

AI HODEIDAH

City Profile



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Cover photo:

View Of The Dhow's In Al Hodeidah Harbor,
Yemen

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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

CBY	Central Bank of Yemen	MPWH	Ministry of Public Works and Highways
CCIF	Cleanliness and City Improvement Fund	MSF	Médecins Sans Frontières
CSO	Central Statistics Office	MW	Megawatts
DNA	Dynamic Needs Assessment	MWE	Ministry of Water and Environment
DTM	Displacement Tracking Matrix	NCD	Non-Communicable Diseases
EC	European Commission	NNGO	National Non-Governmental Organization
ERW	Explosive Remnants of War	NGO	Non-Governmental Organization
ESMF	Environmental and Social Management Framework	NRC	Norwegian Refugee Council
ETC	Emergency Telecommunications Cluster	NSSWM	National Strategy for Solid Waste Management
FAO	Food and Agriculture Organization	NSWA	National Water and Sanitation compound
GBV	Gender-Based Violence	NWRA	National Water Resources Authority
GIS	Geographic Information System	NWSSIP	National Water Sector Strategy and Investment Program
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit	PEC	Public Electricity Corporation
GoY	Government of Yemen	PTC	Public Telecommunication Corporation
GPS	Global Positioning System	PV	Photovoltaic
HeRAMS	Health Resources and Services Availability Monitoring System	RCC	Redeployment Coordination Committee
HF	Health Facility	Sida	Swedish International Development Cooperation Agency
HFO	Heavy Fuel Oil	SLC	Saudi-Led Coalition
HH	Household	SPC	Supreme Political Council
HNO	Humanitarian Needs Overview	SRC	Supreme Revolutionary Committee
HWSLC	Al Hodeidah Water and Sanitation Local Corporation	SWM	Solid Waste Management
ICRC	International Committee of the Red Cross	UAE	United Arab Emirates
IDP	Internally Displaced Persons	UK	United Kingdom
IED	Improvised Explosive Device	UN	United Nations
IHL	International Humanitarian Law	UNDP	United Nations Development Program
IHRL	International Human Rights Law	UNFPA	United Nations Population Fund
ILO	International Labor Organization	UNGA	United Nations General Assembly
INGO	International Non-Governmental Organization	UNHCR	United Nations High Commissioner for Refugees
IOM	International Organization for Migration	UNICEF	United Nations Children's Fund
IRC	International Rescue Committee	UNMHA	United Nations Mission to support the Al Hodeidah Agreement
IRG	Internationally Recognized Government	UNOCHA	United Nations Organization for Coordination of Humanitarian Affairs
JICA	Japan International Cooperation Agency	UNOPS	United Nations Office for Project Services
JRC	Joint Research Center	UNOSAT	UNITAR's Operational Satellite Applications Program
KSA	Kingdom of Saudi Arabia	UNSC	United Nations Security Council
LAEO	Literacy and Adult Education Organization	UNVIM	UN Verification and Inspection Mechanism for Yemen
LAL	Local Authority Law	USD	United States Dollar
LC	Local Councils	USAID	United States Agency for International Development
MASAM	Saudi Project for Landmines Clearance in Yemen	USDOS	United States Department of State
MC	Mercy Corps	WASH	Water, Sanitation, and Hygiene
MCLA	Multi-Cluster Location Assessment	WFP	World Food Program
MENA	Middle East and North Africa	WHO	World Health Organization
MoAI	Ministry of Agriculture and Irrigation	WNC	Women's National Commission
MoE	Ministry of Education	WWTP	Wastewater Treatment plant
MoHESR	Ministry of Higher Education and Scientific Research	YEMAC	Yemen Executive Mine Action Centre
MoHM	Ministry of Housing and Municipalities	YER	Yemeni Rial (currency)
MoHUD	Ministry of Housing and Urban Development	YIUSEP	Yemen Integrated Urban Emergency Services Project
Mol	Ministry of Interior	YWU	Yemen Women Union
MoLA	Ministry of Local Administration		
MoPHP	Ministry of Public Health and Population		
MoT	Ministry of Transportation		
MoTEVT	Ministry of Technical Education and Vocational Training		

Executive Summary

Al Hodeidah city, situated on the Red Sea, is Yemen's fourth largest city and one of the country's chief ports. This city profile describes and analyzes the situation in the city of Al Hodeidah 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, and remote sensing. 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:

- A multitude of (armed) actors are present on the frontlines of the city; in 2020, particularly the eastern outskirts of the city have witnessed a relatively high intensity of hostilities; tensions between opposing groups remain high.** The rule of law has significantly weakened since 2011, with increased incidents of land grabbing and other forms of criminality reported, while the precariousness of the security situation has created opportunities for a variety of actors to influence court proceedings. As the formal justice system is considered weakened, Al Hodeidah city's residents are increasingly relying on community leaders, such as tribal sheikhs, A'ageels and security leaders, to arbitrate conflicts between individuals.
- Efforts to develop mechanisms and models for local governance and social cohesion are crucial, particularly as the Local Councils (LCs) can currently not deliver on its mandate.** With a variety of political and armed actors present in and around Al Hodeidah city, the LC has not been able to provide essential services to its residents. Though projects have been implemented, such as the establishment of a new kidney dialysis center in the commercial district of Al Hodeidah city, funds remain insufficient. Within this context, dedicated funds in terms of local governance should be planned and managed properly, which could further generally benefit the city in terms of financial transparency.
- Though most of Al Hodeidah's culture and heritage sites are located outside of the city, important landmarks are found in Al Mina and Al Hawak districts.** After a fire demolished much of the city in 1961, some historical sites were never restored. Though the extent is unclear, many sites have undergone further damages since the onset of the current conflict. Settlements and shops have been built around some of the landmarks, and some serve as illegal dumping sites. 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.
- Ownership rates of houses in Al Hodeidah city are high as more than three quarters of housing in urban areas is owned by its inhabitants. **However, a large amount of these buildings is improvised (including metal sheds) and the bulk (70 percent) is only suited for one household (HH), with only one or two rooms. Satellite imagery shows there are over 4,000 damaged structures, scattered across the city.** Several unplanned development areas north of the city were severely hit, particularly the area west of Al Hodeidah General Hospital. The Internally Displaced Person (IDPs) are mainly registered to the south of Al Hawak district, in the proximity of the airport, as well as alongside roads leading in- and outside of the city; the majority of IDPs are settling in rental accommodations.
- Al Hodeidah city hosts one of the largest power plants in the country, Al Khateeb; there are several smaller-scale diesel power plants, including Al Hali 1 and 2 plants. Reports indicate all stations halted operations between 2015 and 2016 due to a lack of fuel, stolen power transformers, and damaged electricity cables. According to local sources, the Al Hali plants remain the only providers of public electricity.
- Almost three quarters (74 percent) of Health Facilities (HFs) in Al Hodeidah city are fully functional while 13 percent are partially functional, and 13 percent are non-functional.** It should furthermore be noted that the functional facilities depend on incentive payments amidst very limited resources to sustain the presence of health workers and health service provision, which further impacts the accessibility to health. **Al Hali district is most affected, as over 30 percent of HFs are not functioning.**
- Open source reporting suggests there is no mobile or internet connectivity upon entering Al Hodeidah city; there is no fiber or any other landline connection.** Moreover, internet services have been disrupted due to damages to the fiber optic cable in Al Qanawis and Al Maraqa districts (Al Hodeidah Governorate), at times affecting almost 80 percent of the country's internet connection. Humanitarian staff access internet through the establishment of four internet hubs, enabling the humanitarian response in the area.
- While significant investments have been made to develop the road network (especially in the 1960s), **Al Hodeidah city is facing challenges associated with poor traffic management, traffic congestion, poor road safety, and (conflict-related) damages. Approximately 20 percent of roads within Al Hodeidah city have sustained some degree of damage.**

Introduction

Al Hodeidah city¹ is part of Al Hodeidah Governorate, which is the fourth largest governorate in Yemen and the principal port on the Red Sea. Al Hodeidah city is located approximately 226km from Sana'a and is situated in the western part of the Republic on the Yemeni Tihamah coastal plain, which extends from Midi in the north to Bab Al-Mandeb in the south. The governorate borders the governorates of Ibb, Dhamar, Sana'a, Rim, Mahwit, and Hajjah to the northeast, Ta'iz Governorate to the south, and the Red Sea to the west. The climate in the governorate is tropical, with temperatures at times exceeding 54 °C. Annual rainfall averages 130mm and occurs in irregular, torrential storms.

Under Ottoman suzerainty until 1918, Al Hodeidah was the landing site for successive Ottoman attempts to wrestle full control of the then Imamate of Yemen from its traditional rulers. After World War I, the victorious British handed Al Hodeidah and the Tihamah plain over to the Idrisi rulers of Asir, to the north. A Yemeni-fomented revolt in Asir (by then part of KSA) in 1934 led to Saudi occupation of Al Hodeidah. That same year, the treaty of Al-Ta'if was signed which returned the city and the Tihamah Plain to Yemen; the latter, in turn, recognized KSA's rule of Asir.

Figure 1: Geographic Location of Al Hodeidah within Yemen



Al Hodeidah ,Date Created: 22 Dec 2019, 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.

¹ This profile examines Al Hodeidah city, which includes the districts of Al Hali, Al Hawak and Al Mina.

In 1961 the Soviet Union completed construction of the country's then only deep-water port "Ahmad", at the southern end of Khawr Khatib and north of Al Hodeidah. The construction was part of a broader effort to secure international shipping, particularly along the Red Sea and the entryway to the Suez Canal.² Ahmad Port, opened in June 1962, enabled the city to develop itself and assert national economic influence.³ The development of new roads in the 1960s (connecting Sana'a, Ta'iz, and Al Hodeidah) made the Tihama plain accessible for agricultural production which was traded in the city and exported. In the 1970s, an economic boom, significant income from remittances, and implementation of technical assistance programs accelerated urban development in Al Hodeidah.⁴

In the 1990s, the city's population sharply increased as a result of the Gulf War (approximately one million Yemenis returned from the Gulf states)⁵ and Yemen's unification. Though the Port of Aden acquired significant markets share following construction of the Aden Container Terminal in 1999, Al Hodeidah remained the most important entry point for imports to Yemen. Prior to the onset of the conflict, over 70 percent of Yemen's food and fuel imports came through Al Hodeidah, accounting for over 40 percent of the nation's customs income. An international airport is located 10 km south of the port and is one of the most important civilian airports in Yemen; it furthermore serves as a military airport.

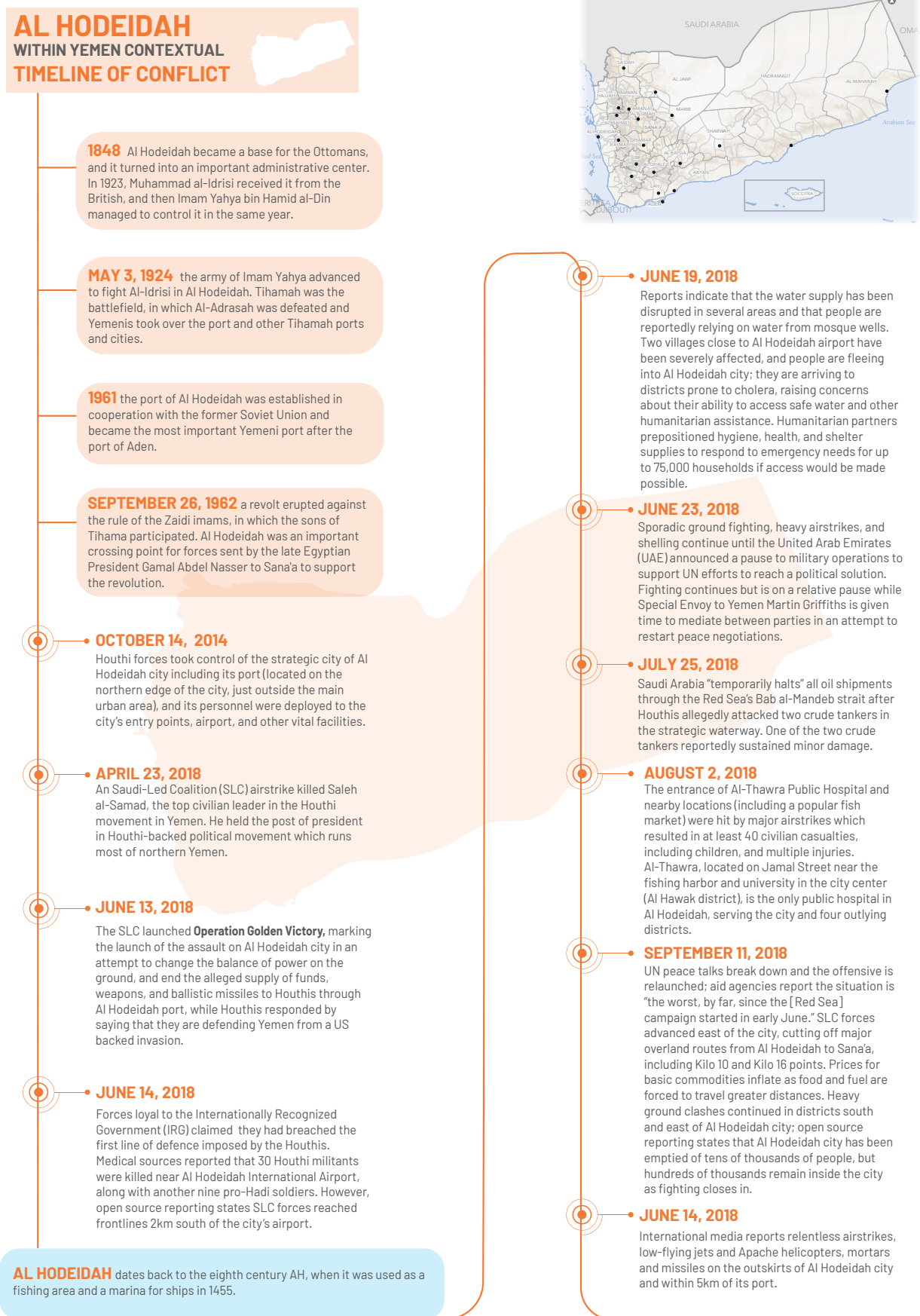
2 Orkaby, Asher Aviad, "The International History of the Yemen Civil War, 1962-1968", Doctoral dissertation, Harvard University, [https://dash.harvard.edu/bitstream/handle/1/12269828/Orkaby_gsas.harvard_0084L_11420.pdf?sequence=\(accessed June 15, 2020\).](https://dash.harvard.edu/bitstream/handle/1/12269828/Orkaby_gsas.harvard_0084L_11420.pdf?sequence=(accessed June 15, 2020).)

3 Encyclopaedia Britannica, "Al-Hudaydah", October 31, 2012, <https://www.britannica.com/place/Al-Hudaydah> (accessed February 20, 2020).

4 The World Bank, Hodeidah: Agro-Industrial Capital of Yemen, Local Economic Development Strategy, October 22, 2009, https://siteresources.worldbank.org/INTLED/Resources/339650-1122490529659/Hodeidah_CDS_072308.pdf (accessed June 15, 2020).

5 World Bank Publications, Economic Growth in the Republic of Yemen: Sources, Constraints, and Potentials, January 1, 2002, p. 12.

Figure 2: Al Hodeidah Conflict Timeline



• DECEMBER 6 - 13, 2018

6 - 13 December 2018: Houthis and IRG convened in Stockholm to discuss various de-escalation proposals and a possible road map to a comprehensive peace agreement. On 13 December, all parties agreed to the **Stockholm Agreement** which consists of three components: halting hostilities in the city of Al Hodeidah and mutually redeploying forces from the city and the ports of Al Hodeidah, Salif (80km north) and Ras Issa (50km north), an executive mechanism on activating the prisoner exchange agreement, and a statement of understanding on Ta'iz.

• DECEMBER 18, 2018

Ceasefire in Al Hodeidah took effect and held with mostly minor violations until the end of the month. On 21 December, the UN Security Council passed a UK-drafted resolution which called on all parties to uphold the Stockholm Agreement. The Resolution approved a 30-day deployment of a UN team to monitor implementation of the ceasefire.

• DECEMBER 29, 2018

UN source and Houthis state that Houthi forces had begun redeploying from Al Hodeidah port as per the Stockholm Agreement.

• JANUARY 8, 2019

Government-aligned and Houthi forces failed to redeploy from Al Hodeidah as per the agreed deadline.

• JANUARY 16, 2019

UN Security Council unanimously approved creation of UN Mission to support the Hodeida Agreement (UNMHA), mandating 75 monitors to oversee the implementation of the agreement and ceasefire.

• JANUARY 24, 2019

Suspected mortar fire started fire which damaged two vital World Food Programme wheat storage, milling, and distribution facility on the eastern outskirts of Al Hodeidah city. WFP at the time had 51,000 metric tons of wheat stored at the Red Sea Mills (25 percent of its then in-country wheat stock); however, WFP had been unable to access the mills since September 2018 due to security dynamics.

• FEBRUARY 17, 2019

After two days of talks in Al Hodeidah city, representatives of the Hadi government and Houthis agreed on the format for a first phase of a withdrawal from the city and also agreed, in principle, on the second phase a UN statement said. Early February open source reporting states that humanitarian sources on the ground stated while airstrikes on the city have stopped, fighting has not decreased enough to allow for aid delivery to take place unhindered or to make Al Hodeidah safe for aid workers and/or civilians.

• JUNE 17, 2019

Special Envoy to Yemen Griffiths reported that parties in Al Hodeidah had sustained the reduction in violence in the six months since the Stockholm Agreement entered into force, while the number of casualties fell by 68 percent in the following five months.

• SEPTEMBER 9 - 10, 2019

The Redeployment Coordination Committee (RCC), comprising government and Houthi representatives, convened and announced it would be deploying monitoring teams in four locations on the frontlines of Al Hodeidah as an initial step aimed to sustain the ceasefire. However, parties failed to agree on who would provide security in Al Hodeidah port following redeployment of military forces.

• SEPTEMBER 10, 2019

The Saudi Project for Landmines Clearance in Yemen (MASAM) announced it had removed 876 landmines and unexploded ordnance from the western coastal area. MASAM reported that, since the start of the project, a total number of 90,637 mines, explosive devices, and unexploded ordnance had been removed.

• SEPTEMBER 30, 2019

Houthis stated they would release 350 prisoners without conditions in an attempt to deliver on that aspect of the Stockholm Agreement. By the end of the month, 290 prisoners had been released.

• OCTOBER 16, 2019

The Yemeni government allowed for eight fuel shipments to enter the Houthi-administered port of Al Hodeidah.

• NOVEMBER 25, 2019

In response to Houthi strikes on coalition locations in Mokha (24 November), coalition airstrikes were reported in Ras Issa port which killed an unknown number of Houthis. UNMHA head Guha early November warned of a recent increase in ceasefire violations, including parties constructing new fortifications, repositioning forces, and deploying surveillance drones, in breach of the truce agreement. Guha urged for parties to continue working together and in good faith, warning that the situation is still volatile.

• NOVEMBER 26, 2019

The SLC announced it was releasing 200 Houthi prisoners; on 28 November, 128 prisoners were released by the coalition and returned to Sana'a.

• DECEMBER 18 - 19, 2019

Guha chaired a meeting with the government and Houthi representatives to the RCC to discuss implementation of the Stockholm Agreement and improving humanitarian access in Al Hodeidah Governorate.

• NOVEMBER 5, 2019

Health authorities in al-Jarrahi district, east of Hodeidah, announced that 18 people had died of dengue fever. "The number of deaths from dengue and malaria has risen to 18 during the period from October 21 to November 5," the health bureau said in a statement

• DECEMBER 18, 2019

The Ashawes Brigades which is the last Sudanese forces to leave west coast frontlines, handed over their positions to the Yemeni joint forces. Sudan has participated in military forces since the beginning of the war on Yemen within the SLC.

Background

In October 2014, a month after taking control of Sana'a, Houthis extended their control to the Red Sea port of Al Hodeidah (located on the northern edge of the city, just outside the main urban area), sending forces to the city's entry points, including its airport.⁶ Its port – through which 70 percent of Yemen's imports and 80 percent of humanitarian assistance flows⁷ – has become the country's major aid pipeline due to the Coalition's blockade of Yemen's borders and airspace.⁸ For the Houthis, controlling Al Hodeidah is vital as it provides most of the land-locked northern Houthi-controlled areas, including Sana'a, with access to the Red Sea and its maritime traffic. Additionally, the port also generates revenue⁹ for the Houthis, who tax imports and control the distribution of food and fuel leaving the port. Government of Yemen (GoY) forces accuse the Houthis of using Al Hodeidah port as both financial and weapons supply line, allegations rejected by the Houthis.

The Stockholm Agreement

In December 2017, military operations (including airstrikes) escalated in an attempt by the GoY, backed by coalition forces, to recapture Al Hodeidah city, including its strategically important port.¹⁰ In June 2018, the coalition launched Operation Golden Victory. By the end of 2018, coalition forces had advanced north along the western coastline, but were effectively stalled at the southern edge of the city, where armed conflict threatened to cripple port operations. Simultaneously, international pressure was mounting to ensure the flow of humanitarian aid through Al Hodeidah could be maintained; aid agencies repeatedly warned that any damage to the city's port or delays in aid delivery would tip the country into a full-blown famine.

The exerted pressure resulted in the facilitation of UN-led peace consultations in Sweden; on 6 December 2018, the warring parties convened in Stockholm to discuss various de-escalation proposals and a possible road map to a comprehensive peace settlement. The talks were the first formal negotiations since 2016. After a week of negotiations, all parties agreed to the Stockholm Agreement¹¹ as a trust-building measure to pave the way for wider negotiations to end the war. The Agreement consists of three components: halting hostilities in the city of Al Hodeidah and mutually redeploying forces from the city and the ports of Al Hodeidah, Salif (80km north, and used for grain storage¹²) and Ras Issa (50km north, which served the Ma'rib oilfields and was the country's main export terminal¹³), thus comprising the Red Sea trade corridor; an executive mechanism on activating the prisoner exchange agreement, and a statement of understanding on Ta'iz. The UN agreed to chair the RCC to monitor the ceasefire and redeployment of forces. On 16 January 2019, the United Nations Security Council (UNSC) passed UNSC Resolution 2451 (2018)¹⁴, which authorized (for a 6-month period) the creation of the United Nations Mission to support the Al Hodeidah Agreement (UNMHA); it has been reauthorized until January 2020.

6 Reuters, "Houthi rebels take over Yemen's Hodeidah port: residents", October 15, 2014, <https://www.reuters.com/article/us-yemen-insurgency/houthi-rebels-take-over-yemens-hodeidah-port-residents-idUSKCN0140HB20141015> (accessed January 10, 2020).

7 UNDP, UNDP provides critical vehicles to support demining efforts in ports of Hodeidah, May 28, 2019, <https://reliefweb.int/report/yemen/undp-provides-critical-vehicles-support-demining-efforts-ports-hodeidah> (accessed January 10, 2020).

8 The Guardian, "Hope for 'turning point' in Yemen after Houthis' Hodeidah withdrawal", May 15, 2019, <https://www.theguardian.com/world/2019/may/15/yemen-hope-for-turning-point-after-houthi-hodeidah-port-withdrawal> (accessed January 10, 2020).

9 In June 2018, Critical Threats estimated port revenues at about \$14 million per month. Critical Threats, "The Assault on Al Hudaydah: Surfacing America's Partnership Problems", June 13, 2018, <https://www.criticalthreats.org/analysis/the-assault-on-al-hudaydah-surfacing-americas-partnership-problems> (accessed January 10, 2020).

10 ACAPS, Thematic Report: Displacement in Taizz and Al Hudaydah, March 29, 2018, https://www.acaps.org/sites/acaps/files/products/files/20180329_acaps_thematic_report_yemen_displacement_final.pdf (accessed January 10, 2020).

11 UN, Office of the Special Envoy of the Secretary-General for Yemen, Full text of the Stockholm Agreement, December 13, 2018, <https://oesgy.unmissions.org/stockholm-agreement> (accessed January 10, 2020).

12 Reuters, "Yemen's parties agree to start stalled troop withdrawal from main port", February 17, 2019, <https://www.reuters.com/article/us-yemen-security-un/yemens-parties-agree-to-start-stalled-troop-withdrawal-from-main-port-idUSKCN1Q60QY> (accessed January 10, 2020).

13 Ibid.

14 UNSC, Resolution 2451 (2018), S/RES/2451, December 21, 2018, [https://undocs.org/S/RES/2451\(2018\)](https://undocs.org/S/RES/2451(2018)) (accessed January 10, 2020).

Recent Developments

On 12 May 2019, the RCC verified that the Houthis had handed over control of Al Hodeidah port to local coast guard units, though the Yemeni government disputes this finding, claiming that the Houthis infiltrated the coast guard units deployed at the port.¹⁵ In June 2019, Special Envoy Griffiths reported that parties in Al Hodeidah had “sustained the reduction in violence in the six months since the Stockholm Agreement entered into force, while the number of casualties also fell by 68 percent in the following five months.”¹⁶ In September 2019, the RCC convened and announced it would be deploying “monitoring teams in four locations on the frontlines as an initial step aimed to sustain the ceasefire and reduce the suffering of and casualties among civilians”¹⁷; on October 19, five joint observation posts were established around Al Hodeidah city (Al-Saleh complex, City Max Clothing Store, Kilo 8 Junction Point, Cattle Farms, and Al-Mandhar Village).

However, parties to the conflict have failed to fully demilitarize Al Hodeidah. Although an almost complete cessation of hostilities in Al Hodeidah city is somewhat holding, the head of UNMHA in November 2019 warned of a recent increase in ceasefire violations, including parties constructing new fortifications, repositioning forces, and deploying surveillance drones, in breach of the truce agreement. He furthermore urged for parties to continue to work together, warning that the situation is still volatile. Furthermore, despite the significant reduction in hostilities in the city, Al Hodeidah Governorate remains the one with the highest reported number of civilian casualties, accounting for more than 30 percent of all casualties country wide.¹⁸

- 15 Congressional Research Service, Yemen: Civil War and Regional Intervention, updated September 17, 2019, <https://fas.org/sgp/crs/mideast/R43960.pdf> (accessed January 10, 2020).
- 16 UNSC, United Nations Officials Urge Parties in Yemen to Fulfil Stockholm, Hodeidah Agreements, amid Security Council Calls for Opening of Aid Corridors, June 17, 2019, <https://www.un.org/press/en/2019/sc13845.doc.htm> (accessed January 10, 2020).
- 17 UN, RCC Joint Press Statement, The Sixth Joint RCC Meeting, September 9, 2019, <https://www.un.org/sg/en/content/sg/note-correspondents/2019-09-09/note-correspondents-redeployment-coordination-committee-%28rc-c%29-joint-press-statement-the-sixth-joint-rcc-meeting-scroll-down-for-arabic> (accessed January 10, 2020).

- 18 ACAPS, ACCESS TO BASIC NEEDS IN YEMEN: SCENARIOS, October 2019, https://www.acaps.org/sites/acaps/files/products/files/20191106_acaps_yemen_analysis_hub_scenarios.pdf (accessed January 10, 2020).

Considerations and Conclusions

It has been reported¹⁹ that thousands of land²⁰ and naval mines have been planted around the port of Al Hodeidah; more specifically, media reports estimated an approximate 3,500 Improvised Explosive Devices (IEDs) were planted in Al Hodeidah city center and port and an approximate 6,000 in Salif and Ras Issa²¹, the other two nearby ports included in the Stockholm Agreement.²² Mid-May 2019, the media reported that demining operations and the removal of military equipment were expected to take place in the three ports within the short-term future.²³

At the time of writing, demining operations continue to take place in the port of Al Hodeidah to ensure safe import of vital supplies; the United Nations Development Program (UNDP) works with Yemen Executive Mine Action Centre (YEMAC) as the national organization established to remove unexploded ordnances.²⁴ However, an unspecified number of mine action programs in Al Hodeidah have gone unfunded, putting the port, roads, and other areas at risk.²⁵ More detailed and up to date information as to clearance activities and the progress on destruction of unexploded ordnance is not publicly available.

Though not completely implemented, the ceasefire has had positive impacts: it enabled some humanitarian agencies to return to Al Hodeidah city; it helped reduce violence in the city, allowing some to return home; shops and businesses have reopened; and people are trying to resume their daily lives.²⁶ However, interference in humanitarian operations and restrictions on movement continue to be reported across the country; early September 2019, the UN Office for the Coordination of Humanitarian Affairs (UNOCHA) reported that in June – July 2019, 119 incidents of restriction on movement (of agencies, personnel, or goods) were reported, almost half of the incidents were reported in Al Hodeidah, Hajjah and Sana'a governorates.

19 See, e.g., The National, "Yemen's Houthi rebels committing war crimes in Hodeidah, human rights minister says", June 16, 2018, <https://www.thenational.ae/world/mena/yemen-s-houthi-rebels-committing-war-crimes-in-hodeidah-human-rights-minister-says-1.740777> (accessed January 10, 2020).

20 International media reports many landmines are encased in fiberglass and painted to look like rocks. See, e.g., The Wall Street Journal, "With Much at Stake in Yemen Port, Coalition Puts Advance on Hold", July 8, 2018, <https://archive.md/ZtGI2#selection-1615.1-1615.65> (accessed January 10, 2020).

21 The National, "UN deminers in Yemen start clearing Hodeidah ports as Houthis withdraw", May 14, 2019, <https://www.thenational.ae/world/mena/un-deminers-in-yemen-start-clearing-hodeidah-ports-as-houthis-withdraw-1.861374> (accessed January 10, 2020).

22 Arms Control Association, The Ottawa Convention: Signatories and States-Parties, January 2018, <https://www.armscontrol.org/factsheets/ottawasigs> (accessed January 10, 2020).

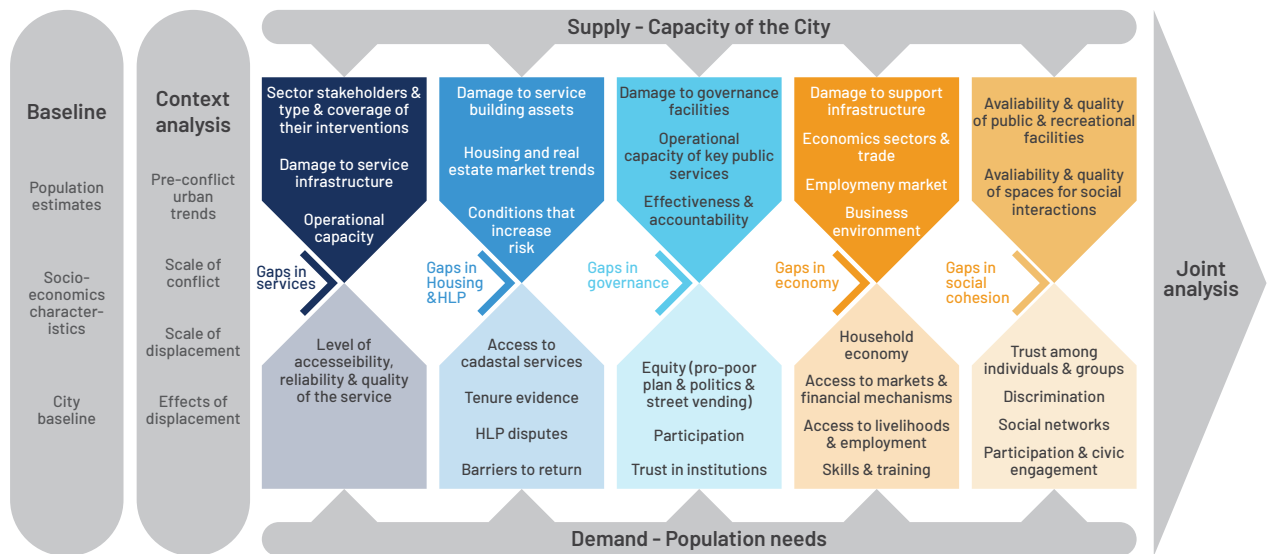
23 The Guardian, "Hope for 'turning point' in Yemen after Houthis' Hodeidah withdrawal", May 15, 2019, <https://www.theguardian.com/world/2019/may/15/yemen-hope-for-turning-point-after-houthi-hodeidah-port-withdrawal> (accessed January 10, 2020).

24 Twitter, UNDP Yemen, November 14, 2019, <https://twitter.com/UNDPYemen> (accessed January 10, 2020).

25 UNOCHA, Humanitarian Update, August 28, 2019, <https://reliefweb.int/report/yemen/yemen-humanitarian-update-covering-26-july-28-august-2019-issue-11-enar> (accessed January 10, 2020).

26 NRC, Update on situation in Hajjah and Hodeidah, March 13, 2019, <https://www.nrc.no/news/2019/march/on-the-record-update-on-situation-in-hajjah-and-hodeidah-yemen/> (accessed January 10, 2020).

Figure 3: Analytical Framework

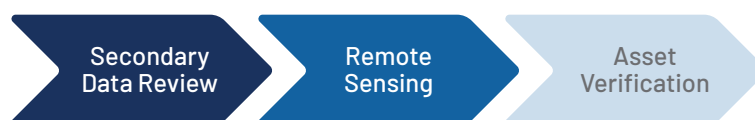


Data Compilation

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. Remote Sensing** Satellite imagery provides accurate assessment of the degree of physical damage inflicted on infrastructure and services, comparing pre-crisis to current imagery. Definitions of damage categories are defined by the UNOSAT. Geographic Information System (GIS) tools provided a comparative pre- and post- conflict analysis on land use classification and damage assessments per district.

Figure 4: Primary Data Collection tools



3. **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

Al Hodeidah Governorate was the home to an approximate 2,985,122 residents in 2019; it should be noted that according to 2017 Central Statistical Organization (CSO) data, Al Hodeidah Governorate was home to an approximate 3,098,000 residents, out of which 2,005,000 resided in rural, and 1,093,000 in urban areas. Al Hodeidah is a mid-size, 5-by-6-km city, with a densely populated old city of about 1.5-by-1.5 km. The city is primarily populated with urban and coastal people of the Shafi'i branch of Sunni Islam.²⁷ Available data on the city's population stems from the 1994 and 2004 Population and Housing Censuses, and projections based on these censuses for 2017 by the Central Statistics Office.

Table 1: Total Estimated Population in Al Hodeidah city.^{28 29}

Year	Estimated population	Source
1994	302,600	Population and housing census ²⁸
2004	416,000	Population and housing census
2017	604,439	CSO Projection
2019	176,344 ²⁹	Rectification 2017 projection with IOM DTM Round 37 displacement figures

Source: Population and Housing Censuses 1994, 2004, CSO 2017, IOM DTM Round 37, HNO Data 2019."

There are more than a few demographic challenges facing Al Hodeidah — age, illiteracy, and poverty. As to age, Yemen has a huge youth bulge. The latest available CSO data indicates that, country-wide, 51.2 percent of the total population is below the age of 20; additionally, it is estimated that 15.4 percent of the total population belongs to the youth category falling in the age bracket between 0 and 4 years (primarily due to the country's high fertility rates).³⁰ Youth unemployment remains a critical development challenge facing Yemen. Publicly available 2016 estimates show that the unemployment rate of people aged 15–24 years who live in urban areas fluctuates at around 30 percent.³¹ By the fall of 2015, 45 percent of Yemenis surveyed stated they had lost their main source of income due to the conflict.³² January 2016 International Labor Organization (ILO) data reports that the impact of the crisis has been very pronounced in Al Hodeidah and that, at the time of reporting, employment had already decreased by 11.6 percent.³³

27 The Washington Institute, "Improving the Quality of U.S. Middle East Policy, The Hodeida Campaign (Part 2): Can Yemen Recapture Major Ports from the Houthi Rebels", May 15, 2018, <https://www.washingtoninstitute.org/policy-analysis/view/the-hodeida-campaign-part-2-can-yemen-recapture-hodeida-from-the-houthi-reb> (accessed January 10, 2020).

28 The World Bank, Hodeidah: Agro-Industrial Capital of Yemen, Local Economic Development Strategy, October 22, 2009, available at: https://siteresources.worldbank.org/INTLED/Resources/339650-1122490529659/Hodeidah_CDS_072308.pdf (accessed January 10, 2020).

29 For each of the three districts, the following process was used to calculate these numbers: 1). Add number of incoming IDPS; 2). Subtract IDPS in other locations coming from district; 3). Add returnees in district from IOM Location Assessment data (IOM DTM March 2019).

30 CSO, Statistical Yearbook 2017, July 22, 2019, <http://www.cso-yemen.com/content.php?lng=english&id=690> (accessed January 10, 2020).

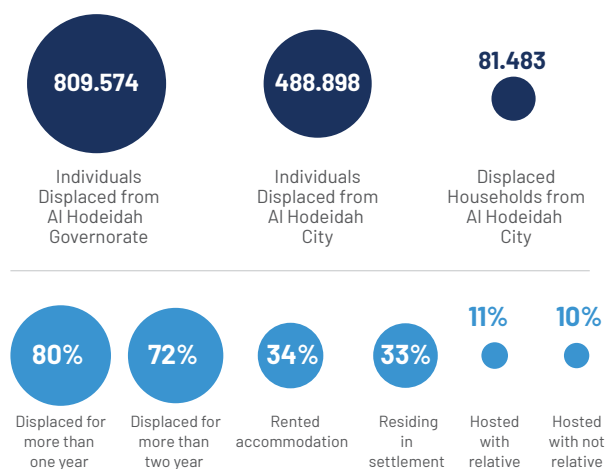
31 UN-Habitat, Republic of Yemen National Report, Third United Nations Conference on Housing and Sustainable Urban Development, Habitat III, September 2016, <http://habitat3.org/wp-content/uploads/Yemen-National-Report-September-2016.pdf> (accessed January 10, 2020).

32 UNDP and Frederick S. Pardee Center for International Futures, Assessing the Impact of War on Development in Yemen, May 1, 2019, <https://www.undp.org/content/dam/yemen/General/Docs/ImpactOfWarOnDevelopmentInYemen.pdf> (accessed January 10, 2020).

33 ILO, Yemen Damage and Needs Assessment, January 2016, https://www.ilo.org/wcmsp5/groups/public/-arabstates/-ro-beirut/documents/publication/wcms_501929.pdf (accessed January 10, 2020).

IDP Mapping (and Contextual Analysis)

Figure 5: Displacement in Al Hodeidah in Numbers, 2019



Source: IOM, DTM Round 37, 2019.

Following Humanitarian Needs Overview (HNO) data, there were 105,000 IDPs in Al Hodeidah Governorate, and 361,900 in 2019, representing an increase of 256,900 IDPs. Out of the total Yemeni population in Al Hodeidah Governorate, 12 percent is now IDP. Available figures at city level suggest an average yearly increase of 3.2 percent between 1994 to 2004 of and an estimated average yearly increase between 2004 to 2017 of 3.8 percent. It also suggests a staggering drop of over 475,000 individuals, or 78 percent of the population in 2019, resulting from displacements from the city. Further analysis suggests that about one-third remained within the governorate, while another third moved to Dhamar, Ma'rib and Sana'a governorates.

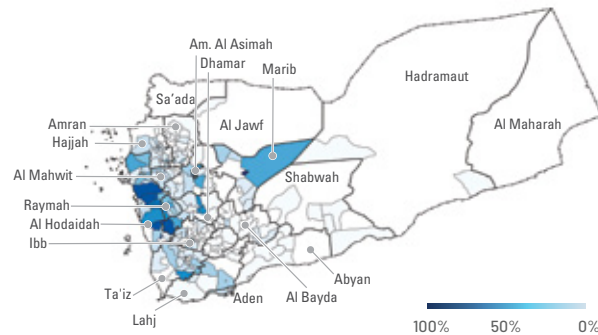
Table 2: Top 10 Governorates with the Greatest Number of Displaced Individuals from Al Hodeidah city, 2019

Top 10 Governorates with the Greatest Number of Displaced Individuals from Al Hodeidah city, 2019

#	Governorate	Total Amount of IDPs	
1	Al Hodeidah	163,170	33%
2	Dhamar	55,950	11%
3	Ma'rib	53,412	11%
4	Amanat Al Asimah	46,818	10%
5	Ta'iz	37,572	8%
6	Raymah	29,520	6%
7	Hajjah	26,418	5%
8	Sana'a	16,998	3%
9	Ibb	15,672	3%
10	Al Mahwit	13,632	3%

Source: IOM, DTM Round 37, 2019.

Figure 6: Districts that are Hosting IDPs from Al Hodeidah city, UN-Habitat (2020)



Source: IOM, DTM Round 37, 2019.

As of March 2020, Al Hodeidah is still being contested and remains an active frontline. Increased fighting in Al Hodeidah and in neighboring Ta'iz governorates has led to the displacement of more than 80,000 individuals between December 2017 and mid-March 2018.³⁴ A quarter of all civilian casualties across Yemen in 2019 were recorded in Al Hodeidah governorate.³⁵ By August of the same year, the IOM estimated that Al Hodeidah's displaced population had reached an estimated 336,846 men, women and children due to a spike in violence.³⁶ Of these individuals, 72 percent had been displaced from their homes for over two years.³⁷ Most of the displaced population has sought safety away from active frontlines by residing with relatives in neighboring areas, renting in other governorates, or finding refuge in spontaneous settlements, while others have moved towards Aden and other southern governorates.

According to the latest available IOM estimates, about 33 percent of IDPs in Al Hodeidah have ended up in settlements of grouped families (collective centers or spontaneous settlements), while 21 percent are hosted (11 percent with relatives, 10 percent with not relatives). IDPs are reportedly not residing in HFs and religious buildings. It is important to note that almost 90 percent of IDPs are located outside of Al Hodeidah city, mainly on its outskirts. Many IDPs use the last of their savings, sell family jewelry and take loans to pay up to 250 USD per family to travel.³⁸ Overall, the presence of IDPs in Al Hodeidah has increased pressure on public services, such as health care and education.

- 34 ACAPS, Thematic report: Displacement in Taizz and Al Hodeidah, March 29, 2018, https://www.acaps.org/sites/acaps/files/products/files/20180329_acaps_thematic_report_yemen_displacement_final.pdf (accessed March 22, 2020).
- 35 Oxfam, One year since Stockholm Agreement, Hodeidah still most dangerous place in Yemen for civilians, December 2019, <https://www.oxfam.org/en/press-releases/one-year-stockholm-agreement-hodeidah-still-most-dangerous-place-yemen-civilians> (accessed March 22, 2020).
- 36 IOM, Yemen: Hodeidah Displaced Population Now an Estimated 336,846, August 2018, <https://www.iom.int/news/yemen-hodeidah-displaced-population-now-estimated-336846> (accessed March 22 2020).
- 37 Shelter Projects, Yemen 2017-2018 / Multiple Crises, A.33 / Yemen 2017-2018 / Overview, http://shelterprojects.org/shelterprojects2017-2018/SP17-18_A33-Yemen-2017-2018.pdf (accessed March 23 2020).

- 38 UNHCR, Operational Update, YEMEN 1 - 14 February 2018, <https://reliefweb.int/sites/reliefweb.int/files/resources/Yemen%20Update%2014%20Feb%202018%20%28Final%29.pdf> (accessed March 24, 2020).

Table 3: Shelter Details of IDPs in Al Hodeidah Governorate, January – November 2019

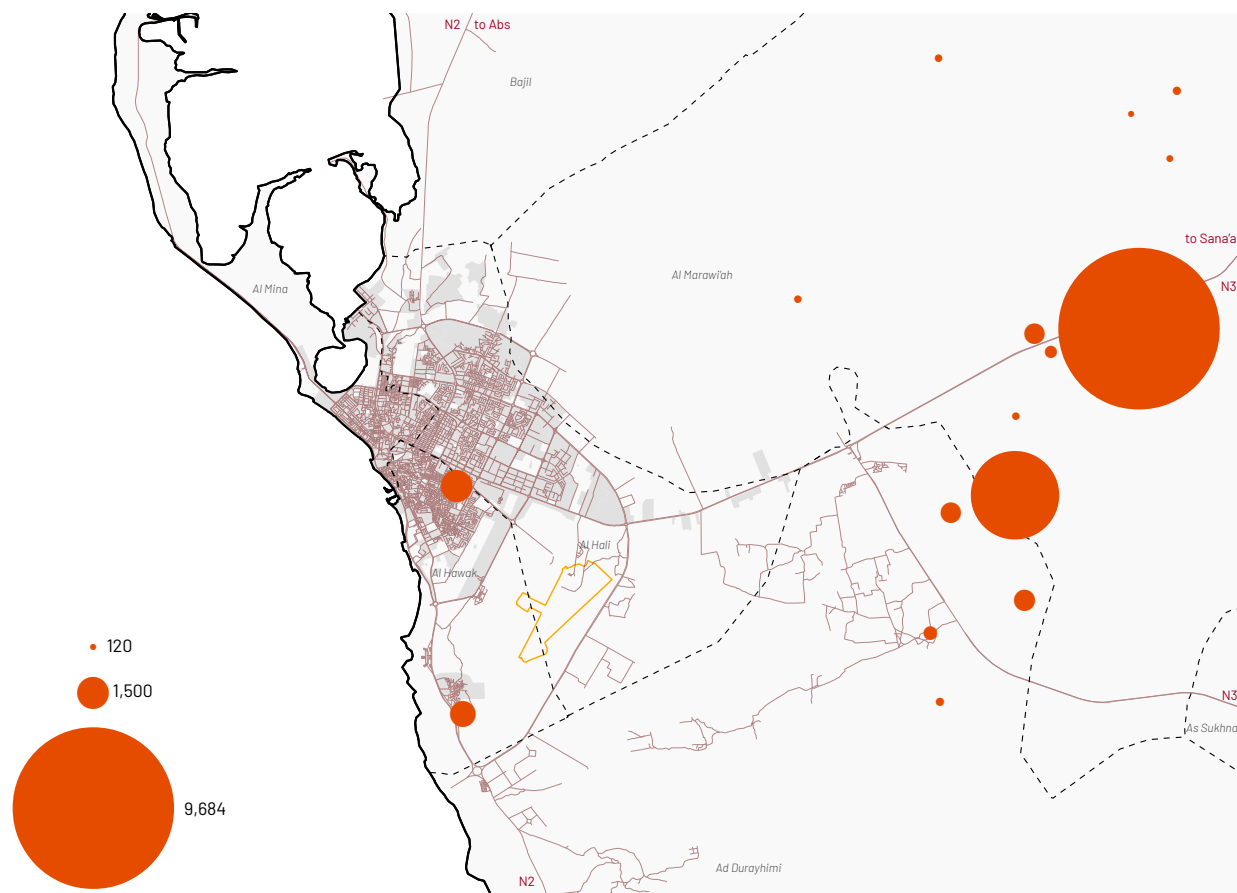
Shelter details	Number of HHs	Percentage
In Isolated/Dispersed Settlements (detached from location)	4,225	48%
In Settlements (Grouped of Families) – Urban and Rural	2,839	32%
Unknown – No data Available/No Access	802	9%
With Host Families Who Are Not Relatives	385	4%
With Host Families Who Are Relatives (No Rental Fee)	289	3%
In Rented Accommodation	255	3%
In Other Public Building	45	0.5%
In School Buildings	21	0.25%
In Other Private Building	13	0.25%
In Second Home	6	0%
In Original Home	0	0%

Source: IOM, DTM Round 37, 2019.

The volume and pace of returns will most likely depend on several factors, including access and distance to the governorate of origin, the extent that IDPs have integrated in their area of settlement (including access to livelihoods), and the duration of their displacements. The above suggests that even though at least a third of the displaced population might return soon, at least another third of the displaced population may see slower return movements. While many IDPs fled to family members' homes in neighboring areas, others who have tried to flee the city faced challenges due to high rents caused by the housing shortage in those regions, which is likely to become a push factor for returns. In July 2018, it was reported that taking a family out of Al Hodeidah to Sana'a city could cost around 60,000 YER (about 240 USD), so return costs may be of similar magnitudes.³⁹

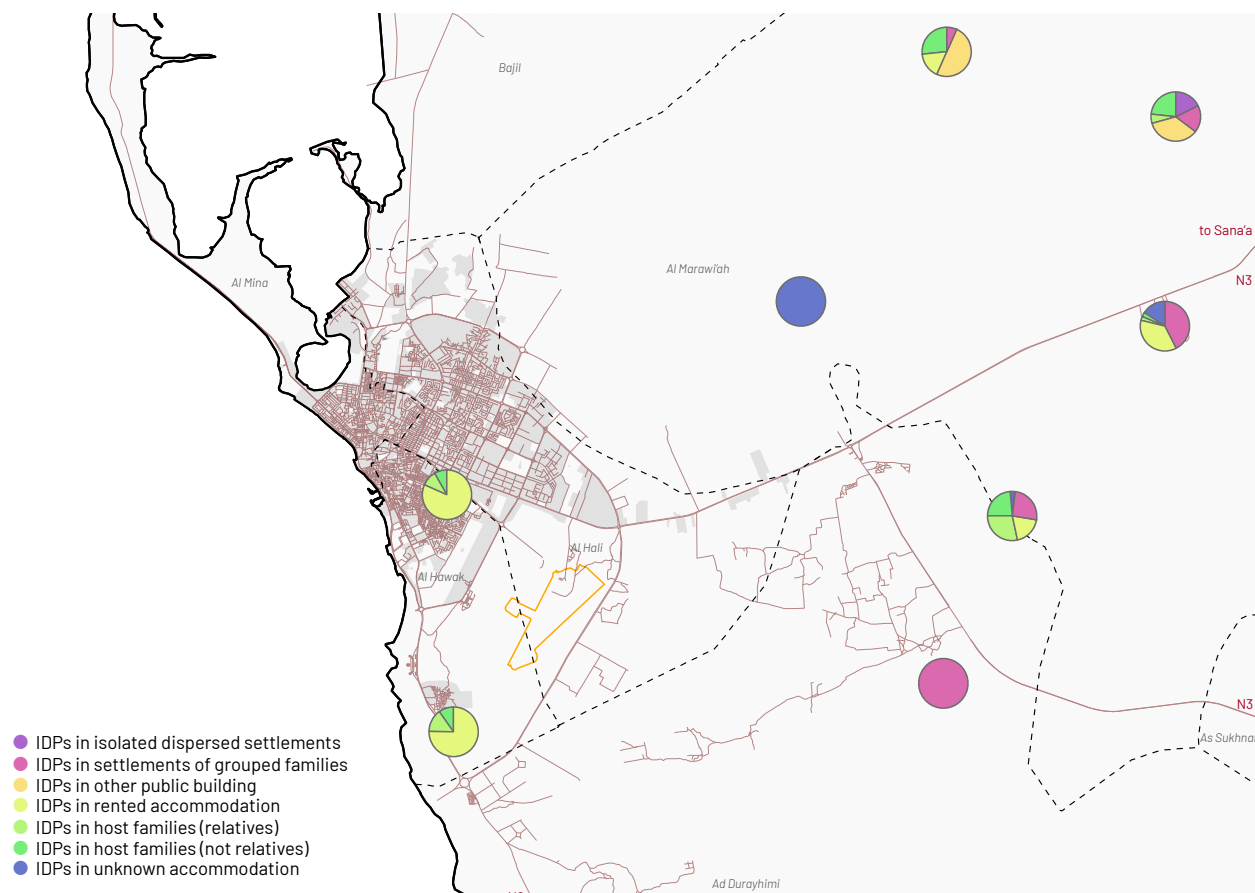
³⁹ The Globe Post, "Poor Residents Have No Means to Escape Battle for Yemen's Hodeidah", July 19, 2018, <https://theglobe-post.com/2018/07/19/yemen-hodeidah-poor-residents/> (accessed March 11, 2020).

Figure 7: IDPs Location and Number, UN-Habitat (2020)



Source: IOM, DTM Round 37, 2019

Figure 8: IDPs Accommodation Typology, UN-Habitat (2020)



Source: IOM, DTM Round 37, 2019.

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 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 107,781.⁴⁰ IOM reports that, in 2018, nearly 150,000 migrants arrived in Yemen whereas for 2017, numbers were estimated at 100,000.⁴¹ According to IOM, most migrants are from Ethiopia (an estimated 92 percent, with Somalis accounting for the rest); they travel to Yemen via smuggling routes across the Red Sea, mostly from Somalia and Djibouti.⁴²

Their ultimate destination is not Yemen, but rather KSA and other wealthy Gulf countries where they hope to find paid employment. According to IOM, most migrants who make it to Yemen are typically under 25, many of whom are children.⁴³ The mixed migration flow is mainly made up of young men, however, nearly 20 percent are women.⁴⁴ With the conflict having effects on the security and economic situation, many migrants (and refugees) find themselves without the means to provide for themselves and their families. Stranded, if possible⁴⁵, they then turn to humanitarian organizations for return assistance. For instance, in October 2019, it was reported that the United Nations High Commissioner for Refugees (UNHCR) and IOM have jointly repatriated nearly 5,000 Somali refugees by boat from Yemen to Somalia since 2017.⁴⁶ Additional October 2019 numbers available state that since October 2018, 2,691 migrants and 716 refugees in Yemen accessed protection services and voluntarily return support.⁴⁷

40 IOM, Yemen Quarterly Update: Q3 - July - September 2019, November 6, 2019, <https://www.iom.int/sites/yemen-quarterly-update-q3-july-september-2019> (accessed January 10, 2020).

41 IOM, Yemen Received More Migrants in 2018 than Europe, January 10, 2019, <https://micicinitiative.iom.int/news/yemen-received-more-migrants-2018-europe> (accessed January 10, 2020).

42 Ibid. See, also, IOM, Flow Monitoring Points, Migrant Arrivals and Yemeni Returns from KSA in November 2019, December 3, 2019, https://reliefweb.int/sites/reliefweb.int/files/resources/YE-Migrants_FMR_Nov%202019_Dashboard_Q3122019.pdf (accessed January 10, 2020).

43 Twitter, IOM Yemen, November 16, 2019, https://twitter.com/IOM_Yemen (accessed January 10, 2020).

44 Mixed Migration Centre, Record numbers of refugees and migrants arrive in Yemen amidst intensifying and complicated war, August 19, 2019, <https://reliefweb.int/report/yemen/record-numbers-refugees-and-migrants-arrive-yemen-amidst-intensifying-and-complicated> (accessed January 10, 2020).

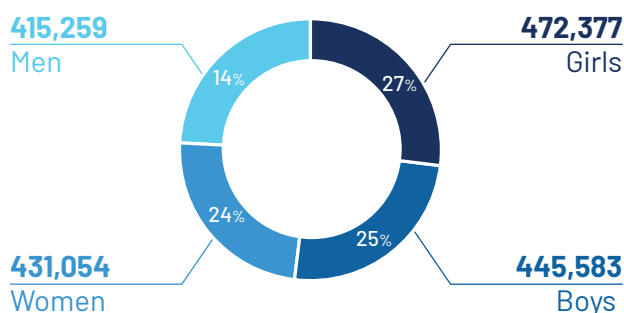
45 It should be noted that (inter)national media reports that (African) migrants are often subjected to serious human rights violations, including e.g. arbitrary detention in poor conditions, including in Al Hodeidah city; see, e.g., Human Rights Watch, Yemen: Detained African Migrants Tortured, April 17, 2018, <https://www.hrw.org/news/2018/04/17/yemen-detained-african-migrants-tortured-raped> (accessed January 10, 2020).

46 Voice of America, Scores of Somali Refugees Return Home from Yemen, October 5, 2019, <https://www.voanews.com/africa/scores-somali-refugees-return-home-yemen> (accessed January 10, 2020).

47 Twitter, IOM Yemen, October 9, 2019, https://twitter.com/IOM_Yemen (accessed January 10, 2020).

Yemen, including Al Hodeidah, is facing the world's largest protection crisis⁴⁸, with potential widespread violations of International Humanitarian Law (IHL) and International Human Rights Law (IHRL), forced displacement, and weak rule of law.⁴⁹

Figure 9: Population in Need of Protection Assistance in Al Hodeidah Governorate, 2019



Source: HNO data, 2019.

Latest available HNO data estimates the current population in Al Hodeidah Governorate at 2,985,122 out of which 1,239,513 (42 percent) are in acute need and 524,760 (18 percent) are in moderate need in terms of protection assistance.⁵⁰ 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).⁵¹ In Al Hodeidah Governorate specifically, those most in need of protection assistance are girls (472,377 – 27 percent), followed by boys (445,583 – 25 percent), women (431,054 – 24 percent), and then men (415,259 – 14 percent).⁵² Due to a lack of protection, child recruitment into armed groups, increased child labor, and early marriage are on the rise, in addition to arbitrary arrests and detention, trafficking and smuggling, enforced disappearances, and gender-based violence (GBV).⁵³

In Al Hodeidah specifically, airstrikes and indiscriminate use of IEDs in populated areas have affected and continue to affect civilians and critical civilian infrastructure, such as HFs, and food and livelihoods infrastructures. Moreover, the presence of landmines has prevented humanitarian organizations from reaching communities in need along the western coast⁵⁴ while since January 2018, 114 deaths and 56 injuries by landmines were reported in Al Hodeidah Governorate.

48 UNHCR, Yemen Factsheet, January 2019, <http://reporting.unhcr.org/sites/default/files/UNHCR%20Yemen%20Fact%20sheet%20-%20January%202019.pdf> (accessed January 12, 2020).

49 Sida, YEMEN HUMANITARIAN CRISIS ANALYSIS 2019, December 2018, <https://www.sida.se/globalassets/sida/eng/how-we-work/humanitarian-aid/hca-2019/hca-yemen-2019.pdf> (accessed January 12, 2020).

50 HNO data 2019.

51 UNOCHA, Humanitarian Update Covering 24 January – 19 February 2019, Issue 3, https://reliefweb.int/sites/reliefweb.int/files/resources/Issue_03FINAL.pdf (accessed January 12, 2020).

52 HNO data 2019.

53 Ibid.

54 Human Rights Watch, Yemen: Houthi Landmines Kill Civilians, Block Aid, April 22, 2019, <https://www.hrw.org/news/2019/04/22/yemen-houthi-landmines-kill-civilians-block-aid> (accessed January 12, 2020).

Children

Children have been frequently targeted in the conflict. Save the Children reported in 2019 that Al Hodeidah and Ta'iz are the two deadliest areas for children in Yemen.⁵⁵ Despite the signing of the Stockholm agreement in December 2018, some 56 children were killed and 170 injured between January and October 2019 as a direct result of fighting in Al Hodeidah. The United Nations Children's Fund (UNICEF), on December 3, 2019, reports⁵⁶ that 2,700 boys were recruited into armed forces and groups (some of those children being as young as 10 years old⁵⁷). The actual extent of grave violations of children's rights is almost certainly far higher than reported; underreporting is attributed to a lack of access in some conflict-affected communities and sensitivities around protection issues.⁵⁸

In some instances, employers forced children into domestic servitude and agricultural work and women into domestic servitude or prostitution.⁵⁹

55 Save the Children, Stockholm one year on: 33 children killed or injured every month in deadliest Yemeni towns, December 9, 2019, <https://reliefweb.int/report/yemen/stockholm-one-year-33-children-killed-or-injured-every-month-deadliest-yemeni-towns> (accessed March 20, 2020).

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

57 UNSC, Children and Armed Conflict in Yemen, S/2019/453, June 3, 2019, <https://reliefweb.int/sites/reliefweb.int/files/resources/N1916123.pdf> (accessed March 24, 2020).

58 UNOCHA, Humanitarian Needs Overview 2019, https://reliefweb.int/sites/reliefweb.int/files/resources/2019_Yemen_HNO_FINAL.pdf (accessed March 24, 2020).

59 USDOS, Country Report on Human Rights Practices 2018 – Yemen, <https://www.ecoi.net/en/document/2004222.html> (accessed March 23, 2020).

Women and Girls

After almost half a decade of conflict and economic decline, women and girls are now confronted with even more complex risks and vulnerabilities. Open source information reports that dozens of women are held without bringing them to trial or charging them with a crime⁶⁰; in Al Hodeidah city specifically, regional media reports that 12 women are imprisoned.⁶¹ The prevailing security situation and economic conditions have had a significant deteriorating impact on women's and girls' access to basic services and resources. The conflict has led to a rise in child marriage and to a 63 percent increase in incidents of GBV against women.⁶² Comparatively, men are more affected by movement restrictions as they are at a higher risk of being forcibly deported or detained. However, as a result, women increasingly have had to travel alone to access services, thereby increasing their risk of GBV on roads or at checkpoints. Women and girls are at greater risk of protection as well as health threats in areas where they are responsible for fetching water and fuel. Their ability to reach health, nutrition, and other basic services remains a challenge due to distance and lack of financial means to afford transport. With limited shelter options, female IDPs tend to suffer most from lack of privacy, threats to safety and limited access to basic services – especially in overcrowded collective centers. Displaced women and girls from marginalized groups or with disabilities struggle even more to secure access to services.

A recent report by Oxfam states that the conflict has led to an increase in child marriage as families are seeking dowry payments to cope with conflict-related hardship and to protect their daughters from harassment and destitution.⁶³ Research by INTERSOS suggests that prior to the conflict the practice of early marriage had reduced but that the conflict reversed this trend as a result of poverty and social insecurity.⁶⁴ A report by the Women's National Commission (WNC) for on violations against women confirmed the absence of services provided to victims in cases of physical abuse and sexual harassment, including legal and health support - local culture prevents reporting of crimes of sexual violence - a cycle that perpetuates violence against the disenfranchised and the displaced.⁶⁵ Girls who have been displaced are disproportionately suffering not just directly due to the conflict and humanitarian crisis but also as a target, both at the HH and societal level, for violence, abuse and exploitation.⁶⁶

60 Associated Press, "Yemeni group: Houthi rebels hold, torture female detainees", January 17, 2019, <https://apnews.com/0b4af81e4c1a4e5abce813d5eacdd975> (accessed March 24, 2020).

61 Middle East Eye, "Scores of Yemeni women arrested by Houthis in 'political' anti-sex work campaign", June 17, 2019, <https://www.middleeasteye.net/news/women-face-sex-work-accusation-houthi-prisons> (accessed March 24, 2020).

62 UNFPA, Two-year conflict in Yemen's takes heaviest toll on women and girls, March 27, 2017, <https://yemen.unfpa.org/en/news/two-year-conflict-yemen%E2%80%99s-takes-heaviest-toll-women-and-girls> (accessed March 22, 2020).

63 Moodley, S. "Picking up the pieces: What Yemenis need to rebuild their lives in a country torn apart by conflict", Oxfam, 2016. <http://reliefweb.int/sites/reliefweb.int/files/resources/bp-yemen-picking-up-the-pieces-210916-en.pdf> (accessed March 22, 2020).

64 INTERSOS & UNFPA, Strengthen Prevention and Response to Gender Based Violence in Yemen: Thematic Assessment GBV – Child Marriage, 2016.

65 Al Ain Alikhbariya. "النساء النازحات في اليمن.. ضحايا النظرات الرخيصة", March 2019, <https://al-ain.com/article/yemen-women-displaced> (accessed March 24, 2020).

66 UNFPA, Humanitarian Crisis in Yemen: Preventing Gender-based Violence & Strengthening the Response, October 2016, <https://yemen.unfpa.org/sites/default/files/resource-pdf/Final%20GBV%20Sub-Cluster-%20Yemen%20Crisis-Preventing%20GBV%20and%20Strengthening%20the%20Response.pdf> (accessed March 24, 2020).

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 group⁶⁷, 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 Muhamasheen⁶⁸, and in 2014, UNICEF estimated the Muhamasheen population constituted some 10 percent of the population.⁶⁹

Muhamasheen communities are present in every Yemeni governorate, including with large numbers in Al Hodeidah Governorate and neighboring governorates of Ta'iz and Hajjah. Historically, the Muhamasheen have mostly lived in very poor conditions in segregated slums on the periphery of urban areas, including Al Hodeidah city. Slums consist of small huts haphazardly built of wood and cloth where few basic services were available. Prior to the onset of the conflict, it was estimated 80 percent of Muhamasheen in Al Hodeidah were landless.⁷⁰ Many Muhamasheen are unemployed and 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 washing⁷¹ and additionally are employed as agricultural laborers or sharecroppers with low wages.

Large numbers of Muhamasheen have been displaced due to the conflict in Al Hodeidah. However, reports indicate that they are being prevented by other IDPs from having access to IDP camps or shelter in "collective centers", located in schools, HFs, religious buildings, and vacant public and private buildings, despite other non-Muhamasheen IDPs being allowed to do so.⁷² As such, displaced Muhamasheen are forced into "spontaneous settlements" and have had to reside in open farmlands, parks, and other public spaces, where they have faced hostility from the local community (or landowners) and where it is very challenging to access basic services.⁷³

67 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 24, 2020).

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

69 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 24, 2020).

70 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 9, 2020).

71 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 24, 2020).

72 Ibid.

73 NRC, *REPAIRING FRACTURED LANDSCAPES: Challenges and opportunities for resolving disputes over land, housing, water and other natural resources in Yemen*, April 2019, <https://www.nrc.no/globalassets/pdf/reports/repairing-fractured-landscapes/repairing-fractured-landscapes---challenges-and-opportunities-for-resolving-disputes-over-land-housing-water-and-other-natural-resources-in-yemen.pdf> (accessed March 24, 2020).

Survivors of Violence

Reported cases of GBV 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.⁷⁴ 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.⁷⁵ 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).⁷⁶ 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.⁷⁷

74 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-YEMEN-2019-10-04-1718.pdf> (accessed March 24, 2020).

75 UNOCHA, Humanitarian Needs Overview 2019, https://reliefweb.int/sites/reliefweb.int/files/resources/2019_Yemen_HNO_FINAL.pdf (accessed March 24, 2020).

76 Ibid.

77 IRC, *Protection, Participation and Potential Women and Girls in Yemen's War*, January 2019, <https://www.rescue.org/sites/default/files/document/3550/yemenwomenandgirlspolicy-brieffinalreadyfordissemination.pdf> (March 24, 2020).

Highlights

- With the increasing humanitarian needs in Yemen, international support efforts focus mostly on the immediate humanitarian response. In this context, it is important to focus efforts on developing mechanisms and models for local governance and social cohesion among different tribal members and mitigate risks that youth and vulnerable groups face;
- With current funds, the LC cannot deliver anticipated services. Dedicated funds to the local governance should be managed and properly planned;
- Significant levels of political corruption exist in the judiciary system, including embezzlement of judiciary funds and bribery;
- Ten out of twenty-six districts in Al Hodeidah Governorate do not have primary courts;
- Independence of the LC from the fighting factions on the ground is crucial to be able to provide services without interruptions to all people equally.

Legal Framework

During the interim years between 1990 (unification) and 2001, a newly united Yemen organized three national elections, two parliamentary and one presidential. Following the civil war in 1994, former President Saleh carried out a large-scale restructuring of the southern administration. Firstly, he ended the central administrative role that the former capital, Aden, had played in the five outlying southern governorates: Lahj, Abyan, Shabwah, Hadramawt and Al Maharah, consolidating power and resources in Yemen at the central level.⁷⁸

The state had previously responded to calls for decentralization in 2000 with the Local Authority Law (LAL). After 2002, when LAL specified establishment of 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 of 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.

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.

Additionally, while elected officials were able to discuss public issues in various Governorate and District Council meetings, as well as with district residents, they lacked the authority to fire centrally appointed local officials (e.g., directors of health, education, security). LC members can submit a vote of no confidence to make sure that terms of local officials are not further extended.⁷⁹

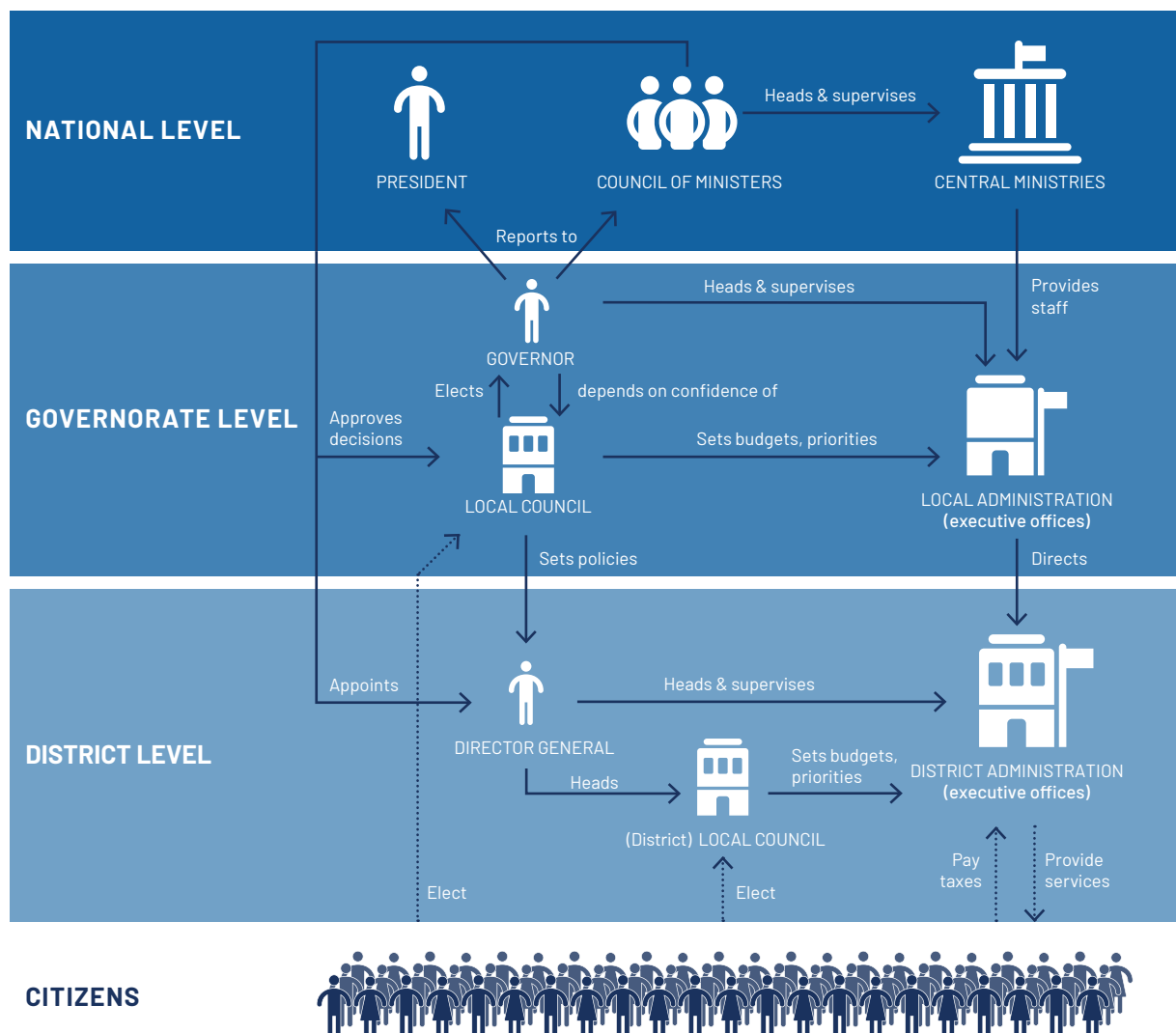
Furthermore, as per the LAL amendment in 2002, Governorate and District LCs were no longer in charge of overseeing the police chiefs in their respective communities who historically come from outside southern Yemen.⁸⁰

78 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).

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

80 Ibid.

Figure 10: Local governance in Yemen according to Laws 4/2000 and 18/2008



Source: Berghof Foundation Operations GmbH, 2019.

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.

But 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.

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. In 2006, terms were extended to six years, though representatives may run for reelection at the end of their term. 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. Since 2011, and despite 2008 amendments, governors have been appointed by presidential decree.

According to Article 38 LAL, after the electoral college elects the Governor, the announced winner is confirmed to the post by presidential decree. Yet, because Governors rank as Cabinet Ministers, in practice, few have ever been elected in this manner. Former President Saleh initially reluctantly upheld the letter of the law for most of the 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 LC. The same law upholds the right of the President to appoint officials at lower district posts as well.

Since the 2011 revolution and the intensified fights that followed since 2014, new elections scheduled for 2012 never occurred. As a result, elected council members elected in 2006 are still legally in office until today, although a lot of them have passed away, fled the country or have been displaced because of war.⁸¹

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; 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 LCs, 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 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 LCs 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 enough to address and alleviate local issues.

Although LCs in theory are 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. 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.

81 Ibid.

Current Operations

Financial support from the central government to LCs was cut in half in 2015, while LCs were instructed to keep only the basic operating costs of their business. Furthermore, the Houthis have depleted state revenues to finance their military efforts at the expense of basic services.

After the Houthis took over Sana'a in 2014, they formed a Supreme Revolutionary Committee (SRC) and later Supreme Political Council (SPC) to serve as Yemen's interim authority, who were afforded the responsibility for making security appointments, among other tasks. The SPC, however, disregarded governorate-level security and public service rules and regulations in personnel appointments.⁸² The above has deleteriously impacted the LC's ability to provide essential services to their communities, thus undermining the trust of Yemeni citizens in state institutions. Nevertheless, LCs 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 humanitarian aid on the frontlines, and facilitated prisoner exchanges between different groups which strengthened the coherence of the social fabric.

Additionally, they supported in distributing aid directly to the beneficiaries on the ground in coordination with humanitarian actors. A good example came in April 2016, when 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.⁸³

Some media sources reported that an expanded meeting took place in areas controlled by the internationally recognized government, in September 2019, to activate the role of LCs, by rearranging administrative and functional work in the central districts of the governorate. Media also highlighted 20 rural water projects and the President's Samad project to establish a new kidney dialysis center in the commercial district of Al Hodeidah city, road construction and asphalt projects and other service and agricultural projects.⁸⁴

The Tihama Movement

Another faction playing a major role in Al Hodeidah is the Tihama Movement. The associated Tihama Resistance Council is a political organization that seeks to improve the conditions of the residents of "Tihama", which is the historical name for the Red Sea coastal plain region that runs from southwest coastal KSA to the area of Al Hodeidah. The Resistance Council also enlists local Yemeni forces to fight with the coalition, and its fighters are trained by the UAE.⁸⁵ The Tihama Movement reportedly seeks an increased local rule for its region in a future federal governing structure for Yemen and the end of what it views as the historical social and economic exploitation of this area by a succession of Yemeni governments.

Courts

Ten out of twenty-six districts (38 percent) in Al Hodeidah Governorate currently do not have primary courts.⁸⁶ With the continuously weakening formal justice system, residents are increasingly relying on community leaders, such as tribal sheikhs, A'aeels, and security leaders, to arbitrate conflicts between individuals. In this context, wives of A'aeels and sheikhs often play a complementary role to their husbands, conducting case intake and investigation for cases involving women.⁸⁷ However, while communities cannot depend on these mechanisms in a systematic and sustained manner⁸⁸, significant levels of political corruption exist in and with regard to the judiciary, including embezzlement of judiciary funds. Furthermore, nepotism and cronyism in judicial, prosecutorial, and other staff appointments as well as the use of political influence to subvert or influence the proper application of the law have been noted.⁸⁹

The rule of law has generally weakened since 2011, with increased incidents of land grabbing and other forms of criminality, while the precariousness of the security situation has created opportunities for powerful actors to influence court proceedings.⁹⁰ Even though police and security are to some extent present throughout the governorate, law enforcement is ineffective in many areas. As an example, militias have reportedly extorted landowners for 'protection' instead of seizing the lands, while Al Hodeidah's local authorities (customary and state) expressed they were unable to resolve these kinds of disputes.⁹¹

82 Ali Abdullah et al., "Diplomacy Sinking at Hudaydah Port", Sana'a Center for Strategic Studies, February 2019, p. 8.

83 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).

84 "الحديقة: لقاء موسع للمجالس المحلية بمديرية ميناء والحي والحوك", Al Hodeidah News, September 3, 2019 (accessed March 26, 2020).

85 Nicholas A. Heras, "The Tihama Resistance Council: Muhammad Ammar Muamen's Fight for al-Hudaydah", The Jamestown Foundation, June 7, 2018, <https://jamestown.org/brief/the-tihama-resistance-council-muhammad-ammar-muamens-fight-for-al-hudaydah/>, (accessed February 19, 2020).

86 Gaston, Erica et al., "Justice in Transition – a Mapping of Local Justice Functioning in Ten Governorates", Peaceworks, USIP, 2014.

87 NRC, Repairing Fractured Landscapes. Challenges and opportunities for resolving disputes over land, housing, water and other natural resources in Yemen, 2019.

88 The World Bank Group, DNA: Phase 3, (Washington DC: World Bank: 2018).

89 Gaston, Erica et al., "Justice in Transition – a Mapping of Local Justice Functioning in Ten Governorates", Peaceworks, USIP, 2014.

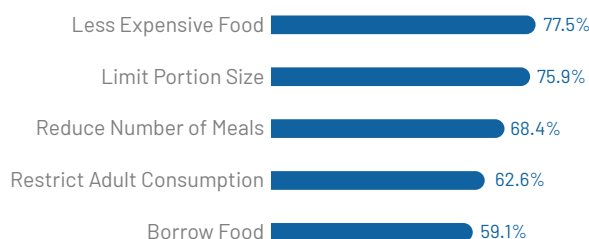
90 Ibid.

91 Ibid.

Background

Social resilience in Al Hodeidah is challenged by a combination of factors. Active conflict, risk of famine, disease outbreak, and collapsing basic services and institutions present multiple threats to human security and vulnerability in the city. Layers of vulnerability have resulted from the loss of heads of HHs, primary care givers or earning family members. Furthermore, the breakdown of community support structures has forced people to resort to adverse coping mechanisms, such as child labor, recruitment by armed groups, child marriage, and has put persons at risk of exploitation and family violence. The deteriorating economic support structure has undermined social resilience, increased the price of goods, and led to the closure of businesses as purchasing power has fallen drastically.

Figure 11: Negative Coping Strategies Used by Families in Al Hodeidah Governorate, 2018



Source: WFP, mVAM Bulletin #29, 2018.

For example, Al Hodeidah's public servant salary payments and social benefits have stopped since late 2016, an important pre-crisis source of income. Collectively, these issues have increased the average number of family dependents to 13:1,⁹² placing serious economic and social pressures on HHs. The number of HHs resorting to negative coping mechanisms such as selling assets, reducing food and clean water, and taking up debt have increased significantly since the onset of the conflict. Al Hodeidah shows a high score in the World Food Program (WFP) reduced coping strategies index that considers indicators such as buying less expensive food, limiting portion sizes, reducing the number of meals, borrowing food, and restricting adult food consumption.⁹³

The recent conflict in Al Hodeidah has also further burdened the Muhamasheen, many of whom continue to live in abandoned buildings, make-shift tents and public spaces. They are reportedly turned away by schools and hospitals, and have difficulty accessing aid from humanitarian organizations due to discrimination. This minority group, which has traditionally faced caste-based discrimination, was highly represented in Al Hodeidah, and displaced early in the conflict. Their condition is underreported, and it is unclear where they settled, although it is likely that at least some of them remained in the governorate.

Social media reports suggest that residents in Al Hodeidah occasionally come together to carry out basic rehabilitation projects in their neighborhoods, such as unblocking sewage pipes. Similar reports mention the Al Hodeidah Municipal Services Department mobilizes the local population to help regulate and report solid waste accumulation in public areas. Many schools have organized schoolyard cleanup campaigns for their students. Yet, there is no widespread evidence of sustained collective action at the community level. Instead, residents seem to be reaching beyond community-level mechanisms to depend on support provided by national and international Non-Governmental Organizations (NGOs).⁹⁴

92 UNDP, LIVELIHOOD IMPACT ASSESSMENT 2019, <https://yemen.un.org/sites/default/files/2019-09/Livelihoods%20Impact%20Assessment%202019.pdf> (accessed March 23, 2020).

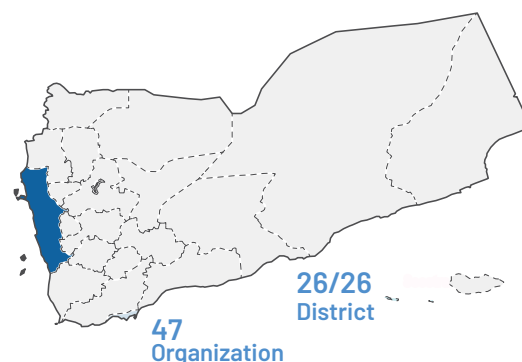
93 WFP, Yemen mVAM Bulletin #29, January 2018, <https://dataviz.vam.wfp.org/yemen-mvam-bulletin-29-jan-2018> (accessed March 23, 2020).










94 The World Bank Group, DNA: Phase 2, (Washington DC: IBRD, The World Bank: 2017).

List of Civil Society Organizations Active in Al Hodeidah:

- Food for Humanity Foundation (FHF)
- Yemen Women Union (YWU)
- Jeel AlBena Foundation (JAF)
- (Estijabah) Network for Humanitarian Aid Relief
- Yemen Executive Mine Action Center: (YEMAC)
- Medical Mercy Foundation Yemen (MMFY)
- National Foundation for Development and Human Response (NFDHR)
- Responsiveness for Relief and Development (RRD)
- Yemen Family Care Association (YFCA)
- Alaman Organization for Blind Women Care (AOBAC)
- Abs Development Organization (ADO)
- Ghadaq For Development
- Humanitarian Cooperation for Development
- National Foundation for Development and Human Response (NFDHR)
- Life Makers Meeting Place Organization (LMMPO)
- Social Development Hodeidah Girls Foundation (SDHGF)
- Building foundation for Development (BFD)
- Yemen Family Care Association (YFCA)
- All Girls Foundation for Development (AGFD)
- Taybah Foundation for Development (Taybah)
- Sustainable Development Foundation (SDF)

Table 4: Organizations Active in Al Hodeidah Governorate, 2018



	FAO, WFP, CARE, IRY, MC, PU-AMI, SCI, VHI, ADO, Ghadaq, HC4D, LMMPO, NFDHR
	IOM, UNFPA, UNICEF, WHO, ACF-F, ADD, ADRA, FHI360, IRC, PU-AMI, QRCS, SCI, BFD, MMFY, NFDHR, RRD, YFCA
	UNICEF, ACF-F, ADRA, CARE, IRC, OXFAM, SI, VHI, ZOA, AGFD, estijbah, NFDHR, SDHGF, SFD, Taybah
	OHCHR, UN WOMEN, UNFPA, UNHCR, UNICEF, DRC, SCI, AOBWC, SDF, SDHGF, YWU
	UNICEF, WHO, ACF-F, IRY, PU-AMI, ADO, BFD, MMFY, Tabah
	UNHCR, HAY, QRCS, JAF
	SFD
	UNDP, YEMAC
	IOM, UNHCR

Source: UNOCHA, 2018.

Women's Empowerment Organizations

Informal groups of women have reportedly monitored the destruction of civilian infrastructure and have helped vulnerable people earn an income; additionally, these groups have assisted detained women to get out of police stations, ensuring that they do not face harm in detention. In some cases, such informal groups also play a role in managing local conflicts that have flared up due to the intense financial pressures on families and communities.⁹⁵

Yemen Women's Union (YWU)⁹⁶ has branches throughout Yemen with an overall objective of promoting women's rights and empowering women. Through the work of its branches, YWU's programs support conflict-affected and displaced persons, women and children, educate and assist in terms of multi-sectoral GBV and other sectoral programming. Since 2012, and with the support of UNFPA, YWU has been raising awareness in communities on harmful practices in society using interactive theatres; trained professional actors and actresses as well as personnel engage with and manage audience participation, raising community awareness on sensitive issues such as child marriage and female genital mutilation. To date, this interactive form of raising awareness has been used in Al Hodeidah - where 44 percent of all marriages involve girls under the age of 15.⁹⁷ Local child protection and empowerment organizations are limited; however, the Al Hodeidah Girls Foundation⁹⁸ seeks to activate the role of women in society and promote capacity building, cultural and social empowerment of girls in the area.

95 Oxfam, "WE WON'T WAIT - As war ravages Yemen, its women strive to build peace", January 2017, https://d1tn3vj7xz9fdh.cloudfront.net/s3fs-public/file_attachments/bp-yemen-women-in-peacebuilding-300117-en_0.pdf (accessed March 24, 2020).

96 UN Women, "Women National Committee Yemen", <https://evaw-global-database.unwomen.org/fr/countries/asia/yemen/1996/women-national-committee> (accessed March 24, 2020).

97 UNOCHA, Humanitarian Needs Overview 2018, December 2017, https://reliefweb.int/sites/reliefweb.int/files/resources/yemen_humanitarian_needs_overview_hno_2018_20171204_0.pdf (accessed March 24, 2020).

98 UN Women, "Yemeni women leaders call for recognition and support of women-led organizations as part of humanitarian response in Yemen", 2019, <https://reliefweb.int/report/yemen/yemeni-women-leaders-call-recognition-and-support-women-led-organizations-part> (accessed March 24, 2020).

Al Hodeidah is well known for its rich history and strategic Ahmad Port which survived many battles in terms of groups trying to seize control over it. Although Al Hodeidah had 37 castles and fortresses to protect the city from the invaders for much of its lifetime, most of its historical sites are outside of the city. These castles suffer widely from negligence and lack of funding for maintenance, while some of these sites were damaged or destroyed as a result of the conflict. After a fire in 1961 damaged most of the city, some historical sites were 'discarded' in a reconstruction process dominated by the Soviet Union, who did not prioritize Yemeni architectural history.⁹⁹

Some of Al Hodeidah's important historical sites include:¹⁰⁰

Figure 12:



Source: Al Mitraq Water Tank, Al Hodeidah News, 2013

Water tanks: The water in the city was very salty, so the drinking water was brought from Al Hali district, 3km from city center. The water drained from a well was poured into an underground crypt linked to the city. Imam Yahya Bin Mohammed Hamid Al-Din ordered the construction of the underground crypt, in addition to two water tanks: the first next to Gate Al Musharraf, and the second in Al Sadiqiyyah neighborhood near the former Al Saifiyya school, currently known as Khawla bint Al Azwar school. During the reign of Imam Ahmed bin Yahya bin Hamid Al-Din, eight water tanks were built: two in Al Hawak, and one in each of the following areas: Al-Mitraq, the hospital, Al Aradi, Dar Al Nasr, Dar Al Nuzha, and Maqam Sharif.

The water tanks were built from hardstones brought from As Salif and Kamran districts. It consists of an underground conclave that could be entered via a stone staircase, leading to the water reservoir decorated with coral reefs brought from the sea. At the top, the dome is built of brick and clay.

The water tanks were used until the 1980s; only four of them are left and are in bad condition as they are neglected and used as dumpsters, which pose a threat to the health of people and the environment. Al Mitraq water tank is in the worst condition of the four. In addition to functioning as an illegal dumping site, a number of settlements and shops have been built around it, clearly showing a lack of coordination between different authorities. As it falls under the mandate of Al Awqaf ministry, however department of Land owns the land and Public work office provides building permits and clearances.¹⁰¹

99 Diana Alghoul, "Yemen's Al-Hudaydah: A child's worst nightmare", Middle East Monitor, October 22, 2016, <https://www.middleeastmonitor.com/20161022-yemens-al-hudaydah-a-childs-worst-nightmare/> (accessed March 17, 2020).

100 Focus in this profile are on the monuments within the boundaries of Al Hodeidah city or significant important sites in Al Hodeidah governorate.

101 Mustafa Budair, "مدنات المياه الأثرية بالحديدة... مطامع للنهالين", December 3, 2014, <https://mandabpress.com/m/news535.html> (accessed March 17, 2020).

Al Hawak district

Corniche (Al Hodeidah castle)

The Corniche Castle in Al Hodeidah is located on a high hill on the city's corniche, near the fishing port. According to historical sources, it was built in 1538, during the period of the first Ottoman presence in Yemen, to protect the city. It was used as a prison during the rule of the Ottomans and Imamates, and today serves as a governmental complex.

It is built of bricks, clay and lime mortar, and fortified with a large wall surrounding it from all directions, in addition to small rectangular windows for guards. It was renovated several times (though timeframes are unknown), maintaining the same architectural character, to prepare it as a center for crafts, handicrafts and tourism.

The castle still stands today, despite being subjected to different types of violations and attacks, while other castles in the city are totally or partially damaged.¹⁰²

Al Hodeidah Museum

Al Hodeidah Museum is one of the ancient buildings in Al Hodeidah city, and is considered one of its landmarks. Its construction dates to the period of the Ottoman presence in Yemen where it served as a center for collecting funds, and during the era of the imams, and it was used to oversee the old port in front of it. After unification, the building was used by the Ministry of Education (MoE). It consists of two floors and its main façade has three wooden exterior balconies and one small dome. There were some renovation plans to turn the museum into a regional one.¹⁰³



Source: Corniche (Al Hodeidah castle), Yemen Al Ghad, 2018.

¹⁰² Hani Riyad, Al Ain, "صامدة في وجه الغزاة طوال 500 عام قلعة الكورنيش الأثرية بالحديدة.. صامدة في وجه الغزاة طوال 500 عام", June 25, 2018, <https://al-ain.com/article/al-Hodeidah-castle> (accessed March 17, 2020).

¹⁰³ Muhammed bin Mohammed Alarshi, "منتدى تهامة للإبداع والتنمية الثقافية", September 7, 2012, http://alarachi.mak-tooblog.com/?fbclid=IwAR0gD0I2zPsl1pc3UiWQSZbTMnUZ-rhCfsQvdgXwtKsdB0xDM-seFmGZo9_E (accessed March 17, 2020).

Al Mina district

The Military Hospital

It was built during the second half of the nineteenth century, and the English writer John Baldry described it in one of his articles "as the most magnificent military hospital". On August 15, 1912, the Italians in their war with the Ottomans, bombed the hospital and destroyed it completely. In 1941, Imam Yahya bin Muhammad Hamid Al-Din" laid the foundation stone for rebuilding the hospital and it was rebuilt under supervision of Al Hodeidah Brigade, Saif al-Islam, Abdullah bin Yahya bin Hamid Al-Din.

Gate of Musharraf castle

This was one of the fortresses built in the 1550s during the first Ottoman era on the ancient wall that surrounded the oldest neighborhoods of the city, but the wall was destroyed and vanished. After 300 years, only the gate of Musharraf built by Sharif Al-Hussein bin Ali Al-Khairati still stands, in addition to the castle tower. The tower consists of two floors built from red bricks and is currently used as a police station. However, the building is neglected and not well preserved. Furthermore, commercial shops are being build adjacent to the gate using different materials from the gate.¹⁰⁴

104 Hasan Yahya, Al Hodeida news, **آثار تهاجمه..شواهد لحضارة عريقة منذ القدم**, July 29, 2019, <https://hod-news.com/%D8%A7%D8%AE%D8%A8%D8%A7%D8%B1-%D8%A7%D9%84%D8%AD%D8%AF%D9%8A%D8%AF%D9%87/%D8%A2%D8%AB%D8%A7%D8%B1-%D8%AA%D9%87%D8%A7%D9%85%D9%87-%D8%B4%D9%88%D8%A7%D9%87%D8%AF-%D9%84%D8%AD%D8%B6%D8%A7%D8%B1%D8%A9-%D8%B9%D8%B1%D9%8A%D9%82%D8%A9-%D9%85%D9%86%D8%B0-%D8%A7%D9%84%D9%82%D8%AF/>, (accessed March 17, 2020).

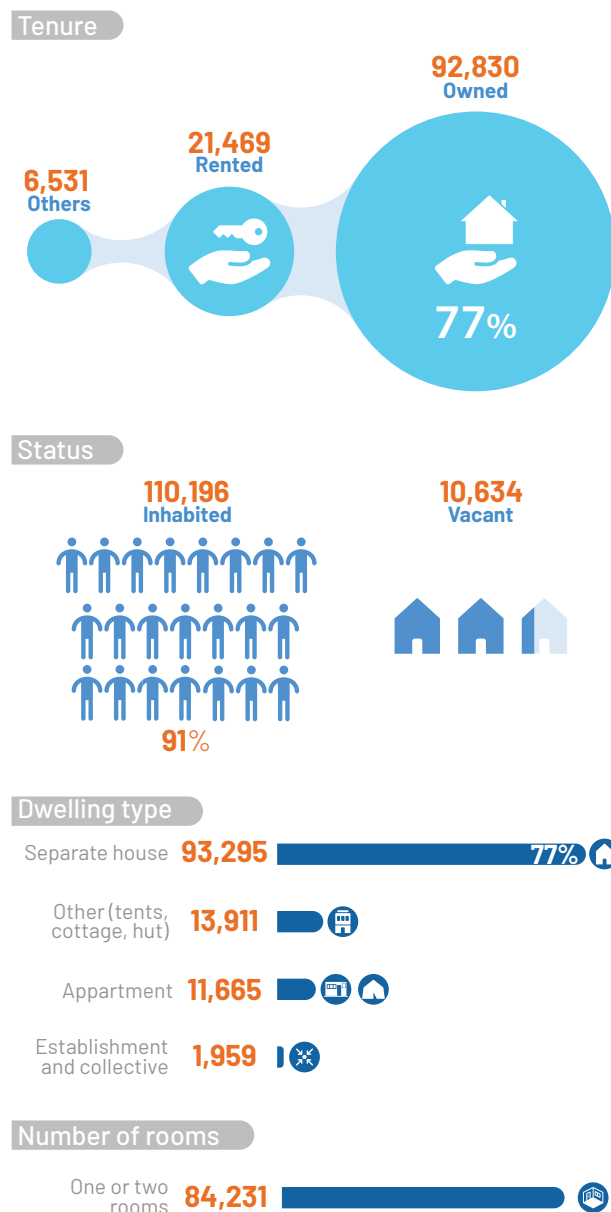
8 Housing, Land and Property (HLP)

Al Hodeidah has always been an area of attraction to migrants and there has been considerable rural urban migration over the years as the importance of coastal activities declined in relation to opportunities available in urban centers.

Ownership rates of houses in Al Hodeidah are high, as more than three quarters (77 percent) of the housing in urban areas in Al Hodeidah governorate, most of which are separate houses, are owned by the inhabitants. The city has relatively few apartment buildings compared to for example Ta'iz and Sana'a. As the area lies on more friendly terrain compared to Sana'a and Ta'iz, it is likely that a smoother land price gradient has led to lower incentives for multiple story buildings. Furthermore, compared to other major cities, Al Hodeidah has a large amount of improvised buildings (including metal sheds) and the bulk (70 percent) of houses are only suited for one HH, with only one or two rooms.

Informal settlements in Al Hodeidah have grown significantly after 1991 with the return of expatriates from the Gulf. According to the 2004 Population and Housing Census, there were over 112,000 inhabitants living in informal settlements, housed in tents, cottages or huts. In recent years, the north of the city has been a more attractive area for development. Most of the informal developments have taken place in the north of the city, with little regard to the 2025 Masterplan, crossing major road reserves. Building of the ring road started in 2009; however, in 2016, there were still informal settlements on the road reserve, which were removed consequently. It is assessed as likely that residents in these settlements have no formal tenure documents

Figure 14: Housing in Al Hodeidah



Source: CSO 2014.

Urban development of Al Hodeidah historically extended southwards from the Old City until the development buffer of the airport prevented further growth in this direction. Local authorities anticipate the city to grow alongside the main axis of Sana'a road perpendicular to the coastline, and local authorities have plotted land accordingly alongside this axis and built road networks between 2004 and 2009. However, even though these lands are certainly not empty, many plots remain unoccupied.

Four main explanations could be considered regarding the development patterns described above:

- Other restrictions to the acquisition of lands in official areas, for example related to obstacles of outsiders to acquire land or forms of political exclusions that hinder the development of official lands. E.g. it is possible that the northern settlements house minorities or migrants that have problems accessing land in formal ways;
- Perceived insecurity along Sana'a road is preventing families to decide to move to the outlying western areas;
- The area in the north is comparatively more attractive, due to the location close to economic areas, such as Ahmad Port;
- For some social groups, the price of land rather than the price of construction is the main constraining factor for settlement, as satellite imagery suggests that many HHs are able to afford the construction of houses but have not taken the steps to acquire land in residential area designated lands for construction.

Al Hodeidah has dealt with informal development patterns in the past: satellite imagery suggests that phases of informal development, and subsequent land-readjustments have occurred repeatedly in the past. IOM displacement data only notes IDPs registered to the south of Al Hawak district, in proximity of the airport, as well as alongside the roads leading outside of the city, in other words in the areas controlled by Yemeni government allied forces. The majority of these IDPs are settling in rental accommodations. In Ad Durayhimi district, IDPs are mostly settling in settlements along the main road.

As mentioned in the Demographics section, analysis of the population data suggests a huge drop in the population data in the recent years. This would suggest that a lot of houses in Al Hodeidah are currently empty. In light of the pre-crisis housing shortage, in particular IDPs fleeing from severely affected areas north of the city, may have an incentive to move into abandoned houses for shelter and safety. As most houses are owned by their HHs who may not be able to guard the houses in their absence (77 percent of houses are owned according to the 2014 census), this may be or become a vector for conflict if groups convene to protect their interests (either of the original owners or of new occupiers).

According to satellite imagery damage assessments, there are over 4,000 damaged structures, scattered over the city. Several unplanned development areas were severely hit in the north of the city, the worst of which is the area west to the Al Hodeidah General Hospital. As the frontline area circumscribes the city, and the only supply route connecting the Houthi forces are in the north, it is likely that these corridors have been deliberately targeted, resulting in the high levels of damages in residential areas north of the city.

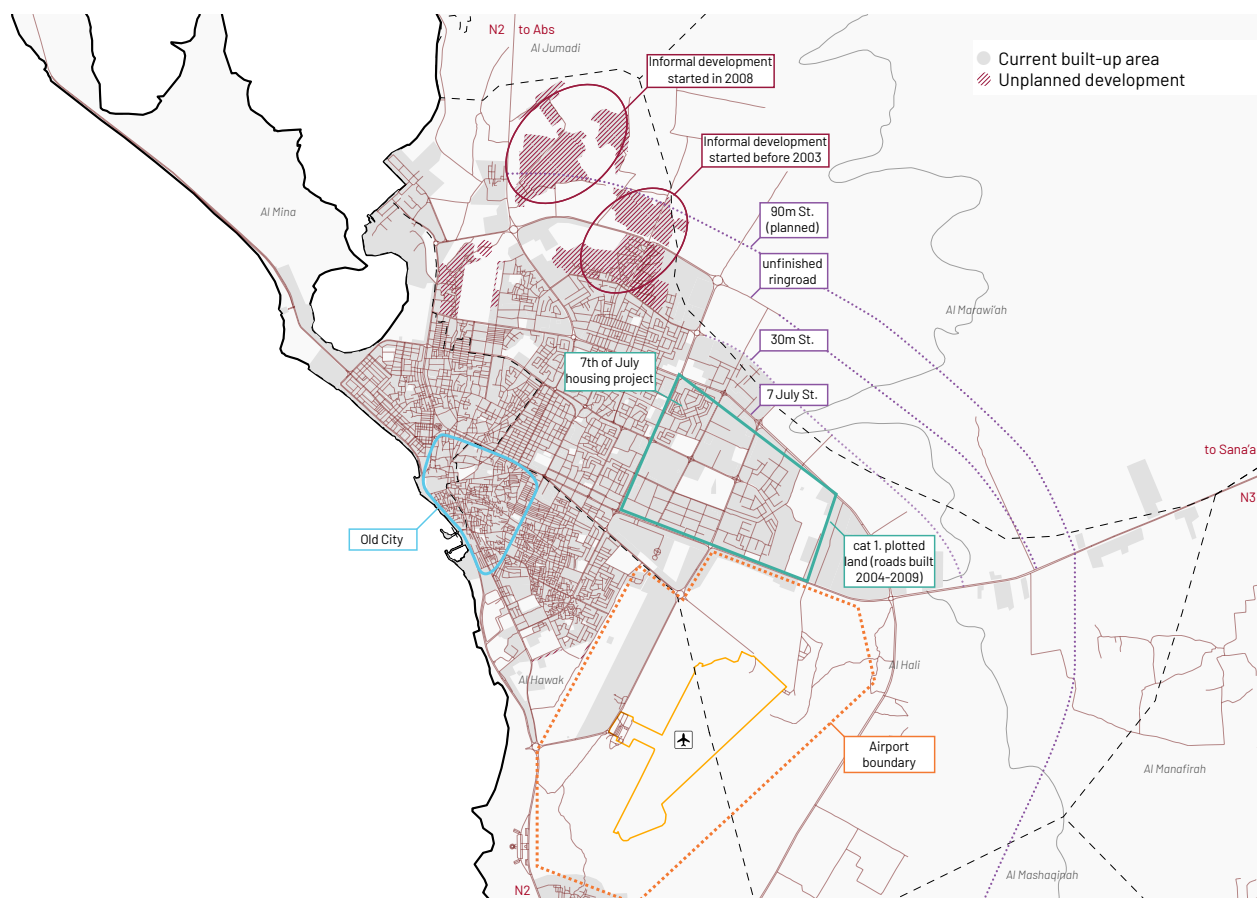
Table 5: Ownership, Status, and Typology of Residential Units in the Five Biggest Cities in Yemen, 2007, UN-Habitat (2020)

	Tenure					Status		
	Total	Other	Rented	Owned	%Owned	Vacant	Inhabited	%Inhabited
Capital City	262,154	14,945	126,586	120,623	46%	14,681	247,473	94%
Ta'iz	88,642	4,785	38,094	45,763	52%	7,800	80,842	91%
Al Hodeidah	120,830	6,531	21,469	92,830	77%	10,634	110,196	91%
Aden	97,408	4,088	16,455	76,865	79%	11,502	85,906	88%
Ma'rib	3,984	533	1,586	1,865	47%	206	3,778	95%

	Dwelling type					Number of rooms		
	Other (tents, Cottage, hut)	Establishment and collective	Apartment	Separate house	%Separate house	Three or more rooms	One or two rooms	%One or two rooms
Capital City	4,204	19,251	93,206	145,493	55%	173,151	89,003	34%
Ta'iz	3,247	4,512	32,863	48,020	54%	52,439	36,203	41%
Al Hodeidah	13,911	1,959	11,665	93,295	77%	36,599	84,231	70%
Aden	4,210	2,302	21,393	69,503	71%	50,892	46,516	48%
Ma'rib	260	519	780	2,425	61%	2,381	1,603	40%

Source: CSO, 2007.

Figure 15: Informal Settlements in Al Hodeidah



Source: The World Bank, Hodeidah: Agro-Industrial Capital of Yemen, October 2009.

Types of Land as per Yemeni Law

The law breaks state land down into six categories for land administration purposes, namely:

Type 1- Allocated Land: lands that have been planned and plotted prior to distribution;

Type 2- White Land: lands that are not allocated lands but fall within urban planning areas;

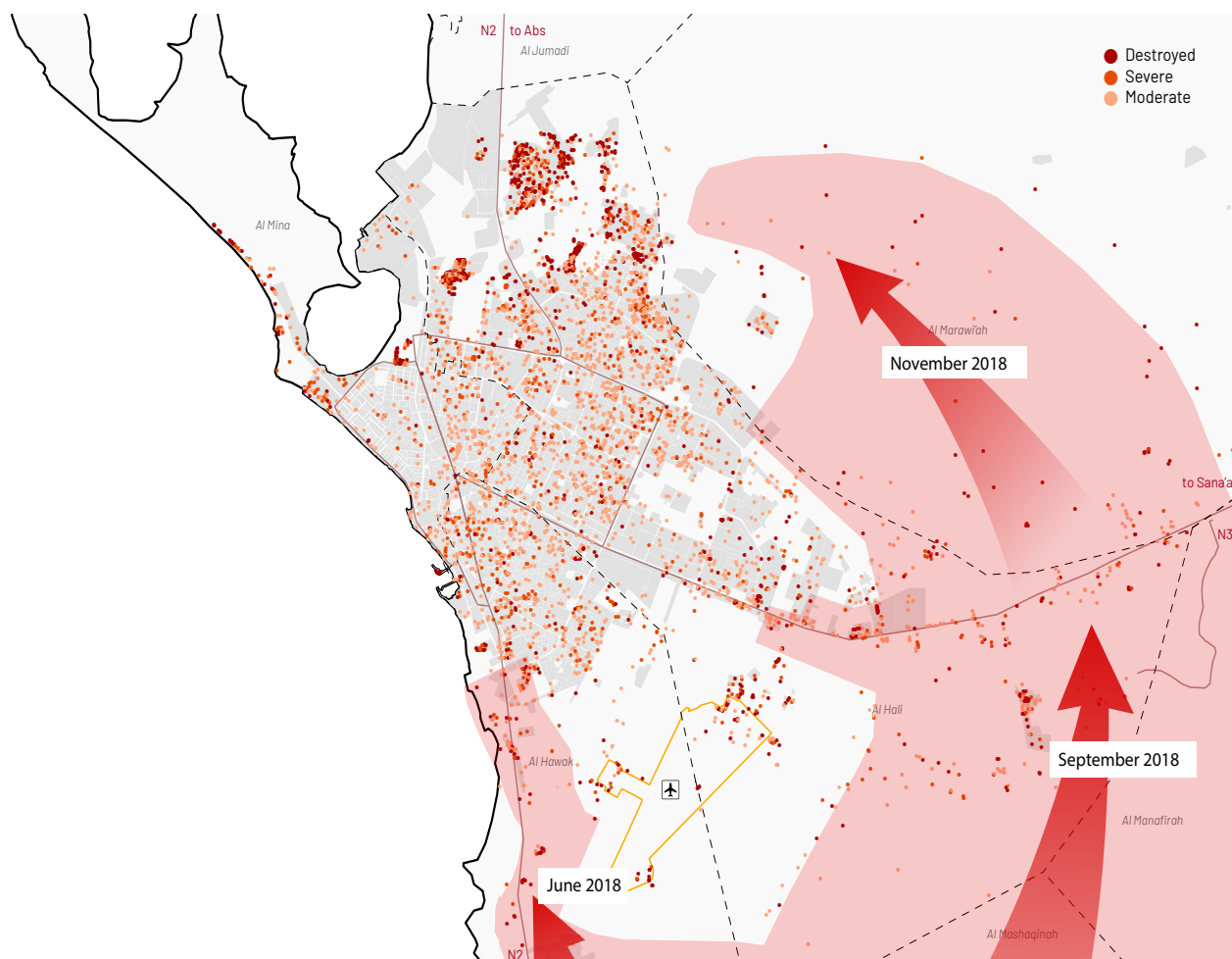
Type 3- Agricultural Land: land cultivated or well suited for cultivation;

Type 4- Fallow Land: agricultural land that has been abandoned or neglected;

Type 5- Public Utility Land: mountains, hills and slopes that receive rainwater, including the major structures through which flood waters are collected from tributaries;

Type 6- Desert Land: lands that are covered by sand or sandy lands.¹⁰⁵

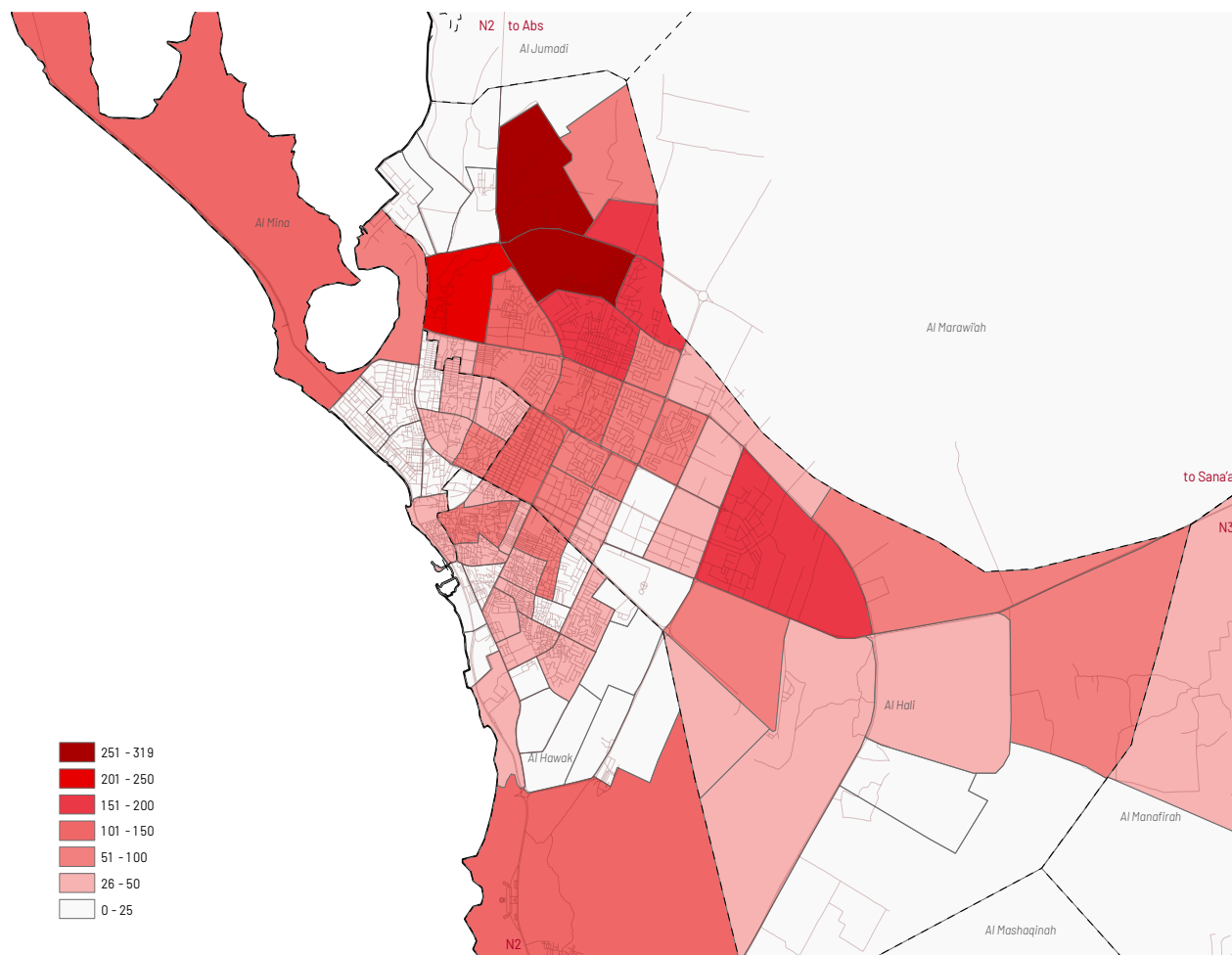
Figure 16: Damage Assessment and Main Offensive Actions in Al Hodeidah, UN-Habitat (2020)



Source: JRC, UNOSAT, 2019.

¹⁰⁵ Land Tenure for Social and Economic Inclusion in Yemen: Issues and Opportunities, December 2009, <https://openknowledge.worldbank.org/handle/10986/12298> (accessed June 15, 2020).

Figure 17: Urban Sectors and Damages Following Satellite Imagery Analysis, UN-Habitat (2020)

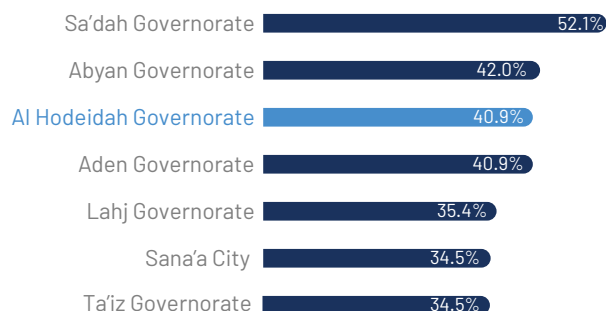


Source: UNOSAT, 2019.

Background

Al Hodeidah city is located on a flat sandy terrain, sloping towards the Red Sea coast. The Hodeidah port, named Port Ahmad, is located towards the northern end of the city. To the east, the city is surrounded by the fertile Tihama plain, Yemen's most important agricultural area. In the 1960s, new roads were developed in the area which made the Tihama plain accessible for agricultural production which was traded in the city and exported through Ahmad Port. In 2009, its urban poverty rate was estimated at 21.58 percent (compared to a national average of 20.7 percent), whereas its rural poverty rate was estimated at 36.43 percent (compared to a national average of 40.1 percent).¹⁰⁶ Prior to the onset of the conflict, 40.9 percent of the labor force were actively participating in the governorate's economy. More specifically, 24 percent of the city's labor force were employed in the public sector while 16 percent of the labor force were employed in the commercial and manufacturing sector respectively; additionally, 14 percent of the labor force were employed in construction, 14 percent in fishing, 11 percent in food processing, and 2 percent in other industrial activities.

Figure 18: Labor Force Participation Rate Yemen, 2015



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

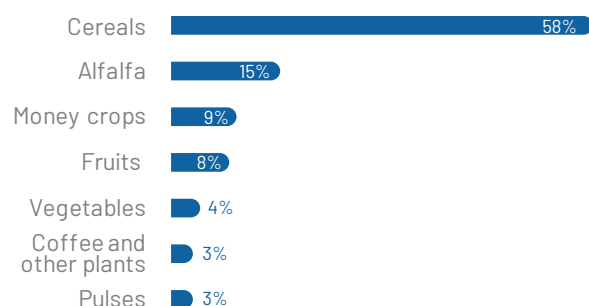
The prolonged conflict has significantly affected economic activity and impacted on livelihoods of countless families; the siege of the city, fighting on its outskirts, accessibility issues in terms of Port Ahmad as well as in terms of the road network, have significantly impacted the city's economic sector.

¹⁰⁶ 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 June 18, 2020).

Economic Activities, Including Fisheries (Ahmad Port)

An incredibly small percentage of the total area of Al Hodeidah Governorate (0.3 percent) can be utilized for agricultural purposes.¹⁰⁷ Pre-conflict cultivation mainly consisted of cereals (58 percent), alfalfa (15 percent), cash crops (9 percent), and fruits (8 percent).¹⁰⁸ Agriculture is mainly irrigated through spate irrigation as well as through flash floods stemming from mountains in the governorate. Prior to the conflict, the Tihama plain was well known for its livestock rearing and for producing enough cereals to supply neighboring governorates, such as Ta'iz.

Figure 19: Cultivation in Al Hodeidah Governorate, 2009



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

Ahmad Port, constructed in 1961 and operational in 1962, remained one of the most important entry points for imports to Yemen prior to the conflict, handling half of the country's unloaded dry cargo.¹⁰⁹ It is the principal port for the governorates of Al Hodeidah, Sana'a, Amanat Al Asimah, Hajjah, and Al Mahwit.¹¹⁰ Though the city was at an advantageous position (i.e. compared to Aden) as its location allowed for international shipping and its road network was connected to high demand markets (e.g. in Sana'a and KSA), it should be noted though that Al Hodeidah's two main seaports (Ahmad and Salif), prior to the conflict, were largely incapable to compete commercially with nearby (foreign) ports on the Red Sea.¹¹¹

Fish production in Al Hodeidah reached around 22,000 tons per year between 2000 and 2005¹¹² and approximately 10,000 fishermen were registered in the city, specifically in Al Hali district.¹¹³ The port is currently open and operational though severely restricted as a result of the ongoing conflict. Ships calling at Al Hodeidah and Salif ports need to apply for clearance at the UN Verification and Inspection Mechanism for Yemen (UNVIM) in Djibouti prior to arrival.¹¹⁴ Approximately 70 percent of Yemen's imports and 80 percent of humanitarian assistance flows¹¹⁵ through Ahmad Port which has become the country's major aid pipeline due to the Coalition's blockade of the country's borders and airspace, providing most of northern Yemen's food and fuel.¹¹⁶

¹⁰⁷ Ibid.

¹⁰⁸ Ibid.

¹⁰⁹ The World Bank, Hodeidah: Agro-Industrial Capital of Yemen, Local Economic Development Strategy, October 22, 2009, https://siteresources.worldbank.org/INTLED/Resources/339650-1122490529659/Hodeidah_CDS_072308.pdf (accessed June 18, 2020).

¹¹⁰ Ibid.

¹¹¹ 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 June 18, 2020).

¹¹² Ibid.

¹¹³ The World Bank, Hodeidah: Agro-Industrial Capital of Yemen, Local Economic Development Strategy, October 22, 2009, https://siteresources.worldbank.org/INTLED/Resources/339650-1122490529659/Hodeidah_CDS_072308.pdf (accessed June 18, 2020).

¹¹⁴ North, Yemen Ports Situation Update, April 17, 2020, <https://www.nepia.com/industry-news/yemen-port-situation-update/> (accessed June 18, 2020).

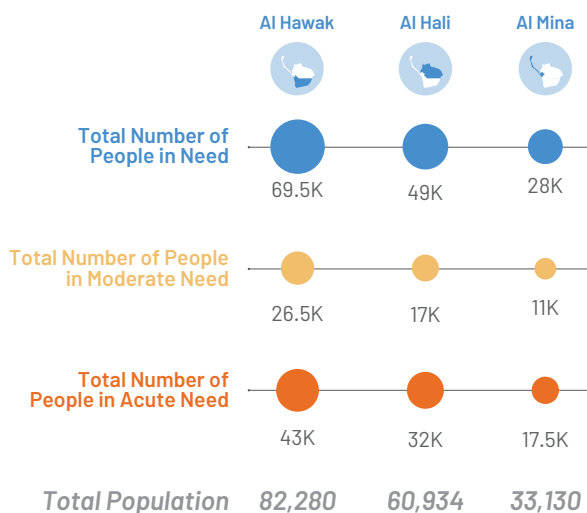
¹¹⁵ UNDP, UNDP provides critical vehicles to support demining efforts in ports of Hodeidah, May 28, 2019, <https://reliefweb.int/report/yemen/undp-provides-critical-vehicles-support-demining-efforts-ports-hodeidah> (accessed January 10, 2020).

¹¹⁶ The Guardian, "Hope for 'turning point' in Yemen after Houthis' Hodeidah withdrawal", May 15, 2019, <https://www.theguardian.com/world/2019/may/15/yemen-hope-for-turning-point-after-houthi-hodeidah-port-withdrawal> (accessed January 10, 2020).

Food (In)security

The latest available HNO data states there are 82,280 residents in Al Hawak, 60,934 in Al Hali, and 33,130 in Al Mina districts, meaning that the total number of residents of Al Hodeidah city reaches 176,344. In all three districts, approximately half of the population is in acute need of food and agricultural assistance whereas approximately a third of people are in moderate need. Though districts range closely together in terms of numbers of people in need of food or agricultural assistance, the highest number of people in need resides in Al Mina district.

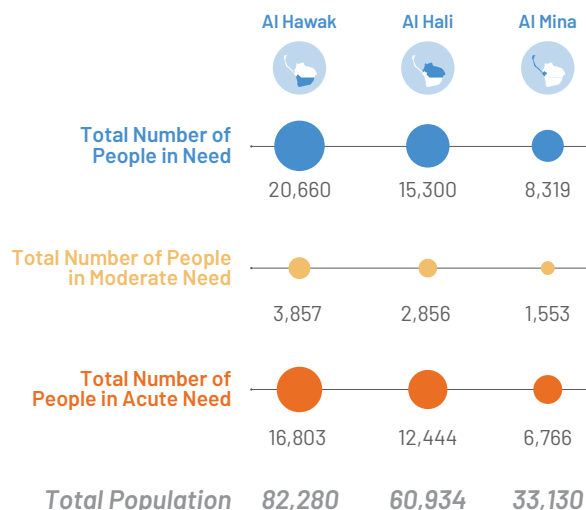
Figure 20: Total Amount of People in Need of Food and Agriculture (per district) in Al Hodeidah city, 2019



Source: HNO data, 2019.

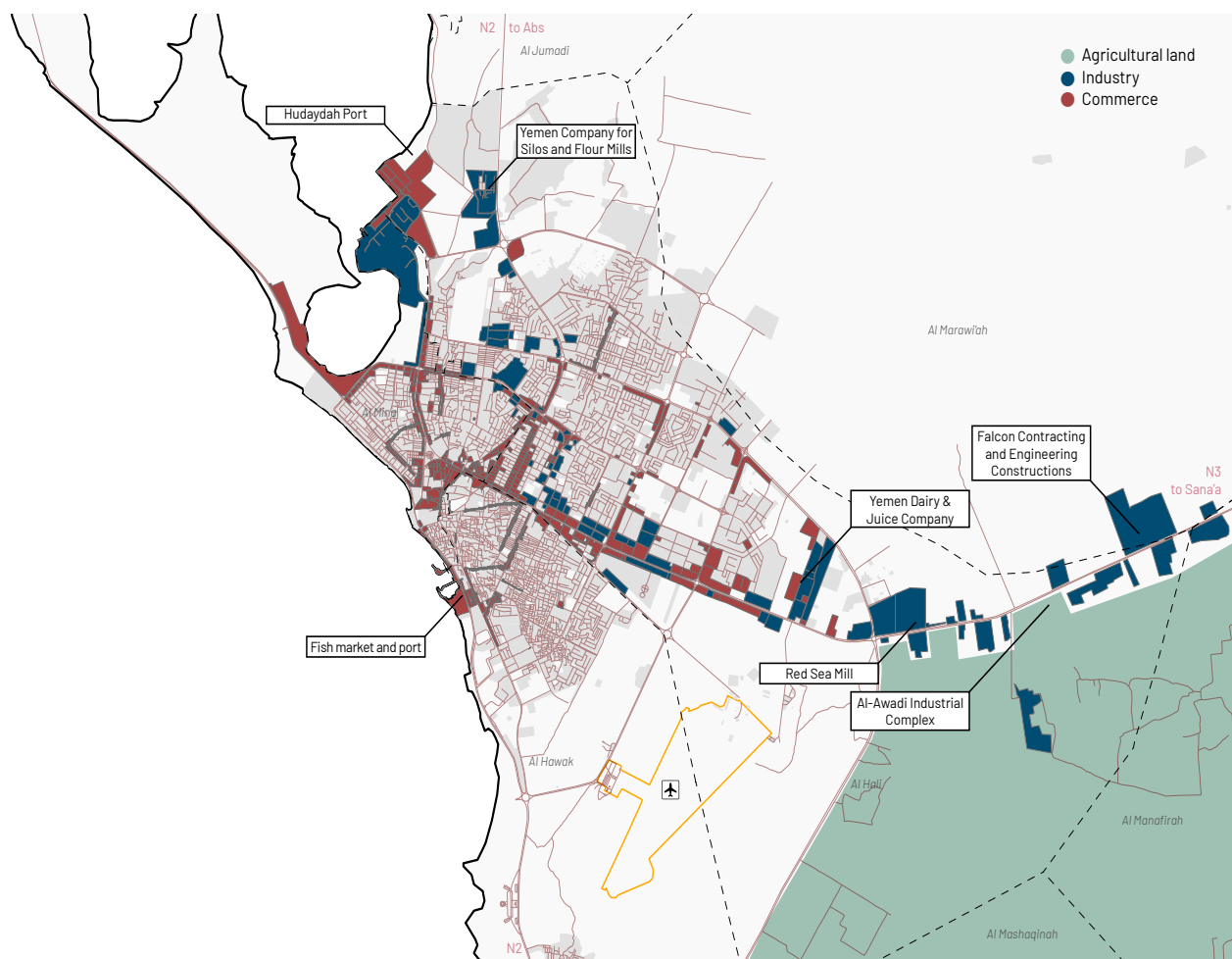
In terms of nutrition, city-wide, approximately a quarter of the population is in need, which comprises (across districts) approximately 20 percent of people which are in acute need and approximately 5 percent (across districts) which are in moderate need.

Figure 21: Total Amount of People in Need of Nutrition (per district) in Al Hodeidah city, 2019



Source: HNO data, 2019.

Figure 22: Agricultural Land, Industrial Facilities, and Commercial Areas in Al Hodeidah, UN-Habitat (2020)



Source: Wikimapia, OpenStreetMap, JRC, Google Maps.

Background

Years of conflict have wrecked an already weak health system; an estimated 19.7 million people are in need of and lack access to basic healthcare in Yemen¹¹⁷; of these, 14 million people (> 70 percent) are in acute need.¹¹⁸ According to the Health Resources and Services Availability Monitoring System (HeRAMS) 2018 data (updated in October 2019), country-wide, only about half of the HFs are fully functional while 36 percent are partially functional and 13 percent remain non-functional.¹¹⁹ Operational HFs face multiple challenges hindering the delivery of quality, effective and efficient health services, including inadequate health workers (numbers and capacity), lack of medicines, and lack of health equipment, as well as a lack of safe water, fuel, and power. Additionally, people have limited access to health services due to increased transport costs, poor infrastructure of the road network, or insecurity (including roadblocks in some conflict areas). These challenges especially impact critical services for the most vulnerable women and children.

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 LAL in February 2000, governorate health offices became responsible for providing healthcare at the governorate level, while district health offices manage the local level.¹²⁰ Pre-conflict, the health sector already heavily relied on private financing, with 76 percent of the health expenditure coming from out-of-pocket sources.¹²¹

Health Infrastructure

Healthcare in Al Hodeidah city consists of primary and secondary facilities, as well as specialized clinics. Recent HeRAMS data indicates that Al Hodeidah city has three main hospitals: Al Thawra Public Hospital in Al Hawak district, which is fully functioning and fully accessible, Al Olofi Public Hospital in Al Mina district, which is partially functioning and partially accessible, and Al Salkhaneh Hospital in Al Hali district, which is fully functioning and fully accessible.¹²²

In Al Hodeidah Governorate, about 44 percent of HFs are fully functional; 45 percent is partially functional, and 11 percent is non-functional.¹²³ Moreover, only 8 health workers are available per 10,000 people¹²⁴ which is significantly below the World Health Organization (WHO) standard of ≥ 22 health workers per 10,000 people. In Al Hodeidah city specifically, HeRAMS 2018 data indicates that 74 percent of HFs are fully functional while 13 percent are partially functional and 13 percent are non-functional.¹²⁵ It should furthermore be noted that the functional facilities depend on incentive payments amidst very limited resources to sustain the presence of health workers and health service provision, which poses a significant threat to the likelihood and impact of further deterioration of accessibility to health.¹²⁶ Within the city, Al Hali district is worst affected, as over 30 percent of HFs were not functioning at the time of the assessment.

117 ACAPS, ACCESS TO BASIC NEEDS IN YEMEN: SCENARIOS, October 2019, https://www.acaps.org/sites/acaps/files/products/files/20191106_acaps_yemen_analysis_hub_scenarios.pdf (accessed January 18, 2020).

118 HNO data 2019.

119 WHO, HeRAMS data 2018.

120 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 January 18, 2020).

121 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.

122 WHO, HeRAMS data 2018.

123 HNO data 2019.




124 WHO, Yemen: Health Resources and Services Availability Mapping System 2018 (HeRAMS), file:///G:/My%20Drive/Urban%20Yemen/Secondary%20data%20analysis/HeRAMS%20data/YEMENS%20HeRAMS%202018fv... pdf (accessed January 18, 2020).

125 Ibid.

126 Ibid.

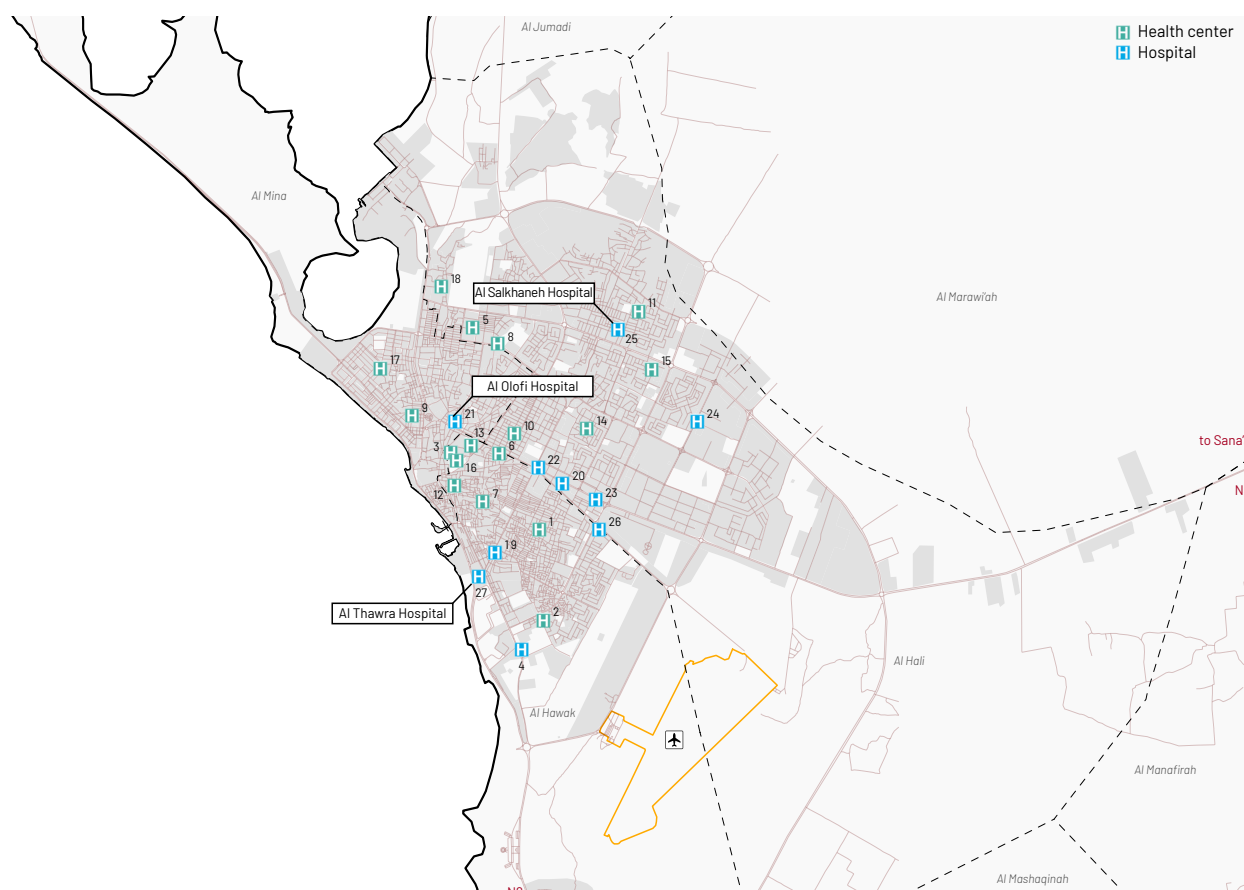
AL HODEIDAH RAPID CITY PROFILE

Figure 23: Functionality of Health Facilities in Al Hodeidah governorate and city (per district), 2018

	Fully Functioning	Partially functioning	Non-functioning
			
Country-wide	51%	36%	13%
Al Hodeidah Gov.	44%	45%	11%
Al Hodeidah City	74%	13%	13%
Al Hawak district	89%	11%	0%
Al Mina district	70%	30%	0%
Al Hali district	69%	0%	31%

Source: WHO, HeRAMS data, 2018.

Figure 24: Health Facilities in Al Hodeidah, UN-Habitat (2020)



Source: Wikimapia, OpenStreetMap, Google Maps, and WHO.

Table 6: List of Health Facilities in Al Hodeidah, UN-Habitat (2020)

#	Name (en)	Type	Status
1	Ghaleel health Center	HC	Operative
2	Ae Reesah Health Center	HC	Unkn.
3	Al Yemen Health Center	HC	Operative
4	Al Mukhtar Hospital	Hosp.	Operative
5	Al Helal wa Al Ommal Health Center	HC	Operative
6	Al Shumariyyah Health Center	HC	Unkn.
7	Al Huke Health Center	HC	Operative
8	Al Mugtarebeen Health Center	HC	Operative
9	Shamakh Health Center	HC	Unkn.
10	Medical Health Center	HC	Unk.
11	Saddam Health Center	HC	Unkn.
12	Al Sadeeqa Health Center	HC	Operative
13	Betahreer Health Center	HC	Unkn.
14	Al Sena'ie Health Center	HC	Operative
15	Al Hali Health Center	HC	Operative
16	Az Ziyara Health Center	HC	Partially op.
17	Al Qala'a Health Center	HC	Operative
18	Al Bayda'a Health Center	HC	Unkn.
19	Ar Rasheed Speciality Hospital	Hosp.	Unkn.
20	Al Shefa'a Speciality Hospital	Hosp.	Unkn.
21	Al Olofi Hospital	Hosp.	Partially op.
22	Al Hodeidah Speciality Hospital	Hosp.	Unkn.
23	Al Amal Arabic Speciality Hospital	Hosp.	Unkn.
24	Al Kuwait cooperative Hospital	Hosp.	Unkn.
25	As Salkhaneh Hospital	Hosp.	Unkn.
26	Al Hubani Hospital	Hosp.	Unkn.
27	Al Thawra Hospital	Hosp.	Operative

Source: Wikimapia, OpenStreetMap, Google Maps and WHO.

Al Thawra Public Hospital

Al Thawra Public Hospital, located in Al Hawak district, is the largest hospital in Al Hodeidah Governorate and one of the biggest in Yemen. Al Thawra, located on Jamal Street near the fishing harbor and the university in the city center, is the only public hospital in Al Hodeidah, serving the city and four outlying districts. As Al Thawra is the only public hospital in Al Hodeidah, there are few viable alternatives for people with limited financial resources to access health care.¹²⁷ Pre-conflict, the hospital used to serve about 1,500 people per day. According to WHO, Al Thawra conducted over 600,000 consultations in 2017.¹²⁸ Though the hospital was assessed fully functioning and fully accessible in November 2019¹²⁹, it should be noted that the facility has been impacted by the conflict, including in November 2018 when access to and from the hospital was imperiled due to fighting.¹³⁰

Population Needs

At the country level between 2018 and 2019, HNO data indicates that the caseload of people in acute need has increased by almost 50 percent.¹³¹ The health system in Al Hodeidah has been unable to cope with the medical needs of people living in Al Hodeidah city and its surrounding districts, particularly since and during the battle for Al Hodeidah city and its port. Latest available HNO data estimates the current population in Al Hodeidah Governorate at 2,985,000 out of which 2,212,800 (approximately three quarters) are in acute need and 430,500 (almost 15 percent) are in moderate need.¹³² Furthermore, an estimated 609,000 people (20 percent) in Al Hodeidah Governorate are in acute need of nutrition assistance, and 140,000 people (5 percent) in moderate need.¹³³

Cases of communicable diseases, including cholera, diphtheria, measles, dengue, or chicken pox have reemerged in Yemen since 2015. Al Hodeidah Governorate reported the highest number of suspected cases of cholera during 2019 (namely 120,400), followed by Amanat Al Asimah (102 000), and Sana'a (97 0000).¹³⁴ Children under five represent more than a quarter of the total suspected cases during 2019.¹³⁵ Contributing factors to the spread of cholera are contaminated water sources, collapse of the public health system and limited waste, sanitation, and hygiene services. Contaminated water sources are a major problem in Al Hodeidah city, with locals reporting that children are exposed to several diseases, including cholera and malaria, due to water pollution.¹³⁶ Mid-December 2019, local authorities in Al Hodeidah Governorate reported a spike in suspected dengue fever cases in the months of October and November, with almost 40 casualties blamed on the mosquito-borne virus.¹³⁷

The availability and cost of specialized care alongside limited resources for care of the noncommunicable diseases continue to place a huge burden on patients who suffer chronic illnesses such as diabetes, hypertension, renal failure and cancer. The number of cases is rising and further made worse by constrained access to much-needed specialized health care. Médecins Sans Frontières (MSF) reports that the collapse of the economy and the country's health infrastructure has meant that many people are unable to afford transportation to the few hospitals still functioning in the country, which means that people delay going to hospitals until they have gathered enough funds for traveling.¹³⁸

Humanitarian Interventions

According to the latest Health Cluster Yemen data, 19 Health Cluster partners (UN agencies, INGOs, and NNGOs) are currently working in Al Hodeidah Governorate.¹³⁹ Support provided included assistance in the areas of Medical Consultations, Reproductive Health, Mental Health Services, Non-Communicable Diseases (NCD), Child Health Services, Medical Support, Pharmaceuticals, Capacity Building, and Operational Support.¹⁴⁰

127 Amnesty International, Yemen: Eyewitness describes terrifying scenes as explosions rock hospital in central Hodeidah, November 12, 2018, <https://www.amnesty.org/en/latest/news/2018/11/yemen-eyewitness-describes-terrifying-scenes-as-explosions-rock-hospital-in-central-hodeidah/> (accessed January 18, 2020).

128 WHO, Yemen: Al Hudaydah, Concept of Operations, July 7, 2018.

129 WHO, HeRAMS data 2018.

130 See, e.g., UNICEF, Yemen: Children in Hudaydah hospital at imminent risk of death, November 6, 2018, <https://www.unicef.org/press-releases/yemen-children-hudaydah-hospital-imminent-risk-death>. See, also, Amnesty International, Yemen: Eyewitness describes terrifying scenes as explosions rock hospital in central Hodeidah, November 12, 2018, <https://www.amnesty.org/en/latest/news/2018/11/yemen-eyewitness-describes-terrifying-scenes-as-explosions-rock-hospital-in-central-hodeidah/> (accessed January 18, 2020).

131 UNOCHA, Humanitarian Update Covering 24 January – 19 February 2019, Issue 3, https://reliefweb.int/sites/reliefweb.int/files/resources/Issue_03FINAL.pdf (accessed January 18, 2020).

132 HNO data 2019.

133 Ibid.

134 WHO, Epidemic and pandemic-prone diseases, Outbreak update – Cholera in Yemen, November 10, 2019, <http://www.emro.who.int/pandemic-epidemic-diseases/cholera/outbreak-update-cholera-in-yemen-10-november-2019.html> (accessed January 18, 2020).

135 Ibid.

136 Life Makers Meeting Place Organization, WASH Need Assessment, Al Hali and Al Mina districts, 2019.

137 Sana'a Center for Strategic Studies, Negotiation and De-escalation – The Yemen Review, November 2019, December 16, 2019, <https://sanaacenter.org/publications/the-yemen-review/8501#Fire-Destroys-More-than-30-Muhamasheen-Homes-in-Aden> (accessed January 18, 2020).

138 MSF, The indirect consequences of war for people in Yemen, June 25, 2019, <https://www.msf.org/indirect-consequences-war-yemen> (accessed January 18, 2020).

139 Health Cluster Yemen, Yemen 4W: Health Cluster Partners per Governorate, October 2019, <http://yemenhc.org/> (accessed January 18, 2020).

140 Ibid.

Background

Country-wide, at the start of the 2019 – 2020 academic year, an estimated 4.7 million children were in need of education assistance and access to safe learning spaces, and roughly 2 million children and teenagers were reported out of school.¹⁴¹ Girls are more likely to be affected, with 36 percent out of school compared to 24 percent of boys.¹⁴² UNICEF, on December 3, 2019, reports that girls are more likely to drop out of secondary-level education due to security issues, a lack of female teachers and a lack of appropriate WASH facilities.¹⁴³ Teachers in 10,000 schools (64 percent) are not being paid regularly, with a multitude of reports stating that teachers have not been paid since October 2016¹⁴⁴, thus losing their main source of income and becoming unable to provide for their family. Furthermore, it is estimated that one in five schools in Yemen can no longer be used due to damage caused by the conflict¹⁴⁵, the presence of IDPs in school buildings, or occupation by armed groups.¹⁴⁶

In 2018, the Emergency Employment and Community Rehabilitation (EECR) Cluster Yemen reported that damage to infrastructure was commonly cited in Al Hodeidah (55 percent) and Sa'dah (53 percent), and least in Aden (37 percent) and Ibb (33 percent).¹⁴⁷ In June 2019, the UN reported verification of 28 attacks against schools; attacks mainly occurred in Ta'iz, followed by Sa'dah, and Al Hodeidah¹⁴⁸; in 32 cases schools were being used for military uses, four times more than in 2017.¹⁴⁹

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.¹⁵⁰ 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 2001.¹⁵¹ 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 2001.¹⁵² The government of Yemen subsidizes public education at all levels.¹⁵³ The Literacy and Adult Education Organization (LAEO), is an autonomous technical agency within the MoE that measures and reports on national literacy rates.

141 UNICEF, As school year starts in Yemen, 2 million children are out of school and another 3.7 million are at risk of dropping out, September 25, 2019, <https://www.unicef.org/press-releases/school-year-starts-yemen-2-million-children-are-out-school-and-another-37-million> (accessed January 18, 2020).

142 UNOCHA, Humanitarian Needs Overview 2019, https://reliefweb.int/sites/reliefweb.int/files/resources/2019_Yemen_HNO_FINAL.pdf (accessed January 18, 2020).

143 UNICEF, Humanitarian Action for Children 2020 – Yemen, December 3, 2019, <https://reliefweb.int/report/yemen/humanitarian-action-children-2020-yemen> (accessed January 18, 2020).

144 UNICEF, As school year starts in Yemen, 2 million children are out of school and another 3.7 million are at risk of dropping out, September 25, 2019, <https://www.unicef.org/press-releases/school-year-starts-yemen-2-million-children-are-out-school-and-another-37-million> (accessed January 18, 2020).

145 Ibid.

146 War Child UK, Being kept behind: the impact of conflict on the education of Yemen children, May 23, 2019, <https://reliefweb.int/report/yemen/being-kept-behind-impact-conflict-education-yemen-children> (accessed January 18, 2020).

147 EECR Cluster Yemen, Yemen Multi-Sector Early Recovery Assessment, August 18, 2018, <http://earlyrecovery.global/sites/default/files/yemen-multisector-earlyrecoveryassessment.pdf> (accessed January 18, 2020).

148 UNGA and SC, Children and armed conflict Report of the Secretary-General, A/73/907-S/2019/509, June 20, 2019, https://www.un.org/ga/search/view_doc.asp?symbol=S/2019/509&Lang=E&Area=UNDOC (accessed January 18, 2020).

149 Ibid.

150 World Bank, Yemen – Education status report: challenges and opportunities (English), June 2010, <http://documents.worldbank.org/curated/en/182051468154759836/pdf/571800WPOYemen10Box353746B01PUBLIC1.pdf> (accessed January 18, 2020).

151 Ibid.

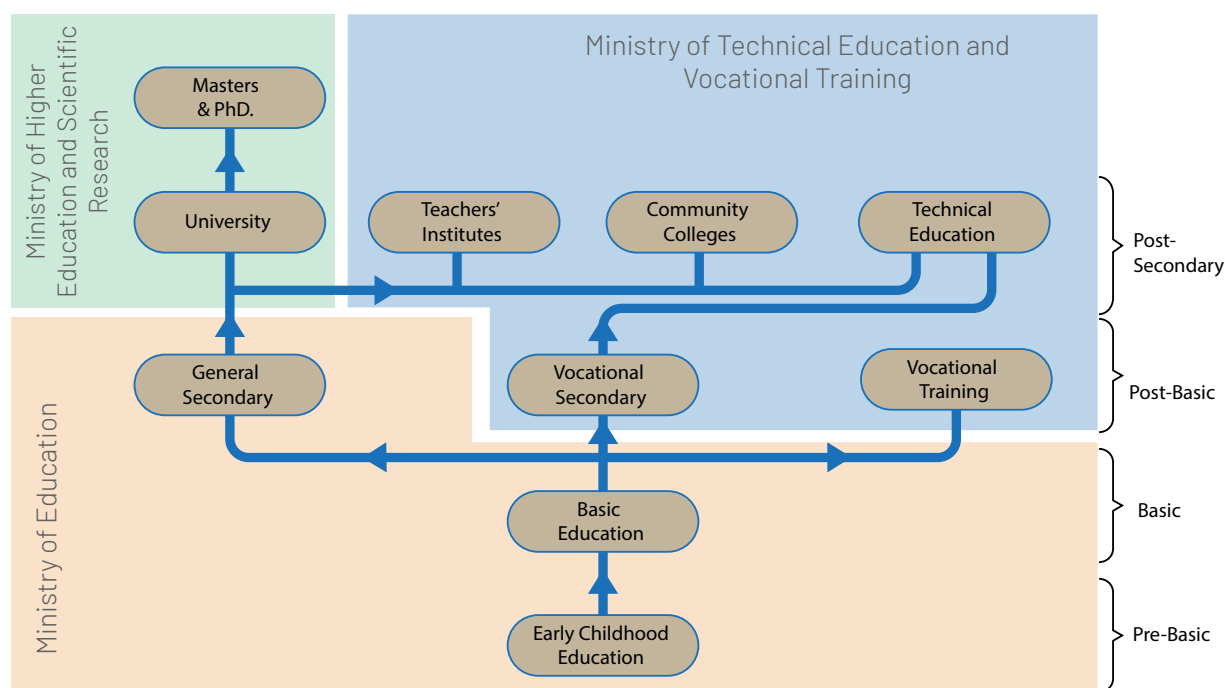
152 Ibid.

153 Ibid.

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).¹⁵⁴ Secondary school lasts for three years. The first year is general education and consists of literary and scientific subjects.¹⁵⁵ 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.¹⁵⁶

Figure 25: Structure of the Education 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.

¹⁵⁴ 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 18, 2020).

¹⁵⁵ Ibid.

¹⁵⁶ Ibid.

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.¹⁵⁷ Students who choose to proceed to vocational education upon the completion of basic education legally lose the opportunity to attend university in the future.¹⁵⁸ Moreover, both the 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.¹⁵⁹ 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.¹⁶⁰ The complexity of the system thus prevents not only further education but also the attainment of qualifications necessary to transition into the labor market.

Education Infrastructure

According to the latest available CSO data, there were 67 kindergartens in Al Hodeidah Governorate in the academic year 2015 – 2016, and 35 in the subsequent academic year, representing a decrease of 48 percent.¹⁶¹ In the 2016 – 2017 academic year, CSO reports a total of 1,464 general basic and secondary schools (public and private) for Al Hodeidah Governorate, out of which 1,079 were mixed, 172 for female students, and 213 for male students (it should be noted that the same numbers were reported for the 2015 – 2016 academic year).¹⁶²

Al Hodeidah has one public university (Al Hodeidah University, established in 1996), five branches of private universities and six technical colleges (vocational training centers).¹⁶³ Pre-conflict, Al Hodeidah had 17 faculties in six technical colleges in Al Hodeidah Governorate, where one could earn degrees in the following broad areas: Health Sciences, Teaching, Administrative Sciences, Vocational Training, Industrial, and Agriculture.¹⁶⁴ In 2013, it was reported that public investment in the Al Hodeidah region, amongst others areas, was being targeted at rehabilitating the six vocational training centers.¹⁶⁵

Population Needs

Latest available HNO data estimates that about 383,800 individuals (almost 13 percent of the population in Al Hodeidah Governorate) are in acute need and 102,700 (almost 5 percent) are in moderate need of education assistance.¹⁶⁶ Comparison between 2018 and 2019 HNO data indicates that the caseload of people in acute need of education assistance has significantly increased (up by 32 percent).¹⁶⁷

157 The World Bank, Yemen – Education status report: challenges and opportunities (English), June 2010, <http://documents.worldbank.org/curated/en/182051468154759836/pdf/571800WPOYemen10Box353746B01PUBLIC1.pdf> (accessed January 18, 2020).

158 Ibid.

159 Ibid.

160 Ibid.

161 CSO, Statistical Yearbook 2017, July 22, 2019, <http://www.cso-yemen.com/content.php?lng=english&id=690> (accessed January 18, 2020).

162 Ibid.

163 The World Bank, Hodeidah: Agro-Industrial Capital of Yemen, Local Economic Development Strategy, July 23, 2008, https://siteresources.worldbank.org/INTLED/Resources/339650-1122490529659/Hodeidah_CDS_072308.pdf (accessed January 18, 2020).

164 Ibid.

165 Middle East and North Africa Transition Fund, Preparation and Implementation Support Project for The Special Industrial Zone (SIZ) Project in Al-Hodeida, 18 April 2013, available at: https://www.menatransitionfund.org/sites/mena_trans_fund/files/documents/Ry%20IsDB%20Al-Hodeida%20SIZ%20Proposal.pdf

166 HNO data 2019.

167 UNOCHA, Humanitarian Update Covering 24 January – 19 February 2019, Issue 3, https://reliefweb.int/sites/reliefweb.int/files/resources/Issue_03FINAL.pdf (accessed January 18, 2020).

Enrollment and Attendance

For the 2015 – 2016 academic year, the total number of enrolled children in (public and private) kindergartens in Al Hodeidah Governorate comprised 1,570, out of which 820 were male and 750 female students. Furthermore, all the 100 teachers for kindergartens were females.

The total number of enrolled students for general basic and secondary schooling (public and private) for Al Hodeidah Governorate was 536,479; for the 2016 – 2017 academic year, and CSO data reports an increase of 2 percent, with a total number of 546,276 students enrolled.¹⁶⁸ In the 2016 – 2017 academic year, there were almost 20,000 teachers in Al Hodeidah Governorate, out of which 18,000 teachers (over 90 percent) worked in public general basic and secondary schools. Almost 60 percent of all teachers were males. As elsewhere in Yemen, girls and boys are taught separately; low numbers of available female teachers have been reported as one of the reasons girls drop out of school.¹⁶⁹

Table 7: Number of Students and Teachers in General Basic and Secondary Schools (Public and Private) in Al Hodeidah Governorate, 2017

	# of teachers	# of enrolled students	Teacher to student ratio
Basic	11,802	497,937	42
Basic/Secondary	7,878	N/A	N/A
Secondary	293	48,339	164

Source: CSO data, 2017.

For the 2013 – 2014 academic year, the total number of enrolled students in Al Hodeidah University consisted of approximately 21,800 students, more than 40 percent of which were female.¹⁷⁰ This compares favorably to the national average of almost 30 percent female, and lends credence to the belief that Al Hodeidah region at the time was known for a more positive attitude to female education and labor participation. However, the war has changed this: a professor at Al Hodeidah University recently stated that the war “has made educating males the priorities of Yemeni families, increasing the negative impact of war on females.”¹⁷¹ Al Hodeidah University had a total of 650 teaching staff, about 80 percent of which is male.

Learning Spaces

According to the latest available CSO data, there were a total of 11,855 classrooms in general basic and secondary schools (public and private) in Al Hodeidah Governorate in the 2016 – 2017 academic year. Primary schools are reported to be equipped with a total number of 11,007 classrooms, while 848 classrooms were reported for secondary schools (it should be noted that the same numbers were reported for the 2015 – 2016 academic year).¹⁷² Even though (2008) data on Al Hodeidah city suggests that classrooms in the city are overcrowded, and that public schools must run multiple shifts to deal with this burden, it was reported that pre-conflict, the education system nevertheless performed well in terms of the availability of education.¹⁷³

Humanitarian Interventions

According to the latest Education Cluster Yemen data, 10 Education Cluster partners (5 INGOs, 4 NNGOs, and WFP) are currently working in Al Hodeidah Governorate.¹⁷⁴ Support provided includes assistance in the areas of Schools Rehabilitation, School Desks (provision and repair), School Supplies (stationary, teachers kits, textbooks), Temporary/Alternative Learning Classrooms, Teachers Training, Education System Support, Hygiene Education, School Feeding, and the Support of National Exams.¹⁷⁵ In Al Hodeidah Governorate, the total of beneficiaries reached between January and October 2019 is 153,166.¹⁷⁶

168 CSO, Statistical Yearbook 2017, July 22, 2019, <http://www.cso-yemen.com/content.php?lng=english&id=690> (accessed January 18, 2020).

169 Al Fanar Media, “In Yemeni Camp, a Principal Struggles to Keep Girls in School”, May 26, 2017, <https://www.al-fanar-media.org/2017/05/yemeni-camp-principal-struggles-keep-girls-school/> (accessed January 18, 2020).

170 Ibid.

171 Al Fanar Media, “For Yemeni Women, the Path to Universities Gets Tougher”, August 13, 2019, <https://www.al-fanar-media.org/2019/08/for-yemeni-women-the-path-to-universities-gets-tougher/> (accessed January 18, 2020).

172 Ibid.

173 Ibid.

174 Education Cluster Yemen, Yemen Education Cluster Dashboard 2019, 4W Matrix, January – October 2019, available at: <https://www.humanitarianresponse.info/en/operations/yemen/education>

175 Ibid.

176 Ibid.

12 Water, Sanitation and Hygiene (WASH)

Background

During the escalation of the conflict in Al Hodeidah in the summer and autumn of 2018, water supply systems sustained damages on multiple occasions. For instance, in June 2018, water shortages were reported across the city as water supply pipes sustained damage.¹⁷⁷ Repairment works were completed during the same month and access to water substantially improved within the city.¹⁷⁸ However, the following month, water and sewage networks sustained damage again as a result of the digging of trenches for defense purposes¹⁷⁹, leaving several neighborhoods in the city without water supply, including Al Shuhada, and Al Salakhana in the Al Hali district and Rabssa and Galil in the Al Hawak district.¹⁸⁰ In summer 2018, airstrikes hit water facilities in Al Hodeidah city and sanitation facilities south of the city.

The water supply system in Al Hodeidah depends on pumps and therefore is reliant on electricity. As a result, intermittent supply of electricity throughout the conflict caused parts of the city to be cut off from the water supply, while water trucking services were affected by the increase of fuel prices. Concerns were also raised about the quality of the drinking water.

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 Ministry of Agriculture and Irrigation (MoAI), which shares jurisdiction over surface water infrastructure with the MWE.¹⁸¹

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.¹⁸² 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.¹⁸³

177 UNOCHA, Yemen: Al Hudaydah Update: Situation Report No. 5, (24 June 2019) https://reliefweb.int/sites/reliefweb.int/files/resources/Issue%2030FINAL_original.pdf (accessed December 23, 2019).

178 UNOCHA, Yemen: Al Hudaydah Update: Situation Report No. 6, (June 27, 2019) https://reliefweb.int/sites/reliefweb.int/files/resources/20180627_AI%20Hudaydah%20Update_Issue%206.pdf (accessed December 13, 2019).

179 UNOCHA, Director of Operations and Advocacy Division, Mr. John Ging Statement to the Security Council on Yemen, August 2, 2018, https://reliefweb.int/sites/reliefweb.int/files/resources/180802_Yemen_SECCO%20Statement-Final.pdf (accessed December 23, 2019).

180 OXFAM, Oxfam Briefing Note: The World Must Back Peace, not War, to Put an End to Civilian Suffering in Yemen, (OXFAM, July 2018).

181 Republic of Yemen, Ministry of Water and Environment, National Water Sector Strategy and Investment Program, (2004), <http://extwprlegs1.fao.org/docs/pdf/yem147103.pdf> (accessed September 12, 2019).

182 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).

183 Ibid.

Water Systems

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.¹⁸⁴ Al Hodeidah's Water and Sanitation Local Corporation (WSLC) was established in 2001.¹⁸⁵ Al Hodeidah WSLC conducts water quality checks at their laboratory, and operates the water supply system, which was commissioned in 1983. Al Baydda wells field, located 12km north of the city, is the primary source for municipal water hosting 22 water wells.¹⁸⁶ The water is then transported to the water storage ground reservoirs with a capacity of 10,000 m³, located at the Zabaria pumping station at the WSLC main yard, though a transmission main (operated by pumps). From there, the water is pumped to five distribution zones (out of eight), covering around 70 percent of all customers.¹⁸⁷ As of September 2015, there were 66,200 water and sanitation connections.¹⁸⁸

Al Baydda wells field mainly feeds Al-Mina district in the city, while Al-Hali district is dependent on eight wells in Al-Qutai'e wells field in Al Marawi'ah district.¹⁸⁹ From there, the water is pumped to the collection ground reservoir with a capacity of 5,000 m³, located in the wells field, and then by gravity to the collection reservoirs with a capacity of 10,000 m³, located at the July 7 pumping station.¹⁹⁰ This serves the remaining 30 percent of the customers. Furthermore, UNICEF provides diesel to operate water pumps at the three water reservoirs.¹⁹¹

Urban water supply coverage stood at about 75 percent throughout 2014 – 2017, before damages incurred in 2018. However, the quantity of urban water supply decreased by almost half a million m³ within the same period, from 14,015,800 in 2014 to 13,542,100 m³ in 2015.¹⁹² Furthermore, pre-crisis (2013 – 2014), almost 90 percent of the governorate's population had access to improved water sources, and as of 2016 – 2017, the percentage remained the same, with the water network being the main source of water supply.¹⁹³ The sanitation coverage for Al Hodeidah WSLC stood at 49 percent in 2015, and slightly decreased to 46 percent in 2017.¹⁹⁴

The water systems were heavily affected by the escalation of the conflict. Since December 2017, 18 incidents were reported to have impacted water facilities infrastructure in Al Hodeidah Governorate.¹⁹⁵ According to an assessment conducted in 2018, almost 70 percent of respondents in Al Hodeidah Hub mentioned water services as the top priority for rehabilitation.¹⁹⁶

184 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).

185 Manat Fayyad et al, *Social Water Studies in the Arab Region, State of the Art and Perspectives*, (GIZ, German Jordanian University, SLE, 2015) https://www.researchgate.net/profile/Mohammad_Al-Saidi/publication/316553797-Institutional-Reforms_in_the_Urban_Water_Supply_Sector_of_Yemen/links/59038aeaca272116d2fb0c6/Institutional-Reforms-in-the-Urban-Water-Supply-Sector-of-Yemen.pdf (accessed November 11, 2019).

186 Dorsch Consult; Gitec Consult; Yemen - Municipal Water Project: environmental assessment (Vol. 6) : Environmental impact assessment and EMP for Hodeidah Local Corporation (English), 2003, 50, <http://documents.worldbank.org/curated/en/279131468335060537/Environmental-impact-assessment-and-EMP-for-Hodeidah-Local-Corporation> (accessed November 11, 2019).

187 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 9: Technical Assessment Report for LC Hudaydah, (Bonn and Eschborn: GIZ, May 2018).

188 UNOPS, Yemen Integrated Urban Emergency Services Project (YIUSEP) Environmental and Social Management Framework (ESMF), (UNOPS, May 2018), <http://documents.worldbank.org/curated/en/494961526464057594/pdf/P164190-ESMF-Final.pdf> (accessed December 8, 2019).

189 Mohammed Al-Qadasi, WASH Needs Assessment, Al Hali & Al-Mina Districts, Al-Hudaydah Governorate, Yemen, (Life Makers Meeting Place Organization, 2019).

190 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, May 2018.

191 Water and Environment Center, Humanitarian Aspect of WASH in Yemen, 2017, <http://www.yemenwater.org/wp-content/uploads/2018/02/Humanitarian-Aspect-of-WaSH-in-Yemen.pdf> (accessed December 8, 2019).

192 UNOPS, Yemen Integrated Urban Emergency Services Project (YIUSEP) Environmental and Social Management Framework (ESMF), May 2018.

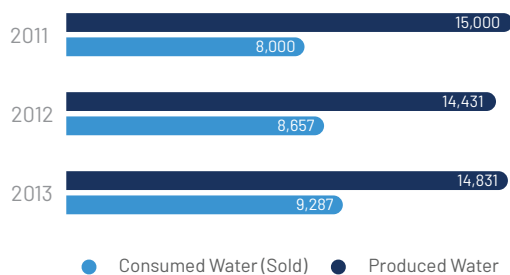
193 REACH, WASH Cluster, Access to Improved Water Sources in Yemen, Secondary Data Review, July 2017, https://www.impact-repository.org/document/reach/92eeda49/reach_yem_situation_overview_access_to_improved_water_sources_july_2017_final_0.pdf (accessed December 8, 2019).

194 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, May 2018.

195 Civilian Impact Monitoring Project Yemen. Available at <http://civilianimpactmonitoring.org/index.html>.

196 Tom Lambert & Afar Consulting, Yemen Multi-Sector Early Recovery Assessment, (EECR Cluster Yemen, 2018), <http://earlyrecovery.global/sites/default/files/yemen-multisector-earlyrecoveryassessment.pdf> (accessed November 25, 2018).

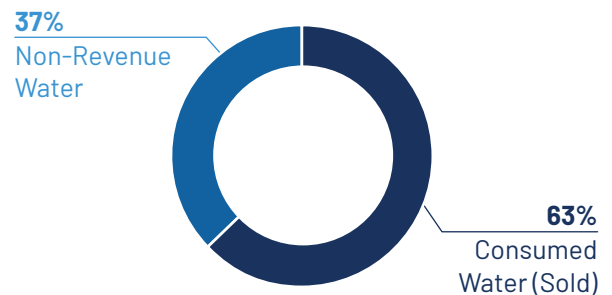
Figure 26: Quantity of Water Production and Consumption in Al Hodeidah Governorate (2011 – 2013) (in m³)



Source: CSO Statistical Yearbook, 2017.

Both in 2014 and 2015, the water supply through the public network was available regularly between 12 and 14 hours a day.¹⁹⁷ In 2017, public water supply was available 26 days a month¹⁹⁸, while another source suggests that currently, the public water network is only available for 15.5 hours every two days.

Figure 27: Share of Consumed and Non-Revenue Water in Al Hodeidah Governorate (2013)



Source: CSO Statistical Yearbook, 2014.

The amount of non-revenue water was already high pre-conflict (37 percent in 2014) and increased significantly following the escalation (55 percent in 2015).¹⁹⁹

Furthermore, the lack of electricity and increased fuel prices severely affected the operational capacity of the water supply and sanitation services. In 2017, it was reported that the water and sanitation system completely halted its operations due to the lack of these commodities.²⁰⁰ Overall, petrol prices saw a 131 percent increase from 158 YER pre-crisis to 365 YER in July and August 2019, while diesel prices increased from 150 YER to 450 YER during the same period.²⁰¹ Accordingly, it was reported in 2018 that prices for commercial water trucking can be four times higher compared to pre-crisis numbers.²⁰²

¹⁹⁷ Ibid.

¹⁹⁸ UNOPS, Yemen Integrated Urban Emergency Services Project (YIUSEP) Environmental and Social Management Framework (ESMF), (UNOPS, May 2018), <http://documents.worldbank.org/curated/en/494961526464057594/pdf/P164190-ESMF-Final.pdf> (accessed December 8, 2019).

¹⁹⁹ Water and Environment Center, Humanitarian Aspect of WASH in Yemen, 2017, <http://www.yemenwater.org/wp-content/uploads/2018/02/Humanitarian-Aspect-of-WaSH-in-Ye-men.pdf> (accessed December 8, 2019).

²⁰⁰ Tom Miles, "Three Yemen cities run out of clean water due to lack of fuel for pumps: ICRC," 17 November 2017, <https://www.reuters.com/article/us-yemen-security-blockade/three-yemen-cities-run-out-of-clean-water-due-to-lack-of-fuel-for-pumps-icrc-idUSKBN1DH1Q2> (accessed November 19, 2019).

²⁰¹ WFP, Yemen Market Watch Report, July and August 2019 – Issue No. 38, (WFP, 2019), https://fscluster.org/sites/default/files/documents/wfp_yemen_market_watch_-_july_and_august_2019.pdf (accessed December 8, 2019).

²⁰² UNOPS, Yemen Integrated Urban Emergency Services Project (YIUSEP) Environmental and Social Management Framework (ESMF), (UNOPS, May 2018), <http://documents.worldbank.org/curated/en/494961526464057594/pdf/P164190-ESMF-Final.pdf> (accessed December 8, 2019).

Sanitation Systems

The sanitation system in Al Hodeidah city was commissioned in the 1980s and did not receive proper maintenance or rehabilitation since then. Compounded by a lack of fuel and electricity, this has led to sewage leakages and overflows on the streets of the city.^{203, 204} Overflow of sewage has serious associated health risks leading for example to the increased spreading of diseases such as dengue fever.²⁰⁵ There is only one Wastewater Treatment Plant (WWTP) that serves Al Hodeidah city, which has a design capacity of 53,000 m³ per day and was operating at 42,000 m³ per day pre-conflict.²⁰⁶

In 2017, it was reported that the wastewater treatment plant in Al Hodeidah was operating at a partial capacity, with electricity provided by UNICEF.²⁰⁷ Recent assessments suggest that the WWTP sustained partial damage to the associated equipment at the pond sites, while mechanical equipment for screening and sand removal has been destroyed.²⁰⁸ The pumping station within the coverage area of Al Hodeidah WWTP also sustained some damage.²⁰⁹

Population Needs

According to HNO 2019 data, 132,200 people, or 75 percent of the population, are in need of water, sanitation and hygiene assistance in the three districts which comprise Al Hodeidah city, out of whom 103,400 people (almost 60 percent of the population) are in acute need.²¹⁰ In 2018, the total number of people in need was 364,042, representing approximately 60 percent of the population, all of whom were in acute need for water, sanitation and hygiene assistance.²¹¹

According to a 2019 assessment in Al Mina and Al Hali districts, 90 percent of HHs reported that they rely on the public water network as a primary source of water, followed by humanitarian aid (6 percent), and purchasing it from the supermarket/shop (3 percent). Only 1 percent of respondents indicated that they purchase water from water trucks, as a primary source.²¹² Reportedly, more than half (57 percent) of the HHs consume 80 – 120 liters per day, while more than a third (37 percent) consume more than 120 liters, 5 percent consume 40 – 80 liters and 1 percent consumes 20 – 40 liters per day. The main problems associated with obtaining sufficient water are long waiting times (27 percent), limited operating materials such as diesel (17 percent), far/remote distance of water collection points (15 percent) and damage of water collection points (15 percent).²¹³ The large majority of HHs (more than 85 percent) reported spending half an hour or less to go to fetch water from the main water points, while more than 10 percent of HHs reported spending between half an hour and one hour.²¹⁴

Even though during focal group discussions participants stated that the public network water is not safe to drink or cook with²¹⁵, most HHs (93 percent) reported that they do not treat drinking water (amongst others due to a lack of access to filters). Amongst those who treat it, 5 percent reported to boil water, 1 percent used chlorination and another 1 percent used ceramic filters. According to KIs, the main challenges when accessing the water are the inability to afford purchasing water from water trucks, followed by the inability to pay water bills, and water pollution.²¹⁶ Most KIs (85 percent) also reported that the collapse of water and sanitation services led to the spread of diseases.

203 Ibid.

204 UNDP Yemen, Sewage Project in Hodeidah, June 2017, <https://www.youtube.com/watch?v=0bi9tyJWWTE> (accessed December 18, 2019).

205 Ibid.

206 UNOPS, Yemen Integrated Urban Emergency Services Project (YIUSEP) Environmental and Social Management Framework (ESMF), (UNOPS, May 2018), <http://documents.worldbank.org/curated/en/494961526464057594/pdf/P164190-ESMF-Final.pdf> (accessed December 18, 2019).

207 UNICEF, WASH Cluster, Yemen: WASH Cluster Impact of Blockade, (WASH Cluster, November 2017), <https://reliefweb.int/report/yemen/yemen-wash-cluster-impact-blockade> (accessed November 25, 2019).

208 UNOPS, Yemen Integrated Urban Emergency Services Project (YIUSEP) Environmental and Social Management Framework (ESMF), (UNOPS, May 2018), <http://documents.worldbank.org/curated/en/494961526464057594/pdf/P164190-ESMF-Final.pdf> (accessed December 18, 2019).

209 Water and Environment Center, Humanitarian Aspect of WASH in Yemen, 2017, <http://www.yemenwater.org/wp-content/uploads/2018/02/Humanitarian-Aspect-of-WaSH-in-Yemen.pdf> (accessed December 18, 2019).

210 HNO 2019 and 2018 data, <https://data.humdata.org/dataset/yemen-humanitarian-needs-overview> (accessed September 12, 2019).

211 Ibid.

212 Mohammed Al-Qadasi, WASH Needs Assessment, Al Hali & Al-Mina Districts, Al-Hudaydah Governorate, Yemen, (Life Makers Meeting Place Organization, 2019).

213 Ibid.

214 Ibid.

215 Ibid.

216 Ibid.

Humanitarian Interventions

From January to October 2019, there were nine WASH cluster partners operating in the three districts of Al Hodeidah city, including three UN Agencies, three INGOs, and three NNGOs.²¹⁷ They provided a number of activities to support cholera and WASH Emergency Response, such as provision of spare parts and maintenance of water supply systems, hygiene promotion and community engagement, distribution of basic and consumable hygiene kits, water quality surveillance, provision of access to safe water through water trucking, repairment, rehabilitation or augmentation of water supply and sanitation systems. Also, UNDP supported the rehabilitation of manholes and inspection chambers at Al Mina district. The project targeted rehabilitation of manholes, as many of them have collapsed, while other ones were filled with garbage.²¹⁸

In November 2019, Tamdeen Youth Foundation signed a partnership agreement with the Local Water and Sanitation Foundation to maintain and clean the sewage system in several neighborhoods in Al Hawak district, Al Hodeidah city.²¹⁹ The same month, the Deputy Prime Minister for Services Affairs and Development and Minister of Water and Environment opened several water projects in Al Hodeidah governorate, which cost 6.3 billion YER.²²⁰

217 WASH Cluster, Yemen – WASH Cluster Partners Presence
(4Ws Matrix) Jan – October 2019, (December 2019) <https://app.powerbi.com/view?r=eyJrOiJ1b3ZGM2MwU0tNzkwYS00M-2RJLtk00WEtmZlhzYzZM2MzY0Nzk4liwidCl6ImY2ZjcwZjFlTl-JhMmQ0NGYzMCO4NTJhLTlY0YjhzZTBjMTlkNyIsImMiOjF9>
(accessed December 22, 2019).

218 UNDP Yemen, Sewage Project in Hodeidah, June 2017.

219 Tamdeen Youth Foundation, An agreement for the maintenance and cleaning of the sewage system in Al Hudaydah Governorate, (2019), <https://tamdeen-ye.org/2019/11/an-agreement-for-the-maintenance-and-cleaning-of-the-sewage-system-in-al-hudaydah-governorate/> (accessed December 22, 2019).

220 Yemen News Agency(SABA), "Deputy PM opens water projects at 6 billion riyals cost in Hodeidah," November 11, 2019, <https://www.saba.ye/en/news3078441.htm> (accessed November 15, 2019).

Overview

The electricity access in Yemen stands amongst the lowest in the Middle East and North Africa (MENA) region, with only 40 percent of HHs covered by the national distribution network across the country.²²¹ The gap between the peak demand and maximum available generation reached 600 MW in 2015. The ongoing conflict has significantly affected the power supply in Al Hodeidah, with the city lacking access to a reliable power supply.²²²

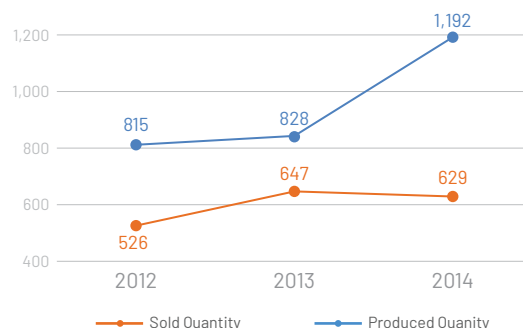
Institutional and Legal Framework

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.²²³ The central piece of national legislation for the electricity sector is the 2009 Electricity Law, which was introduced to improve the power sector management, including the facilitation of private sector environment.²²⁴ The legislation also established the Rural Electrification Authority and the Electricity Sector Regulatory Board, with the latter being 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 GoY established a dedicated department within the Ministry of Electricity and Energy and reorganized it to also address renewable wind and solar energy sectors in 2009.²²⁵ The government plans to increase the use of renewable energy to 15 – 20 percent by 2025.

Infrastructure and Operational Capacity

Figure 28: Produced and Sold Electric Power (GWH) in Al Hodeidah Governorate, 2012 – 2014)



Source: CSO Statistical Yearbook, 2017.

221 Towfick Sufian, Post Conflict Reconstruction Strategy Study for the Electricity and Energy Sector of Yemen, (Brussels: Energy Charter Secretariat, 2019), https://www.energycharter.org/fileadmin/DocumentsMedia/Occasional/2019-Yemen_paper_final.pdf (accessed January 6, 2020).

222 UNOPS, Yemen Integrated Urban Emergency Services Project (YIUSEP), Environmental and Social Management Framework (ESMF), 2018, 21, <http://documents.worldbank.org/curated/en/494961526464057594/pdf/P164190-ESMF-Final.pdf> (accessed December 8, 2019).

223 International Energy Charter, Energy Investment and Business Climate Report for Observer Countries (Brussels: Energy Charter Secretariat, 2017), 12, https://energycharter.org/fileadmin/DocumentsMedia/Occasional/Yemen_Investment_Report.pdf (accessed June 15, 2019).

224 Ibid.

225 Ibid.

Al Hodeidah city hosts one of the largest power plants in the country: Al Khateeb (also known as Ras Katnib) power plant, with a design capacity of 150 MW.²²⁶ The plant was commissioned in 1981 and operates on Heavy Fuel Oil (HFO) fuel. According to recent reports, the current available capacity of the plant stands at zero.²²⁷ This is also confirmed by the United Nations Office for Project Services (UNOPS) baseline assessment, which further states that private service suppliers cover only 5.5 percent of the city's electricity needs, with another 30 percent covered by Photovoltaic (PV) Solar Systems and privately-owned generators.²²⁸

Apart from this, there are several smaller scale diesel power plants. This includes Al Hali 1 and 2 plants, commissioned in 1980 and 2003 respectively, with a total design capacity of 27.75 MW and available capacity of 20 MW, and Al Kornish secondary sub-station, with 7.5 MW design capacity (three 2.5 MW diesel generators) and 5 MW available capacity.²²⁹ Media reports indicate that these stations halted operation between 2015 and 2016 due to a lack of fuel, stolen power transformers and damaged electricity cables.²³⁰

226 Adel Saleh Rawea, and Shabana Urooj, "Strategies, Current Status, Problems of Energy and Perspectives of Yemen's Renewable Energy Solutions", *Renewable and Sustainable Energy Reviews*, 82 (2018): 1655-63.

227 Towfick Sufian, *Post Conflict Reconstruction Strategy Study for the Electricity and Energy Sector of Yemen*, (Brussels: Energy Charter Secretariat, 2019), 45, https://www.energy-charter.org/fileadmin/DocumentsMedia/Occasional/2019-Yemen_paper_final.pdf (accessed January 6, 2020).

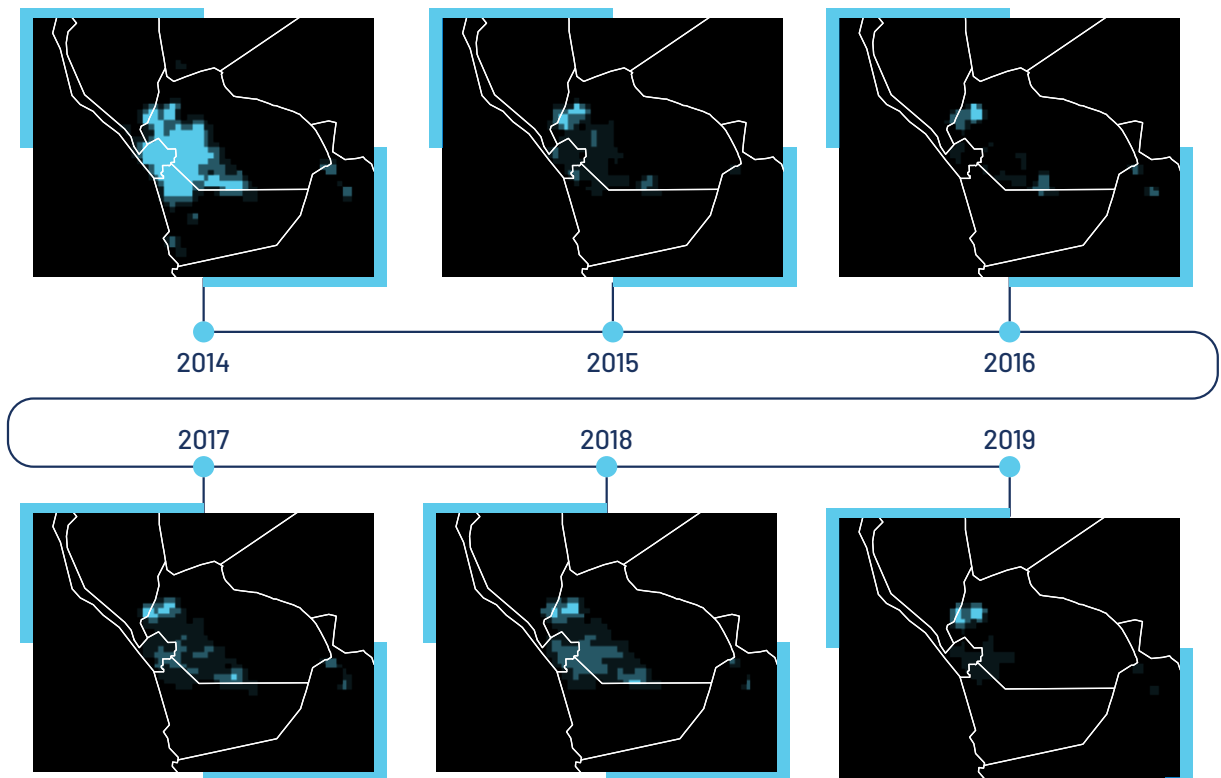
228 UNOPS, *Yemen Integrated Urban Emergency Services Project (YIUSEP), Environmental and Social Management Framework (ESMF)*, 2018, 21, <http://documents.worldbank.org/curated/en/494961526464057594/pdf/P164190-ESMF-Final.pdf> (accessed December 12, 2019).

229 Towfick Sufian, *Post Conflict Reconstruction Strategy Study for the Electricity and Energy Sector of Yemen*, (Brussels: Energy Charter Secretariat, 2019), 45, https://www.energy-charter.org/fileadmin/DocumentsMedia/Occasional/2019-Yemen_paper_final.pdf (accessed January 2020). Also see World Bank, *Yemen - Second Port Cities Development Project (PCDPII): Environmental Assessment; Environmental and Social Impact Assessment and Environmental and Social Management Plan*, 2010, 82-83, <http://documents.worldbank.org/curated/en/690681468171559772/Environmental-and-social-impact-assessment-and-environmental-and-social-management-plan> (accessed December 12, 2019).

230 Ali Owaida, "After One Year, Electricity Partly Returns to W. Yemen", *AA*, June 2016, <https://www.aa.com.tr/en/middle-east/after-one-year-electricity-partly-returns-to-w-yemen/587847> (accessed January 12, 2020).

In May 2015, it was reported that the main power station in Al Hodeidah completely halted operations due to a lack of fuel.²³¹ The city is connected to the national grid by the 132 kv transmission line, which is connected to two 132/33 substations and six 33/11 substations feeding the distribution system.²³² As of 2007, the power demand in the city was estimated to be 80 MW, with the industrial demand of 16 MW (excluding the industrial area at Ras Katnib).²³³ Following the 2015 escalation of the conflict, residents of Al Hodeidah city reportedly primarily relied on privately-owned generators.²³⁴ Power cuts were regularly reported during the clashes in Al Hodeidah in the summer of 2018, as a result of a lack of diesel.

Figure 29: Nightlights in Al Hodeidah city, 2014 – 2019, UN-Habitat (2020)



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

231 Hamdan al-Aliyi, "Summer Heat Fuels Humanitarian Crisis in Yemen", The New Arab, May 2015, <https://www.alaraby.co.uk/english/features/2015/5/18/summer-heat-fuels-humanitarian-crisis-in-yemen> (accessed January 12, 2020).

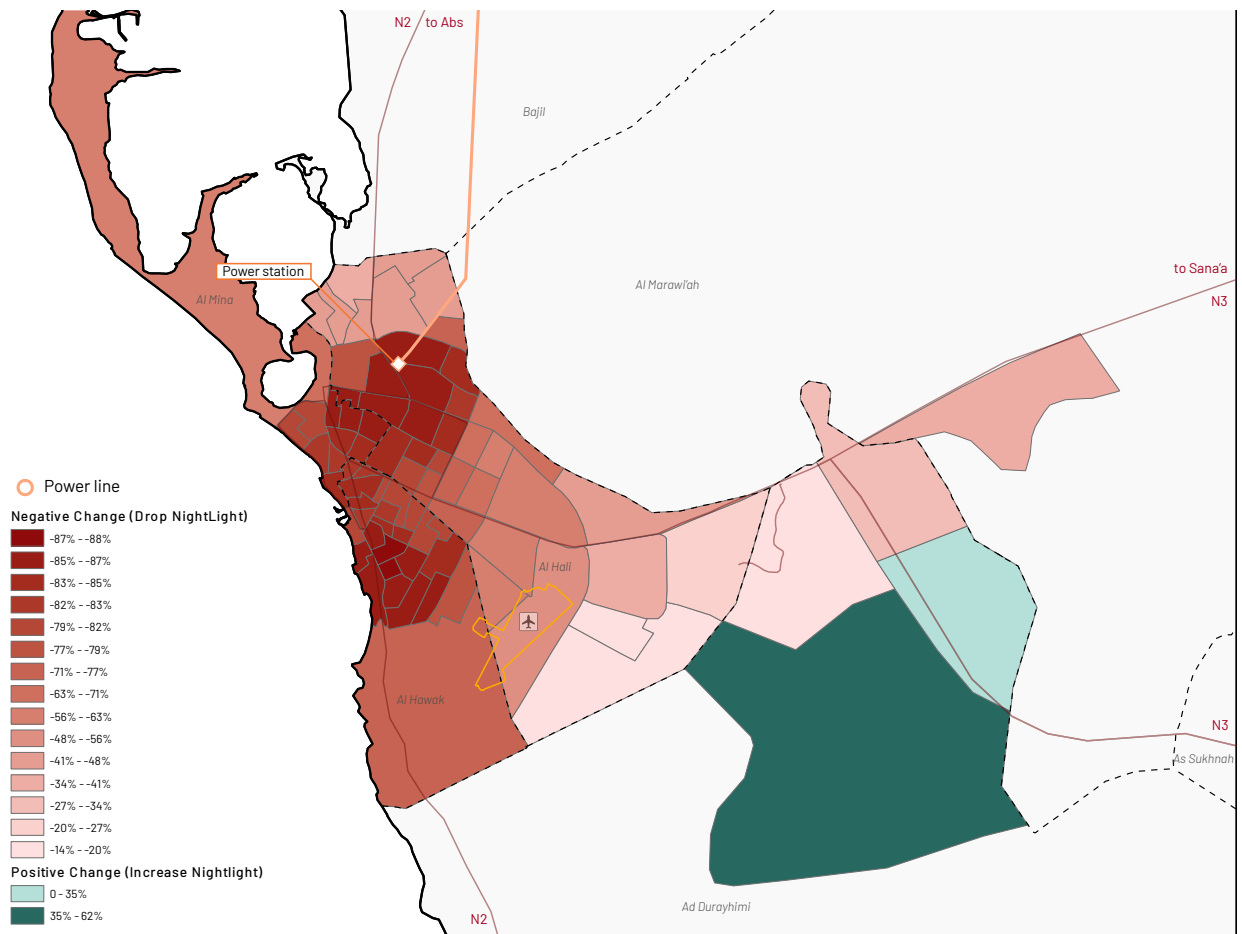
232 World Bank, Yemen - Second Port Cities Development Project (PCDP II): Environmental Assessment; Environmental and Social Impact Assessment and Environmental and Social Management Plan, 2010, 82-83, <http://documents.worldbank.org/curated/en/690681468171559772/Environmental-and-social-impact-assessment-and-environmental-and-social-management-plan> (accessed December 6, 2019).

233 World Bank, Yemen - Second Port Cities Development Project (PCDP II): Environmental Assessment; Environmental and Social Impact Assessment and Environmental and Social Management Plan, 2010, 82-83, <http://documents.worldbank.org/curated/en/690681468171559772/Environmental-and-social-impact-assessment-and-environmental-and-social-management-plan> (accessed December 6, 2019).

234 Dahlia Nehme, "As Hodeidah Battle Grinds on, Residents Suffer Lack of Clean Water, Electricity", Reuters, 22 June, 2018, <https://www.reuters.com/article/yemen-security/as-hodeidah-battle-grinds-on-residents-suffer-lack-of-clean-water-electricity-idUSL8N1T01NV> (accessed December 6, 2019).

Across Yemen, 55 percent of the power sector infrastructure sustained some degree of damage, while 8 percent is destroyed.²³⁵

Figure 30: Nightlight change in Al Hodeidah, 2014 – 2019, UN-Habitat (2020)



Source: Earth Observation Group, NOAA, National Centers for Environmental Information (2014 – 2019); data processed by PNGK.

Several assets of electricity infrastructure were reportedly attacked during the conflict. This includes airstrikes in Al Hali and Al Hawak districts in December 2015, which reportedly targeted the Public General Electricity storage units, setting it on fire, and airstrikes in February 2017 in Al Hawak district, which hit water and electricity infrastructure.²³⁶ More recently, in November 2018, reports indicate that Houthis burnt electrical equipment of the General Electricity Corporation worth millions of YER, after losing control of it.²³⁷

²³⁵ Ghassan Al-Akwaa, "Measuring Electricity Access amidst Active Conflict: Lessons from Yemen", May 2019, <https://blogs.worldbank.org/energy/measuring-electricity-access-amidst-active-conflict-lessons-yemen> (accessed November 2, 2019).

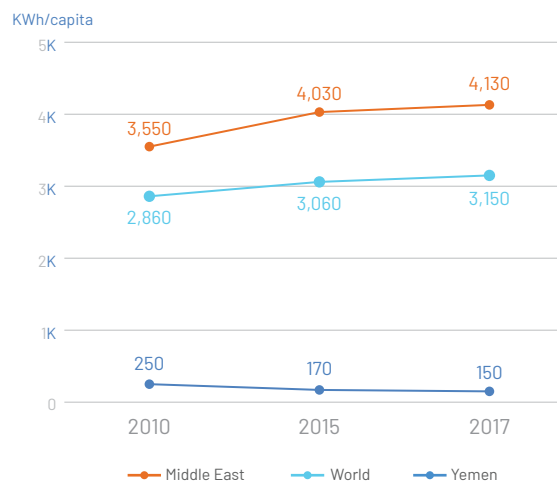
²³⁶ ACLED data, available at <https://www.acleddata.com/data/>.

²³⁷ Ibid.

Population Needs

Already prior to the conflict, more than 65 percent of the population in the city had no access to electricity.²³⁸ Since the escalation of the conflict, public power supply has almost completely stopped, with reports indicating that only commercial electricity is available in the city, which is very expensive.²³⁹ However, some sources suggest that public electricity is available intermittently for 6-8 hours a day, dependent on the diesel provision for the power plant. According to the same sources, the price of public and commercial electricity is almost identical. Residents are also increasingly relying on private generators and on solar panels.

Figure 31: Electricity Consumption per Capita in Yemen, 2010 – 2017



Source: IEA, Data and Statistics, 2010 – 2017.

Privately owned generators can be very expensive, as they depend on diesel for its operation. As of August 2019, diesel was reportedly sparsely available in Al Hodeidah Governorate, with a retail price of 450 YER, triple the pre-crisis price of 150 YER.²⁴⁰ Prices on the black market can go even higher, with reported 700 YER for 1 liter of diesel in September 2018.²⁴¹

Apart from the private generators, solar energy remains a significant source of power supply for many Yemenis. According to a study conducted by the Percent for Polling Research in January 2017, half of the Yemeni population (51 percent) relies on solar panels, while almost a third (28 percent) has no electricity at all and about one-fifth (21 percent) uses other sources, including

public electricity and generators.²⁴² In Al Hodeidah Governorate specifically, almost 40 percent of the population reportedly use solar panels to meet their electricity demand, either exclusively or as one of the sources.²⁴³ Local sources indicate that solar energy is also used in hospitals, health centers (mainly for lightening, fans and simple devices in the laboratory), and schools. However, several problems were associated with the usage of solar panels. First, many Yemenis opt for lower-priced equipment, which is of lower quality and unreliable long-term.²⁴⁴ The lack of equipment, and improper installation also means that solar panels are more vulnerable to bad weather conditions, such as storms and strong wind. Second, there is a general lack of financial institutions offering loans, which are often reserved for people who can provide financial guarantees, such as governmental employees.²⁴⁵ Moreover, media reports suggest that those who own a solar panel are still unable to cover all of their electricity needs, including operation of home appliances.²⁴⁶

Power outages are especially challenging during summer, as temperatures often reach 40 °C. Furthermore, food and medical supplies often get spoiled, as the local population is unable to run refrigerators without interruption. Medical supplies getting spoiled particularly affects people with chronic diseases, such as diabetes and high-blood pressure.²⁴⁷

Intermittent electricity supply also poses a great risk to the operation of HFIs, including major hospitals.²⁴⁸ For instance, the country's largest dialysis center is located in Al Hodeidah city, and patients visiting to receive treatment sometimes have to wait for days due to the constant power outages.²⁴⁹ While many hospitals turned to relying on generators, electricity supply is still restricted due to diesel shortages.²⁵⁰ Many schools are also left without power supply, making classrooms unbearably hot during the summer months.

242 Percent for Polling Research, Solar Energy in Yemen, 2017, <https://www.facebook.com/percentyemen/photos/a.362248090513108/1573767599361145/?type=3&theater> (accessed January 25, 2020).

243 Ibid.

244 Regional Center for Renewable Energy and Energy Efficiency (RCREEE), World Bank, Assessment of the Status of Solar PV in Yemen, 2017, <https://www.rcreee.org/sites/default/files/121707-wp-public-p158449-wb-rcreee-solar-pv-in-yemen-report-002.pdf> (accessed January 25, 2020).

245 Ibid.

246 France 24, The Observers, "War, Heatwave and a Mystery Illness Strike Yemeni Town", June 2016, <https://observers.france24.com/en/20160606-yemen-war-heatwave-hospital-illness-health> (accessed January 25, 2020).

247 Hamdan al-Aliyi, "Summer Heat Fuels Humanitarian Crisis in Yemen", The New Arab, May 2015, <https://www.alaraby.co.uk/english/features/2015/5/18/summer-heat-fuels-humanitarian-crisis-in-yemen> (accessed January 25, 2020).

248 WHO, Situation Report #3, Al Hudaydah Operation Yemen, 01-07 July 2018, http://www.emro.who.int/images/stories/yemen/WHO_INTERNAL_Sitrep_AL-Hudaydah_no.3_1_to_7_July_-3_jm.pdf?ua=1 (accessed January 25, 2020).

249 France 24, The Observers, "War, Heatwave and a Mystery Illness Strike Yemeni Town", June 2016, <https://observers.france24.com/en/20160606-yemen-war-heatwave-hospital-illness-health> (accessed January 25, 2020).

250 Ibid.

238 The World Bank, Cities Alliance, Hodeidah: Agro-Industrial Capital of Yemen, Local Economic Development Strategy, 2009, https://siteresources.worldbank.org/INTLED/Re-sources/339650-1122490529659/Hodeidah_CDS_072308.pdf (accessed December 8, 2019).

239 Annie Slemrod, "Whatever happened to the ceasefire deal in Yemen?", The New Humanitarian, February 2019, <http://www.thenewhumanitarian.org/analysis/2019/02/06/whatever-happened-ceasefire-deal-yemen> (accessed December 2019).

240 WFP, Yemen Market Watch Report, Issue No. 38, July and August 2019, <https://fscluster.org/yemen/document/wfp-market-watch-report-issue-no38-july> (accessed January 25, 2020).

241 UNOCHA, Yemen Humanitarian Update Covering 18 - 27 September 2018, Issue 28, <https://reliefweb.int/report/yemen/yemen-humanitarian-update-covering-18-27-september-2018-issue-28-enar> (accessed January 25, 2020).

14 Solid Waste Management (SWM)

Overview

SWM services in Al Hodeidah city significantly decreased during the conflict, which led to the accumulation of waste on the streets of the city. Reportedly, this led to the contamination of the water supply, posing serious health risks to the population of the city.

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.²⁵¹ 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 (MPWH). 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.²⁵² 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' Local Corporations.²⁵³

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.²⁵⁴ 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.²⁵⁵

The CCIF 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 funding allocated by the central government.²⁵⁶ 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, and other 23 types of fees.²⁵⁷ While local taxation is the main source of revenue for CCIF, it also receives transfers from the central government. 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.

Several development actors support Waste Management in Yemen, mainly through working at the institutional level and through funding provision. A limited number of interventions was implemented directly at a governorate or city level. The most prominent international organizations and development actors include the World Bank, Japan International Cooperation Agency (JICA), Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH (GIZ), UNDP, United States Agency for International Development (USAID), Mercy Corps (MC), UNICEF and the International Committee of the Red Cross (ICRC).²⁵⁸

²⁵¹ MoLA; National Strategy for Solid Waste Management, 13 – 17.

²⁵² Ibid.

²⁵³ Ibid.

²⁵⁴ Ibid.

²⁵⁵ Ibid.

²⁵⁶ Ibid.

²⁵⁷ Ibid.

²⁵⁸ Ibid.

Solid Waste Challenges

Currently, the large majority (about 80 percent) of citizens in Al Hodeidah city (Al Hali and Al Mina) burn their waste²⁵⁹, as solid waste collection does not happen daily (indicated by almost 95 percent of interviewed HHs) and there are virtually no initiatives or campaigns to promote garbage disposal.²⁶⁰ However, when asked about the places for waste disposal, 70 percent of respondents reported throwing waste to the open spaces, while almost 30 percent stated that they dispose of waste into garbage drums. Almost all HHs (98 percent) stated that the local population suffers due to the throwing waste in the neighborhoods.²⁶¹

As a result of the active conflict and use of the explosive weapons, large amounts of debris have been generated in Yemeni cities.²⁶² This conflict debris is sometimes contaminated with the Explosive Remnants of War (ERW), which poses serious risk to the safety of the population, especially children, and complicates debris.²⁶³

The Al Hodeidah city landfill is located approximately 17 km from the city center, along the Harad Road and covers an area of about 1 km².²⁶⁴ The CCIF holds formal ownership of the land and provides operational and maintenance support. Trucks deliver waste from the city, which is then spread in layers and covered with sand or soil. In 2018, the only operational vehicle at the landfill was a bulldozer, which is used to spread the waste in thin layers.²⁶⁵ As a result, some of the waste is windblown to the neighborhood and birds and insects have access to the uncovered waste. According to an analysis conducted between 2012 and 2018, the Al Hodeidah city landfill sustained several fires during this period²⁶⁶ associated with the uncontrolled release of trace gases such as methane, which is highly flammable. There is also a recycling plant in Al Hodeidah²⁶⁷; data is unfortunately unavailable.

Throughout the conflict, a deficiency in the waste management services were noted in the city, among others because displacement of individuals drained CCIF from staff. In 2018, the reported service coverage for SWM in Al Hodeidah city stood at 50 percent, significantly lower than in Aden (80 percent) and Amanat Al Asimah (70 percent).²⁶⁸ Generation of solid waste was estimated at 350 tons daily in 2019. Collapsed solid waste management service provision has led to increased accumulation of garbage on the streets of the city, threatening a contamination of the water supply.²⁶⁹

259 Mohammed Al-Qadasi, WASH Needs Assessment, Al Hali & Al-Mina Districts, Al-Hudaydah Governorate, Yemen, (Life Makers Meeting Place Organization, 2019).

260 Ibid.

261 Ibid.

262 Conflict and Environment Observatory, "How Yemen's Conflict Destroyed its Waste Management System", August 2019, <https://ceobs.org/how-yemens-conflict-destroyed-its-waste-management-system/> (accessed November 25, 2019).

263 UNDP, Immediate Support to Solid Waste Management, Debris Removal, and to Women affected by War, through Cash for Work in Yemen, Project Document, <https://www.undp.org/content/dam/yemen/Projects/docs/Prodoc-WASH.pdf> (accessed December 29, 2019).

264 UNOPS, Yemen Integrated Urban Emergency Services Project (YIUSEP) Environmental and Social Management Framework (ESMF), (UNOPS, May 2018), <http://documents.worldbank.org/curated/en/494961526464057594/pdf/P164190-ESMF-Final.pdf> (accessed December 29, 2019).

265 Ibid.

266 Conflict and Environment Observatory, "How Yemen's Conflict Destroyed its Waste Management System", August 2019, <https://ceobs.org/how-yemens-conflict-destroyed-its-waste-management-system/> (accessed November 25, 2019).

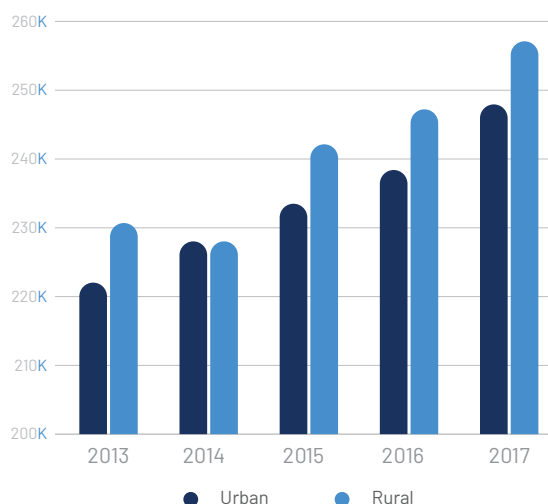
267 SWEEP-Net, Country Report on the Solid Waste Management in YEMEN (Bonn and Eschborn: GIZ, 2014), https://www.retech-germany.net/fileadmin/retech/05_mediathek/laenderinformationen/Jemen_RA-ANG_WEB-Laenderprofil_sweep_net.pdf, (accessed December 29, 2019).

268 UNOPS, Yemen Integrated Urban Emergency Services Project (YIUSEP) Environmental and Social Management Framework (ESMF), (UNOPS, May 2018), <http://documents.worldbank.org/curated/en/494961526464057594/pdf/P164190-ESMF-Final.pdf> (accessed December 29, 2019).

269 UNDP, "Hodeidah: Thousands take to the streets for Ramadan clean-up campaign," May 2019, <https://www.ye.undp.org/content/yemen/en/home/presscenter/pressreleases/2019/thousands-take-to-the-streets-cleaning-hodeidah-at-ramadan-.html> (accessed December 29, 2019).

At a governorate level, the total estimated quantity of the solid waste increased from 452,700 tons pre-conflict (2013) to 505,000 tons in 2017, representing an 11 percent increase.

Figure 32: Estimated Solid Waste Quantities in Al Hodeidah Governorate in Tons (2013 – 2017)



Source: CSO Statistical Yearbook, 2016 and 2017.

Prior to the conflict, the Government of Yemen attempted to privatize SWM in several Yemeni cities, including Al Hodeidah, through leasing equipment and facilities from local authorities. Reportedly, these initiatives failed due to incomplete and vague contracts, absence of performance monitoring, and unreliability of payments.²⁷⁰

Humanitarian Interventions

In February 2019, IOM, in partnership with the CCIF, launched a cleaning campaign in the city, through which over 360 people formerly employed by the CCIF participated in exchange for cash payments.²⁷¹ From April to June 2019, the Sustainable Development Foundation implemented the Emergency Solid Waste Management Response Project in Al Hawak, Al Mina and Al Hali districts, funded by UNDP. The project, designed as cash-for-work, provided wage support to the District Cleaning Fund of Al Hodeidah, as well as 19 trucks, maintenance of SWM vehicles, and diesel support.²⁷²

270 SWEEP-Net, Country Report on the Solid Waste Management in YEMEN (Bonn and Eschborn: GIZ, 2010), <https://www.resource-recovery.net/sites/default/files/countryreportyemen-en-mai2011.pdf>, (accessed December 29, 2019).

271 Manal Jahaf, "Cleaning up the Streets of Al Hudaydah", IOM, 2019, <https://weblog.iom.int/cleaning-streets-al-hudaydah> (accessed December 29, 2019).

272 Sustainable Development Foundation, "Emergency Solid Waste Management Response Project in Al Hudaydah," 2019, <http://sdf-yemen.org/SubProjects.aspx?ID=39> (accessed December 29, 2019).

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 Transportation (MoT). The former is responsible for inspecting and licensing vehicles and services while the latter sets policy and manages airport and port facilities.²⁷³ In addition, the MPWH supervises the overall road infrastructure, including development and maintenance.²⁷⁴ 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.²⁷⁵ 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 several 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.²⁷⁶ Further regulations were introduced in 2004 that deal with cargo and trucks freight transport, passenger (bus) transport, and car rentals.

Infrastructure and Operational Capacity

Road Networks and Vehicles

Al Hodeidah city (and its port) is connected with its hinterland across three national roads, heading north to Harad and onwards to KSA (N2/M55), east to Sana'a and onwards to Ma'rib and Safer (N3/Sana'a Road, built between 1958 – 1962 with financial and technical assistance provided by the People's Republic of China and constituting the first paved inter-urban road in Yemen)²⁷⁷, and south diverting towards Ta'iz and the port of Al Makha (N2/R60). The northern road is used by humanitarian organizations for the movement of humanitarian staff and cargo; the route is longer than the normal route east to Sana'a. The primary road network is complemented by west-east running secondary roads connecting the northern national road with the major south-north national artery at Huth and at Amran, and with a northwest southeast running secondary road connecting the eastern national road across one diversion with Dhamar and Al Bayda, and across a second diversion with Yarim and Ibb.²⁷⁸

The development of new roads in the 1960s made the Tihama plain better accessible for agricultural production, which were then traded in Al Hodeidah city and exported. Pre-2015, Sana'a Road was the principal commercial corridor of Al Hodeidah city (and its port), carrying substantial volumes of traffic. The industrial corridor along Sana'a Road features some of the larger industrial developments in the city, including the Al-Bahr-al-Ahmar (Red Sea) Mills and Yamani factories. Pre-2015, proposals were made to expand the city further along Sana'a Road (due to lack of available land in the city) and to establish an Industrial Estate approximately 16km north of the city.²⁷⁹

As of 2017, there was a total of 1184km of asphalt roads in Al Hodeidah Governorate, compared to 1181km in 2016, and 1176.5 in 2015.²⁸⁰ It should be noted that Al Hodeidah Governorate is one of two governorates for which CSO within the 2015 – 2017 timeframe recorded an annual increase in percentage of asphalt roads.

273 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 November 25, 2019).

274 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 November 25, 2019).

275 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 November 25, 2019).

276 Ibid.

277 Ragaei el Mallak, The Economic Development of the Yemen Arab Republic (RLE Economy of Middle East), October 30, 2014, <https://books.google.jo/books?id=qBchBQAAQBAJ&pg=PA73&lpg=PA73&dq=road+network+hodeidah&source=bl&ots=VA4cgHuaOK&sig=ACfU3U0urZbPVro4SaNc12n6iKUelhugig&hl=n-I&sa=X&ved=2ahUKEwjg-Jrg0bfmAhVT8aYKHSQsDPYQ6A-EwBHoECAoQAQ#v=onepage&q=road%20network%20hodeidah&f=false> (accessed November 25, 2019).

278 The Cornell Group, Inc., USA, Phase II, Transport-Cost Report, Development of a National Port Strategy for Yemen, Prepared for: Port Cities Development Program, March 2009, <http://www.villacarmen.de/reports/Yemen%20NPS%20Transport-Cost%20Report.pdf> (accessed November 25, 2019).

279 The World Bank, Hodeidah: Agro-Industrial Capital of Yemen, Local Economic Development Strategy, October 22, 2009, https://siteresources.worldbank.org/INTLED/Resources/339650-1122490529659/Hodeidah_CDS_072308.pdf (accessed November 25, 2019).

280 CSO, Statistical Yearbook 2017, July 22, 2019, <http://www.cso-yemen.com/content.php?lng=english&id=690> (accessed November 25, 2019).

Table 8: Conditions Al Hodeidah Roads, May 2018

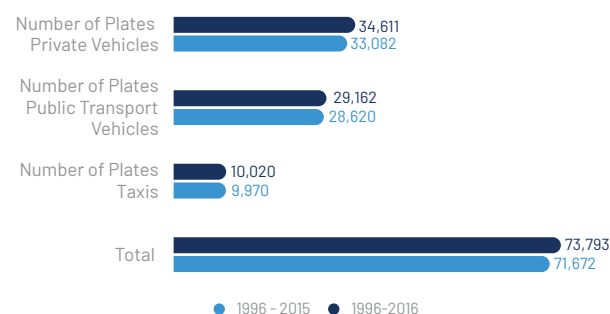
Sector	Length (m)	Width (m)	Condition		
			● Good	● Fair	● Bad
Al-Katheeb Road	14,000	50	50%	30%	20%
Al-Shohada Street	2,400	40	50%	40%	10%
Thirty Street	2,000	30	30%	48%	22%
Fifty Street Section A	1,850	50	30%	50%	20%
Al-Katheeb Street	1,600	40	28%	50%	22%
University Street	1,600	30	40%	40%	20%
Northern Al-Kornish Street	1,450	40	30%	50%	20%
Forty (Al Kouds) Street	1,350	40	50%	40%	10%

Source: UNOPS, YEMEN INTEGRATED URBAN EMERGENCY SERVICES PROJECT, 2018.

Road safety is poor (particularly in rainy weather and at night), and accidents are numerous. Available 2015 data from the CSO shows that Al Hodeidah Governorate has the largest numbers of car accidents when compared to other cities like Aden, Sana'a, and Hadramawt. Prior to the outbreak of the conflict, it was already reported that there were significant problems in al Hodeidah city, particularly in terms of road safety.

The city's urban structure focuses congestion at points where medial roads intersect with Sana'a Road. The junction between Sana'a Road, Jamal Road and Airport Road is one of the most important intersections as it is located in the middle of Al Hodeidah city and serves as a distributor for traffic emerging from a variety of areas; it is particularly congested being located at a point adjacent to the Old City and the commercial area of Bab Musharraf and a focus of pedestrian and vehicular traffic, and is in need of improvement. Additional areas specified which need improvement include the seaport and Al Hali fishing port.

Public and Private Vehicles

Figure 33: Total Amount of Number Plates Issued by Vehicle Type in Al Hodeidah Governorate, 1996 – 2016

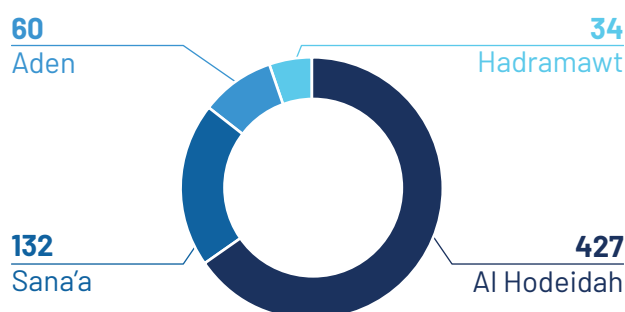
CSO, Statistical Yearbook, 2017.

The public transportation system in Al Hodeidah city consists of several types of primarily low capacity vehicles. As there are no high capacity vehicles, the low capacity vehicles and many taxis frequently create traffic congestion and damage to the surface roads. In addition, roads have suffered considerable damage from conflict events.

According to CSO data, a total of 73,793 vehicles were registered in Al Hodeidah Governorate in 2016; 34,611 constituted private vehicles, 29,162 were public transport vehicles, and 10,020 were taxis.²⁸¹ Data available for 2015 stipulates that a total of 71,672 vehicles were registered in Al Hodeidah Governorate; 33,082 constituted private vehicles, 28,620 were public transport vehicles, and 9,970 were taxis.²⁸² It is important to note, however, that there is a large number of smuggled and officially unregistered vehicles used on Yemen's roads and the practice of not registering cars is common; therefore, actual numbers can be higher. Currently, public transport vehicles are both state and privately owned.

Pre-conflict reporting states that main cities which have witnessed rapid urban growth during the past decade, including Al Hodeidah city, were particularly facing challenges with traffic congestion associated with poor public transportation system. As a result, urban dwellers mainly relied on the use of private vehicles, causing severe traffic congestion on internal roads and major roads between cities.²⁸³

Pre-2015, nearly 100 percent of road freight transport was operated by the private sector and there was free entry into the industry. The vehicles, ranging from small pick-ups to larger trucks were either operated on "own account" in association with the owner's main business or for general freight operations through the "farzah" system which is a type of informal local transportation system. The purpose of the "farzah" is to regulate the industry in such a way as to provide general freight vehicle owner operators with suitable loads in an orderly sequence and thus spread available business through the transport fleet. This is undertaken through many "farzahs", based in most towns, the biggest of which was in Al Hodeidah and controlled an estimated 8,000 vehicles.²⁸⁴

Figure 34: Total Number of Accidents by Governorate, 2015

Source: CSO, Statistical Yearbook, 2017.

Though 2016 – 2017 data is not available for all governorates, it should be noted the number of traffic accidents in Al Hodeidah Governorate has significantly increased since 2015; in 2016, a total of 507 accidents were recorded, while this more than doubled for 2017, with 1,038 accidents recorded. Interestingly, the number of deaths and injuries reported as a result of car accidents in Al Hodeidah Governorate between 2015 – 2017 does not always correspond with the reported increase in traffic accidents.

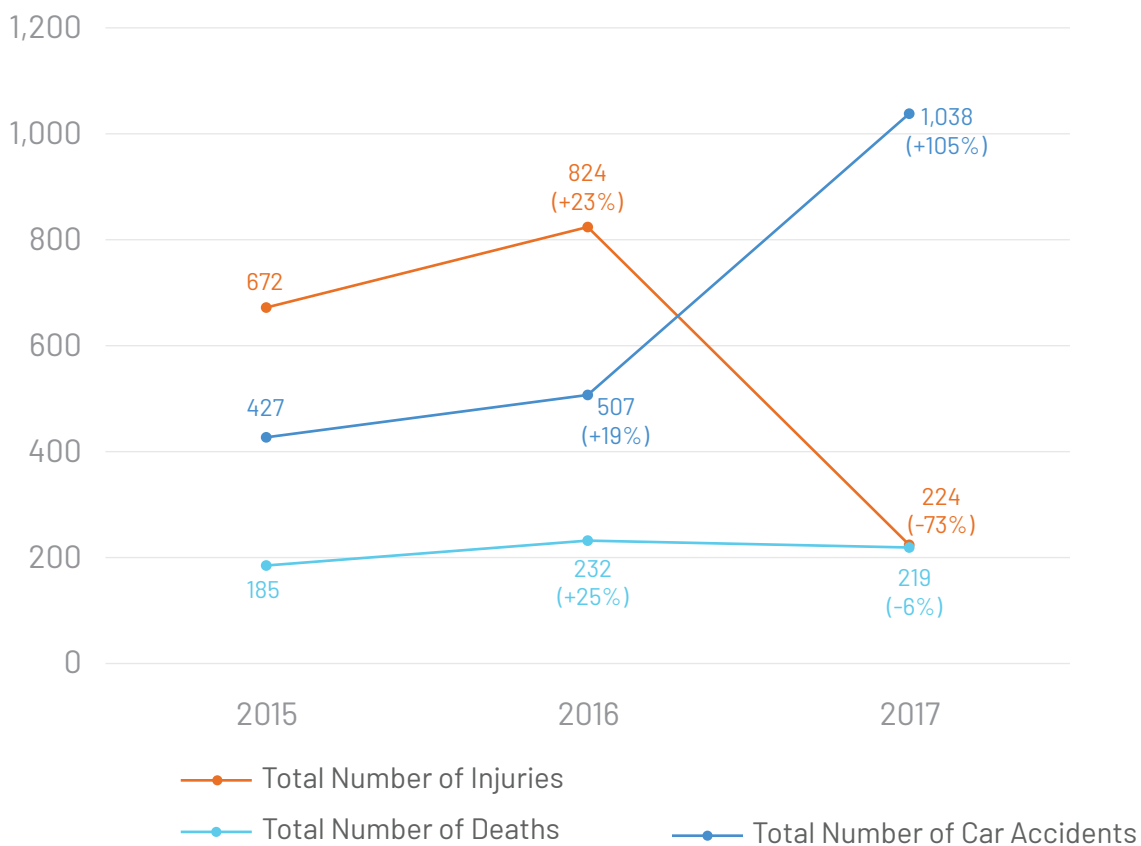
281 Ibid.

282 Ibid.

283 UN-Habitat, Republic of Yemen National Report, Third United Nations Conference on Housing and Sustainable Urban Development, Habitat III, September 2016, <http://habitat3.org/wp-content/uploads/Yemen-National-Report-September-2016.pdf> (accessed December 21, 2019).

284 The World Bank, Hodeidah: Agro-Industrial Capital of Yemen, Local Economic Development Strategy, 22 October 2009, https://siteresources.worldbank.org/INTLED/Resources/339650-1122490529659/Hodeidah_CDS_072308.pdf (accessed December 21, 2019).

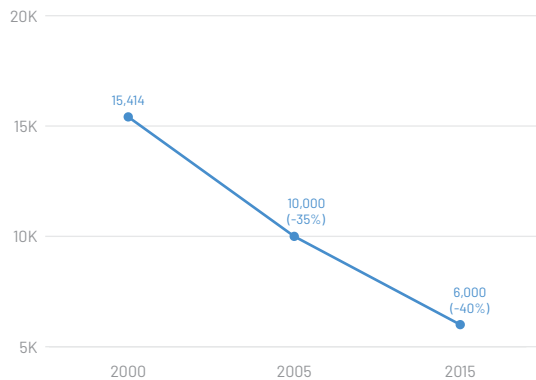
Figure 35: Total Number of Deaths and Injuries as a Result of Car Accidents in Al Hodeidah Governorate, 2015 – 2017



CSO, Statistical Yearbook, 2015 – 2017.

Al Hodeidah International Airport

Figure 36: Total Arrivals into Al Hodeidah International Airport



CSO, Statistical Yearbook, 2017.

Al Hodeidah International Airport began receiving international flights after an upgrade in 1979.²⁸⁵ Although the airport was originally designed as a medium-sized but high standard facility, it has been reported that the airport has been in decline since the 1980s due to a decline in passenger numbers following the effect of travel being diverted to Aden.²⁸⁶ International media in June 2018 reported that Coalition forces had seized control of the airport²⁸⁷, though these reports have been much contested with July 2018 international media reports stating that Houthi-run media were showing Houthi forces again in control of the facility.²⁸⁸

Total arrivals into Al Hodeidah International Airport decreased from 15,400 in 2000 to 10,000 in 2005, which included 3,000 international travelers; according to business people in Al Hodeidah at the time, foreign visitors were either businesspeople or families driving down from KSA seeking an affordable holiday destination.²⁸⁹ Latest available CSO data (2015) indicates a further decrease, with total arrivals into Al Hodeidah International Airport being recorded at 6,000.²⁹⁰ Out of a total of 6,000 passengers, 2,000 passengers were recorded as international travelers and 4,000 as domestic travelers.²⁹¹

Al Hodeidah air and seaport have sustained heavy damages to their buildings, support facilities, and infrastructures to the extent that in October 2017 (prior to the peak of the Al Hodeidah conflict) it was reported that buildings, facilities, and infrastructures were either non-functioning or operating at very low capacity.²⁹²

²⁸⁵ Ragaei el Mallak, *The Economic Development of the Yemen Arab Republic (RLE Economy of Middle East)*, October 30, 2014, <https://books.google.jo/books?id=qBchBQAAQBAJ&pg=PA73&lpg=PA73&dq=road+network+hodeidah&source=bl&ots=VA4cgHua-0K&sig=ACfU3U0urZbPVro4SaNc12n6iKUelhugig&hl=n-l&sa=X&ved=2ahUKEwjq-Jrg0bfmAhVT8aYKHSQsDPYQ6A-EwBHoECAoQAQ#v=onepage&q=road%20network%20hodeidah&f=false> (accessed December 21, 2019).

²⁸⁶ Ibid.

²⁸⁷ See, e.g., Reuters, "Saudi-led coalition seizes Yemen's Hodeidah airport, fears for population grow", June 20, 2018, <https://www.reuters.com/article/us-yemen-security/saudi-led-coalition-seizes-yemens-hodeidah-airport-fears-for-population-grow-idUSKBN1JG0Y0> (accessed December 21, 2019). See, also, US News, *Yemeni Officials Say Fighting Rages Around Hodeida Airport*, June 19, 2018, <https://www.usnews.com/news/world/articles/2018-06-19/yemeni-officials-say-fighting-rages-around-hodeida-airport> (accessed December 21, 2019).

²⁸⁸ See, e.g., Middle East Eye, *Fog of war clouds Hodeidah airport as media disagree about who controls site*, July 3, 2018, <https://www.middleeasteye.net/news/fog-war-clouds-hodeidah-airport-media-disagree-about-who-controls-site> (accessed December 21, 2019).

²⁸⁹ The World Bank, *Hodeidah: Agro-Industrial Capital of Yemen, Local Economic Development Strategy*, October 22, 2009, https://siteresources.worldbank.org/INTLED/Resources/339650-1122490529659/Hodeidah_CDS_072308.pdf (accessed December 21, 2019).

²⁹⁰ CSO, *Statistical Yearbook 2017*, July 22, 2019, <http://www.cso-yemen.com/content.php?lng=english&id=690> (accessed December 21, 2019).

²⁹¹ Ibid.

²⁹² World Bank Group, *Yemen Transport Sector Input to the Yemen Policy Note no. 4. on Inclusive Services Delivery*, 4 October 2017, <http://documents.albankaldawli.org/curated/ar/636961508411397037/pdf/120532-WP-P159636-PUBLIC-Yemen-Transport-Input-Note-4-10-17WE.pdf> (accessed December 21, 2019).

Al Hodeidah Seaport, Ahmad Port

Located in the northwest of the city and adjacent to Jizan Road (to KSA), Al Hodeidah Port is situated 4 km from the city center, at the landward end of a 20 km long channel with a draught, limited to 9.7 meters. Yemen's first deep water port, through which 70 percent of Yemen's imports and 80 percent of humanitarian assistance flows²⁹³, has become the country's major aid pipeline due to the Saudi-led coalition's blockade of Yemen's borders and airspace.²⁹⁴ For the Houthis, controlling Al Hodeidah is vital as it provides the mostly land-locked northern Houthi-controlled areas, including Sana'a, with access to the Red Sea and its maritime traffic. However, due to the current security and access situation, little is known about the exact extent of the damages to the port. Al Hodeidah's seaport is currently used for the delivery of humanitarian assistance.

Pre-conflict, it was reported there were 14 covered warehouses including cold storage, 9 berths, a variety of sophisticated cranes, an automated customs system (Asyscude system), the possibility of on-site machinery repair, and an on-site health clinic.²⁹⁵ The seaport has two main gates, on Al Mina and Jizan roads.

Latest available CSO data for 2015 – 2017 shows that, there was a significant increase in number of commodities being unloaded in Al Hodeidah Seaport between 2015 and 2016, except for wood (-40.7 percent) and cars (-33 percent). Between 2016 and 2017 there was a significant decrease in number of tons of commodities being unloaded in Al Hodeidah Seaport, except for wheat, cereals, and flour (+48.3 percent), wood (+65.6 percent), and cars (+55.3 percent). Wheat, cereals, and flour have been the only commodities which an annual increase has been reported for between 2015 – 2016 and 2016 – 2017.

Severe fuel shortages were again reported in September and October 2019 as fuel-laden vessels accumulated outside Al Hodeidah's ports; however, GoY waived restrictions on clearances in October 2019 amid pressure from the international community, including humanitarian actors. At the time of writing, this trend has persisted, with fuel availability returning to recent average levels. In November 2019, Special Envoy to Yemen, announced that a mediated solution between GoY and Houthi authorities on fuel imports had been reached. Under the agreement, revenues from imports into Al Hodeidah's ports would be deposited into an UN-overseen account in the local Central Bank of Yemen (CBY) branch. These funds would be used for public-sector salary payments in Houthi-held areas. High fuel prices have contributed to high operating costs. Many people have increasingly been relying on public transportation, as they do not afford a private car.

293 UNDP, UNDP provides critical vehicles to support demining efforts in ports of Hodeidah, May 28, 2019, <https://reliefweb.int/report/yemen/undp-provides-critical-vehicles-support-demining-efforts-ports-hodeidah> (accessed December 21, 2019).

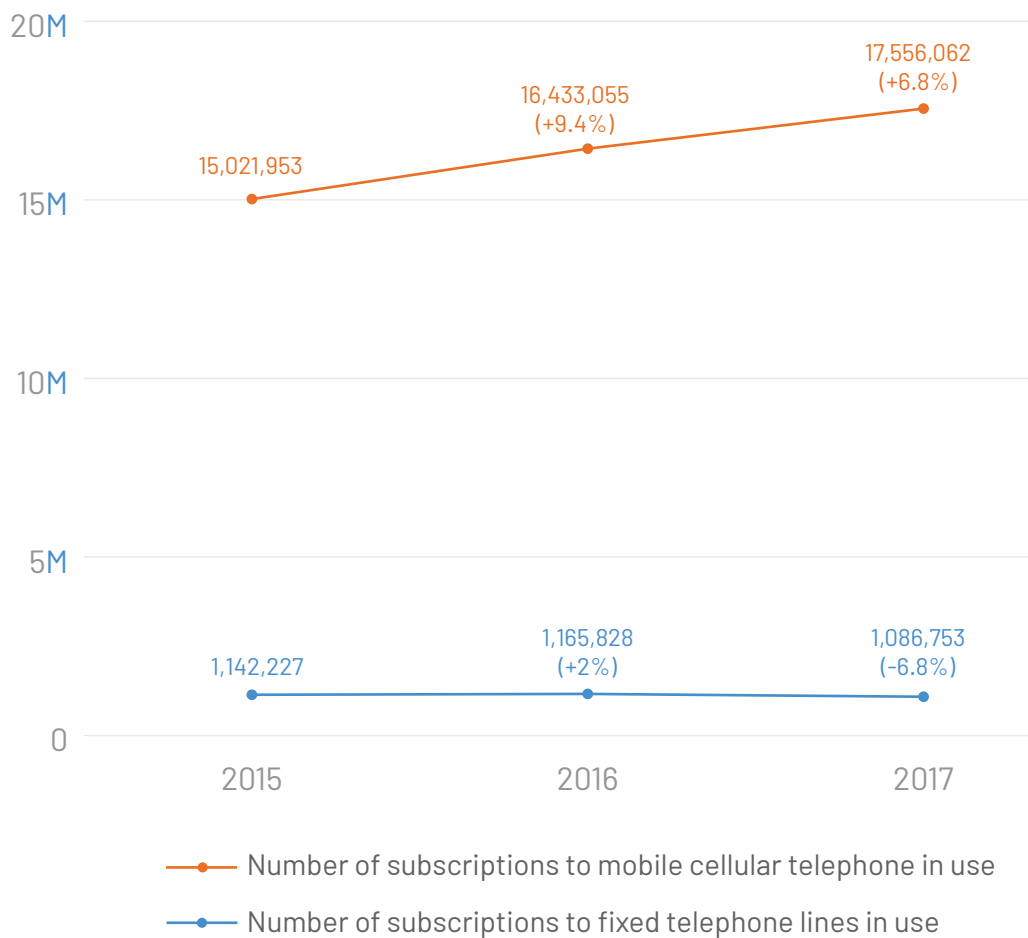
294 The Guardian, "Hope for 'turning point' in Yemen after Houthis' Hodeidah withdrawal", May 15, 2019, <https://www.theguardian.com/world/2019/may/15/yemen-hope-for-turning-point-after-houthi-hodeidah-port-withdrawal> (accessed December 21, 2019).

295 The World Bank, Hodeidah: Agro-Industrial Capital of Yemen, Local Economic Development Strategy, October 22, 2009, https://siteresources.worldbank.org/INTLED/Resources/339650-1122490529659/Hodeidah_CDS_072308.pdf

Background

In the past few years, the total number of operating telephone lines in Al Hodeidah Governorate has steadily increased, with 72,201 operating lines report in 2015, 74,560 in 2016, and 75,944 in 2017.²⁹⁶ Additionally, the total number of internet cafes and call centers has slightly increased in Al Hodeidah Governorate, with 1,401 internet cafes and call centers reported in 2015, 1,409 in 2016, and 1,417 in 2017.²⁹⁷

Figure 37: Number of Subscriptions to Fixed Telephone Lines and Mobile Cellular Telephones in Yemen, 2015-2017



Source: CSO, Statistical Yearbook, 2017.

²⁹⁶ CSO, Statistical Yearbook 2017, July 22, 2019, <http://www.cso-yemen.com/content.php?lng=english&id=690> (accessed June 21, 2020).

²⁹⁷ Ibid.

Infrastructure and Operational Capacity

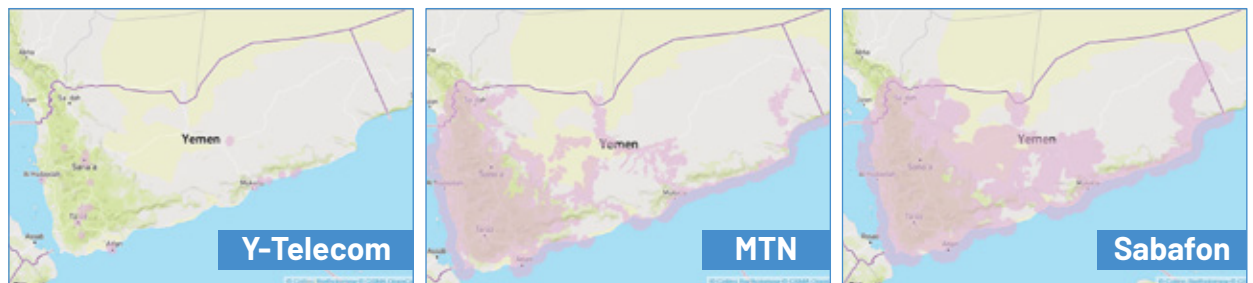
In 2014, the state-owned Public Telecommunication Corporation (PTC) had 13,000km of fiber optic running across Yemen which served as the country's infrastructure backbone and connects Yemen to the international submarine fiber network at Aden, Al Mukalla, and Al Hodeidah and runs up to Sa'ada.²⁹⁸ While damages and needs are yet to be determined, fiber optic networks are usually deployed above ground in Yemen, which makes them visible and therefore vulnerable.²⁹⁹ In their May 2017 report, the World Bank recommends for deployment of fiber via linear infrastructure including electricity grids and roads and/or highways.³⁰⁰

In July 2018, media reported internet services to almost 80 percent of Yemen were disrupted due to damages to the fiber optic cable in three places in Al Qanawis and Al Marawi'ah districts in Al Hodeidah Governorate.³⁰¹ In March 2019, WFP reported that when approaching Al Hodeidah city, "the first thing that really hits you (...) is that you lose all connectivity. Inside the city, there is no fiber or any other landline connection at all."³⁰² In response to this, the WFP-led Emergency Telecommunications Cluster (ETC) has established four internet "hubs" where UN and (I)NGO staff can access the internet.³⁰³ The ETC in March 2019 was the only internet provider in the city, enabling the humanitarian response in the area.³⁰⁴

Service Providers

There are three mobile phone operators in Al Hodeidah: MTN Yemen, Sabafon, and Y-Telecom (HiTS Unitel).³⁰⁵ Yemen Mobile, a state-owned operator, does not provide services in Al Hodeidah Governorate including Al Hodeidah city. It should be noted that, prior to the conflict, only Yemen Mobile was provided permission to provide 3G services; the other phone operators (Y-Telecom, MTN, and Sabafon) only had licenses to offer 2G or 2.5G services, with 2.5G allowing for very limited data capacity.³⁰⁶ The World Bank, in May 2017, reported that the three private operators are in need of license renewal in order to upgrade their networks for expansion and provision of higher capacity mobile broadband services (i.e. 3G/4G); the larger operators have been ready to upgrade their networks since 2012.³⁰⁷ Open source media, in January 2020, reported that more than 80 percent of internet capacities in Yemen had gone out of service due to an unknown issue with the Falcon internet cable (in Su'ez).³⁰⁸

Figure 38: Mobile Network Coverage Al Hodeidah Governorate 2019



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

298 World Bank, Input to The Yemen Policy Note no. 4 on Inclusive Services Delivery, Yemen Information & Communication Technology (ICT), May 27, 2017, <http://documents.worldbank.org/curated/en/337651508409897554/pdf/120531-WP-P159636-PUBLIC-Yemen-ICT-Policy-Note-Input-to-PN-4.pdf> (accessed November 17, 2019).

299 Ibid.

300 Ibid.

301 The National, Houthis cut off internet to 80 per cent of Yemen, July 5, 2018, <https://www.thenational.ae/world/mena/houthis-cut-off-internet-to-80-per-cent-of-yemen-1.747535> (accessed November 17, 2019).

302 WFP, Back to Yemen, March 13, 2019, <https://insight.wfp.org/back-in-the-field-a64b40ababa8> (accessed November 17, 2019).

303 Ibid.

304 Ibid.

305 GSMA, Network Coverage Maps, <https://www.gsma.com/coverage/> (accessed November 17, 2019).

306 World Bank, Input to The Yemen Policy Note no. 4 on Inclusive Services Delivery, Yemen Information & Communication Technology (ICT), May 27, 2017, <http://documents.worldbank.org/curated/en/337651508409897554/pdf/120531-WP-P159636-PUBLIC-Yemen-ICT-Policy-Note-Input-to-PN-4.pdf> (accessed November 17, 2019).

307 Ibid.

308 Al Masdar Online, "مؤسسة الاتصالات تعلن خروج أكثر من 80% من سعات الإنترنت الدولية في اليمن", January 9, 2020, <https://almasdaronline.com/articles/176281> (accessed November 17, 2019).

Population Needs

Reliable and secure telecommunications and internet services are vital, but significantly disrupted. While a complete picture of damage to the telecommunications infrastructure is not available, mobile towers are often deliberately targeted, maintenance is dangerous for staff (which have often been withdrawn due to the conflict), and a scarcity of telecommunications equipment (including charging stations) as well as limited internet access is reported, especially in more rural areas.³⁰⁹ Humanitarian organizations are hindered in their operations due to inaccessibility and disruption of communication channels and rely on satellite and radio communications.³¹⁰ These challenges are exacerbated by a lack of infrastructure, and difficulties in importing needed supplies. HNO reports that humanitarians will require solar-powered solutions to overcome power outages and fuel shortages.³¹¹

309 CIA Factbook, Yemen, last updated December 6, 2019, <https://www.cia.gov/library/publications/the-world-factbook/geos/ym.html> (accessed November 17, 2019).

310 See, e.g., Yemen Health Cluster, Health Cluster Bulletin #1 (period up to 7 June 2015), Yemen Humanitarian Crisis, http://www.emro.who.int/images/stories/yemen/Health_Cluster_Bulletin_.pdf?ua=1 (accessed November 17, 2019).

311 UNOCHA, Humanitarian Needs Overview 2019, https://reliefweb.int/sites/reliefweb.int/files/resources/2019_Yemen_HNO_FINAL.pdf (accessed November 17, 2019).

17 Strategic Recovery Priorities

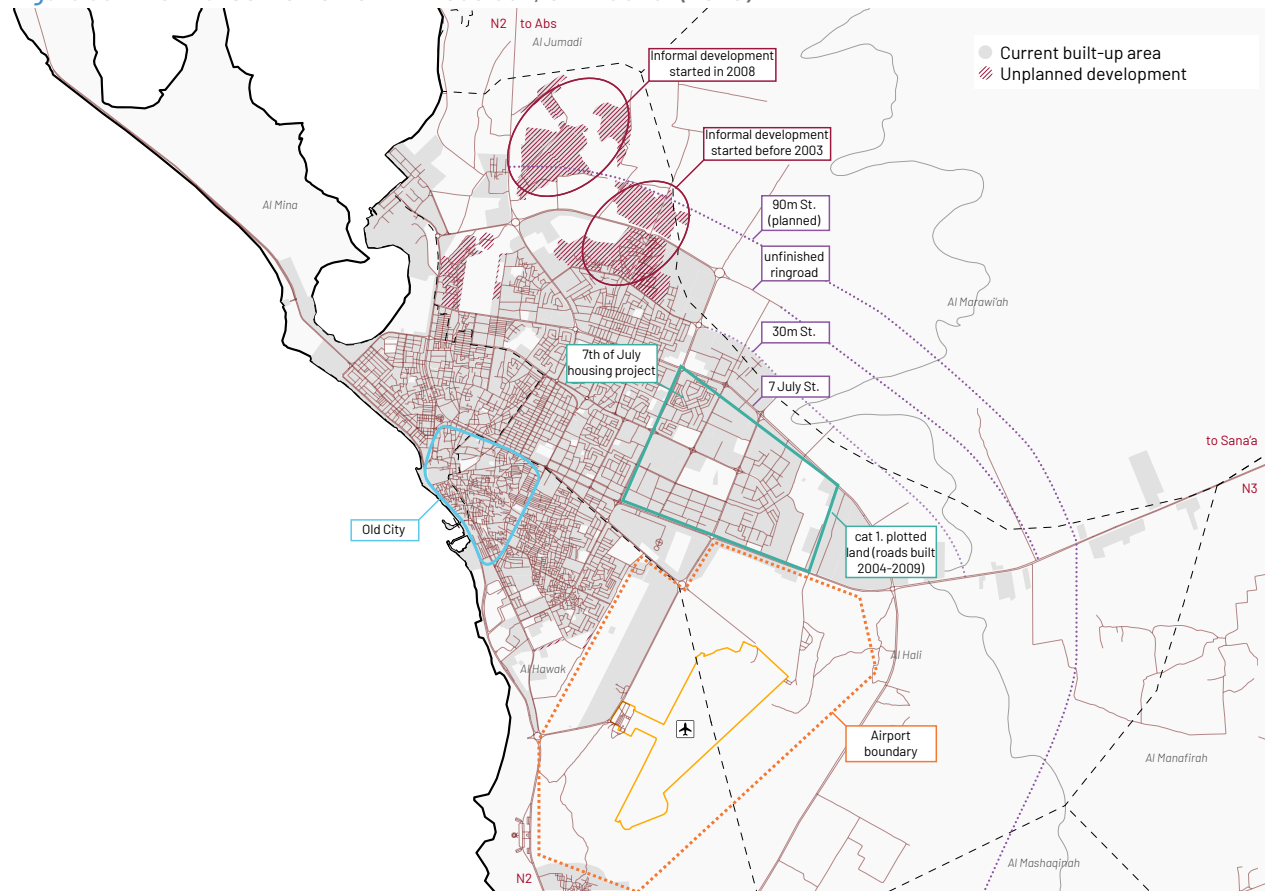
Al Hodeidah faces huge interlinked challenges related to the erosion of its economic bases, including the labor pool, damage to productive facilities and basic services, including education health and basic infrastructure. Even though the below list is far from comprehensive and excludes critical political solutions that are a precondition for recovery, the below suggestions will be of key strategic importance to support the economic recovery of the city.

Increase the 'habitable' housing stock to facilitate returns

IDPs from Al Hodeidah are living in extremely difficult living conditions, with many having moved to live in villages around Al Hodeidah. Others have moved to major cities to live in rental houses often living in overcrowded conditions (e.g. three to four families sharing a house) due to high rents. However, in many cases, returns are hindered by extensive damages to their properties: analysis of satellite imagery suggests that more than 4,000 damaged buildings have been damaged, although the actual figure is likely to be significantly higher. Comparisons with assessments in other cities; such as Aden and Ta'iz, suggest that a multiplication of four to ten times the amount identified in satellite imagery has to be considered which would imply 16,000 - 40,000 damaged houses in Al Hodeidah.

Consequently, increasing the 'habitable' housing stock through public provision of low-cost housing for low-income families, owner support models or housing rehabilitation programs will be critical to support returns. This should go hand in hand with a clarification of the legal status of informal settlements, which are among the most affected areas in Al Hodeidah. Inhabitants in these informal settlements will struggle to access rehabilitation funding without a pathway to formalization.

Improving housing delivery by the private sector will be helped by densification policies that promote developing "greenfield" areas that are already serviced with infrastructure, in line with the 2025 Masterplan in the east of the city, as well as the approval of vertical constructions near the city center with improved building standards.

Figure 39: Informal Settlements in Al Hodeidah, UN-Habitat (2020)

The World Bank, Hodeidah: Agro-Industrial Capital of Yemen, October 2009.

Diversify energy generation and supply mechanisms

The blockade and devaluation of the currency have led to increasingly severe shortages of fuel, severely restricting the country's electricity supply – which has had a significant knock-on effect on the wider economy, including in raising the price of essential goods such as food. For example, the storage and transportation of perishable products have increased the cost of irrigation, transportation and marketing, resulting in higher production costs for farmers. The frequent interruptions in the supply of electricity also caused a complete cessation of most commercial and investment businesses and has impeded the functioning of hospitals and schools.

The conflict has also created a marketplace for electric power and citizens call attention to the daily suffering by unmet needs of the basic necessities for life, and the high costs of commercial electricity. Now there is a lack of institutions providing loans to the most vulnerable share of the population for the construction of independent and sustainable energy sources.

A dual strategy of restarting the state's generation stations at full capacity (Ma'rib Gas Station First, Al Katheeb Station) and rehabilitating transmission stations and electrical transmission, while investing in decentralized energy supply based on renewable resources will be key to the economic recovery of the city.

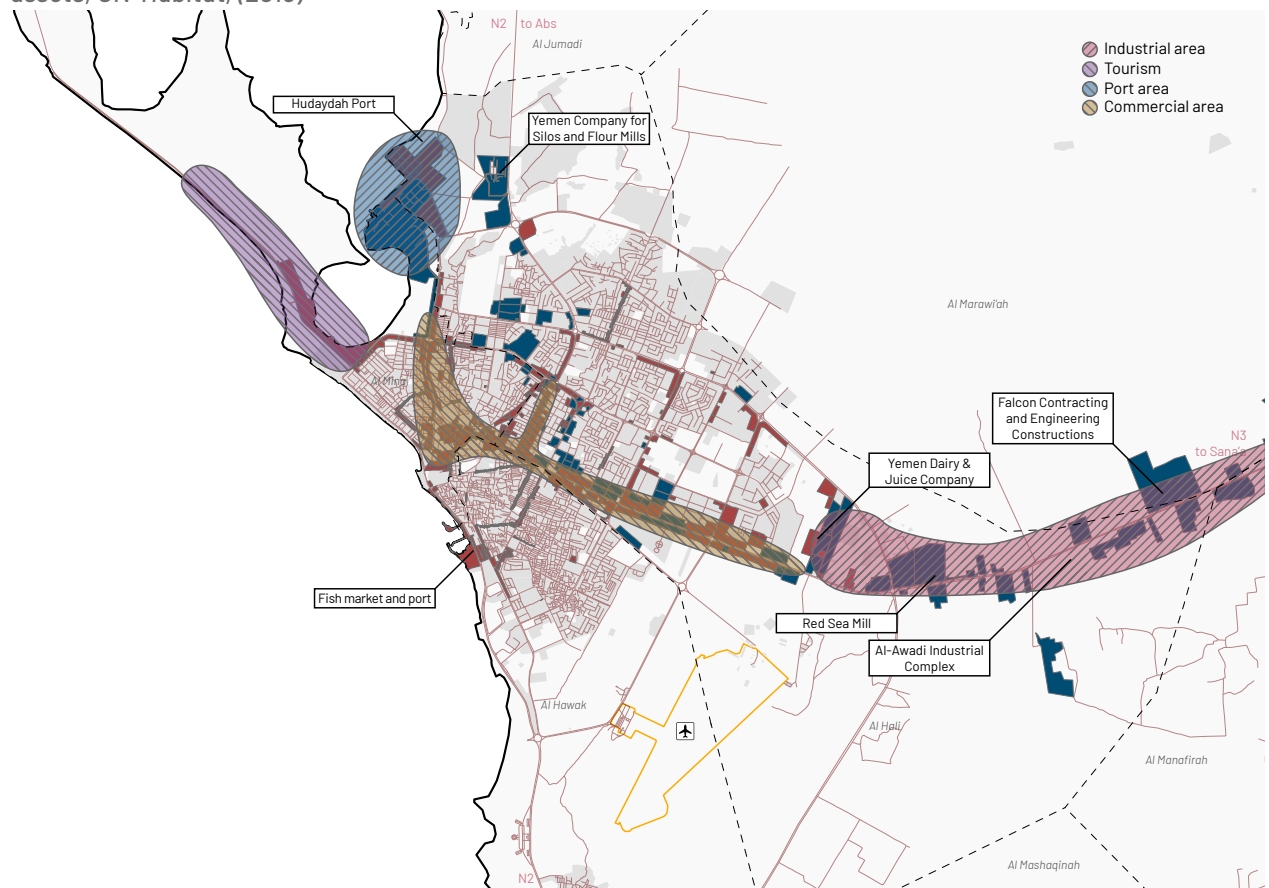
Restoring water, sewage and solid waste management networks

Availability of water before the conflict was good, but the water infrastructure was badly damaged during the conflict, among others by impact craters and the digging of trenches. Damages to the 40-year-old sewage network, both caused by conflict and backlogs in maintenance, caused overflows of sewage on streets. Coupled with the decline in solid waste management (which covered only 50 percent of the city by 2018), this increases the threats of outbreaks of diseases. Protection of the health of Al Hodeidah's citizens by improving infrastructure networks, promoting a better cooperation between the three institutional bodies responsible for water management as well as investments in the technical and material (e.g. equipment and trucks) capacity of local governments will go a long way in improving the quality of life of Al Hodeidah's residents.

Investing in the value chain of (food) production

As infrastructural facilities of the fisheries sector are damaged, the remaining ones are operating far above capacity, while producing less. Further contributing to the drop in agricultural production is the fact that workers in many cases cannot access lands because of the security situation, and that operating irrigation pumps has become increasingly expensive. Furthermore, many facilities of Al Hodeidah's strategic port such as warehouses, berths and cranes were heavily damaged. All this has knock-on effects on the whole food production value chain, including food processing, packaging and logistics sectors, which processes a major part of national agricultural products and is the one of the largest employers in the city. Recovering this sector through infrastructure investments (incl. irrigation, demining, rehabilitation of facilities) is therefore not only of local, but also of national importance.

Figure 40: The structure of Al Hodeidah's economic assets, UN-Habitat, (2019)



Source: JRC, Google Maps and Wikimapia.

Industrial facilities developed mainly along the N1 road to Sana'a and around the port. The road penetrates the urban fabric reaching the old city, hosting numerous commercial activities. Based on remote sensing analysis,

Planning for a strengthened and diversified labor pool

The employment in Al Hodeidah during the conflict was reduced by more than 70 percent due to the cessation of many economic activities and massive displacements. Consequently, long- and short-term effects on the labor pool include both the immediate loss of skilled labor, as well as the threat of a 'lost generation' due the loss of education opportunities and work experience. This is exemplified by the upcoming challenge of reintegrating many combatants into the labor pool after cessation of hostilities. Transitioning towards development programming, for example by developing investment programmes for the creation of job opportunities for the youth, supported by training programmes to raise the number of qualified professionals will be critical to build the foundations of economic recovery. This should go hand in hand with equal opportunity programmes within Al Hodeidah, making sure that vulnerable groups including women will be able to access the labor market as well.

ANNEXES

Asset Verification

The team identified multiple areas to assess within the city of Al Hodeidah based on verifying satellite imagery from UNOSAT (2019) and Digital Globe (May 2020) for 200 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:

Assessed Locations to Verify Damages

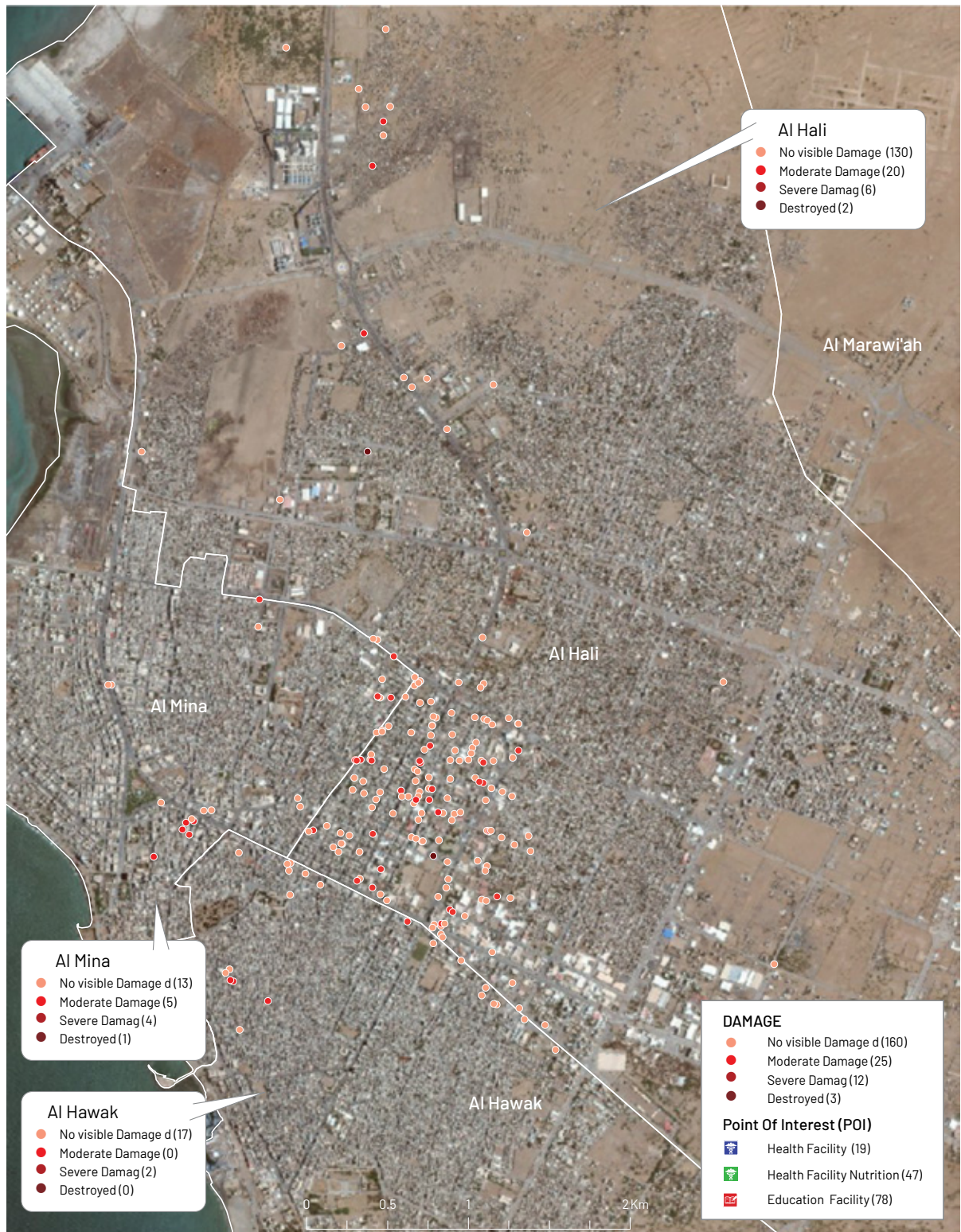
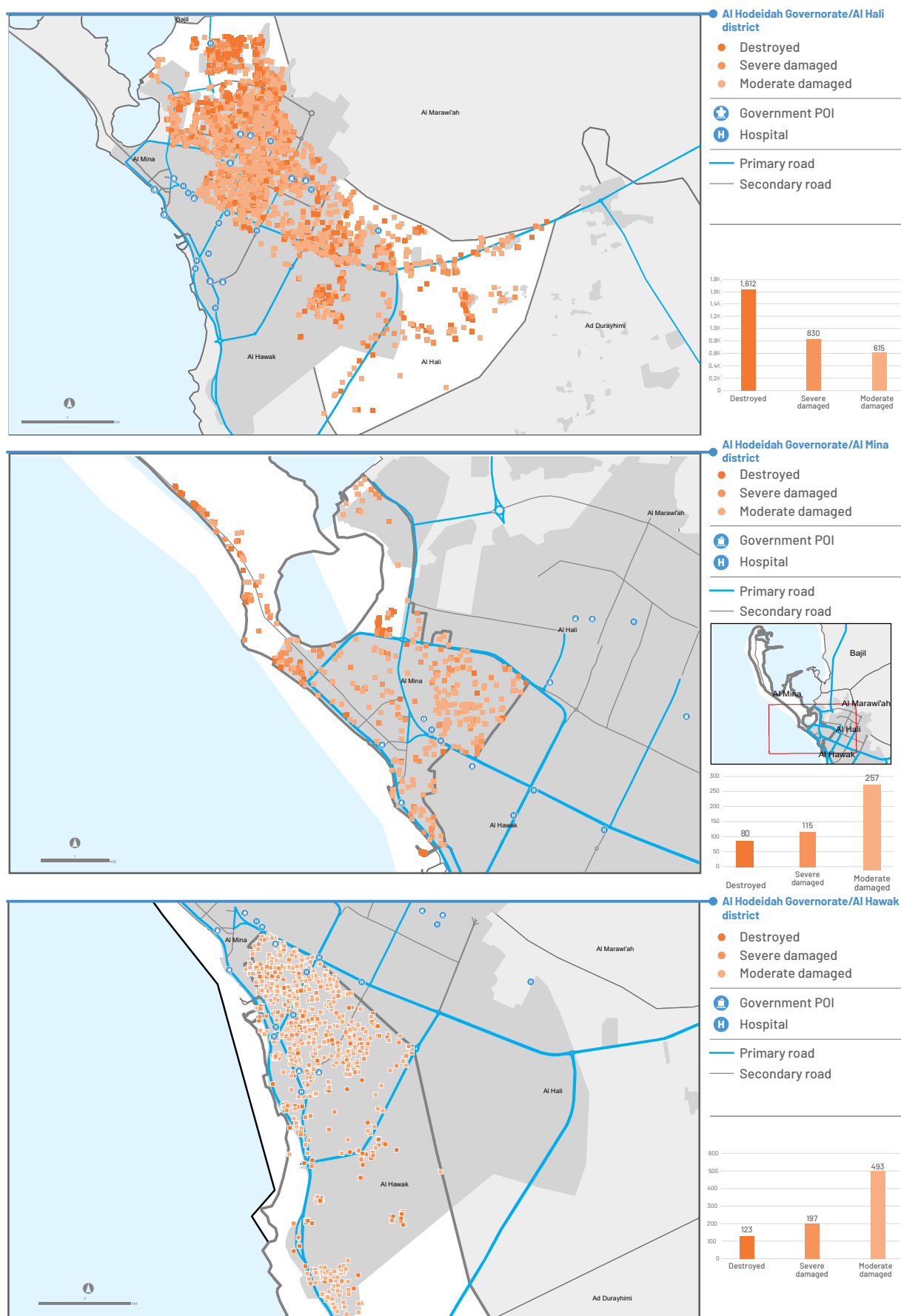


Figure 41: Damage Assessment for Al Hodeidah city, 2019



Date Created: 14 April 2019 Datum/Projection: WGS84 Damage data source: JRC (Joint Research Center) in support of UN-Habitat (2014-2018 comparison)
Disclaimer: The boundaries, names and designations used in this map do not imply official endorsement or acceptance by UN-Habitat

Since the escalation of the conflict in 2015, Al Hodeidah remains an active and dynamic frontline as it has recorded the second highest number of shelling events nationwide; 80 percent (763) alone in 2019, in addition to relatively high number of airstrikes at the beginning of the conflict³¹². Evidence of widespread destruction in residential areas and widescale infrastructure damage is visible via Satellite imageries. The worst of the three districts covered is Al Mina where more than 3,000 buildings have been damaged, mainly the port and other industrial and commercial buildings close to Kilo area and Sana'a street, due to exchange of (medium and heavy) artillery fire.

Damaged buildings appear to be scattered throughout the city. This can be attributed to the fact that major fighting on the ground follows no clear pattern, in addition to the urban nature of the city where informal settlements are spread.

Although there is a clear drop in the number of airstrikes in 2019, the shelling and armed clashes have increased which means that the city is far from being secure.

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 42: Photos from Field Asset Verification for some of the residential and complex area



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