



ACLED Methodology and Coding Decisions around the Yemen Civil War

After staging protests against the removal of fuel subsidies, the Houthi Movement overran the Yemeni capital Sana'a in September 2014. Shortly after, the Peace and National Partnership Agreement was signed, stipulating the formation of a technocratic government including advisors from the Houthis and the Southern Movement (Al Hirak). In a further escalation of the events, the Houthis put President Abdrabbuh Mansour Hadi, the Prime Minister Khaled Bahah and several cabinet ministers under house arrest in January 2015, leading to their resignations and precipitating the constitutional crisis. The Houthis seized the opportunity to dismiss the government and form an executive body known as Supreme Revolutionary Committee, chaired by Mohammed Ali al-Houthi. In the following weeks, Saudi Arabia and its allies launched a military intervention to restore the government of President Hadi and prevent Aden from falling to the Houthis. These events marked the beginning of the Yemen Civil War, which has killed thousands of people and prompted a major humanitarian crisis ([ACLED, 9 February 2018](#)).

The conflict presents some important methodological challenges for the recording of political violence: violent events unfold in a number of ways, which are not replicated in other contexts; a variety of actors partake in the conflict, reflecting the highly volatile and fragmented socio-political environment; media coverage often suffers from reporting biases and little access to Yemen's most remote regions. The report aims to outline ACLED's efforts to address these challenges and accurately capture manifestations of violence during the Yemen Civil War.

ACLED's work is conducted in collaboration with the [Yemen Data Project](#) (YDP), which contributes to enhance conflict monitoring and data sharing. Separately, YDP collates data on Saudi-led coalition airstrikes in Yemen since 2015.

What does ACLED cover in Yemen?

ACLED's coverage of political violence and protest in Yemen spans from January 2015 to real time.

Yemen's conflict environment is known to be one of the most volatile in the region. The current civil war, with its wider implications for the region, has added complexity to an already fractured political setting ([European Council of Foreign Relations, February 2017](#)).

As a result, ACLED records a wide range of violent events, including air / drone strikes and armed battles between opposing factions, as well as typically less reported episodes like tribal or communal clashes, assassinations, bombings – either suicidal or remotely-activated – and peaceful



or violent demonstrations. ACLED does not track criminal or domestic violence, nor records natural deaths from famine or diseases.

Which actors are recorded?

As a consequence of highly volatile conflict environment, **ACLED has recorded over 430 distinct conflict agents operating in Yemen since 2015**. Many of these actors defy traditional classifications, and require further scrutiny:

- ACLED treats the forces allied with both the government of President Hadi and the Houthi-led executive bodies as **state forces**. It is important to note that the classification does not imply legitimacy, but rather acknowledges the fact that there currently exist two distinct governing authorities exercising *de facto* control over different portions of the Yemeni territory. These military or paramilitary actors often maintain no more than a formal relation with the government – such as in the case of the Security Belt Forces or the Elite Forces in Shabwah and Hadramawt ([United Nations Security Council, 26 January 2018](#)) – or may have split from their former allies – the Saleh-led Republican Guard being the most notable case. To reflect this fragmentation, they are identified by their respective regime years (2012 onwards for the Hadi government, and 2015-2016 and then 2016- for the Houthi-Saleh bodies), the police or military status and their specific name.
- Contrary to other civil war contexts like Syria, the number of actors classified as **rebels** in Yemen is relatively low. This is because the main ‘rebel group’ active in Yemen – the Houthis – turned into a state actor after the formation of the Supreme Revolutionary Committee in February 2015. The main rebel groups recorded by ACLED in Yemen include the southern secessionist forces, like the Southern Transitional Council and the Southern Movement, and Islamist armed groups like Al Qaeda in the Arabian Peninsula (AQAP), Ansar al Sharia and the Yemeni branch of the Islamic State (IS).
- **Political militias** are a primary agent of violence in Yemen. They include a wide range of armed groups that operate independently, in cooperation with state forces or as the armed wing of political parties or rebel factions. Although some of them might be commonly regarded as government forces, they operate outside of the formal lines of military command. A notable example are the National Resistance Forces, a coalition of militias active along the western coast bringing together the Giants Brigade, the Tihama Resistance, and the Guardians of the Republic ([ACLED, 20 July 2018](#)). The Popular Resistance and the Southern Resistance also identify composite cartels of local actors operating across much of central and southern Yemen, often in conjunction with, or at the behest of, state and rebel forces. Often subsumed within the above-mentioned larger coalitions, armed wings of



Yemen's political parties – including the General People's Congress (GPC) or Al Islah – are also recorded as political militias.

- **Tribal, clan or other communal groups** are coded when reported to be operating 'on behalf of' their communities, and not when fighting within the ranks of the army, of rebel groups, or of larger coalitions. These actors make up the vast majority of all actors recorded in Yemen, although they are typically reported to be involved in a limited number of events.
- **External forces** include both forces of foreign governments and private security operators. The Saudi-led coalition is coded using the tag name of Operation Restoring Hope, with the participating countries reportedly involved in an event recorded as associates (despite leading the coalition, Saudi forces are not directly involved in each event) ([ACLED, 31 July 2018](#)). In a number of cases, the coalition operates in conjunction with Yemeni ground forces and is therefore coded as an associated actor. The United States, which operate in Yemen with drones and ground forces, is coded as a separate actor.
- Similarly, ACLED aims to record the political, tribal or societal identity of **civilian actors**. Doing this allows users to track specific trends in civilian targeting and their exposure to the conflict. Among the civilian groups most regularly targeted, and recorded by ACLED as associate actors, are fishermen, farmers, clerics, tribal shayks, and members of political parties like the GPC and Al Islah.

How are events sourced?

Each week, researchers from ACLED and our partner organization YDP review hundreds of Arabic and English language sources to provide the most comprehensive database on political violence in Yemen. Over 450 local and foreign media outlets and news agencies have been used to record political violence and protest events in Yemen since 2015. In addition, selected social media accounts are monitored for information on events in hard-to-access contexts, while reports produced by reputed international institutions and non-governmental organizations supplement the regular coding process.

Approximately two-thirds of events recorded since 2015 were sourced through ACLED's partnership with YDP. YDP shares news reports outlining relevant political or conflict dynamics with ACLED researchers; ACLED researchers then verify their pertinence, code in accordance with ACLED's interpretation of political violence, and supplement coding through the review of a multitude of additional sources to account for reporting lags or to capture missing events. This extensive monitoring effort has allowed ACLED and YDP to provide the most comprehensive coverage of political violence across Yemen, in an attempt to adequately address the multiple challenges that both local and foreign media face in their daily reporting ([Columbia Journalism](#)



[Review, 2 September 2019](#)). Among these challenges are that all warring parties have attempted to manipulate the war narratives by capturing independent media and state-owned news agencies, as well as actively polarizing public discourse ([Atlantic Council, 3 May 2017](#)). Media stations have been targeted by destructive violence ([The Independent, 12 February 2016](#)), government repression severely hampers the ability of local journalists to report independently ([The Media Line, 25 August 2019](#)), and international media access continues to be limited, resulting in often inaccurate accounts of the conflict ([Washington Post, 3 August 2018](#)). According to Yemeni researcher and journalist Afrah Nasser, “[a]s a result of the hindered and biased media landscape, both the international community and more particularly the Yemeni public receive a distorted picture of the Yemen war” ([Atlantic Council, 3 May 2017](#)).

In this highly polarized and often restricted media environment, the data collection relies on a wide spectrum of sources which, when triangulated, account for the multiple partisan and geographical biases. Overall, more than one third of events recorded by ACLED are sourced through Yemeni media (mostly national), and have increased up to 90% in 2019. These include the official media channels of warring parties (i.e. the governments’ respective news agencies), the Houthi-affiliated Al Masirah TV and Ansar Allah Media Center, and the coalition-backed Al Amaliqah’s website – as well as national and local outlets displaying a variety of political leanings.

These groups are partisan in the conflict and as such, they might have incentives to share distorted information. However, relying merely on official or independent sources risks introducing another type of bias into the data, namely the recording of violence only in areas where such sources have access or have vested political interests. Indeed, research conducted by [Bellingcat](#) and the [Yemeni Archive](#) have shown that official Saudi-led coalition sources have often downplayed or deliberately obscured the impact of air strikes on civilian populated areas, and that only partisan media sources or social media accounts reported the occurrence of such incidents. Excluding information from these sources comes at the cost of providing a partial view of the conflict.

ACLED instead holds the inclusion of events from these sources relevant, and has determined that while some of the information may indeed be biased (e.g. providing higher casualty numbers), not all information is. For example, they typically tend to be reliable on whether or not an event occurred. This is why, unless otherwise determined, ACLED researchers tend to record events reported by Houthi sources and other parties in the war. Additional details that are considered to be less reliable in the Yemen context, including the number of fatalities or the identity of the actors involved, are triangulated when possible and always coded using the most conservative interpretation available when discrepancies between reports exist. Some of the most recurring violent incidents, such as drone strikes or landmine attacks in Yemen’s most remote areas, are particularly prone to reporting lags, and more accurate information only surfaces months after their occurrence.



The geographical coverage of these sources, however, is not uniform across Yemen. Along the frontline, sources affiliated with governments or armed groups widely report the occurrence of incidents, yet they often tend to only acknowledge losses among their opponents' ranks. This is especially evident in the sparsely populated areas of Al Jawf and Hajjah, where the limited presence of independent reporting has often made it difficult to corroborate the credibility of the information by triangulating multiple sources. In these contexts, ACLED researchers often have to rely on unilateral real-time reporting, although subsequent news gathering may help corroborate the information and adjust initial biases due to the real-time nature of the data collection. Elsewhere, the prevalence of subnational sources is higher in the southern governorates of Aden and Abyan, where a rich media environment consisting of dozens of local outlets is helpful in capturing most of the low-intensity violence occurring in these areas. Subnational sources are used for approximately one-fifth of events in the above governorates, versus approximately three percent nationwide.

Meanwhile, foreign media (regional, international) sources account for sourcing in nearly 6% of events since 2015 (and less than 1% of events more recently in 2019). Among these, Gulf-based media is currently limited but often tends to reflect existing reporting biases. For example, the highest proportion of events recorded using regional media, such as the Gulf-based The National, Al Arabiya, Al Jazeera or Gulf News, is found in Shabwah or Taizz, areas in which regional interests are at stake and foreign troops are active on the ground.

A limited yet increasing proportion of events is sourced through new media, most notably reputable Twitter accounts and Telegram channels. These provide valuable information about the activity of non-state groups and activity from Yemen's easternmost governorates. Over one-tenth of events involving rebel groups like AQAP and IS are captured through new media sources, pointing to their importance in tracking conflict incidents. Indeed, as these groups suffered several setbacks which severely curbed their operational capacities, social media and encrypted messaging applications became increasingly important tools to promote their activity.

In addition to the daily monitoring of traditional and new media sources, ACLED regularly reviews 'other' sources, mainly reports produced by the UN, non-governmental organizations like Human Rights Watch, Amnesty International, New America Foundation, The Bureau of Investigative Journalism, and local monitoring groups and think tanks such as Mwatana Organization for Human Rights, and the Sana'a Center for Strategic Studies. These reports are a useful resource to update information that is often not available or accurate in real-time reporting, like total fatality estimates or geolocation. They also significantly supplement ACLED's coverage of violence against civilians where such instances fail to be reported by traditional media or require months of investigations; these include, among other examples, mine-related incidents and violence targeting women in conflict environments. Additional, yet limited, data from ACLED partners such as the Aid Workers Security Database further supplement the data.



Where does violence take place, and how are locations recorded in Yemen?

The coding of locations in Yemen reflects the irregular natural and physical geography of the country. Violent events were recorded in both **urban and rural spaces**, with significant regional variations within the country. The variety of the recorded locations reveals the composite subnational geography of the conflict, which bears further implications for the conduct of the conflict.

Over 2,700 distinct locations have been recorded by ACLED in Yemen. These include towns (and neighbourhoods in major cities like Sana'a, Aden, Hodeidah and Ta'izz) villages and other populated places, as well as natural locations like the Red Sea islands, the desert areas in the north-east of the country spanning across the border with Saudi Arabia, rugged mountainous areas and valleys. Depending on the accuracy of the sources and the size of the recorded location, researchers will select the appropriate GeoPrecision code to reflect the precision of the coordinates.

Reporting on the Yemeni-Saudi border faces major shortcomings, as reports from the border regions can rarely be triangulated due to unilateral and partisan reporting. Events often occur in either mountainous or desert areas which run between Saudi and Yemeni territory, resulting in exact locations often being unknown. As such, ACLED codes events at the Saudi border in which exact locations are uncertain as Yemeni events (i.e. on the Yemeni side of the border). These are events that occurred in very close proximity to the border, without clear information distinguishing the specific country in which they may have occurred. There is some evidence, using open-source intelligence, that some events claimed to have occurred in Saudi Arabia actually took place in Yemen ([Medium, 21 February 2020](#)). Given this, and as these events are associated with the war in Yemen, ACLED determines that such events and their respective fatalities ought to be aggregated to Yemen, instead of to Saudi Arabia. Such events are coded at four standardized locations: Al Buqa, Al Malahit, and Baqim Junction in Sadah governorate and Harad in Hajjah governorate with geo-precision level 3. Exceptions to this rule include:

- Houthi drone activity, which is determined to take place on the Saudi side of the border; these events are typically within 20km of the border, yet often do not have a precise location
- Houthi ballistic missile et al. activity, which is very likely to indeed have occurred on the Saudi side of the border
- Territorial exchanges, as they are assumed to reflect changes to specific locations -- i.e. sub-event types: *Government regains territory*; *Non-state actor overtakes territory*; and *Non-violent transfer of territory*



How does ACLED record fatalities?

Fatality data are typically the most biased, and least accurate, part of any conflict report as they are particularly prone to manipulation by armed groups, and occasionally the media. As such, all figures should be treated as 'reported fatalities'. These estimates include both combatants and non-combatants.

ACLED does not code fatality figures according to which group suffered casualties because most source reports do not offer this level of detail, and instead report on the total number of deaths arising from a conflict event. The only exception to this is in incidents involving civilians: because ACLED treats civilians as unarmed, non-combatants, the number of fatalities reported for each event involving civilians – typically coded under “Violence against civilians (VAC)” or “Explosions/Remote violence (E/RV)” is taken to be the reported number of civilians killed (unless the perpetrator dies as a result of his action, like a suicide bomber). As such, **estimates of civilian fatalities do not include civilians that may have died during fighting between armed groups or as a result of the remote targeting of armed groups** (e.g. an airstrike hitting militant positions but that also kills civilians)¹.

Fatality counting in the Yemeni civil war faces several obstacles, which make any effort to provide reliable estimates highly difficult ([Washington Post, 3 August 2018](#)). Scarce or biased reporting, as well as limited media access to the sites of violence, may indeed result in substantially different fatality estimates arising from the same event, uncertain figures, or one-sided coverage of conflict events in certain areas. This partially explains why official estimates, which rely on selected data from health facilities, tend to be significantly lower compared to what is perceived to be the real impact of the conflict in Yemen ([The Guardian, 16 January 2017](#)).

To avoid artificially increasing the number of reported fatalities, ACLED has taken several steps to ensure that fatality estimates during the Yemen Civil War are the most accurate possible and least subject to media biases:

- researchers triangulate reported fatality counts to always select the most conservative available, unless more recent or verified information is released;
- high fatality estimates reported by only one source are verified thoroughly, and discarded if they are not confirmed by multiple sources;

¹ ACLED has developed a tool which automatically combines all events featuring targeted VAC and E/RV attacks against unarmed protesters and civilians into a single file. It is available for download on our curated data page, [here](#).



- if ‘casualties’ are reported, ACLED assumes that there have been injuries, but not fatalities;
- if fatality estimates are unknown – and this happens often as many reports tend to be vague and only mention the occurrence of “deaths and injuries” or “losses” – ACLED uses a standard estimate of 10, or 3 when the event is known to have caused less than 10 fatalities (e.g. the bombing of a motorcycle resulting in *some* fatalities). Additional intermediate estimates are used to capture other inaccurate reported figures (e.g. dozens, scores, etc.)

Although the use of a discretionary fatality estimate can result in artificially increasing the number of fatalities, we can easily assume that there are several cases where fatalities go under reported or are not reported at all. In the end, these expedients help control the inherent bias and avoid inflating fatality counts significantly while ensuring consistency within the country and across other regions.