# **YEMEN**

### **Outlook for July-December 2019**

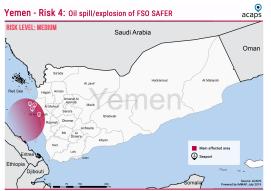


Risk Overview - 31 July 2019











#### **Purpose**

The Yemen Risk Overview is a risk identification report published every six months outlining the main emerging risks in Yemen that might affect the current humanitarian situation (6-month forecast). It aims to inform the humanitarian community of possible changes in context and humanitarian needs in Yemen, in order to facilitate contingency planning, risk management, and response. ACAPS regularly tracks these and other risks for Yemen and will publish alerts and updates as things change.

#### Reliability



The report is based on primary data, joint analysis, and secondary data review conducted from May to July 2019. Yet, context changes quickly in Yemen and there are gaps in information on vulnerable groups, coping strategies and response.

Sources: ACAPS / powered by iMMAP

#### Risk 1:

# Breakdown in the peace process leads to escalation of conflict in Al Hudaydah exacerbating food insecurity and increasing the spread of cholera

# RISK LEVEL HIGH PROBABILITY Negligible Medium Very high Very low Moderate Major

#### Rationale

As the Hadi government increasingly mistrusts the peace process and fighting between Houthi and pro-Hadi forces in the rest of Yemen intensifies, the Stockholm Agreement and fragile ceasefire in place in Al Hudaydah since December 2018 could fail. This would precipitate an escalation of conflict in Al Hudaydah.

Houthi forces withdrew from the Al Hudaydah ports over 10-14 May 2019. The UAE and Saudi Arabia, who back the Yemeni government, have continued to back the peace process, indicating a willingness to avoid a military escalation. However, government forces complained that the Houthis handed the ports to a local Coast Guard that is under Houthi influence. In addition, while a fragile ceasefire has remained in place in Al Hudaydah, there has been a rise in the number of ceasefire violations in the past months, intense fighting between Houthi and pro-Hadi forces in the rest of Yemen, and airstrikes. Since mid-May, Houthi forces have increasingly targeted Saudi infrastructure with armed drones. In retaliation, the Saudi-led coalition has been conducting airstrikes in Sana'a, Taizz and Al Hudaydah, some resulting in civilian casualties.

A new meeting between the members of the Redeployment Coordination Committee (RCC) was held on 14-15 July 2019. Both sides of the conflict agreed on new measures to enforce a ceasefire in Al Hudaydah and facilitate the mutual withdrawal of troops. However, issues necessary for the full implementation of the Stockholm Agreement remain unresolved. There is still disagreement on who the local security forces and local authorities in charge of the security of Al Hudaydah city and ports should be, and which institution should be in charge of port revenues. In addition, just following the 14-15 July meeting, the Houthis announced their military response will not stop until the coalition ends its military activity. The lack of progress in the Stockholm Peace Process was also evident in the failed Amman meeting on the economic provisions of the Al Hudaydah Agreement, and the Hadi government's increased criticism of UN Special Envoy for Yemen Martin Griffiths.

As tensions in the rest of Yemen escalate and discontent towards the peace process rises, pro-Hadi forces are likely to feel pressured to regain control over the ports and territories currently under Houthi control. An offensive by pro-Hadi forces in Al Hudaydah and a battle over the control of the ports and city cannot be excluded.

Sources: Al Jazeera 16/07/2019; Debriefer 16/07/2019; ECHO 15/07/2019; ACLED 18/06/2019; Sana'a Center for Strategic Studies 20/05/2019; CT 23/05/2019; OCHA, HC 16/05/2019; OCHA, HC 25/05/2019; The New Humanitarian 20/05/2019; CT 24/05/2019; ACLED 28/05/2019.

#### **Impact**

Around 70% of monthly food imports and 40-50% of fuel imports enter Yemen through Al Hudaydah and Saleef ports. In line with what seen during the battle for Al Hudaydah between June and November 2018, a breakdown in the peace process and outbreak of conflict would likely severely restrict, if not close, the two ports to imports of commercial commodities and humanitarian aid. Commodities shortages will likely increase food and fuel prices and reduce the value of the Yemeni Riyal (YER). This will reduce households' purchasing power, limiting their capacity to meet their basic needs.

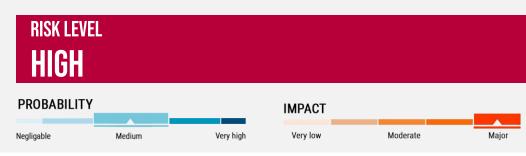
Approximately 600,000 residents of Al Hudaydah city would either be displaced or be caught in the conflict (ACAPS estimation based on projected casualties and displacement figures for conflict in Al Hudaydah in 2018). Up to 7.5 million people in the north coastal area of Yemen would have decreased access to food due to the reduction or complete halt of food imports, resulting in shortages and price increases (ACAPS estimation of people affected by food insecurity based on IPC projections December 2018-January 2019). Conflict could also increase bureaucratic constraints, checkpoints and road closures, further hampering the movement of goods across the country.

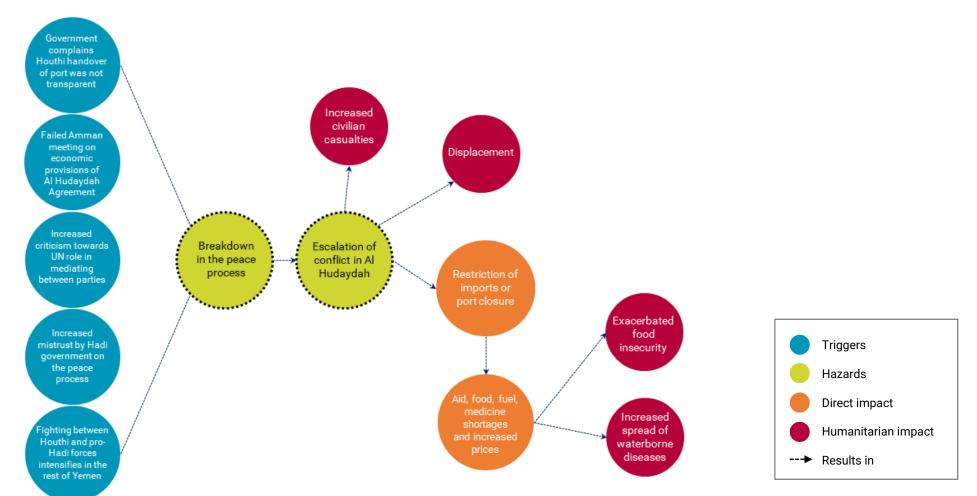
Conflict in Al Hudaydah would exacerbate the existing cholera risk by further reducing access to medicines, hygiene supplies, and the fuel needed for water pumping and trucking and running health facilities. Up to 13 million people would be at increased risk of cholera and other waterborne diseases (ACAPS estimations based on population figures). The most vulnerable are those living in densely populated areas in the northwestern governorates of Amanat Al Asimah, Sana'a, and Al Hudaydah. These areas already have high levels of cholera (over 180,000 suspected cases between 1 January and 7 July 2019). Migrants living in overcrowded settlements in Aden, Abyan and Lahj are also at high risk. New displacement could also increase the spread of waterborne disease. Seasonal variation is also likely to contribute to increased numbers of suspected cholera cases. Seasonal forecasts for Yemen suggest above average temperatures and below average rainfall for July-September 2019, especially in coastal areas. Dry weather will reduce the availability of clean water sources, pushing people to use contaminated water sources. Flash floods also spread sewage and contaminate drinking water.

Sources: WHO 07/07/2019; BBC 14/06/2019; The Guardian 12/05/2019; WHO 27/05/2019; OCHA 20/05/2019; FEWS NET 12/2018.

#### Risk 1:

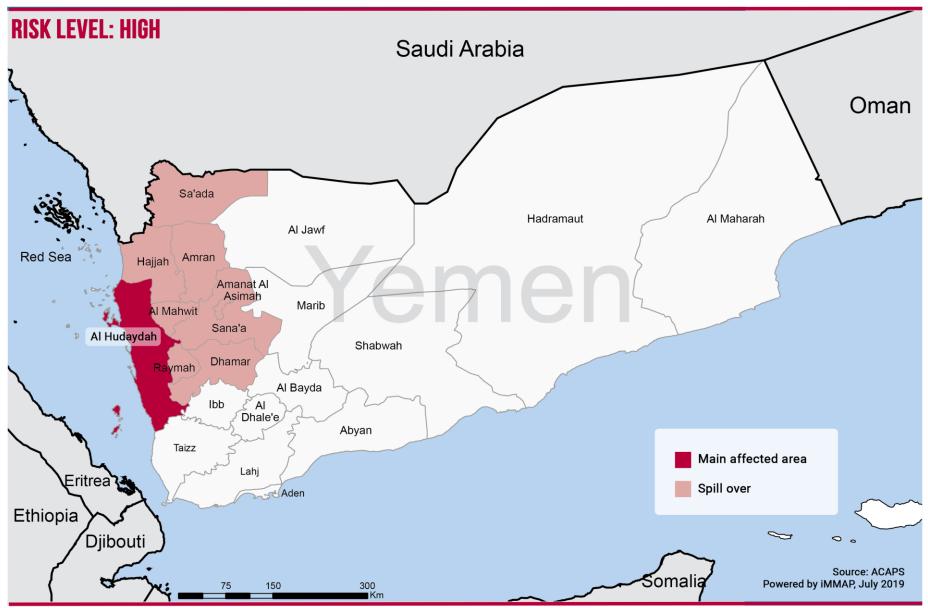
Breakdown in the peace process leads to escalation of conflict in Al Hudaydah exacerbating food insecurity and increasing the spread of cholera





### Yemen - Risk 1: Breakdown of the peace process





#### Risk 2:

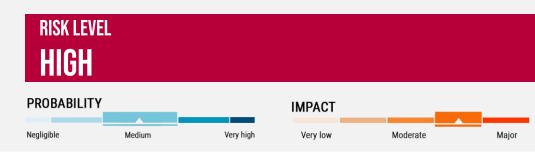
# Increased Houthi attacks on Saudi Arabia and retaliation by the Saudi-led coalition through airstrikes affect security of civilians and access

#### Rationale

Recent Houthi attacks against Saudi facilities and positions is resulting in retaliatory air raids across Yemen by the Saudi-led coalition. These retaliatory airstrikes are likely to increase in the upcoming six months. Between mid-May and 29 June 2019, Houthi forces have launched ballistic missiles and bomb-laden drones on multiples targets in Saudi Arabia, including airports and oil facilities. Two missile attacks on Abha International Airport, in the southwest of Saudi Arabia, on 23 June and 12 June injured a total of forty-seven people and killed one person. Following a previous attack on ARAMCO oil facilities not far from Riyadh, the Houthi told the media the attacks were "in response to the continued aggression and blockade of our people" and they were "prepared to carry out more unique and harsh strikes."

Increased drone attacks by the Houthis are also taking place amid increasing tensions between Iran and the US. Some regional actors have accused Iran of providing missiles and Unmanned Aerial Vehicles to the Houthi. Regardless if the tensions between the US and Iran and its respective allies escalate into a regional conflict, mutual attacks between the Houthi and Saudi Arabia are likely to continue. Houthi attacks against Saudi facilities are highly likely to trigger increased airstrikes from the Saudi-led coalition against Houthi positions and territories in northern Yemen, which will likely affect civilians. In mid-June, Saudi-led coalition retaliatory airstrikes in response to the Houthi attacks hit residential areas in Sana'a, Taizz and Al Hudaydah, resulting in civilian casualties. Airstrikes in Houthi-controlled areas continued in the first week of July, but did not cause civilian casualties. On 20 July the Saudi led coalition conducted airstrikes on Sana'a city. According to the coalition's spokesman Colonel Turki al-Maliki, the strikes targeted five Houthi air defense sites and a ballistic missile depot in Sanaa. On 29 July, a coalition airstrikes hit a market in Qatabir district, in Sa'ada, causing 10 civilian deaths and several injuries.

Sources: Al Jazeera 29/07/2019; Al Jazeera 20/07/2019; ACLED 09/07/2019; France 24 23/06/2019; Reuters 19/06/2019; Middle East Monitor 05/06/2019; Al Jazeera 21/05/2019; OCHA, Humanitarian Coordinator for Yemen 16/05/2019; OCHA, Humanitarian Coordinator for Yemen 25/05/2019; ACLED 28/05/2019; Reuters 16/06/2019; The Guardian 13/05/2019; Euronews 15/05/2019.



#### **Impact**

If the Saudi-led coalition intensifies its air raids across Yemen in retaliation for Houthi attacks on Saudi Arabia, strikes are likely to affect from 3,000 up to 8,000 people across Yemen (ACAPS estimations based on data from Yemen Data Project 30/05/2019). This is in line with trends from major air campaigns from 2015 to 2017 (Yemen Data Project 30/04/2019). The most vulnerable will be civilians living in Houthi-controlled territories, as this is the main target of Saudi-led coalition airstrikes.

Since the beginning of the air campaign, the number of airstrikes conducted by the Saudi-led coalition across Yemen has significantly decreased every year, going from 5,444 in 2015 to 599 by May 2019. The number of airstrikes continued to fall month to month from January to May 2019. Despite the decreasing trend in the number of airstrikes, the number of airstrike-related casualties has increased, especially in Hajjah and Amanat al Asimah governorates (Yemen Data Project 30/05/2019). This shows that airstrikes more often hit densely populated areas, as was the case of retaliatory airstrikes conducted in Sana'a city and Mawiyah district (Taizz) in May, impacting on civilians and civilian infrastructure. Increased civilian casualties will put a strain on the already stressed health system in Yemen.

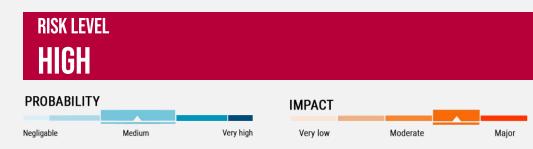
Air raids also can have an impact on mobility, communications, access to services and markets, and humanitarian access. Air raids restrict people's access to farms and workplaces, affecting livelihoods and food security. Air raids also damage and destroy schools. Since the beginning of the Saudi-led coalition air campaign, 256 schools have been destroyed by airstrikes or shelling out of 1,520 damaged by conflict since 2015.

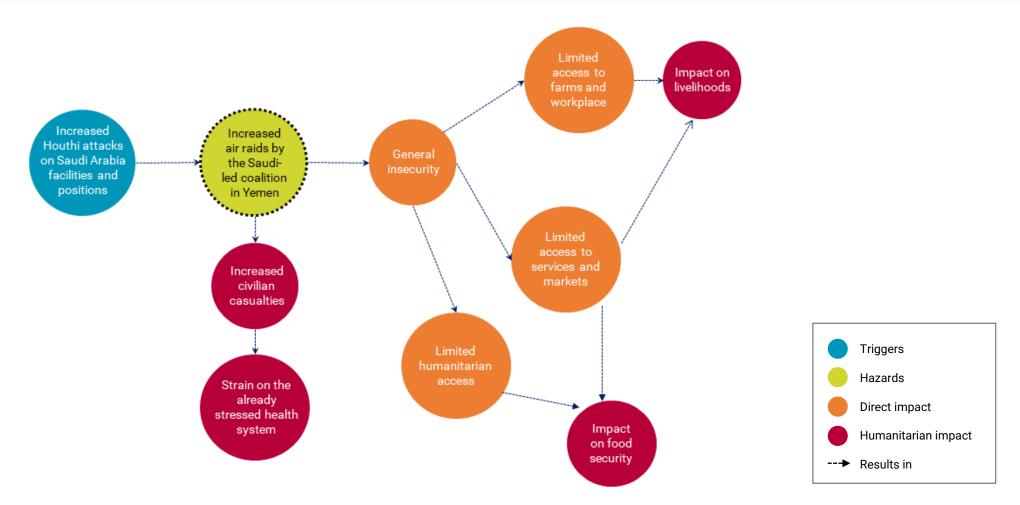
Finally, Houthis' increased attacks against the Saudi-led coalition might put at risk the already precarious Al Hudaydah truce (see Risk 1).

Sources: Al Jazeera 22/06/2019; War Child UK 05/2019; Al Jazeera 25/03/2019.

#### Risk 2:

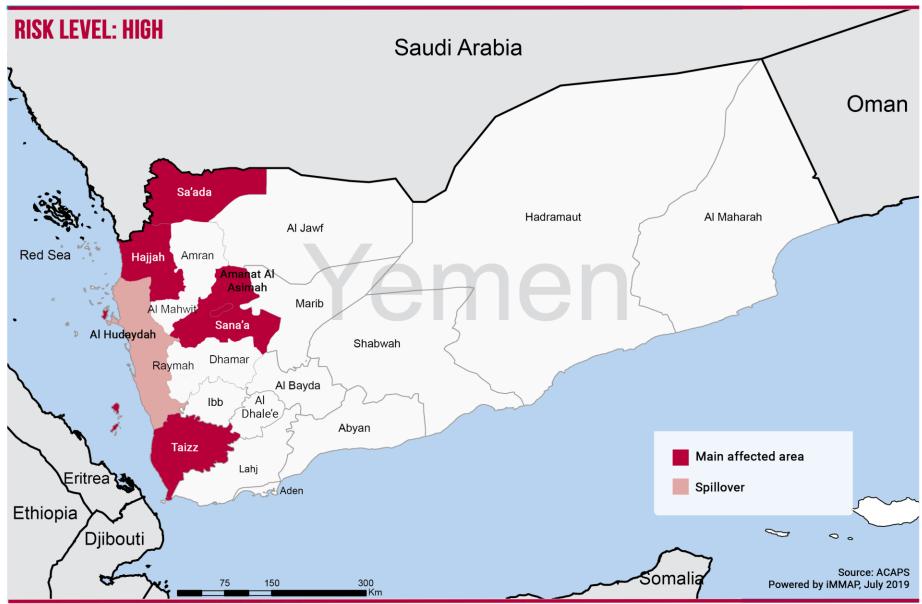
Increased Houthi attacks on Saudi Arabia and retaliation by the Saudi-led coalition through airstrikes affect security of civilians and access





### Yemen - Risk 2: Increased Saudi-led coalition airstrikes





#### Risk 3:

# Reduction in humanitarian funding and shrinking humanitarian space increases the scale of Yemeni households' unmet needs

#### Rationale

The reduction in humanitarian funding as a result of donor fatigue, aid diversion, and increased humanitarian constraints to aid delivery in Yemen is likely to affect the estimated 24.1 million people in need of assistance across the country, of whom 14.3 million are in urgent need of assistance.

On 18 July, OCHA announced that 21 UN key programmes are at risk of shutting down due to lack of funding, including shelter, nutrition, health, food security and WASH programs. There is already a large gap between needs and funding to date. The 2019 Humanitarian Response Plan for Yemen requested USD 4.19 billion to reach 24.1 million people in need in Yemen. However, at 31 July 2019 only USD 1.41 billion had been received, about 34% of the total requirement.

At the same time, the humanitarian space in Yemen is increasingly shrinking due to bureaucratic impediments, interference with activities, aid diversion, and insecurity. On 20 May 2019, the World Food Programme (WFP) announced a planned suspension of aid in Houthi-controlled areas of Yemen due to "the obstructive and uncooperative role of some of the Houthi leaders in areas under their control". One month later, WFP implemented a partial suspension of aid in Sana'a city due to restrictions on access and the inability to introduce biometric registration as a measure to prevent food diversion. The partial suspension (nutrition assistance remains in place for the most vulnerable) of WFP operations in Sana'a city has already affected 850,000 people. Further reductions in food aid in the rest of the country will likely put a strain on the already limited resources and coping strategies of the population living across Yemen.

Delays in delivery of assistance or interruption of humanitarian activities as a result of increased humanitarian constraints are already affecting over 4 million people in need across Yemen. At 1 July, 47 out of 67 NGO projects remained unimplemented due to pending approvals by authorities in Yemen, both in the south and in the north. A number of INGOs were forced to suspend activities due to bureaucratic restrictions. Other key humanitarian programmes, including cholera response programmes, were held up several months.

RISK LEVEL
HIGH

PROBABILITY

IMPACT

Negligible Medium Very high Very low Moderate Major

#### **Impact**

Any reduction in humanitarian funding and shrinking humanitarian response due to access constraints will exacerbate the already high levels of food insecurity, cholera, and malnutrition in Yemen. Shelter assistance to displaced people, as well as nutrition, health, food security, and WASH services are at risk of being reduced across the country if UN agencies shut down key programmes. Moreover, aid diversion and humanitarian data manipulation in Yemen raises concerns over the ability to access people in need according to humanitarian principles. If internationally recognised and de facto authorities in Yemen continue to place increasing bureaucratic restrictions on humanitarian organisations and agencies, we can expect an increase in the scale of Yemeni households' unmet needs.

This translates into worsening humanitarian conditions across the country, including increased levels of food insecurity and malnutrition. 20.1 million people would face IPC Phase 3 (Crisis) and above levels of food insecurity without humanitarian food assistance. Overall, 24.1 million people (80% of the whole population) are in need of assistance across the country, of whom 14.3 million are in urgent need. The large majority of the population currently lacks access to food, water and sanitation, and health assistance.

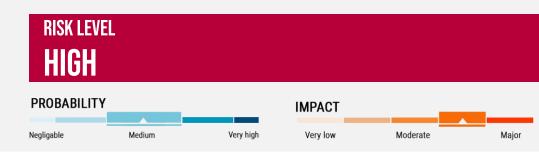
Food security and agriculture, health, and nutrition are already among the most underfunded sectors/clusters within the Yemen response, together with Shelter/CCM/NFIs and the Refugee and Migrants multi-sector response. Displaced populations, particularly IDPs and migrants living in hard to reach areas, will be the most affected. Migrants living in overcrowded settlements are the most vulnerable to the risk of cholera, due to population density and lack of adequate shelter and WASH facilities.

Current funding shortages are already affecting WASH, health, and food security programmes, vaccination campaigns, and water treatment for agriculture in Sana'a and Amanat Al Asimah governorates. This is likely to lead to increased levels of cholera. The UN also estimated that 800,000 people across Yemen will be affected by the closure of shelter programmes, and women and children will be the most affected by the cuts in the health response.

Sources: FTS 23/07/2019: HNO Yemen 2019: OCHA 18/07/2019: IPC Yemen 07/12/2019

Risk 3:

Reduction in humanitarian funding and shrinking humanitarian space increases the scale of Yemeni households' unmet needs





## Yemen - Risk 3: Reduction in funding & shrinking humanitarian space acaps



#### Risk 4:

# Oil spill of floating storage and offloading (FSO) vessel causes high environmental impact in the Red Sea and Yemen

#### Rationale

The floating storage and offloading (FSO) terminal SAFER, a previously converted oil tanker, is moored in the Red Sea off the coast of Ras Issa, 50km northwest of Al Hudaydah port. Although the FSO has been under Houthi control since 2015, they have stopped maintaining the structure. The neglect is probably due to lack of capacity, coupled with the fact that the Houthis were unable to carry out any type of oil operation after the Saudi-led coalition imposed a naval blockade in 2015 and launched airstrikes on Al Hudaydah port's infrastructure.

The Houthis have been demanding a share of the one million barrels of oil on board the vessel, estimated to be worth around USD 80 million. Until recently, they had prevented experts from Yemen's Ministry of Oil or the UN from accessing the FSO SAFER. Some Saudi experts proposed moving the vessel to Bahrain for maintenance, but the Houthis refused. The Houthis are demanding a share of the oil revenues as a condition for allowing access to the vessel for maintenance work and unloading. On 10 June 2019 they allowed UN officials to access the vessel for an assessment. However, in mid-July the Houthis denied a UN inspection team permission to visit the ship. Without intervention for maintenance in the coming months, the vessel is at risk of breaking up or even exploding. The vessel needs to be topped up with inert gas to avoid a reaction with hydrocarbon gases, released from the oil it carries, which could cause a fire or explosion. The maintenance is necessary also to avoid the corrosion of the vessel due to salt water.

The possibility of a serious leakage or even explosion increases year on year due to continued lack of maintenance. Furthermore, even small accidents or fires on board have the potential to spiral out of control. If Hadi government experts attempt to approach the vessel, there is a risk of conflict on or near the vessel.

Sources: The Independent 24/07/2019; The Guardian 23/07/2019; Debriefer 14/07/2019; Middle East Eye 17/06/2019; Reuters 01/05/2019; CEOBS 01/05/2019; Adenpress 09/05/2019; The National 09/05/2019; Atlantic Council 11/04/2019; UNOPS 2018.



#### **Impact**

The vessel contains an estimated 1.14 million barrels of crude oil. If an oil spill occurs, the environmental impact will be catastrophic, affecting people living in the coastal area of Yemen (est. 8.9 million) and the coastal regions of Eritrea (est. 517,200) (ACAPS projections based on Yemen and Eritrea baseline population figures). In Yemen, the most affected area will likely be Al Hudaydah governorate as the FSO terminal is 50km northwest of Al Hudaydah port.

An oil spill would certainly lead to seawater pollution and eventually groundwater and soil contamination as the oil evaporates, which would affect the countries that surround the Red Sea. This would change the entire ecosystem and pollute the fishing and agricultural food chain. In addition, the shipping traffic in the Red Sea might be blocked for oil spill containment and cleanup. Inhabitants of the coastal region are most vulnerable because they will be directly affected by pollution of waters and halt of imports of basic commodities. An explosion of the facility will also change the Red Sea marine environment, possibly reducing fishing yields for generations.

An oil spill or vessel explosion will likely result in the disruption of economic activities, such as fishing —one of the main livelihood activities for households living in the Red Sea coastal region of Yemen, as well as agriculture— and trade. This will further affect the already dire livelihood conditions of households in the region, reducing their income and ability to meet their basic needs.

Closure of the area will also halt imports through Al Hudaydah's ports. The majority of food (70% of all imports) and fuel (40-50% of all imports), as well as the majority of medicines and humanitarian aid, enter through Al Hudaydah's ports. As Yemen is an import- and aid-dependent economy, a possible explosion of the vessel or oil spill will aggravate the country's food and health crisis.

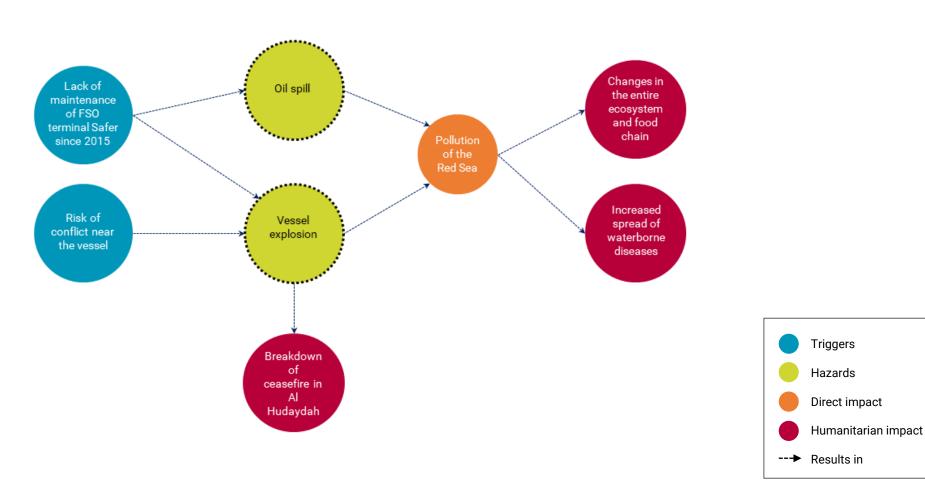
On top of the potential environmental devastation and economic impact, an oil spill or explosion of the FSO SAFER could increase tensions between the Houthis and the Hadi government putting at risk the fragile ceasefire in Al Hudaydah established under Stockholm Agreement, leading to possible escalation of conflict in the governorate.

Sources: MEMO Middle East Monitor 30/07/2019; Environmental Pollution Centers 04/06/2019; Atlantic Council 11/04/2019; UNOPS 2018.

Risk 4:

Oil spill of floating storage and offloading vessel causes high environmental impact in the Red Sea and Yemen





## Yemen - Risk 4: Oil spill/explosion of FSO SAFER





#### Risk 5:

Tribal uprising against the Houthi forces leads to major escalation of conflict in the north, leading to casualties, displacement, and limited access

# RISK LEVEL MEDIUM PROBABILITY IMPACT Negligible Medium Very high Very low Moderate Major

#### Rationale

Historically, tribes in Yemen have played a key role in society and politics, particularly in the north. Tribes have often played a stabilising role, promoting social and political cohesion and intervening to mediate conflict. At other times, inter-tribal tensions have contributed to conflict and exacerbated social divisions. Tribalisation of conflict is not new in Yemen. Tribal alliances have been used by political elites in Yemen for centuries to control populations, access territory, and manage flows of resources. When the Houthis began gaining military and political power in northern Yemen in 2011, the support of the northern tribes, particularly of the Bakil confederation — one of the most influential and biggest tribal confederation in Yemen, comprising 17 tribes —, was significant in maintaining their presence in the area. However, these alliances are not static. Alliances of tribes and tribal confederations to political groups or authorities, such as the Houthis or the Hadi government, have never included whole tribes or the whole confederation. Tribes are often shifting sides according to local interests and political developments in the country, or as a result of tensions.

Tribal resistance to the Houthis has been increasing in 2019, particularly in Sana'a and Hajjah, as well as Al Dhale'e and Ibb in south Yemen. On 20 July, clashes over money and influence erupted between Houthi fighters and Sufyan and Al Ghula tribesmen, in Raydah district in Amran governorate. The clashes resulted in 10 deaths among Houthi forces and six injured among the Sufyan tribe. On 2 April 2019, a Houthi commander killed an elder of one of the Bakil confederation tribes in Ayyal Serih, Amran. In response, tribes in Amran threatened to withdraw their fighters from Houthi forces and close vital supply routes. In Ibb governorate, on 18 July Houthi fighters clashed with tribesmen following disagreement over sharing of funds and influence in the area. One Houthi leader was killed during the clashes.

Fighting between Houthi and Hajour tribal forces between January and March in Kushar district, Hajjah, saw the district recording the highest levels of civilian casualties and damage to civilian structures in the whole governorate in that period (CIMP 2019).

#### **Impact**

Although this risk has a low probability of occurring, a mass uprising of tribes against the Houthi coalition could spark a major escalation in conflict. Over 4.8 million people could be impacted by conflict, damage to infrastructure, reduced access to services, markets and humanitarian aid, as well as displacement (estimated total population in Amran, Hajjah, and Sana'a). In April, during tensions between the Houthi and the Bakil confederation, Bakil tribesmen threatened to cut off roads between Sa'ada and Sana'a, which run through Amran governorate. Roads are normally the frontlines of conflict in Yemen, especially in the north where the mountainous territory traditionally gave military advantage to the Houthi. Fighting or blocking roads, on the contrary, facilitates the position of anti-Houthi factions. In this scenario, there will be a closure of vital supply that will severely hamper mobility, as well as the transportation and distribution of commodities in the markets and of humanitarian supplies. Households in Amran, Sana'a, and Hajjah will find it increasingly challenging to meet their basic needs. They are also likely to face protection issues as a direct result of conflict and displacement.

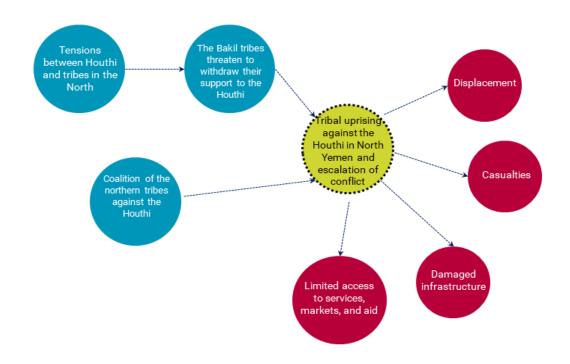
Fighting in Kushar district (Hajjah) in March has shown that tribal conflicts are likely to lead to the closure of roads connecting villages, trapping displaced people in areas of active fighting. Any increase in Bakil-Houthi conflict and a spillover of tensions in Hajjah, is also likely to reinvigorate the tensions between the Houthis and the Hajour tribe. This will likely lead to the closure of the strategic road between Amran and Hajjah governorates, hampering the movement of people and humanitarian supplies.

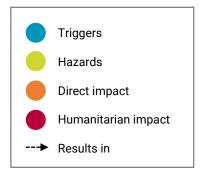
Source: Crisis Group 08/03/2019.

#### Risk 5:

Tribal uprising against the Houthi forces leads to major escalation of conflict in the North, leading to casualties, displacement, and limited access

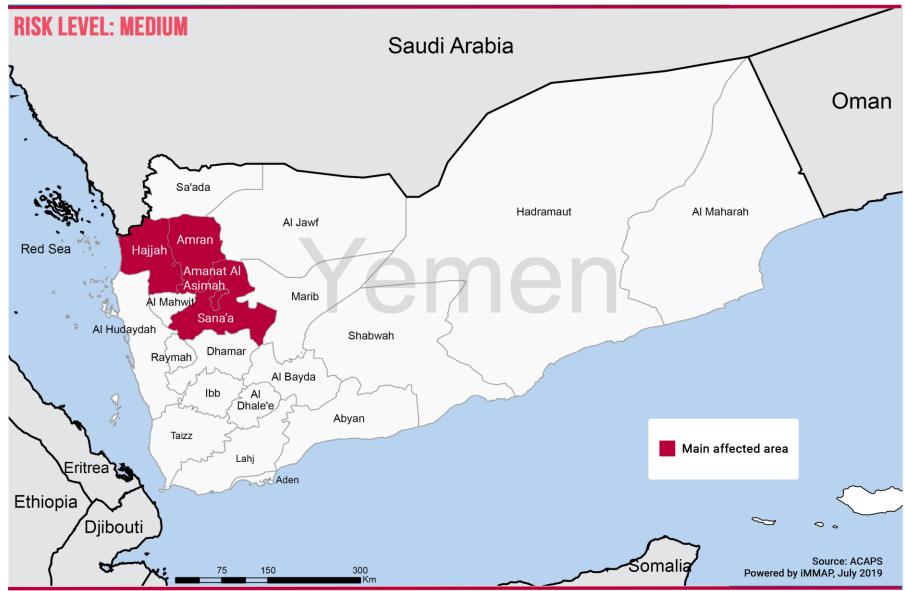






## Yemen - Risk 5: Mass tribal uprising against the Houthi





#### **ON WATCH:**

#### Escalation of conflict in the south of Yemen as the southern forces attempt to expand their influence

Since early July 2019, the United Arab Emirates (UAE) started partially withdrawing troops from the South of Yemen. The UAE left the oversight of these areas to trained local forces, including the Security Belt, the Elite forces and the Southern Transitional Council (STC) forces. Most of these southern forces have a either a strong ideological commitment to southern independence or a strong degree of autonomy from the central government in Aden.

Since beginning of June 2019, protests have taken place in Aden, Hadramawt, and Al Muqallah against deteriorating security, lack of services such as water or electricity, and the Al Islah party, which is believed to be linked to President Hadi. A possible breakdown in the security and governance situation could result in unified military operations by southern forces to expand their presence in the south of Yemen, leading to clashes with government forces.

On the 17th of July, the governor of Shabwah organised a meeting to combine local military forces into one force loyal to the STC. The new unified southern military forces will include Southern Resistance Forces, the Shabwani Elite, and tribal militias. The meeting's participants stated that no northern soldiers will be allowed to participate and that no northern agenda will be permitted in Shabwa. On 19 July, Hadi government forces and the Shabwani Elite forces clashed in Habban district, Shabwa.

According to latest developments, it is likely that the STC will continue to clash with the Government of Yemen forces in an attempt to expand its presence in the south or defend its position. ACAPS estimates that STC actions will most likely remain confined to localised clashes and increased checkpoints in Aden, Al Mukalla, Hadramawt and Shabwah. This is likely to result in casualties mainly among security personnel and some delays to traders. However, ACAPS will closely monitor this risk in case it escalates into large-scale conflict, which could cause displacement, protection risks, and reduced access to aid and services for civilians in the south.

Sources: CT 19/07/2019; CT 18/07/2019; The Independent 22/12/2018; ACLED 18/06/2019; Carnegie Endowment for International Peace 19/07/2018; ACLED 09/05/2019

#### Methodology

The objective of ACAPS risk analysis is to **enable humanitarian decision makers to understand potential future changes that would likely have humanitarian consequences.** Explaining how situations might develop and understanding their impact can **support decision makers and responders in planning and preparedness**, thus improving response.

This risk analysis is based on ACAPS Risk Methodology Note (read more about ACAPS risk methodology).

Risk analysis depends on a solid understanding of the context and on investigating the interaction of the variables that cause or resist change.

Risk analysis is a **process that should be repeated at regular intervals** and the change in risk recorded overtime.

Risk analysis is not an exact science: an event identified by one analyst as a hazard, might be identified by another as a trigger for a different event, which the second analyst considers the hazard. This is of little consequence; the important issue is that the sequence of events and a hazard are identified.

Risk is a function of **Severity and Probability**: i.e., the risk posed by a potential event increases as either the expected severity of the event increases or the probability that it will occur increases.

The probability of a risk does not need to be high for it to be of concern. That a hazardous event is estimated to have a 50% probability of occurring should be cause for concern for humanitarians. In some cases a probability as low as 30% (just under a one in three chance of occurrence) may be a concern, depending on its potential humanitarian impact.

ACAPS will provide updates of the risks every six months, in order to take into consideration the dynamism of the crisis and developments that might change the chain of events and/or materialisation of the hazards identified. In addition, every six months past risks identified will be assessed and accuracy of analysis evaluated. ACAPS will also conduct monthly internal monitoring of key risks and provide updates and alerts as risks evolve.

#### Limitations

- Population figures used in this report are currently under review. As a result, the
  estimations based on population figures are used just to give an indicative figure of
  people exposed to the risk and likely to be in need of additional humanitarian assistance
  if the risk occurs.
- Considering the complexity of the humanitarian crisis in Yemen and its regional dynamics, overall it is very challenging to establish how some of the identified triggers and risks would develop. For instance, we have not considered multiple possible factors that could lead to an improvement in context.
- The continued deteriorating trends in Yemen also make it very difficult to establish if
  the risk will occur, or the situation will simply gradually deteriorate. Although this
  analysis follows a specific methodology, risk analysis is not an exact science.
- Given the character of the Yemen crisis, we decided to focus on political and economic dynamics rather than other variables, such as natural hazards and epidemics.
- Information gaps limited the analysis. It was particularly challenging to establish the impact of some of the risks, identify the most vulnerable groups, and collect and evaluate available information on the coping strategies of the population, and response capacities of humanitarian organisations in specific areas of Yemen.
- The lack of information on the population's level of resilience and coping strategies
  made it particularly challenging to establish the impact of the risk on reduction of
  humanitarian funding.
- All figures provided for the impact of the risks are estimations. As such, they have to be treated as mere indications that help understand the exposure of the population to the risk.
- While efforts were made to ensure that all information was up to date at the time of publishing, the rapidity with which the situation deteriorates means that significant changes are often observed from one week to another.