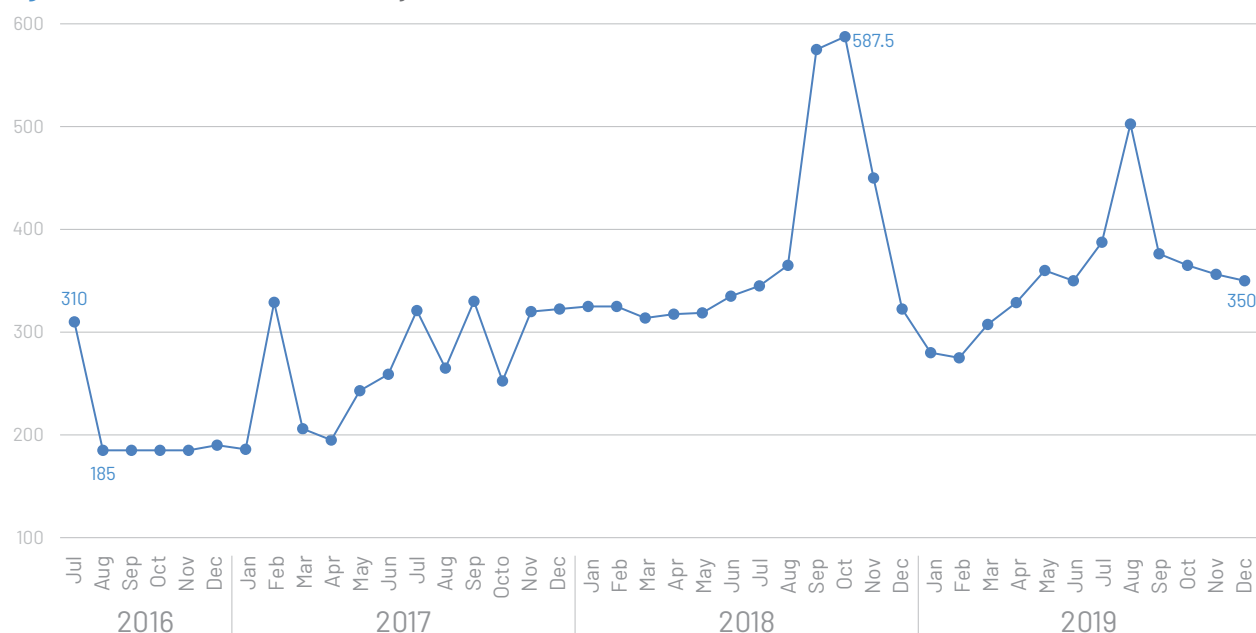
Source: CFP Survey, March 2020.

242 WFP, Yemen Market Watch Report Issue No. 36, May 2019. <https://reliefweb.int/sites/reliefweb.int/files/resources/WFP-0000106611.pdf> (accessed February 26, 2020).

243 WFP, Yemen – Food Prices Database, <https://data.humdata.org/dataset/wfp-food-prices-for-yemen> (accessed February 26, 2020).

244 Al-Mashhad Al-Araby, "السوق السوداء ترفع سعر البنزين لـ 500 ريال للتر", January 30, 2020, <https://almashhadalaraby.com/news/156500#> (accessed February 26, 2020).

Figure 92: The Price of Petrol at Zinjibar Market, 2016 – 2019



Source: WFP, Yemen – Food Prices Database, <https://data.humdata.org/dataset/wfp-food-prices-for-yemen>.

Early 2020, the organization SAM for Rights and Liberties reported on the establishment of the new checkpoint at the entrance of Zinjibar, preventing people of northern origin from entering into Abyan and Aden governorates.²⁴⁵ Media accounts indicate that several buses and cars were stranded at the Shuqrah checkpoint at the entrance of Zinjibar city.²⁴⁶ Most of the passengers were travelling to or via Aden. It is unclear who was carrying out the checks, however, the SBF vehicles were spotted in the area. Travelers were asked for identification documents and were only granted entry if they were born in Aden.

²⁴⁵ SAM Rights and Liberties "SAM Condemns the Denial of Yemeni Civilians Right of Movement by the Forces of the Transitional Council", January 31, 2020, <https://samrl.org/l.php?l=e,10,A,c,1,74,77,3802,html> (accessed February 26, 2020).

²⁴⁶ Al-Masdar Online, "Hundreds of travelers stranded in Abyan after being denied entry into Aden", February 1, 2020, <https://al-masdaronline.net/national/299> (accessed February 26, 2020).

Highlights:

- Mobile and internet services in Yemen have been steadily increasing since the early 2000s. While the number of individuals using internet has been increasing despite the escalation of the conflict, the number of mobile subscriptions per 100 people has been decreasing since 2013.
- Internet usage in Yemen remains low, at only 27 percent. The share of HHs with a computer and internet access is even lower and stands between 6-7 percent. This points towards the importance of internet cafes, as points of Internet access for Yemenis.
- In Zinjibar city, mobile and internet services are very limited, which primarily stems from intermittent electricity supply. Around 80 percent of the adult population has a working mobile phone, while only 13 percent of the adult population has internet connection at home.
- In early 2020, almost 80 percent of the internet services were cut due to the damage to the Falcon submarine cable. At the time of writing, limited connectivity has been restored, and repairment works are ongoing.

1. Communications in Yemen

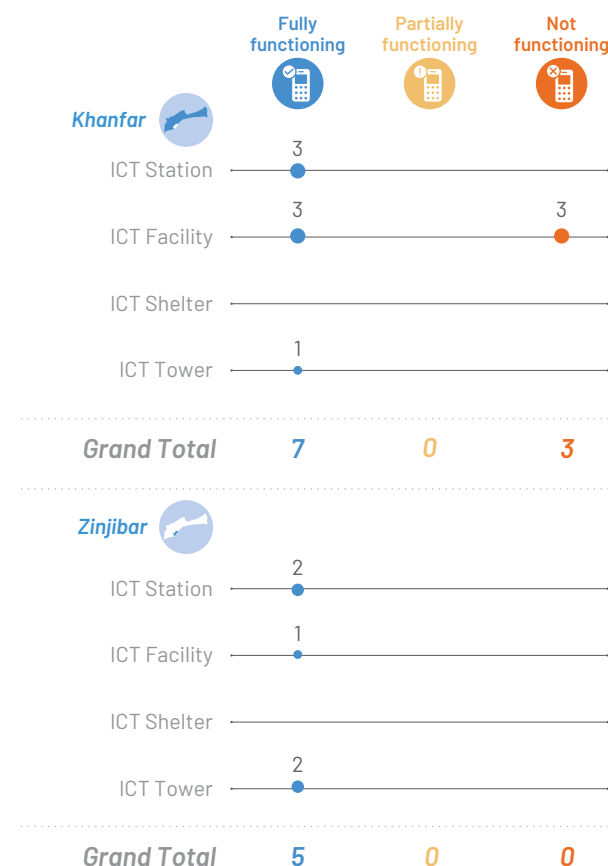
The Ministry of Communications in Yemen was established in 1991 and later renamed to the Ministry of Telecommunications and Information Technology.²⁴⁷ The telecom sector underwent considerable reform prior to the escalation of the conflict. This included new legislation, a restructuring of the Ministry of Telecommunications and Information Technology (MTIT), and the establishment of a regulatory body monitoring the network.²⁴⁸

The internet services in Yemen were launched in 1996 by TeleYemen, offering services through a dial-up connection. By 2001, the Integrated Services Digital Network (ISDN) was introduced. In mid-2006, the Asymmetric Digital Subscriber Line (ADSL) was launched, and by the end of the same year the Wi-Fi services were introduced with two hotspots in Sana'a and Aden.

The number of individuals using internet services was growing slowly since the introduction of services in 1996. By 2006, only 1.2 percent of the population were using internet.²⁴⁹ The situation has rapidly changes, however, following the introduction of ADSL and Wi-Fi connection in the same year, and by 2017 the number of individuals using internet services in Yemen reached almost 27 percent. However, this is still significantly lower than average in the Middle East and North Africa (MENA) region, which currently stands at almost 65 percent.

2. Infrastructure and Operational Capacity

Figure 93: Total Number of Communication Facilities and their Functionality in Zinjibar and Khanfar districts, 2020



Source: KI Survey, March 2020.

According to primary data all communications facilities in Zinjibar city are fully functioning, while three Information and Communications Technology (ICT) facilities in Khanfar district are not functioning.

The network coverage suggests that two out of four Yemeni mobile operators cover the area of Zinjibar, while the recent reports indicate that Yemen Mobile is the sole service provider in Abyan Governorate, including Zinjibar.²⁵⁰

The number of equipped telephone capacity and operating lines has been increasing since 2011, reaching its peak in 2016. However, between 2016 and 2017, the equipped capacity and operating lines decreased by around 10 percent.²⁵¹ It is important to note, however, that Abyan Governorate has the highest percentage of operating lines related to the network's capacity, which stood at 92,38 percent as of 2017.

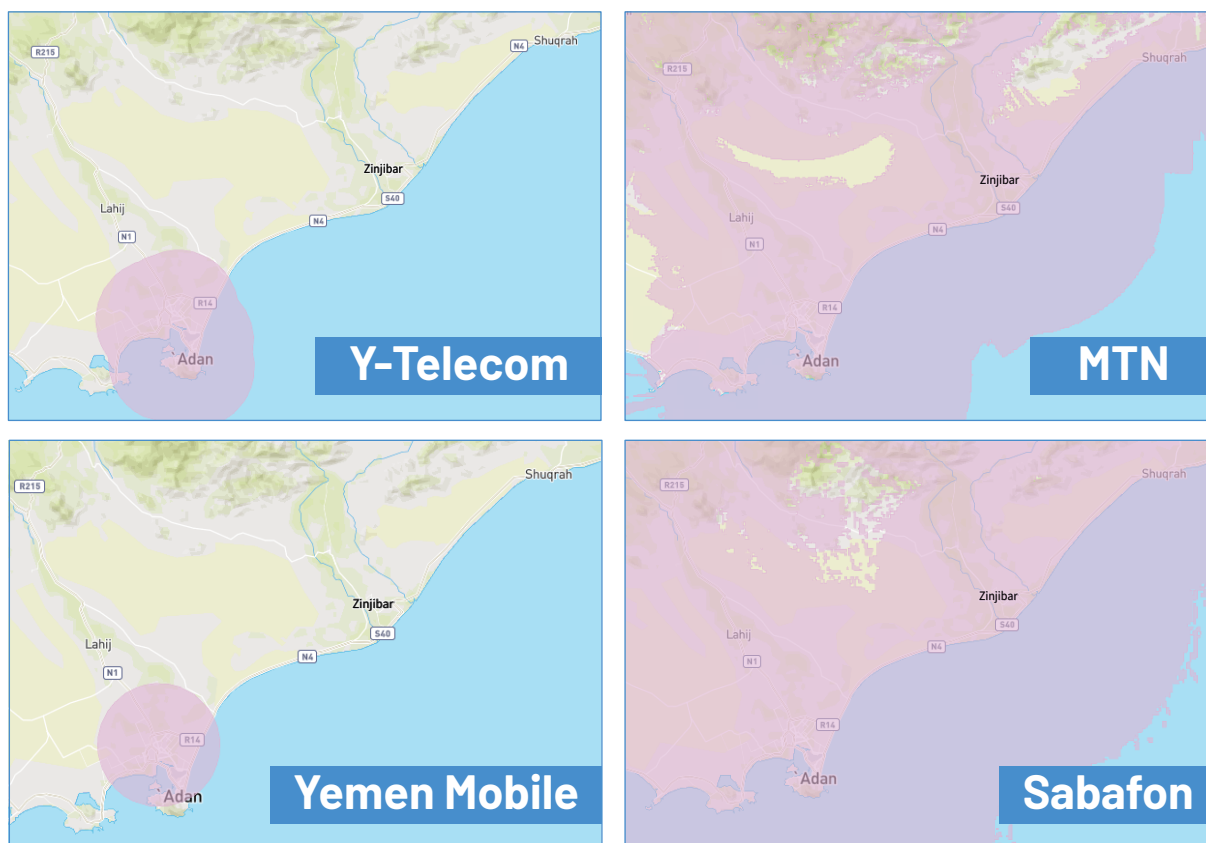
²⁴⁷ WTO, Republican Decree on Law #38 of 1991 Pertaining to Wired and Wireless Telecommunications as amended, https://www.wto.org/english/thewto_e/acc_e/yem_e/WTAC-CYEM4A1_LEG_16.pdf (accessed January 30, 2020).

²⁴⁸ Ibid.

²⁴⁹ The World Bank data, Individuals Using the Internet (% of population) indicator, <https://data.worldbank.org/indicator/IT.NET.USER.ZS>, (accessed March 24, 2020).

²⁵⁰ The World Bank Group, Yemen Dynamic Needs Assessment (DNA): Second Phase Report, (Washington DC: World Bank, 2017), 103.

²⁵¹ CSO, Central Statistical Yearbook 2017, <http://www.cso-yemen.com/content.php?lng=english&cid=131>, (accessed February 12, 2020).

Figure 94: Mobile Network Coverage in Zinjibar

Source: GSMA, Network Coverage Maps. Available at: <https://www.gsma.com/coverage/>.

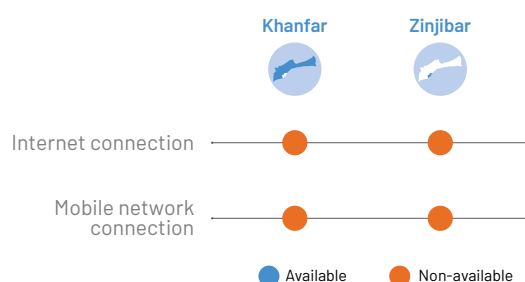
Aden Net emerged as a new internet provider in 2018 in Aden. According to their webpage, they are a government Internet service provider, using 4G technology.²⁵² As reported on their social media account in January 2020, there are plans to install two 4G ICT systems in Zinjibar, in addition to one in Al-Kud (Khanfar district), while the initial instructions from the governor included the installation of 10 stations in Abyan.²⁵³

Internet cafes in Yemen remain an important point of access to internet services, as only an estimated 7.5 percent of households across the country own a computer, while only 6.3 percent have internet access.²⁵⁴ At a governorate level, there are six internet cafes and 262 call centers in Abyan. These numbers remained unchanged since 2011, suggesting that while no critical operational constraints were encountered, there also were no new service providers during these years.

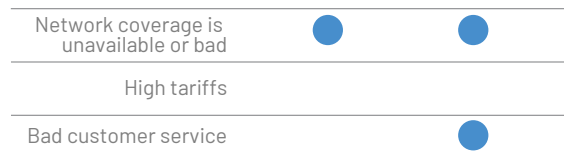
3. Population Needs

Figure 95: Communication sector status

Communication Services Currently not Available to the Population



The Most Serious Issues Related to Accessing Communication Services



Source: KI Survey, March 2020.

According to primary data, around 80 percent of the adult population has a working mobile phone, while only 13 percent of the adult population has internet connection at home.²⁵⁵ Around two-thirds of CFPs reported that most households just barely meet the need of communication services and 12 percent stated that most households are not

²⁵² Aden Net webpage, <https://www.adennet4g.net/index.php/en/> (accessed February 12, 2020).

²⁵³ Aden Net Facebook Page, <https://www.facebook.com/Aden-NetY/> (accessed February 12, 2020).

²⁵⁴ ITU, ICT Country Profiles – Yemen, 2018. https://www.itu.int/en/ITU-D/LDCs/Documents/2017/Country%20Profiles/Country%20Profile_Yemen.pdf (accessed February 12, 2020).

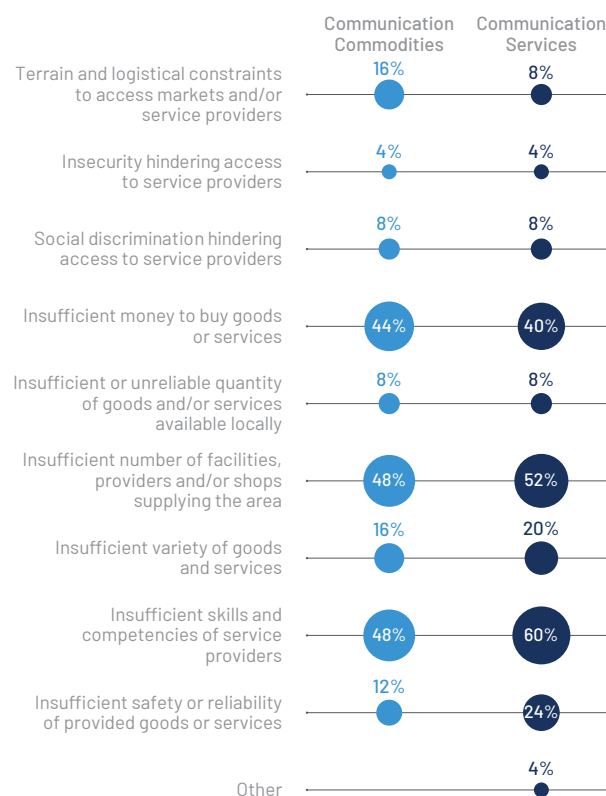
²⁵⁵ CFP Survey, March 2020.

ZINJIBAR RAPID CITY PROFILE

able to meet this need at all. In addition, another 20 percent reported that this need is largely met. The situation seems to be better in relation to communications commodities, such as phones and credits, as around a half of CFPs reported that this need is either largely or fully met, while the other half stated that most households barely meet this need.

KIs indicated that the internet connection and the mobile network connection are not available in the districts. This is in line with the CFP responses, where over three quarters of the CFPs (78 percent) reported that the communications commodities, such as phones, credit, are not readily available in the district, while 81 percent of CFPs reported so in relation to the communication services. All CFPs stated that the population obtains communication services through purchasing it. Travel time to access communication services and supplies was reported as less than 20 minutes by the majority of the CFPs (80 percent), while 20 percent reported that it takes between 20 and 40 minutes.

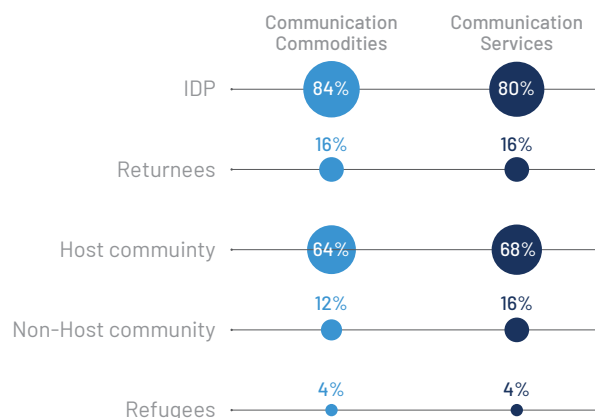
Figure 96: Main Barriers to Meet/Secure Communication Services and Commodities in Zinjibar city, 2020



Source: CFP Survey, March 2020.

The main barriers to secure communication services and commodities were reported as insufficient skills and competencies of service providers, insufficient number of facilities, providers, or shops supplying the area, and insufficient money to buy goods and services. IDPs were reported to face the biggest challenges when securing the communications commodities and services, followed by the host-community.

Figure 97: Population Groups Facing the Biggest Challenges Satisfying/Accessing Communication Services and Commodities in Zinjibar city, 2020



Source: CFP Survey, March 2020.

4. Internet Outage

Yemen has three submarine cable landings: one in Al Hodeidah, one in Aden and one in Al Ghaydah. The main undersea cable, Falcon, is connected at the ports of Al Hodeidah and Al Ghaydah.²⁵⁶ Media reports indicate that two other maritime cable systems, the Sea-Me-We 5 and the Asia-Africa-Europe-1 (AAE-1) are ready to be connected; however, this has reportedly been prevented by the Saudi-led Coalition.²⁵⁷ Another cable connects Aden with Djibouti. In January 9, 2020, internet services have been significantly affected across Yemen due to the damage to the Falcon cable. Reports indicate that approximately 80 percent of Yemen lost access, as Yemen almost exclusively relies on the Falcon cable. As of February 2020, while partial connectivity was restored by TeleYemen, by rerouting the internet through Oman's Omantel, the overall situation was still dire. Lack of internet connectivity negatively affected many businesses, such as banks and internet cafes.²⁵⁸

While damage levels are limited, (as of 2017, only one ICT asset out of ten was reportedly damaged in Zinjibar city), the mobile and internet services are very limited and possibly unavailable across Abyan governorate.²⁵⁹ Poor connectivity in the city largely stems from the lack of electricity and power shortages. The ICT infrastructure was also damaged during the conflict in 2012.²⁶⁰

²⁵⁶ *Submarine Cable Interactive Map*. Available at <https://www.submarinecablemap.com/> (accessed February 12, 2020).

²⁵⁷ *Naseh Shaker*, "What, no connection? Internet outage further darkens life in Yemen", *Al-Monitor*, January 16, 2020, <https://www.al-monitor.com/pulse/originals/2020/01/internet-victim-of-yemeni-civil-war.html> (accessed February 12, 2020).

²⁵⁸ *Arab News*, "Internet outage paralyzes businesses in Yemen", <https://www.arabnews.com/node/1620721/middle-east> (accessed February 12, 2020).

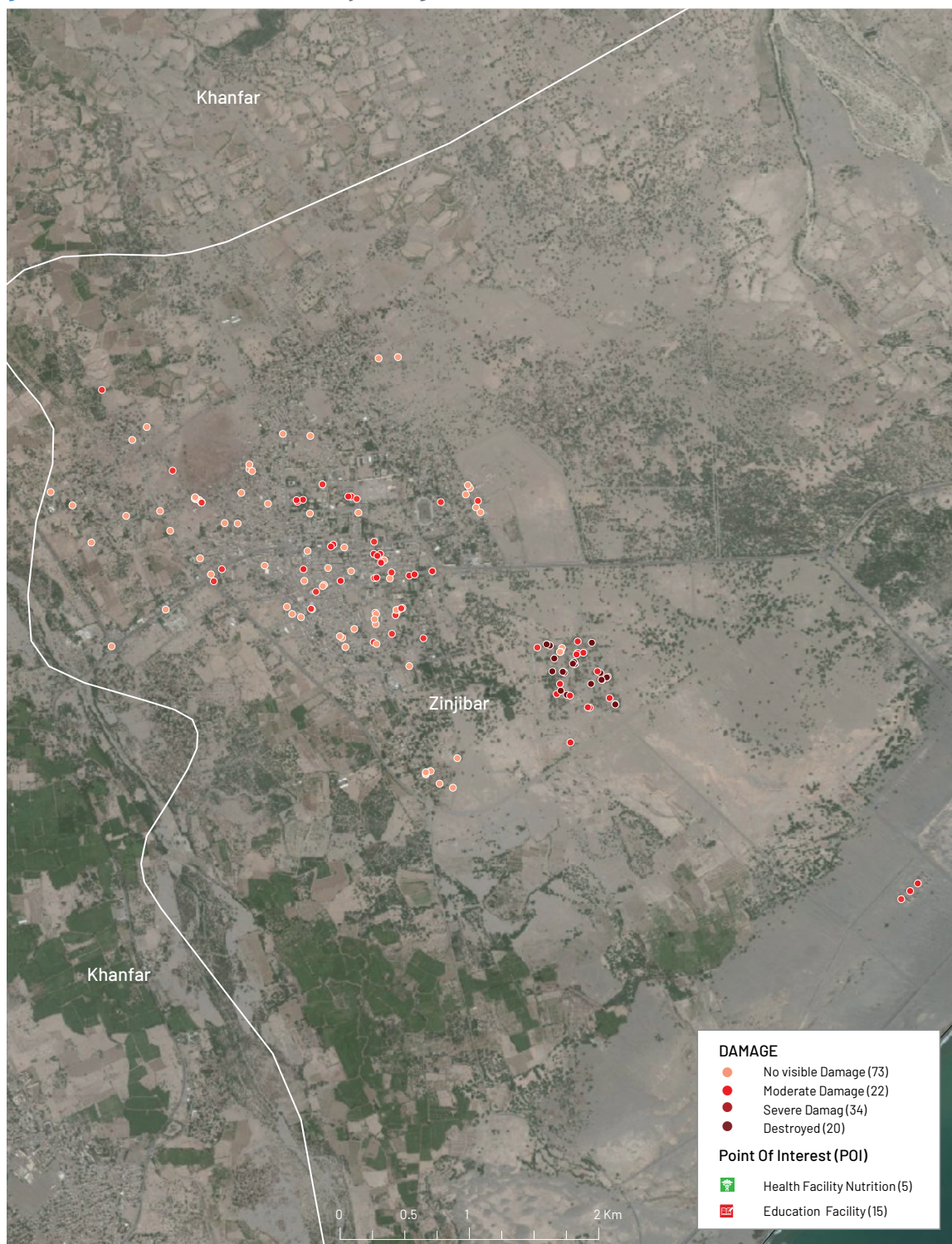
²⁵⁹ *The World Bank Group*, *Yemen Dynamic Needs Assessment (DNA): Second Phase Report*, (Washington DC: World Bank, 2017), 103.

²⁶⁰ *Ibid.*

ANNEXES

The team identified multiple areas to assess within the city of Zinjibar based on verifying satellite imagery from UNOSAT (2019) and Digital Globe (May 2020) for 149 buildings, in addition to real pictures (March and April 2020). After that, iMMAP GIS unit triangulated data from different sources, compiled GPS coordinates and analyzed it as shown on the map below:

Figure 98: Assessed Locations to Verify Damages



Zinjibar City Assets Verification , Date Created: 28 May 2020, Datum/Projection: WGS.84, Data sources: OCHA, UNOSAT, OSM, Digitalglobe 2019

Disclaimer: The boundaries, names and designations used in this map do not imply official endorsement or acceptance by iMMAP.

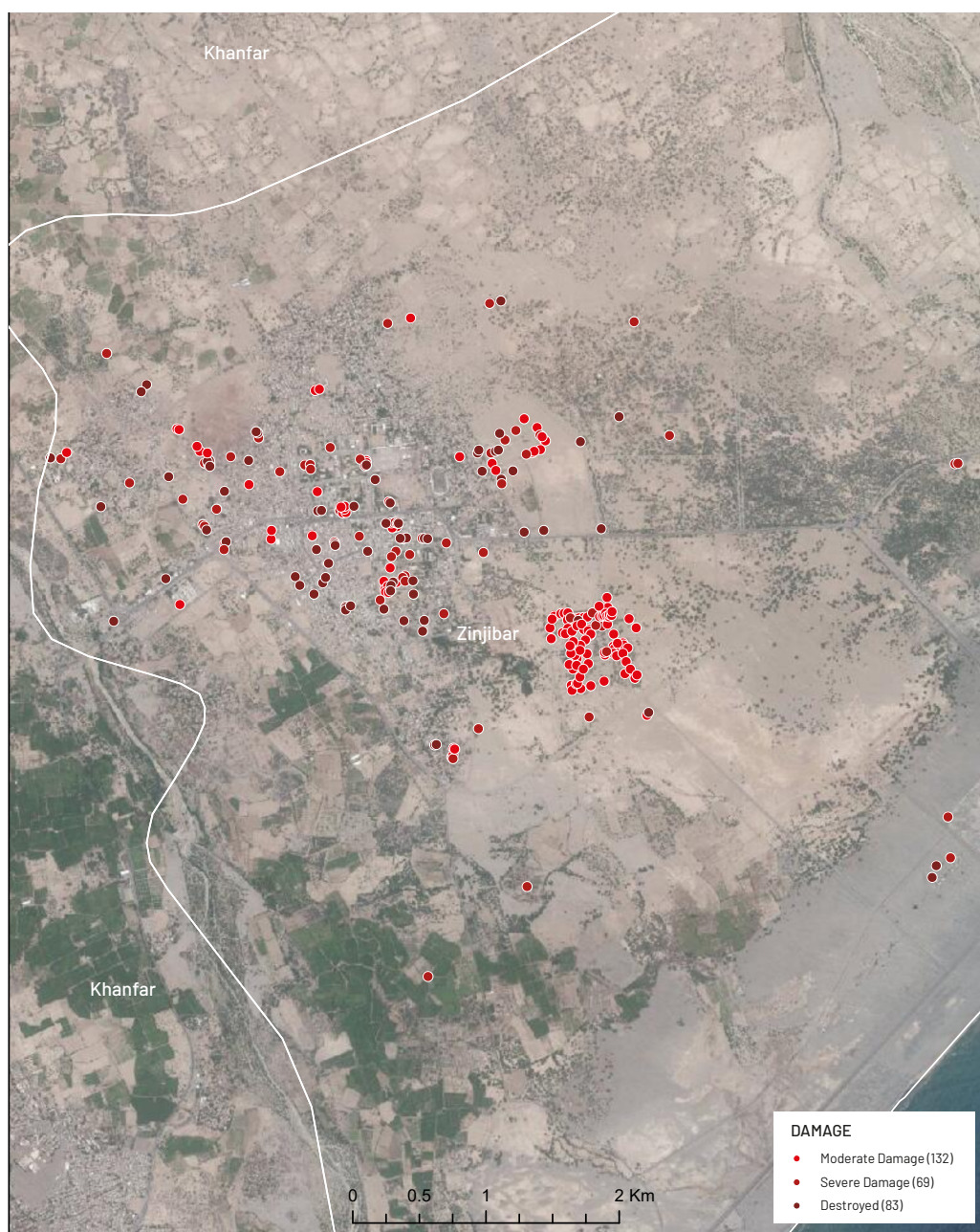
Abyan governorate witnessed fierce fighting due to its strategic location and proximity to Aden. Around 197 Armed clashes incidents (out of 1,843 nationwide) were reported in Abyan since the escalation of the conflict in 2015, 64 was reported alone in 2019 which was double the clashes in 2018²⁶¹ due to heavy fighting between STC and IRG forces. Evidence of widespread destruction in residential areas, which is heavily populated, and widescale infrastructure damage is visible via Satellite imageries.

For the most part, damages in Zinjibar have mostly been localized and/or clustered in city center close to the military bases and the public offices, however Damaged buildings appear to be scattered in the peripheral as well. Another factor that exacerbate the situation is the urban nature of the city where informal settlements are spread, and houses are built close to each other.

The asset verification in the city center are unlike evidence captured in satellite images and field images; the situation is much worse on the ground. However, it is not accurately captured in the other areas due to accessibility issues.

In conclusion, satellite imagery can be relied on in rapid asset verification, especially when assessing damage on a large scale as a substitute for field assessments. The latter may be difficult to conduct in battlefield areas such as Al Hodeidah during periods of armed conflict and political tensions.

Figure 99: Damage Assessment for Zinjibar city, 2019



261 Intelyse Data, June 9, 2020.

Figure 100: Photos from Field Asset Verification.



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