Wheat-Flour to Bread Processing Facilities Mapping

STUDY FOR NORTHWEST SYRIA, SEPTEMBER 2022¹

Introduction

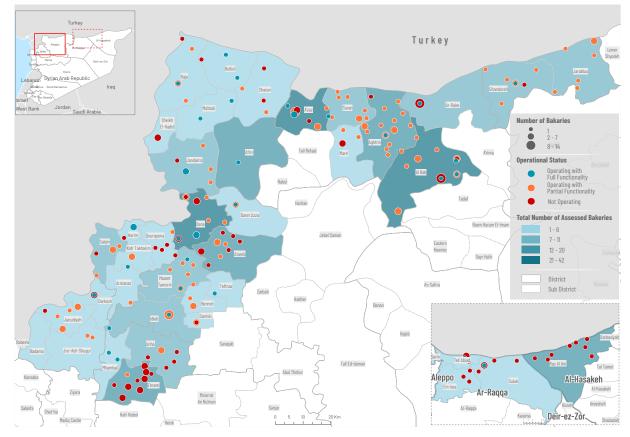
To keep the bread support programs in Northwest Syria (NWS) up-to-date, iMMAP, in collaboration with the USAID_BHA partners, Food Security and Livelihood (FSL) Cluster teams, Implementing Partners (IPs) in the NWS hub and the Bread and Bakery Technical Working Group (BBTWG) for NWS, conducts a regular mapping and monitoring exercise for the public and private processing and production facilities across the wheat-flour to bread value chain in NWS. This exercise aims to:

- Assess the capacity and functionality of the wheat-flour to bread processing facilities in NWS (including Afrin, Peace Spring area and Euphrates Shield area).
- Assess accessibility, affordability, and prices of flour/bread in NWS.
- Identify existing gaps in bread production in NWS to meet the bread needs of the local population
- Identify the main flour to bread production barriers and needed support to fill this gap.
- Map the wheat-flour to bread value chain actors, plans and achievements in NWS.
- Provide a clear end-to-end view of the bread supply chain in NWS.

The first² round of the Wheat-flour to bread processing facilities mapping exercise in NWS was conducted in August-September 2022. 18 BBTWG member partners supported iMMAP in conducting the data collection. Thirty-nine sub-districts were covered across 4 governorates: 18 sub-districts in Idleb governorate, 17 sub-districts in Aleppo governorate, 3 in Ar-Raqqa governorate, and 1 in Al-Hasakeh governorate. The total number of assessed facilities was 425 wheat-flour to bread processing facilities that were mapped in NWS; 359 are bakeries, 51 are mills, and 15 are silos.

Key Findings

Out of the 359 bakeries assessed, 191 were in Aleppo governorate, 16 were in Al-Hasakeh governorate, 14 were in Ar-Raqqa governorate, and 138 were in Idleb governorate. The percentage of reported operating bakeries was 69% (n=248) of all assessed bakeries, where 80% were private bakeries, 17% were publicly owned bakeries, and 3% had joint ownership (public and private). Compared to Q1 2022, the percentage of operational bakeries decreased by 2%. The remaining 31% (n=111) of bakeries were non-operational, out of which 70% of these bakeries were permanently closed. The main and more recent reported reasons for closure in all governorates were related to high operational costs, lack of access to support and high competition with bread program supported bakeries. Ehsem and Ras Al Ain subdistricts recorded the highest number of non-operational bakeries (17 and 13 respectively) where 83% of these bakeries were privately owned. On the other hand, 57%



WHOLE OF SYRIA (WoS) FOOD SECURITY SECTOR

Map 1: Bakeries Operational Status in NWS, September 2022.

1 Data collection was conducted between the end of July and mid-August 2022, and the report was issued in September 2022.

2 Seven rounds of Wheat-Flour to Bread Processing Facilities Mapping have been published by iMMAP, one in 2019, two in 2020, three in 2021, and one in March 2022. The latest March 2022 report can be accessed through this <u>link</u>.

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of the mapped mills (n=29) reported that they were operational, out of which 83% are privately owned, and 3 out of 15 mapped silos reported that they were operational.

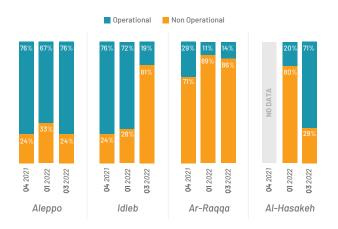


Figure 1: Bakeries Operational Status

• Bread availability in NWS increased compared to 01 2022 yet it is still not meeting the local standard of minimum bread quantity needs.

The individual daily portion of produced bread (all types of bread) in NWS was limited to 223.4g, representing only 68% of the local standard minimum daily bread needs (330g) per individual³. Compared to the last round of Q1 2022, the individual daily portion of produced bread increased by 4% which was 215.3g/individual. The situation in Idleb governorate was the worst across the assessed governorates in NWS where the individual daily portion of bread was limited to 168g (51% of the local minimum daily bread needs per person), which is the only governorate that encountered a slight decrease of 1% in the individual daily portions of bread from Q1 2022. In Ar-Raqqa and Aleppo governorates, there was an improvement in the individual daily portions of bread from Q1 2022, reaching a portion of 254.7g (77% of the local minimum daily bread needs per person) in Ar-Raqqa governorate, and 313.3g (95% of the local minimum daily bread needs per person) in Aleppo governorate.

As for Al-Hasakeh governorate, there was a high increase in the individual daily portion of bread from 52g to 355.9g, which covers the local minimum daily bread needs per person. Although the number of operational bakeries in Al-Hasakeh governorate remained the same (n=3), this increase was anticipated by the same bakeries in 01 2022 due to expectations of an increase in bread demand and undergoing machine maintenance across the facilities.

		INDIVIDUAL DAILY PORTION OF PRODUCED Bread (in grams)									
GOVERNORATE	Q1 2022	Q3 2022	% CHANGE								
ALEPPO	303.8	313.3	↑ 3 %								
AL-HASAKEH	52	355.9	1 584%								
AR-RAQQA	190.3	254.7	1 34%								
IDLEB	169.9	168.4	J -1%								

Overall, the reason behind the increase in the daily portions of bread can be attributed to the reported availability of locally milled flour in the months June to September, while the limitation of the daily portion of bread below the local minimum needs can be attributed to high operational cost and lack of access to bread program support as reported by bakeries that were not operating at 100% capacity.

Subsidized bread in NWS production improved in Aleppo, Al Hasakeh, and Ar-Raqqa yet does not cover the individual's local standard of minimum bread quantity needs.

Although bread was reported to be relatively available in NWS, and the percent of individual daily portion of subsidized bread was higher than Q1, 2022, the access and affordability of bread remained a challenge for vulnerable people in NWS, particularly in Idleb governorate. 45% of operational bakeries reported production of subsidized bread, out of which 48% of these bakeries received support from AFAD, 17% from the Local Council, 17% from NGOs, and 17% from the Syrian Public

Establishment for Grain. Overall, subsidized bread production improved in comparison with Q1 2022 in the governorates of Aleppo, Al-Hasakeh (Ras Al Ain subdistrict), and Ar-Raqqa representing respectively 67%, 81%, and 100% of total produced bread and reaching an average individual daily portion of 216.8g (65% of the local standard minimum daily needs of bread (330g) per individual).

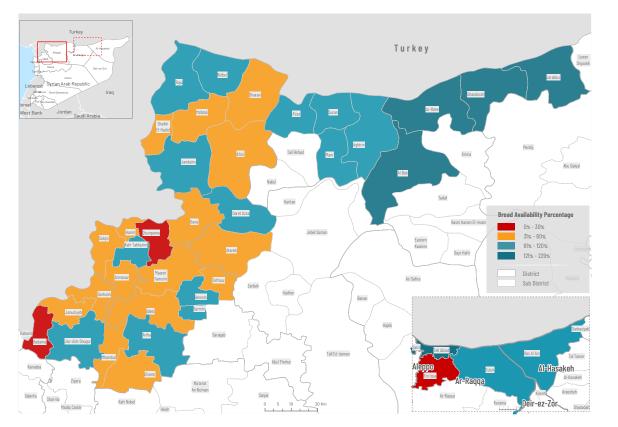
Contrarily, Idleb governorate recorded 85% decrease in the production of subsidized bread and in turn recorded the lowest access to subsidized bread where the individual daily portion of subsidized bread was 7.3g, covering less than 2% of the local minimum daily needs of bread per person. The reason behind this decrease in production can be explained by the fact that 14% of the operational bakeries (n=35) had stopped receiving bread program support, out of which 37% of these bakeries (n=13) are in Idleb governorate and were committed to selling bread at subsidized prices yet stopped receiving the humanitarian bread program support as from May 2022.

• The quantity of produced bread in NWS increased by 6 percent in Q3 2022 compared to Q1 2022.

The quantity of total produced bread in NWS recorded an increase of 6% which is equivalent to 398 MT/week in comparison with Q1 2022. The total recorded production in Q3 2022 was 7,374 MT/week; with 3,593 MT/week in Aleppo governorate, 155 MT/week in Al-Hasakeh governorate (Ras Al Ain subdistrict), 209 MT/week in Ar-Raqqa governorate, and 3,417 MT/week in Idleb governorate. The increase in bread production can be linked to Wheat harvesting seasonality and the reported availability of locally milled flour in the months June to September, which was also reflected by the reported increase in the use of locally milled flour across the operational bakeries from 31% in Q12022 to 50% in Q3 2022.

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Map 2: Percentage of Population Bread Needs Covered by Total Production, September 2022

Although the quantity of total produced bread in NWS increased in comparison with Q1 2022, it is still not meeting the bread needs of the total population in the governorates of Aleppo, Ar-Raqqa, and Idleb. The percentage of population bread needs covered by total production is highest in Al-Hasakeh governorate (Ras Al Ain sub-district) with 108% coverage, followed by Aleppo governorate with 95% coverage, followed by Ar-Raqqa governorate with 77% coverage, and finally Idleb with 51% coverage.

4 Median prices of bread and flour were used for comparison.

Ar-Rae'e and Ghandora sub-districts in Aleppo governorate recorded the highest percentage of population bread needs coverage being 220% with 1 operational bakery and 229% with 8 operational bakeries respectively. This percentage indicates that the reported amount of produced bread in these areas is high in regard to the total population in the area. On the other hand, Ein Issa sub-district in Ar-Raqqa governorate and Badama sub-district in Idleb governorate recorded the lowest percentage of population bread needs coverage being 0% with no operational bakeries and 9% with 1 operational bakery respectively.



Decrease in free-bread distribution across NWS in Q3 2022 compared to Q1 2022.

In comparison to Q1 2022, NGOs in NWS reduced the quantity of free bread by 31% (from 651 MT/week to 447 MT/Week) and almost returned to the same amount of free distributed bread in Q4, 2021. Similar to Q1 2022, the production of free bread in Q3 2022 was still unavailable in Al-Raqqahgovernorate and Al-Hasakehgovernorate(RasAlAinsubdistrict).

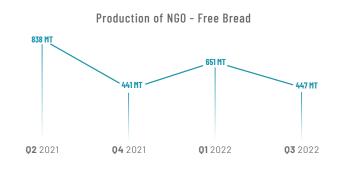


Figure 2: Quantity of free bread distributed by NGOs in MT per week in NWS.

• Overall increase in bread and flour prices in NWS in Q3 2022 compared to Q1 2022.

The average reported selling price of 1 kg of subsidized bread in NWS in Q3 2022 increased by 49% and reached 4.25 TRY/kg whereas it was 2.68 TRY/kg in Q1 2022. The average reported selling price of 1 kg of unsubsidized bread in NWS was 9.3 TRY/kg which increased by 12% compared to Q1 2022 (8.3 TRY/kg). Locally milled flour and imported flour prices continued to record price increase in NWS between Q1 2022 and Q3 2022⁴. Locally milled flour prices increased from 480 USD/MT in Q1 2022 to 571 USD/MT in Q3 2022 and imported flour price increased from 500 USD/MT in Q1 2022 to 506 USD/MT in Q3 2022 (19% and 1% increase respectively).

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• The availability of local wheat grain and locally milled flour improved but remained challenging in NWS.

Many bakeries (n=123) reported higher availability of locally milled flour, which increased from 31% in Q1 2022 to 50% in Q3 2022. Overall, this increase in availability was mainly reported across the governorates of Aleppo and Idleb, while Al-Hasakeh and Ar-Raqqa governorates remained the same as Q1 2022 (unavailable in Al-Hasakeh governorate and always available in Ar-Raqqa governorate). Overall, although there was an improvement in the availability of local flour that can be due to the wheat harvesting season, water scarcity continues to have a negative impact on the availability of local flour in NWS, affecting wheat production.

Mills' capacity remained not fully utilized.

The maximum wheat grain to flour milling capacity of all operated mills across NWS reported weekly was 6,451 MT in Q3 2022, whereas the actual reported weekly milling capacity of all operated mills across NWS was 4,416 MT. On average, the mills' functionality stood at 68% across the assessed operational mills in the NWS region. The maximum milling capacity exceeds the flour quantity used by local bakeries by 305 MT, however, the actual milling capacity covers only 72% of the flour quantity used by local bakeries. The ability of mills to cover the flour quantity used by local bakeries increased from 61% in Q1 2022 to 72% in Q3 2022. Only 18% of flour used by assessed bakeries in NWS was locally produced while the remaining 82% was imported from Turkey.

Recommendations and implications for FSL – Bread program in NWS

- The main reported reasons for closure were related to high operational costs, lack of access to support and high competition with bread program supported bakeries. Mills and Bakeries financial support to meet their high operational cost: Rehabilitation or financial support to non-operational and operating facilities will raise the wheat-flour to bread processing capacity across NWS region. This will allow the market to absorb more supply of wheat and flour in the future. However, such intervention needs to be carefully approached and must be sensitive to the competition between the different chain actors in the market. For example, the wheat to bread facility mapping assessment revealed that some bakeries closed because their competitors in the area were receiving free flour support and were able to produce bread at subsidized prices. This has reduced their market share and led to some operators losing their customers to the supported bakeries. This risk can be mitigated by efficiently mapping the facilities in the market and conducting an in-depth market analysis to better understand the need in each targeted area.
- Only 18% of flour used by assessed bakeries in NWS was locally produced while the remaining 82% was imported from Turkey. Humanitarian aid organizations must support the utilization of local flour and wheat production: Some humanitarian aid organizations were reportedly importing flour for their flour distribution interventions. As much as such efforts are stabilizing the supply of staple food/bread in the market, however, it could contribute to some level in marginalization or out-competing of local wheat farmers and local production of flour by local millers. It is recommended for humanitarian aid agencies to consider improving the local flour production capacity and locally source wheat from farmers then process it into flour in local mills. Such interventions will empower the local market and encourage actors not to abandon producing wheat and flour. This recommendation can ensure sustainability of the local wheat to bread value chain in Syria.
- Idleb governorate recorded 85% decrease in the production of subsidized bread and in turn recorded the lowest access to subsidized bread where the individual daily portion of subsidized bread was 7.3g, covering less than 2% of the local minimum daily needs of bread per person. The reason behind this decrease in production can be explained by the fact that 14% of the operational bakeries (n=35) had stopped receiving bread program support. As reported by the bakeries, 80% of supported bakeries were in Aleppo, while other governorates were receiving minimal bread program support; hence, it is recommended for humanitarian aid organizations to increase the coverage of the bread support program, specifically in Idleb governorate where the production of bread does not meet the minimum daily needs of bread per person. Furthermore, it is recommended for the partners in the bread program to continuously review their project exit strategies to ensure the sustainability of the bread program and reduce the closure of bakeries upon project exit.
- Similar to Q1 2022, the production of free bread in Q3 2022 was still unavailable in Al-Raqqah governorate and Al-Hasakeh governorate (Ras Al Ain subdistrict). It is recommended for humanitarian partners to do further localized assessments to ascertain whether there is need for free bread programs in these geographical locations with people in need. Engage implementing partners to conduct feasibility studies of flour-based interventions such as new mill/bakery construction, mill/ bakery rehabilitation, mill/bakery machine/equipment procurement, and mill/bakery renovations, especially in areas where these facilities are critically absent but with high population of people.

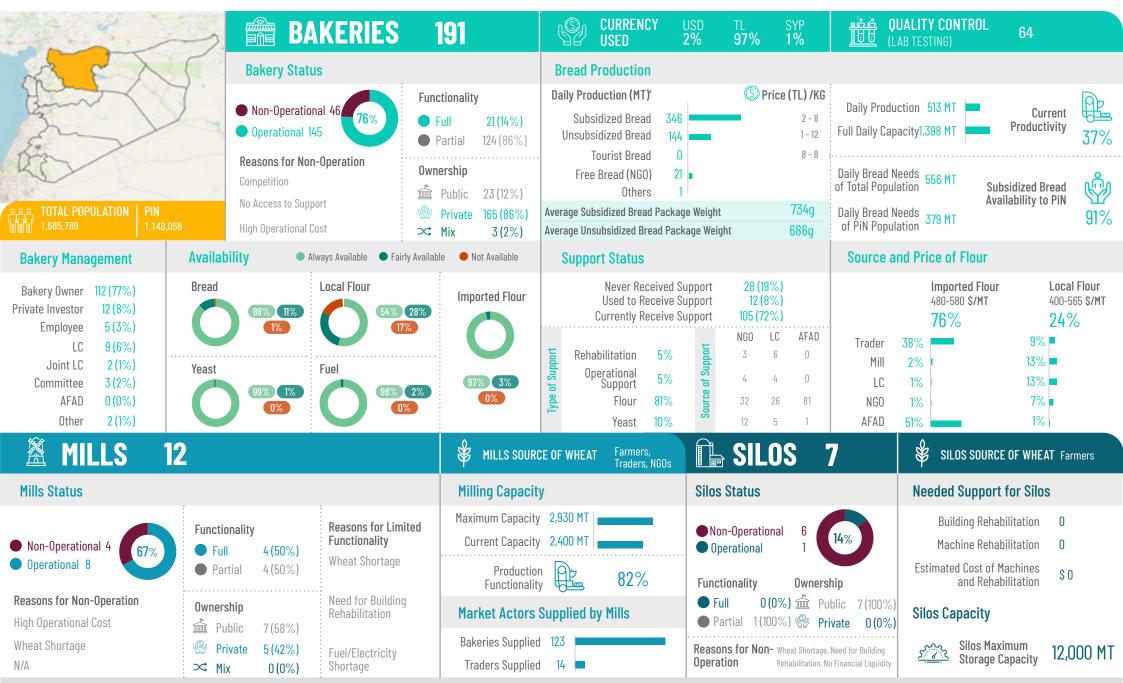
TELL US WHAT YOU THINK !



Aleppo August 2022







N/A

0(0%)

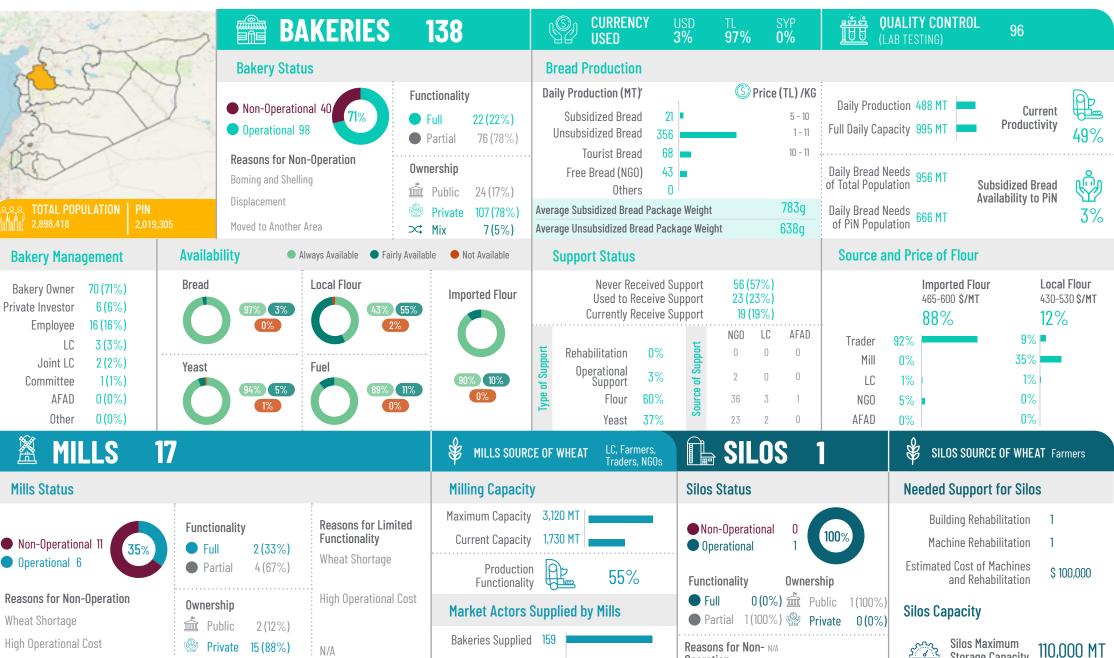
∝ Mix

Idleb August 2022

Low Demand in Area



Storage Capacity



Traders Supplied 26 💻

Operation

Al-Hasakeh August 2022

Bakery Owner

Employee

Joint LC

AFAD

Other

MILLS

Ø

∝ Mix

Private

12 (92%)

0(0%)

No Financial Liquidity

Traders Supplied

0

Committee

Ä

Mills Status

Operational 7

Theft Inicident

Wheat Shortage

No Financial Liquidity

Non-Operational 6

LC

Private Investor



WHOLE OF SYRIA (WoS)

iMMAP

Silos Maximum

Storage Capacity

50,000 MT

5 32

Reasons for Non- Need for Building Rehabilitation

Theft Inicident, Security Challenges

Operation

Ar-Raqqa August 2022

No Financial Liquidity

N/A

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 $\propto Mix$

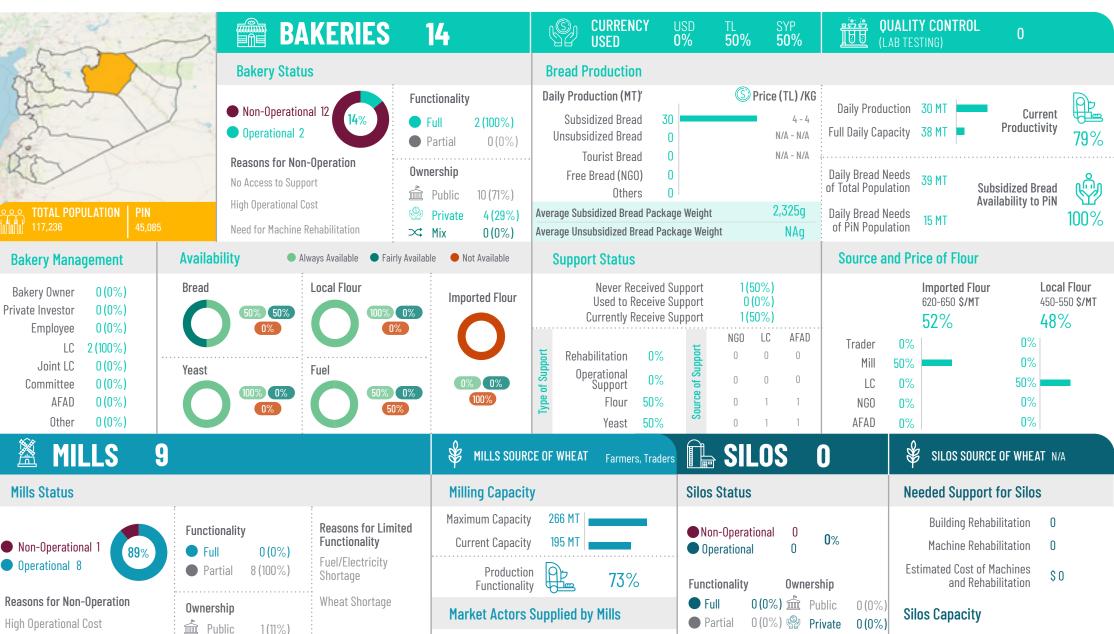
Private

8 (89%)

0(0%)

High Operational Cost





Bakeries Supplied

Traders Supplied

0

0

Reasons for Non- N/A

Operation

Annex Table 1: NWS Bread Needs and Production Gap Analysis, August 2022





Sub-District	Total population	PiN	Weekly bread needs of population in MT	Weekly bread needs of PiN in MT	Weekly subsidized bread in MT	Weekly unsubsidized bread in MT	Weekly unsubsidized tourist bread in MT	Weekly NGO-free bread in MT	Weekly other types of bread in MT	Total weekly bread production in MT	Bread availability to the population - % of population bread needs	Subsidized bread availability to the population - % of population bread needs covered by	free bread availability to PIN - % of PiN bread	Bread production gap in MT per week	gap in MT per week for	free bread production gap in MT per week for	of supported bakeries	Number of bakeries	Number of unsupported bakeries	%Unsupported bakeries	Weekly full bread production capacity in MT	% Current productivity
											covered by total production	subsidized & free bread	needs covered by subsidized & free bread		total population	PiN						
Afrin	187,867	99,938	448	231	0	180	0	61	6	247	57%	14%	26%	187	373	170	1	14	13	93%	697	35%
Bulbul	33,268	19,389	82	45	55	8	0	0	0	63	82%	72%	123%	14	22	-10	1	3	2	67%	126	50%
Jandairis	103,763	34,956	218	81	48	143	0	0	0	191	80%	20%	59%	49	192	33	2	11	9	82%	413	46%
Mabtali	26,143	12,413	64	29	3	28	0	3	0	33	55%	9%	18%	27	55	23	0	3	3	100%	119	28%
Raju	47,749	39,235	114	91	0	95	0	0	0	95	86%	0%	0%	15	110	91	0	6	6	100%	217	44%
Sharan	55,667	30,881	121	71	0	63	0	0	0	63	49%	0%	0%	66	129	71	0	5	5	100%	182	35%
Sheikh El-Hadid	11,720	4,946	29	11	0	7	0	7	0	14	52%	26%	61%	13	20	4	1	3	2	67%	56	25%
Al Bab	202,106	147,952	440	342	679	12	0	10	0	701	150%	147%	201%	-234	-222	-347	18	28	10	36%	1,239	57%
Ar-Raee	24,832	9,718		22	126	0	0	0	0	126	220%	220%	561%	-69	-69	-104	1	9	8	89%	126	100%
Aghtrin	101,606	66,244	222	153	251	10	0	0	0	261	111%	107%	164%	-26	-16	-98	18	20	2	10%	1,082	24%
Azaz	296,528	286,522	696	662	542	134	0	38	0	713	104%	85%	88%	-28	106	82	24	32	8	25%	2,211	32%
Mare	71,363	46,144	161	107	132	0	0	3	0	135	82%	82%	127%	30	30	-28	4	6	2	33%	336	40%
Suran - Aleppo	97,327	35,550	222	82	142	35	0	0	0	177	79%	63%	172%	48	83	-59	11	11	0	0%	661	27%
Ghandorah	29,724	11,879	70	27	149	8	0	0	0	157	229%	217%	543%	-88	-80	-121	8	9	1	11%	553	28%
Jarablus	88,546	48,618	190	112	206	35	2	8	0	252	123%	105%	191%	-47	-10	-102	11	11	0	0%	872	29%
Atareb	190,915	157,886	424	365	16	209	0	0	0	225	51%	4%	4%	216	425	349	1	16	15	94%	602	37%
Daret Azza	69,216	53,026	157	122	77	44	0	19	0	140	88%	60%	78%	20	64	26	4	4	0	0%	294	48%
Ras Al Ain	62,214	27,370	146	63	125	12	18	0	0	155	108%	87%	198%	-11	19	-62	1	16	15	94%	385	40%
Ein Issa	37,682	19,197	87	44	0	0	0	0	0	0	0%	0%	0%	87	87	44	0	3	3	100%	-	NA
Suluk	38,026	5,964	89	14	56	0	0	0	0	56	64%	64%	406%	32	32	-42	1	6	5	83%	112	50%
Tell Abiad	41,529	19,924	104	46	153	0	0	0	0	153	159%	159%	332%	-57	-57	-107	0	5	5	100%	154	99%
Ariha	105,171	64,317	242	149	106	44	12	0	0	161	66%	43%	71%	82	137	43	5	9	4	44%	406	40%
Ehsem	37,415	9,630	74	22	0	40	0	0	0	40	46%	0%	0%	46	86	22	0	18	18	100%	70	57%
Mhambal	43,606	26,693	100	62	7	33	0	19	0	59	59%	26%	42%	42	75	36	0	3	3	100%	210	28%
Armanaz	80,295	44,878	177	104	0	71	0	0	0	71	38%	0%	0%	114	185	104	0	2	2	100%	182	39%
Dana	1,153,804	999,777	2602	2309	35	660	416	157	0	1267	48%	7%	8%	1398	2474	2118	11	42	31	74%	2,142	59%
Harim	79,016	29,675	165	69	0	83	0	0	0	83	45%	0%	0%	100	183	69	0	5	5	100%	252	33%
Kafr Takharim	36,176	27,160	83	63	0	36	0	44	0	80	96%	53%	70%	4	40	19	0	2	2	100%	217	37%
Qourqeena	103,433	44,994	239	104	0	24	0	12	0	36	15%	5%	12%	203	227	92	0	6	6	100%	112	32%
Salqin	211,583	181,522	513	419	0	279	0	0	0	279	57%	0%	0%	210	489	419	0	7	7	100%	518	54%
Bennsh	58,540	25,569	122	59	0	75	49	0	0	124	92%	0%	0%	11	135	59	0	3	3	100%	182	68%
Idleb	301,375	166,851	682	385	0	365	0	32	0	396	57%	5%	8%	300	665	354	1	11	10	91%	763	52%
Maaret Tamsrin	322,113	268,481	764	620	0	421	0	0	0	421	57%	0%	0%	323	744	620	0	11	11	100%	1,023	41%
Sarmin	17,786	6,478	36	15	0	32	0	0	0	32	78%	0%	0%	9	41	15	0	3	3	100%	154	21%
Teftnaz	24,208	14,804	54	34	0	18	0	0	0	18	32%	0%	0%	38	56	34	1	1	0	0%	70	26%
Badama	59,307	29,041	124	67	0	12	0	0	0	12	9%	0%	0%	125	137	67	0	1	1	100%	42	29%
Darkosh	89,050	25,032	201	58	0	106	0	0	0	106	52%	0%	0%	100	206	58	0	5	5	100%	161	66%
Janudiyeh	60,064	26,318	133	61	0	63	0	4	0	67	48%	3%	6%	72	135	57	0	5	5	100%	210	32%
Jisr-Ash-Shugur	115,480	28,085	5 239	65	0	133	0	32	0	165	62%	12%	49%	102	235	33	1	4	3	75%	252	65%