



2023 SYRIA IN REVIEW: HUMANITARIAN TRENDS



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2023 Syria in Review: Humanitarian Trends



CA – SYR
CRISIS ANALYSIS – SYRIA

2023 Syria in Review: **Humanitarian Trends**

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Executive Summary

The humanitarian situation in Syria worsened in 2023 due to a series of compounding problems. The World Food Programme (WFP) announced that it will be reducing the number of participants in its Syria program by over 50%, while donors at the Brussels conference decreased funds by 15% compared to 2022. Only 33% of the 2023 Humanitarian response plan was funded, compared to last year's plan, which received 52% funding. This made already cash-strapped households more financially vulnerable to economic shocks. The funding cuts and reduced assistance came as the number of people who need humanitarian assistance increased by 5% in 2023. The Syrian economy's continued decline contributed to the increased needs by reducing affordability for many households unable to afford essential items. The inflationary effect of the pound's depreciation and the government's subsidy removal contributed to a 76% increase in food prices alone, while wages remained largely stagnant and insufficient to cover monthly expenses.

The February 2023 earthquake aggravated the dire humanitarian situation, resulting in loss of life and significant material damage. The earthquake's death toll reached 4,500, injured 10,400, and displaced 265,000 people. It destroyed critical infrastructure, disrupted basic services, and overwhelmed the ill-equipped health sector. Local authorities found themselves unable to properly respond either due to bureaucratic hurdles, corruption, and/or lack of resources and means to sufficiently respond. Cross-border aid deliveries into the northwest initially faced delays following the earthquake. The damaged roads passing through the Bab al-Hawa border crossing and the absence of permission to access the remaining crossings resulted in aid convoys being unable to enter during the first three critical days after the earthquake hit.

On a more positive note, Syrian wheat yields improved in 2023, signifying a better harvest than in 2022. Overall, 2 million tonnes of wheat were collected across Syria but failed to meet the country's domestic needs. This shows that Syria is far from reattaining its self-sufficiency in wheat production amid a struggling agricultural sector, insufficient support, and fluctuating rainfall levels. Overall, the wheat yields improved in 2023 after rainfall levels also improved. Rainfall levels improved in 2023 following a prolonged drought that hit the country. However, the increase was insufficient to replenish underground wells after farmers and residents over-extracted them in the past few years. The continuity of rainfall levels in their current capacity is unlikely given environmental shifts, primarily climate change, have affected Syria's natural water cycle and rainfall with it. It is also predicted that precipitation will decrease by 20% by 2050.

Below are the key takeaways from Crisis Analysis–Syria's (CA–SYR) humanitarian overview for the 2023 Syria in Review series.

Key Takeaways

- According to UN's Office for the Coordination of Humanitarian Affairs (OCHA), the number of people needing humanitarian assistance increased by 5% from 14.6 million in 2022 to 15.3 million in 2023.
- Humanitarian funding from Syria was cut by 15% compared to 2022, making Syrians more financially vulnerable in the face of economic and price shocks. Only 33% of the Humanitarian Response Plan was funded in 2023 compared to 52% in 2022.
- The CA-SYR affordability index showed that affordability decreased drastically in the Syrian government and AANES-held areas but improved in SIG and SSG-held areas. Despite the improvement in the latter two areas, they bore the brunt of the February 2023 earthquake that destroyed critical infrastructure, disrupted services, and caused displacement.
- The February 2023 earthquake compounded the dire humanitarian situation resulting in loss of life and significant material damage. The death toll reached 4,500 individuals, 10,400 individuals were injured, and over 265,000 Syrians were displaced. The earthquake impeded access to shelter, water, electricity, and internet sectors following damage to critical infrastructure. The healthcare sector struggled to accommodate the large degree of injured individuals.

- Damaged roads passing through Bab al-Hawa border crossings and the initial absence of permission to access Al-Ra'ee and Bab Al-Salamah crossings led to delays in cross-border aid deliveries into the northwest following the earthquake.
- Wheat yields improved in 2023 as a result of the improved rainfall levels. 2 million tonnes of wheat were collected nationwide but failed to meet the domestic needs as a whole. This shows that Syria is far from reattaining its self-sufficiency in wheat amid a struggling agricultural sector, sufficient support from authorities, and fluctuating rainfall levels.
- Rainfall levels increased in central and northeast Syria in 2023 and provided a welcomed reprieve after a prolonged drought. The continuity of the current levels or their increase in the future is unlikely given environmental shifts, primarily climate change, that are impacting Syria's natural water cycle; the ICRC's Climate Center predicts a 20% decrease in precipitation by 2050.

Over the past 13 years, the humanitarian situation in Syria has steadily worsened in multiple facets. In 2023, the dire conditions were exacerbated by an increase in the number of people requiring humanitarian assistance, coinciding with a decrease in funding for vital aid operations. As the outlook for Syria's humanitarian conditions remains grim, the challenges persist. In this report, Crisis Analysis–Syria (CA–SYR) will delve into various contextual factors and trends taking place through 2023 that negatively affected humanitarian conditions in Syria and illustrate the consequences of neglecting Syria's humanitarian needs, potentially pushing Syrians into dire straits. These themes include humanitarian funding cuts amid deteriorating economic conditions, the lingering impacts of the 6 February earthquake, and climate change dynamics related to agriculture, water availability, and food security.

Funding cuts leave Syrians more vulnerable

On 13 June 2023, the [World Food Programme \(WFP\) announced reducing the number of participants](#) in its Syria program by over 50%, scaling down assistance from reaching 5.5 million to 2.5 million Syrians due to funding gaps. WFP Representative and Country Director in Syria, Kenn Crossley, described the situation plainly when he said they're "[facing the bleak scenario of taking assistance away from people, right when they need it the most.](#)" Funding cuts were not limited to those announced by the WFP but extended to the overall Syria response. The amount pledged by donors at the Brussels conference decreased by 15% from 6.5 billion euros in 2022 to 5.6 billion euros in 2023. Similarly, only 33% of the Humanitarian Response Plan for Syria in 2023 was funded compared to last year's Response Plan, which received 52% of its funding.

The cuts announced in June came within the context of [existing funding gaps crippling humanitarian organizations](#) from providing essential aid such as food, water, and medical assistance to millions of Syrians in need. Soon after the announcements, the United Nations' Office for the Coordination of Humanitarian Affairs (OCHA) projected these cuts to increase food insecurity by 29% in 2024, threatening to significantly hike malnutrition rates. By December 2023, the potential impact brought forward by these cuts became more clear amid an [estimated 5% increase in the total number of people in need](#) – from [14.6 million in 2022](#) to [15.3 million in 2023](#) – in Syria. This reduction forced families to resort to negative coping mechanisms, such as drastic reductions in daily food intake, increased child labor, and growing malnutrition among children.

The impact of reducing aid allocations is likely to be compounded by Syria's negative economic trajectory curtailing residents' ability to sustain themselves. According to WFP's Market Price Watch Bulletin, food prices increased by [76% overall in 2023](#), while medicine and accommodation prices rose by up to [100%](#) and [40%](#), respectively. These price increases were caused by the [worsening economic situation](#), the Syrian pound losing more than 100% of its value in 2023, and subsidy cuts, among other factors. Despite the rise in prices, wages remained relatively unchanged, and the minimum wage continued to fall below the global poverty line of \$2.15 per day, even after the government's most recent wage increase in August.¹

CA–SYR developed an index to calculate affordability to better understand the impact of inflation on Syrian households and highlight the potential repercussions Syrians might face if funding continues to decrease. This index measures how many working days it would take for unskilled daily wage laborers to earn enough to afford a partial Survival Minimum Expenditure Basket (SMEB) based on WFP price data.²

1 The Syrian government increased the minimum wage by 102% from 92,000 to 186,000. When calculated against the exchange rate of 14350 during August, it amounts to \$0.43 per day, which is much lower than the global poverty line of \$2.15.

2 The partial SMEB contains: Bread, Bulgur, Cucumbers, Dishwashing liquid, Eggplants, Eggs, Gas canister, Lentils, Chicken, Multipurpose soap, Oil, Onions, Rice, Salt, Sanitary pads, Sugar, Tomatoes, and Toothpaste.

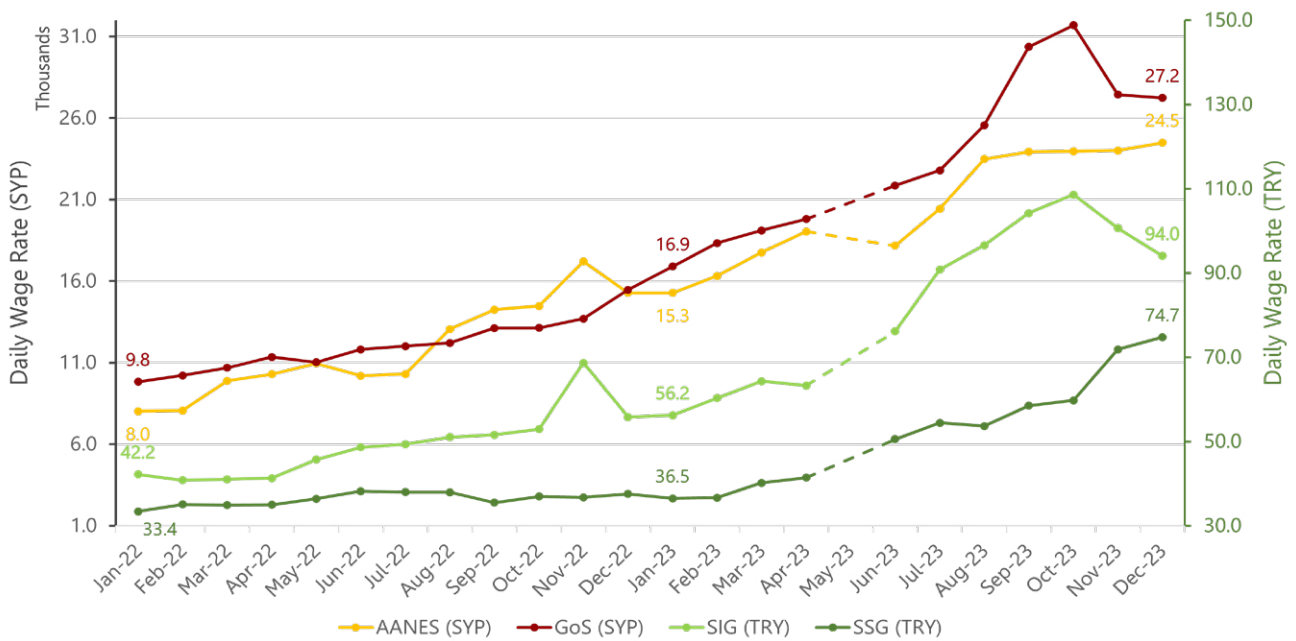


Figure 1: Graph showing the number of hours unskilled daily wage workers require to afford one partial SMEB per zone of control (Source: [WFP Food Price Data](#))

As shown in Figure 1, affordability decreased in the Syrian government and AANES areas but improved in both Syrian Interim Government (SIG) and Syrian Salvation Government (SSG)-held areas between January and December 2023. The improvement in affordability recorded in SIG and SSG-held areas is due to higher wage growth coupled with their adoption of the lesser depreciating Turkish Lira (TRY) as the main currency, in comparison to the Syrian government and Autonomous Administration in North and East Syria (AANES)-held areas which use the Syrian Pound (SYP).³ In effect, while a reduction of aid for Syria could be due to donor fatigue and a potential shift in funding priorities, Syria’s flailing economy is only expected to worsen humanitarian conditions. Therefore, decreased funding is only expected to drive households into poverty, further vulnerability, and force them to adopt harsher negative coping mechanisms.

Lingering impact of the February earthquake compound suffering

The February earthquake brought enormous destruction to Syria. In addition to the [death toll reaching 4,500 individuals](#), injuries amounting to 10,400 individuals, and the displacement of over 265,000 Syrians, the earthquake amounted to immense damages to infrastructure and essential services. With their financial burdens already intensified by the economic conditions, additional cuts in funding are anticipated to further challenge Syrian’s ability to access these essential services, extending beyond measurable metrics into an increasingly challenging scenario.

Government & AANES-held areas

Media sources reported that Lattakia, Hama, and Tartous governorates were the most affected, with an [estimated 7,150 buildings partially or fully damaged](#). Media sources reported that the electricity infrastructure sustained an [estimated \\$1.36 million in damage](#). [Damage to the Banyas oil refinery](#) and the [industrial sector in Aleppo](#) was sustained, affecting the refinery’s delivery capacity of oil products

3 The wage rate in SIG and SSG-held areas surged by approximately 67% and 105% between January and December 2023, surpassing the growth rates of 60% in both GoS and AANES-held areas during the same period, respectively. Wage rate growth in SIG-held areas grew by approximately 84% between January and October 2023 compared to 81%, 64%, and 30% in Syrian government, AANES, and SSG-held areas during the same period. For more in-depth analysis on economic dynamics, see the 2023 Syria in Review: Economic Trends report.

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and resulting in a 30% capacity output of the Aleppo industrial sector. The earthquake impacted tens of thousands of people, [leading 40,000 IDPs in Aleppo and 15,000 in Lattakia](#) to register for support in the early stages of the earthquake.

Areas held by the AANES also sustained some damage, albeit to a lesser extent. Specifically, the Sheikh Maqoud and Ashrafiyah neighborhoods of Aleppo City, Ain al-Arab (Kobani), Menbij, and [Ar-Raqqa city](#) – which is yet to recover from having [70% of public infrastructure destroyed or partially damaged](#) during the war against ISIS – all witnessed significant infrastructure damage.

Adding to the challenge is the inadequate response from various governing authorities following the earthquake. Immediately after the earthquake hit Syria, [several Arab States](#), including Saudi Arabia, the UAE, Egypt, Jordan, Lebanon, and others, extended assistance to Syria in various ways. Reports of [mishandling aid and corruption](#) emerged shortly afterward. Initially, on 13 February, the Syrian government organized an [aid collection mechanism](#) to streamline the collection and distribution process.

[CA-SYR reported that the distribution cycle](#) was mired with inefficient actions, chaos, and inequitable distribution, amid media reports [indicating that unaffected areas received aid allocations](#). In contrast, areas heavily affected by the earthquake, such as Jablah City and its Bustan Elbasha township, [received less aid](#) despite sustaining heavy damage. In addition, reports of corruption emerged in affected areas in Lattakia after it had been reported that [aid workers stole some of the aid received](#).

SSG and SIG-held areas

According to OCHA estimates, the earthquake [impacted 10,600 buildings](#) at varied degrees of damage and destruction in areas held by the SSG and SIG. In addition, at least 1,000 primary and secondary schools and 70 health facilities were impacted. Almost immediately after the earthquake, the number of children out of school increased by 25% (from 800,000 to 1,000,000 children). Overall 1,164,805 people are estimated to have been impacted, of which 229,747 were displaced.

The earthquake also disrupted services and damaged critical infrastructure in the northwest. CA-SYR assessed that the shelter, water, electricity, and telecommunications sectors suffered the most significant damage. Health facilities, large and small, struggled to accommodate the large degree of injured individuals. Hospitals in SSG and SIG-held areas were full, and those wounded were [redirected to smaller healthcare facilities](#). In addition, [logistical networks](#) and [cross-border access were restricted](#) for humanitarian aid delivery due to the [damage to road networks](#) between Turkey and SSG and SIG-held areas.

The newly established shelters hosted about 66,000 people while the rest of the new IDPs joined other family members, rented new houses, or bought new tents to live in. Rehabilitation of damaged homes faces numerous obstacles. The complex funding and bureaucratic response mechanisms of international non-governmental organizations (INGOs) and UN agencies, local entities grappling with resource constraints, and minimal coordination for long-term planning between UN agencies, INGOs, and local authorities created delays and [uncertainty regarding future rehabilitation](#) prospects.

SSG and SIG responses to the earthquake significantly varied. The SIG's aid management was [fraught with problems and slow in its response](#), in part, due to all major decisions needed in SIG-held areas needing approval by Turkish governors already grasping to respond at home. NGOs also faced incredible bureaucratic measures – including approval processes from Turkish and SIG authorities and coordination with local authorities and AFAD⁴ – just to begin working in northern Aleppo.

The SSG responded quickly (relative to the SIG) to the earthquake and [led the aid management in Idlib](#). The SSG established a new entity, the Earthquake Affairs Directorate, which became responsible for providing all of the earthquake-related data on damages, impacted people, and needs.⁵ The SSG also extended its

4 AFAD, the Disaster and Emergency Management Authority, is the Turkish government's disaster management agency operating under the Ministry of Interior and maintains a presence in Turkish-controlled areas of Syria.

5 Under these governance structures, the SSG created the Emergency Response Committee (ERC) on 6 February to facilitate the coordination and mobilization of immediate earthquake aid and relief delivery. It later established the Earthquake Affairs Directorate (EAD) on 12 February, which is under the jurisdiction and financed by the MDHA. The EAD is tasked with acting

support and interference outside of its areas of control into several SIG-held areas. Despite this positive notation, the SSG's centralized approach may discourage humanitarian organizations from operating in SSG-held areas due to concerns about the SSG's alleged ties to Hay'at Tahrir Al-Sham (HTS).

The humanitarian situation was further aggravated, not just by challenges in governance and administration but also by the looming prospect of cross-line and cross-border aid flows becoming politicized, posing additional threats to relief efforts. At the onset of the earthquake, supporting states had to send their assistance to airports managed by the Syrian government. This redirection was necessary due to damages to road networks and border crossings, preventing direct access to these communities. In addition to the corruption allegations outlined above, media outlets also [circulated claims that the Syrian government prevented cross-line aid almost immediately](#).



Image 1: A UN delegation crosses into northwest Syria 10 days after the Turkey-Syria earthquake. Source: [The New Arab](#)

Challenges in delivering aid to SSG and SIG-held areas surpassed internal Syrian dynamics. Logistical barriers and limited mandates also obstructed early cross-border aid deliveries. Adopted in January 2023, United Nations Security Council Resolution (UNSCR) 2672, which governed cross-border aid flows into SSG and SIG-held areas, restricted aid flows solely through the Bab al-Hawa crossing, akin to previous northwest Syria cross-border resolutions. At the onset of the earthquake, roads passing through the Bab al-Hawa border crossing were heavily damaged, rendering the roads by which aid convoys use impassable without necessary repairs. Lacking approval from the Syrian government to use the Al-Ra'ee and Bab Al-Salamah border crossings as alternatives, aid convoys were unable to enter the northwest in the first three critical days following the earthquake. Though the issue was later resolved with the Syrian government [approving the use of Al-Ra'ee and Bab Al-Salamah](#) on 13 February, the requirements of the approval now mean the UN must coordinate with Damascus. This arrangement, now known as the 'consent model,' has garnered concerns that it potentially grants additional leverage to the Syrian government against the SIG and SSG.

A similar line of logic could be inferred from the developments that later took place on 11 July when the [UNSC failed to extend the use of Bab al-Hawa](#) for cross-border aid flows. The consent model for use of Bab al-Hawa for [six months lasting until January 2024](#) was again approved by the Syrian government (and has been renewed a second time in January 2024).

While Damascus's continued approval – for the time being – may raise no cause for caution, the conditions set forward by the Syrian government for its approval were largely unworkable. Two primary features for Damascus's consent were that aid flows should: be done in collaboration, cooperation, and facilitation with the Syrian Arab Red Crescent (SARC) and the International Committee of the Red Cross (ICRC); and that there should be no cooperation with the SSG or SIG.

as the main source of earthquake-related data to support the MDHA. The data is collected and shared on a public dashboard, categorizing four points: 1) human and material damage, 2) geographical distribution of new shelters for IDPs, 3) shelter needs, and 4) aid distribution in shelters. Aside from its role as a data source, the EAD, local councils, and other SSG institutions were not part of the decision-making process of implementing organizations.

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Despite the Syrian government's conditions, the [UN has been coordinating](#) with the recently formed Humanitarian Action Coordination Office (HAC), an entity [perceived to be affiliated with the SSG](#). Irrespective of the veracity of such claims, relying on government approval for cross-border aid opens the door to its potential politicization, allowing the government to leverage it in discussions or negotiations with Turkey, the SSG, and/or SIG, especially as tensions between the government, and the SSG and SIG remain tense.

Amidst these ongoing dynamics, UN agencies and NGOs are anticipated to face ongoing – and perhaps fluid – administrative hurdles in responding to those in need throughout SSG and SIG-controlled areas, alongside potential politicization of cross-border aid approvals, mirroring their experiences in 2023. Residents found themselves compelled to dip further into personal savings, resorting to accumulating debt and relying on credit to cope with and recuperate their losses incurred by the earthquake. These measures effectively counteracted the potential advantages derived from a general increase in affordability, ultimately positioning them at lower macroeconomic endowment points. Without sufficient support, these individuals are likely to continue facing challenges that setback their humanitarian conditions considerably.

Increases in rainfall, wheat yields

Overall rainfall levels throughout 2023 saw a telling increase benefiting Syrian communities and agricultural actors, especially in central and northeast Syria. In those areas, the increased rainfall translated into improved wheat yields relative to previous years, having suffered from drought-like conditions [described as the “worst in 70 years.”](#) Despite these positive developments, rainfall increases were uneven throughout Syria while its wheat output remained insufficient to meet the country's domestic wheat consumption needs. In addition, local sources also noted that rainfall levels have not been enough to replenish underground water wells after years of over-extraction in many areas.

In the following sections, CA-SYR examines a critical source of Syria's vulnerability: precipitation and its impact on agriculture and food security. As donors shift attention away from Syria, community vulnerabilities related to the multifaceted issues related to volatile water availability and quality, agricultural production, and agricultural-based livelihoods, all of which have led to increasingly complex hardships in years past.

Rainfall levels increase in 2023

Overall rainfall levels in Syria increased in 2023 compared to 2022. However, using the CHIRPS satellite observations and rain gauge data, uneven precipitation patterns emerged across Syria, with some districts receiving more rain than others. From a subregional perspective, rainfall trends even varied depending on the zone of control.

A much-needed respite from a prolonged and devastating drought in northeast Syria occurred. As shown in Figure 2 and 3, rainfall levels in 2023 increased in Ar-Raqqa, Deir-ez-Zor, and Al-Hasakeh, ranging from 0.1% to 69.3% compared to 2022. Similarly, northwest Syria, specifically Idlib and some parts of northern Aleppo, also recorded an increase ranging from 0.0% to 13.7%. The heavy rains in December (see Figure 2) led to a [rise in the water level of the Euphrates River](#), which had reached [record lows in 2020](#), periodically leading to warnings of dead pool conditions. Local sources stated that the increase in water levels enabled the Tabqa hydroelectric dam to increase its electricity provision to certain neighborhoods in Ar-Raqqa city with access to the grid from 5 to 12 hours, providing much-needed relief to residents.

Government-held areas also recorded some increases but did not fare as well, overall reporting mixed results. The Tartous governorates recorded increased levels of rainfall, ranging between 14.8% and 36.1%. Similarly, southern Syria's Dar'a, Damascus, Quneitra, and As-Sweida and Damascus governorates recorded rainfall levels ranging from 14.8% to 69.3%. In contrast, 2023 rainfall levels for parts of Aleppo, Homs, and Rural Damascus recorded rainfall levels ranging from -13.7% to 69.3%, while rainfall trends in the Latakia governorate were not as favorable, decreasing the most, ranging from -13.7% to 0.0% in comparison to 2022 levels.

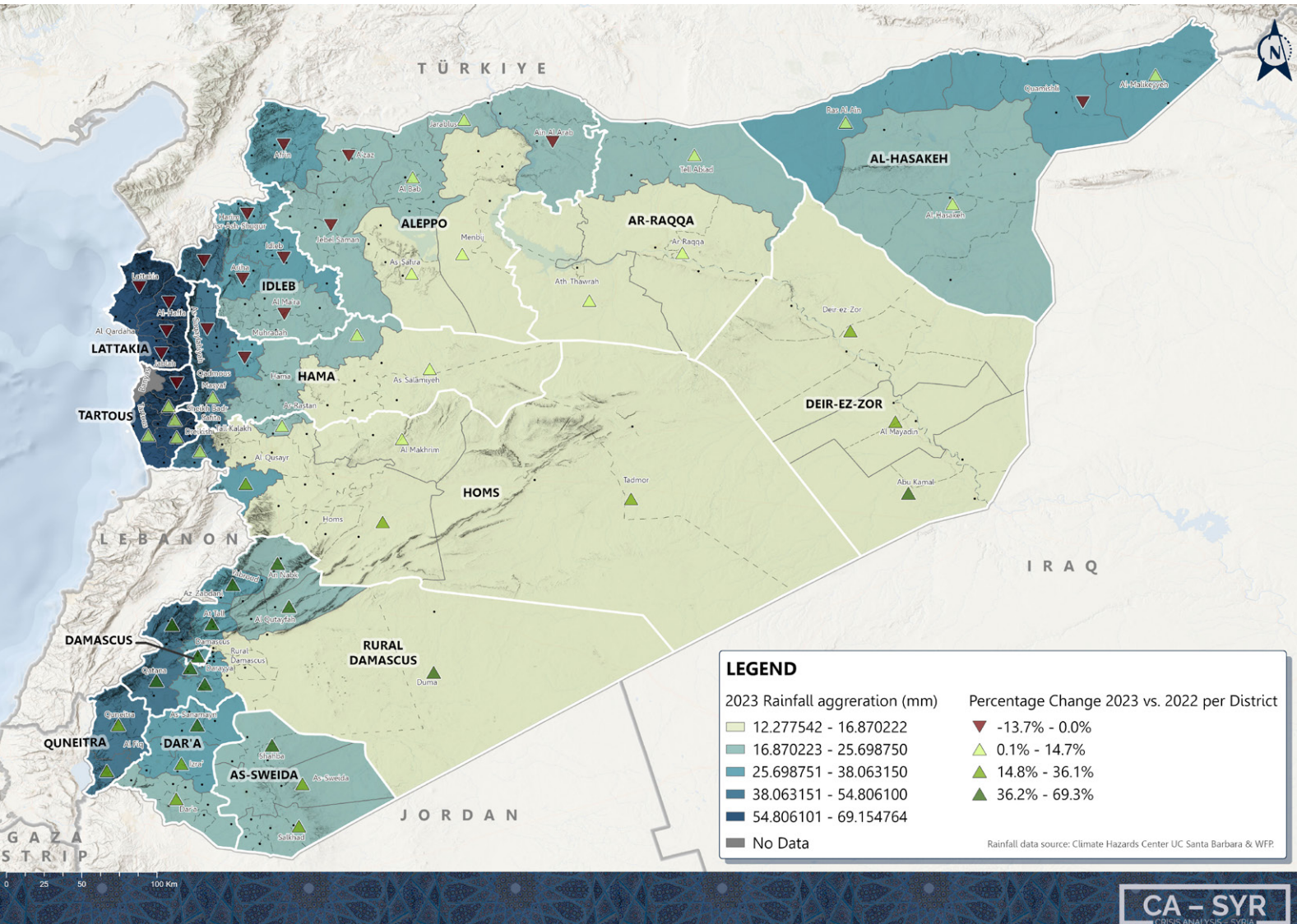


Figure 2: Change in rainfall aggregation between 2022 and 2023.

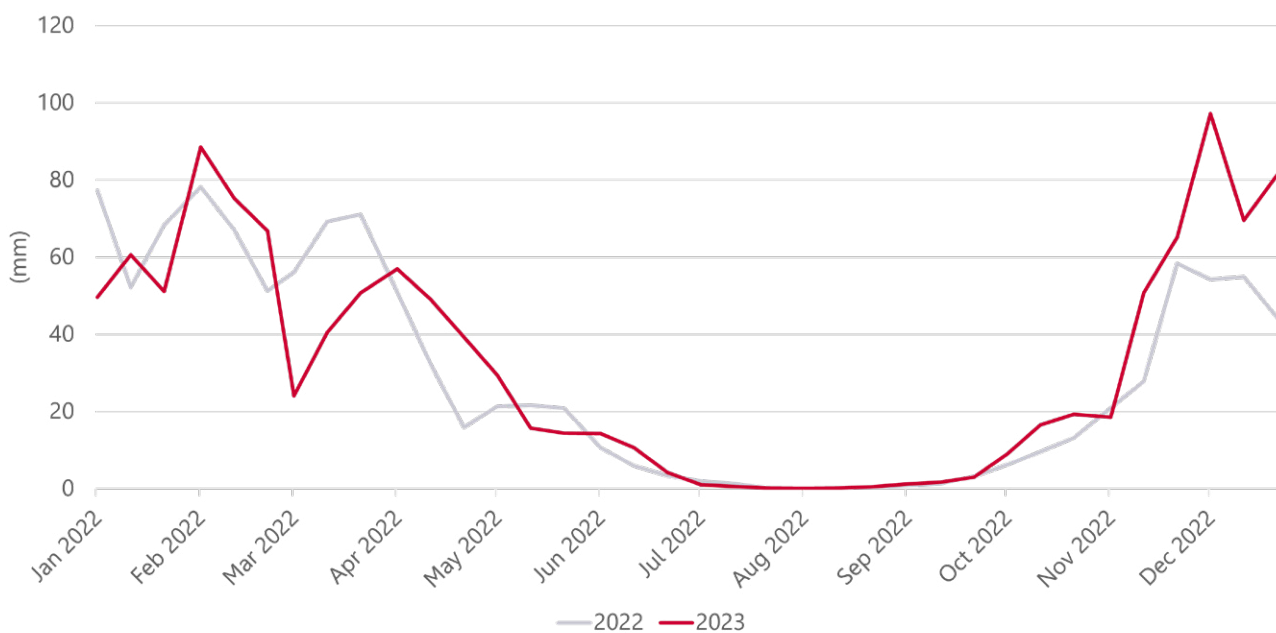


Figure 2: Change in rainfall aggregation between 2022 and 2023.

Wheat yields improve in 2023

While mixed, the overall improvement in rainfall levels across different regions of Syria in 2023 translated to better wheat yields. CA-SYR conducted satellite imagery analysis using the Normalized Difference Vegetation Index (NDVI), which reflects the improvement in wheat yields and shows a marked improvement in vegetation health and density in most of northeast Syria compared to 2022 (shown in Figure 4).^{6,7}

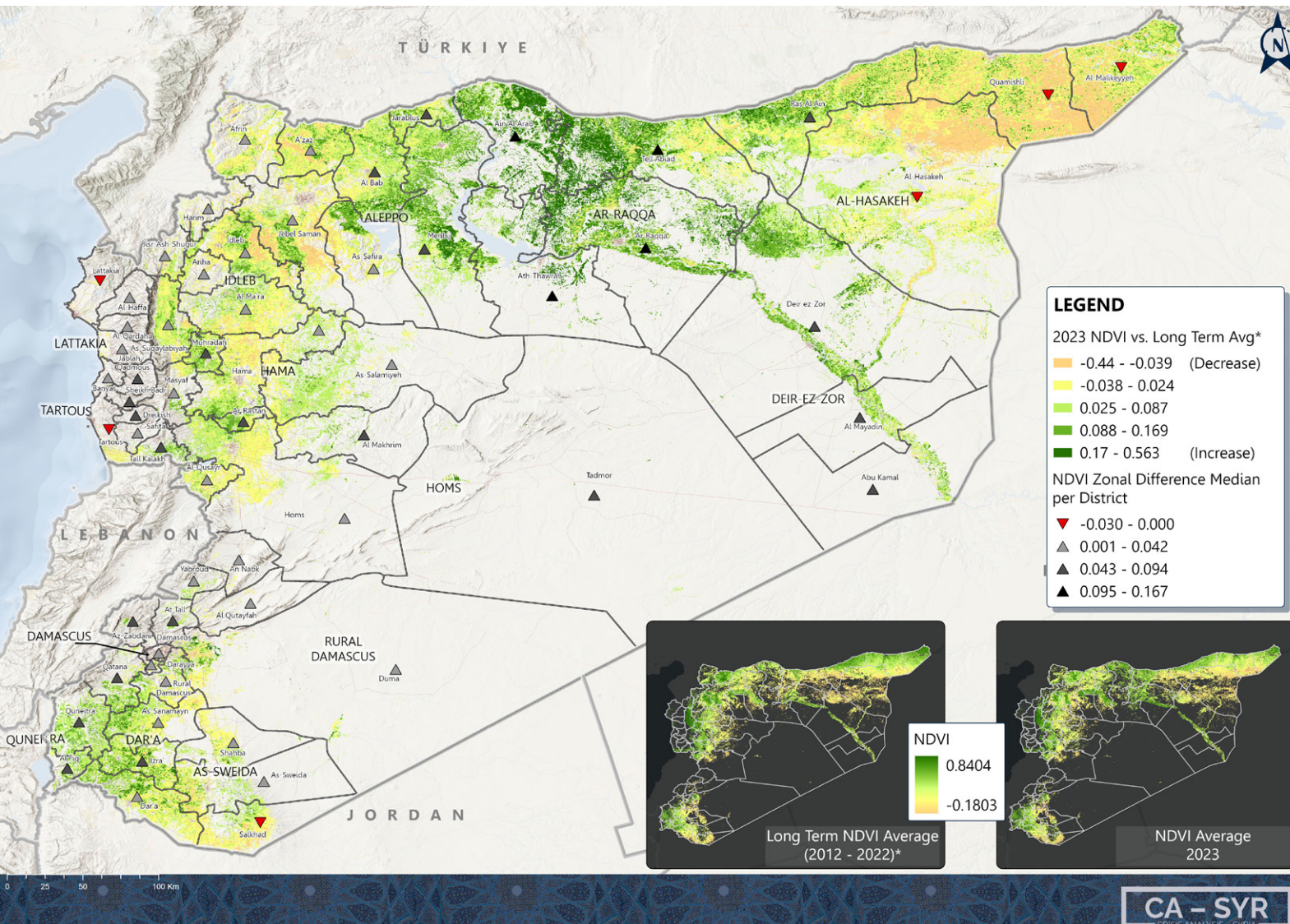


Figure 4: Change in vegetation health and density between the long-term average (2012 - 2022) and 2023.

In government-held areas, the Syrian government **collected 760,000 tonnes of wheat**, above the previously collected wheat of **500,000 in 2022**. Similarly, **SIG-held areas in the northwest had an output** of 40,000 in northern Aleppo and between 200,000 and 250,000 tonnes in Ras Al Ain and Tell Abiad in 2023 compared

6 Normalized Difference Vegetation Index (NDVI) is used to quantify vegetation greenness and is useful in understanding vegetation density and assessing changes in plant health. NDVI values always range from -1 to +1, where low negative values are most likely water surfaces and high positive values are most likely dense green leaves, while values close to zero are likely soil, and urbanized areas. According to NASA, NDVI is a very good indicator of drought, as water limits vegetation growth and vice versa, hence affecting the reflectance observed via the satellites.

7 The NDVI band from the MODIS Satellite was used to measure a long-term average of the years (2012 - 2022) for April and May and compare it to the 2023 average of the same months. Those two months are considered the optimal period to capture the maximum greenness and productivity of the area. The results show an improvement in the overall NDVI in 2023 across Syria, with a significant increase in vegetation in northern Ar-Raqqa. Meanwhile, a slight overall decrease is seen in Al-Hasakeh Governorate. The Zonal Difference tool summarizes the change per sub-district by comparing the vegetated areas within the total sub-district area.

to 13,900 tonnes in 2022. Meanwhile, areas controlled by the SSG recorded an **output of 95,000 tonnes** in 2023 compared to 23,300 tonnes in 2022.

The greatest increase in wheat output was recorded in AANES-held areas. In 2023, wheat output in AANES-held areas increased by 158% from **388,000 tonnes collected in 2022** to **1,150,000 tonnes in 2023**. This increase, however, was also potentially prompted by the fact that farmers across Syria attempted to sell their crops to AANES rather than the authorities in their respective areas. According to local sources, this was prompted by the fact that the AANES had set higher prices to purchase wheat from farmers – \$430 per ton in comparison to the Syrian government’s set price of \$225. Ultimately, this cultivated what led to AANES-held areas exceeding their **annual domestic needs of 650,000 tonnes per year**, constituting a surplus.

Low future prospects despite improvements

The improvements in wheat yields and rainfall in 2023 are notable, but remain far away from guiding Syria

Governance Actor	2022 Wheat Yield (per tonne)	2023 Wheat Yield (per tonne)
AANES	320,000	1,000,000
Syrian Government	500,000	760,000
SSG	23,300	50,000
SIG	13,900	50,000
Total	857,200	2,060,000

Table 1: Wheat yield per tonne, based on zone of control/controlling governance actor

towards any form of self-sustainability. Despite the recorded increase in wheat production between 2022 and 2023 from 850,000 to 2 million tonnes, the amount still falls short of meeting the national domestic demand. Government-held areas alone require 2.5 million tonnes of wheat to meet consumption demand. The Syrian government’s shortfall in wheat yields forced it to **import 1.4 million tonnes**, highlighting the potential consequences of the cuts introduced by the WFP and the overall Syrian response.

Before 2011, Syria **produced between 4 and 5 million tonnes** of wheat per year, which enabled it to meet its domestic wheat needs and either export or fill up its reserves. The 2023 wheat production levels are still far from reaching pre-conflict levels and reattaining self-sufficiency. Throughout the conflict, the government lost its ability to set up proper agricultural plans, maintain its infrastructure, and provide sufficient amounts of subsidies for farmers.⁸ It also lost significant agricultural land and resources to prop up the sector. Without proper government support and investment in the sector, farmers have become more vulnerable to future droughts, pests, soil erosion, and additional adverse weather conditions such as frost and wildfires.

Low wheat yields have since become a problem in Syria as bread is considered the staple and most affordable food item for many cash-strapped families. Insufficient wheat, coupled with the government’s inability to afford imports, resulted in **bakeries either closing** or operating at a partial capacity, **bread shortages**, and bread rationing imposed by the government.

The unpredictability of rainfall levels is also expected to take its toll. Despite improving in 2023, the overall trend is that rainfall levels have remained low since 2020, with local sources noting that this level of unpredictability offsets the agricultural sector’s ability to plan effectively for future rainfall and water availability trends. These rainfall fluctuations, in addition to other environmental factors, have impacted wheat yields in the past, making them more uncertain. For example, **Syria produced 2.2 million tonnes of**

8 Subsidies for commodities included diesel, pesticide, seeds, and fertilizer.

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[wheat in 2019](#) – an 83% increase compared to the previous year – but was soon followed by the devastating drought in 2020, [despite the government's optimism](#). Aside from the fluctuations taking place, there are expectations that rainfall levels could decrease moving forward; the ICRC's Climate Center expects that precipitation levels will [decrease by 20% in 2025](#), while the [World Resources Institute reports](#) that water demand in the region could increase by 43%.

This volatility is [primarily driven by climate change](#), abetted by years of damaged and destroyed infrastructure, lack of proper policy formulation and implementation, geopolitical competition for natural resources, and potentially unsuitable agricultural practices. Climate change has brought about rising temperatures that affect the country's natural water cycle. This has decreased the Euphrates River's water levels, a [significant part of Syria's water cycle](#) that contributes to agriculture and water availability. It has also caused harm to natural soil irrigation processes, affecting groundwater, lakes, and rivers. The rising temperatures have also caused an acceleration in the [evaporation process](#), which contributes to the reduction in the river's water level. Local sources suggest that farmers may need to adopt alternative irrigation methods to improve their crop yield, which can increase production costs for farmers while being conscious of proper water conservation practices.

The decreasing water supply to the Euphrates River can also be attributed to political factors. Media reports stated that the Syrian government has accused the Turkish government of damming higher quantities of water upstream, effectively reducing the river's water supply to 200 cubic meters per second as agreed upon in agreements in [1987](#) and [2011](#). This has significantly impacted the river's water supply, which climate change has already affected. The river is a crucial resource for Syria, and the lack of water has caused harm to agricultural production and affected the livelihood of the region's people.



Image 2: Farmers in the Damascus suburbs harvest their wheat. (Source: Reuters)

Water availability remains an issue in light of these improvements. For example, farmers and residents in the [northeast over-extracted from wells](#) during the drought, nearly depleting them. Local sources reported that farmers had to dig their wells deeper each year to gain access to underground water wells. This overuse of groundwater has led to the over-extraction of water in Al-Hasakeh, as many city residents also resorted to digging wells to secure their water supply. The Alouk water station, which was the [primary water source for the city](#), was damaged and later seized by Turkey, making water even more scarce.

The situation in northwest Syria also saw changes to water availability with shifts to major water scarcity. [CA-SYR reported that Al-Bab City](#), home to 300,000 people who obtain their water from thirteen wells, had lost supply from five major wells. Local sources stated that rainfall levels are unlikely sufficient to replenish the vast amount of water extracted from underground water wells in the past few years. It would require steady, [high rainfall levels for multiple years](#) to fully replenish the depleted water wells.

Outlook into 2024: Syria's Humanitarian Conditions

Syria's humanitarian landscape is likely to worsen in 2024. The number of people requiring humanitarian assistance is set to increase amid a declining economy, funding cuts, and delays in aid delivery. Syrian families are likely to be further financially burdened as inflation continues unabated and the government is unable to positively intervene. The Syrian pound already depreciated by 6% between December 2023 and January 2024, leading to additional pressure on limited household income and means by which needs can be met.⁹ Funding cuts and the consequent reduction in humanitarian assistance are likely to financially burden cash-strapped families further, making them increasingly vulnerable to price shocks.

The February earthquake showed how unprepared Syria is to deal with natural disasters. Authorities lacked the resources to sufficiently respond, with many even facing bureaucratic hurdles and corruption that delayed their response time and resulted in unequal distribution of aid. International organizations and the authorities have also failed in planning a rehabilitation process, forcing many residents to spend their own money, taking on debt or credit to fix their homes, making them more financially vulnerable. Given the deteriorating economic situation, increasingly dire humanitarian conditions, and funding cuts, residents are now more vulnerable. The generally deteriorating conditions mean that authorities are likely to struggle even more in responding and providing aid in the event of a natural disaster hitting the country in the future.

The crossings are still open under a bilateral agreement between the UN and the Syrian government, which could either be revoked or its term ended without renewal. The absence of a UNSC resolution on the matter leaves the Syrian government as the sole decision-maker on the continuity of cross-border aid deliveries. The government could choose not to renew to encourage aid to pass through Damascus and/or as a means to pressure the SIG and SSG with whom it has a hostile relationship. Damascus could also use the consent model to increase the conditionality of cross-border aid, including increased oversight and information-sharing requirements, enforcement of equal cross-border and cross-line convoys, and imposing restrictions on certain types of programming and geographies.

The improvement of rainfall levels and wheat yields in 2023 was a welcome reprieve. While local sources expect higher rainfall levels this year and double the 2023 wheat yields, it is difficult to determine if this will happen. Climate change, the [main reason behind Syria's recent drought](#), could further reduce rainfall in the long run. The ICRC's Climate Center reported that precipitation is expected to [decrease by 20% in the Middle East by 2050](#), while the World Resources Institute reports that [water demand in the region could increase by 43%](#); the institute's baseline water stress classifies northeast Syria's water stress as extremely high.

Disruptions of water flow in the Euphrates River due to damming and over-extraction from underground water wells affect the natural water cycle, contribute to a reduction in rainfall levels, and reduce the water availability in aquifers, in the event of a drought. Wheat yields depend on the amount and the timing of the rainfall; local sources report that it is important for rainfall to occur sufficiently in the first four months of the year for the yield to be significant. Even with sufficient rainfall, other potential factors, such as frost, pests, and wildfires, could disrupt wheat yields. With the overall deterioration in the humanitarian situation, the impact that climate has on food availability and livelihoods of residents working in the agricultural sector remains highly critical for years to come.

⁹ The Syrian pound reached 14,900 SYP per USD in mid-January.

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Crisis Analysis – Syria (CA-SYR) was established in Beirut in March 2015 in response to the collective challenges facing the remote humanitarian response in Syria. CA-SYR's most important function is to collect and analyze data and information. Since 2015, our analysis has provided a forward-looking template for international interventions in Syria, and facilitated an increasingly adaptive, integrated, and ultimately impactful international response to the conflict. CA-SYR is a team within Mercy Corps, and is part of the Mercy Corps response to the Syrian crisis.

This report is for humanitarian and development purposes only. CA-SYR strives to ensure products are impartial. The content of this document does not necessarily reflect the opinion or position of Mercy Corps as an organization.

