Bakery Facility Mapping
for Northwest Syria
Quarter 1, 2021
Table of Contents

List of Figures .................................................................................................................................................. 3
Coverage ......................................................................................................................................................... 4
Bakery Status .................................................................................................................................................. 5
Ownership ...................................................................................................................................................... 5
Bakery Management ...................................................................................................................................... 5
Bakery Production and Types of bread produced. .......................................................................................... 6
Percentage of Functionality vs Actual ........................................................................................................ 6
Bakery Support Status .................................................................................................................................... 7
Source of Bakery Support ............................................................................................................................... 7
Needed support .............................................................................................................................................. 8
Quality Control Laboratory Testing ........................................................................................................... 10
Production cost ............................................................................................................................................. 10
Bread Production Waste .............................................................................................................................. 11
Type of Bakeries’ customers of bakeries ................................................................................................... 12
Recommendations ......................................................................................................................................... 13
# List of Figures

<table>
<thead>
<tr>
<th>Figure</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Figure 1</td>
<td>Bakery Status</td>
<td>5</td>
</tr>
<tr>
<td>Figure 2</td>
<td>Bakery Management</td>
<td>5</td>
</tr>
<tr>
<td>Figure 3</td>
<td>Bakery Production</td>
<td>6</td>
</tr>
<tr>
<td>Figure 4</td>
<td>Bakery Support Status</td>
<td>7</td>
</tr>
<tr>
<td>Figure 5</td>
<td>Source of Bakery Support</td>
<td>7</td>
</tr>
<tr>
<td>Figure 6</td>
<td>Type of Bakery Support in NWS Q1, 2021</td>
<td>8</td>
</tr>
<tr>
<td>Figure 7</td>
<td>Cost of Bakery Support</td>
<td>8</td>
</tr>
<tr>
<td>Figure 8</td>
<td>Bakery Needed Support</td>
<td>9</td>
</tr>
<tr>
<td>Figure 9</td>
<td>Lab Testing at Bakeries in NWS</td>
<td>10</td>
</tr>
<tr>
<td>Figure 10</td>
<td>Bread Production Cost</td>
<td>11</td>
</tr>
<tr>
<td>Figure 11</td>
<td>Lab Testing at Bakeries in NWS</td>
<td>11</td>
</tr>
<tr>
<td>Figure 12</td>
<td>Bakeries' Customers Type</td>
<td>12</td>
</tr>
</tbody>
</table>
Coverage

Thirty-seven sub-districts were assessed in March 2021 across 3 governorates: 18 sub-districts in Idleb governorate, 17 sub-districts in Aleppo governorate, and 2 in Ar-Raqqa governorate. 355 bakeries were visited at 154 communities, 347 accepted the participation in this assessment while 8 out of the 355 apologized and could not participate in the study. Below are the preliminary findings and recommendations.

Map 1: Assessed area
**Bakery Status**

Out of the 347 assessed bakeries, 70 were reported to be closed, 193 operated with partial functionality and 80 operated with full functionality. Figure one illustrates the bakery status at governorate level. It is worth mentioning that from Q4, 2020 the number of closed bakeries increased by 18% (from 59 closed bakeries in Q4, 2020 to 70 closed bakeries in Q1, 2021). In addition, the number of bakeries who reported working with full functionality increased by 25% (from 67 bakeries in Q4, 2020 to 84 bakeries in Q1, 2021).

**Ownership**

The main reported type of ownership was the private (83%, n = 289), while public ownership was very limited (14%, n = 48) and only 3% (n = 10) was reported to be owned through partnership between (public and private). This partnership was mainly between local councils and a private investor, where the local council owns the building, and machinery and equipment in some cases, and the private investor rents it.

**Bakery Management**

The majority (84%, n = 232) of opened assessed bakeries were reported to be managed by the owner and/or the investor, (69%, n = 191 by owner and 15%, n = 41 by investor). Only 13 bakeries (5% of the total opened bakeries) were reported to be managed by Local council, and 6 bakeries reported to be managed jointly with local council. 21 bakeries (8% of the total opened bakeries) were reported to be managed by the staff member. In addition, 2 bakeries reported that they were managed by committee; these committees consisted of a number of investors which are partnering together and jointly managing the bakeries. Figure 2 provides more breakdown of management type at governorate level.
Bakery Production and Types of bread produced.

In NWS, the percentage of produced un-subsidized bread was reported to be over half of the total production (7304 MT/Week) with 53.66% (3919 MT/Week), followed by subsidized bread with 35.9% (2622 MT/week), then the free NGO bread 4.62% (337 MT/Week) and the un-subsidized private bread had a share of 5.46% of the total production with 398 MT/Week, in addition to other types of bread that consisted 0.37% with 27.02 MT.

It is worth mentioning that the percentage of subsidized bread in Ar-Raqqa governorate was very high (93%, 223 MT/week) as compared to other governorates. Aleppo governorate came next with 42%, (1676 MT/week) of subsidized bread and 100 MT/week (3%) of bread that were produced to be freely distributed. In Idleb governorate the percentage of subsidized bread was limited to 23%, (722 MT/Week). Over one-third was reported in one sub-district at Maaret Tamsrin(327 MT/Week) in Idleb governorate.

In comparison with Q4, 2020, the quantity of produced subsidized bread increased in Idleb governorate by 7% (from 675 MT to 722 MT/week), still it was lower than the May 2020 production amount which was 938 MT/week to 675 MT/week in Idleb governorate. However, the quantity of produced subsidized bread in Aleppo governorate recorded a significant increase by 89% (from 888 MT in Q4, 2020 to 1676 MT/week in Q1, 2021). Figure 2 illustrates the produced quantity of bread per type at governorate level.

Percentage of Functionality vs Actual

The functionality rate reported to be 46% across the assessed bakeries in NWS. Ar-Raqqa governorate recorded the highest functionality rate with 52%, followed by Idleb governorate 46% and Aleppo governorate came last with 45%. The maximum capacity production for all assessed bakeries in NWS was 15,919 MT of bread per week while the current reported quantity of produced bread was 7,304 MT of bread per week.
Bakery Support Status

The number of supported bakeries varied across the assessed governorate, the total number of supported bakeries in NWS was 115, which is considered as notable increase in the number of supported bakeries as compared to Q4, 2020 (from 75 bakeries in Q4, 2020). Eighty-four bakeries (73%) out of those supported bakeries were in Aleppo Governorate. Al Bab sub-district hosted the highest number of supported bakeries with 23 bakeries (out of the 28, the total number of bakeries in Al Bab sub-district). Furthermore 5 bakeries reported that they used to have access to support, 3 in Idleb governorate and 2 in Aleppo governorate.

The number of supported bakeries in Idleb governorate was low; only 20 bakeries out of the 103 bakeries in Idleb governorate had access to support. Ar-Raqqa governorate recorded the highest support rate where 11 out of the 14 existed in Al-Raqqah governorate had access to support during the reporting period. See figure 4, bakery support status per governorate.

Source of Bakery Support

The source of support in Idleb governorate was limited to one source; NGOs, where in Aleppo governorate the sources varied from AFAD, Local council to NGOs. Worth noting was that in Aleppo and Ar-Raqqa governorate bakeries also had access to more than one source of support.
Flour support was the main reported type of support that was provided by AFAD (52 bakeries in Aleppo and 4 in Ar-Raqqa). Likewise local council support was mainly on flour distribution (33 bakeries in Aleppo and 11 in Ar-Raqqa governorates). Only 2 bakeries reported minor rehabilitation and machine maintenance support that were provided by the local council. And the same case applied to NGO support. See figure 5 for more details.

The reported types of support were flour support, yeast support, operational support where bakeries were provided by supporting cost to cover the fuel, labor and other related operational supports, and rehabilitation. Figure 6 illustrated the main reported types of support.

**Needed support**

Ninety-three bakeries out of the 277 opened bakeries indicated their needs for infrastructure support including building rehabilitation (41), new equipment (15) and machine maintenance for different types of machines (157). One bakery could be in need for more than one type of support. The total estimated cost of building rehabilitation for all assessed bakeries was 154,976 USD, whereas the equipment maintenance cost was 383,096 USD and the cost of purchasing new equipment was 224,720 USD. Thirty-one out of those 93 bakeries which reported the needs for infrastructure support indicated that they relied on external technician to maintain their machinery and equipment. For more details see figure 8 “Bakery Needed Support” and figure 7 “Cost of Bakery Support”.

---

**Figure 6**: Type of Bakery Support in NWS Q1, 2021

**Figure 7**: Cost of Bakery Support
Availability of Bread/Flour/Yeast/Fuel/

Data indicated a wide availability of bread and its production inputs; however, the inputs were available but less affordable due to the high price of these inputs. Only 6 out of the 277 opened bakeries reported that bread was not available. These 6 bakeries located in Bdama and Janudiyeh sub-districts and the cited reason for this low availability was low number of bakeries there.

In addition, a notable 22% (62 bakeries) reported lack of availability of the locally milled flour. Top three cited reasons for low availability of locally milled flours were:

1. Limited space of wheat planted lands due to the high cost of wheat productions and negative coping strategies followed by local farmers; mainly switching from wheat planting to more profitable crops.
2. Low number of functional mills
3. Low rainfall levels, (technical support needed on training farmers on climate smart agriculture for wheat farming)
Flour Supply Source

The main source of flour that bakeries used for their production is the imported flour. The locally milled flour represents only 16% (1179 MT/week) of the used flour, while the remaining 84% (6125 MT/week) was imported from Turkey. Below table displays the quantity and source of used flour per week in NWS during Q1, 2021.

<table>
<thead>
<tr>
<th>Row Labels</th>
<th>Sum of local flour quantity in MT/Week</th>
<th>Sum of imported flour quantity in MT/Week</th>
<th>Total flour</th>
<th>% of Local Flour</th>
<th>% of Imported Flour</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aleppo</td>
<td>717</td>
<td>3274</td>
<td>3991</td>
<td>18%</td>
<td>82%</td>
</tr>
<tr>
<td>Ar-Raqqa</td>
<td>24</td>
<td>215</td>
<td>239</td>
<td>10%</td>
<td>90%</td>
</tr>
<tr>
<td>Idleb</td>
<td>438</td>
<td>2636</td>
<td>3074</td>
<td>14%</td>
<td>86%</td>
</tr>
<tr>
<td>Grand Total</td>
<td>1179</td>
<td>6125</td>
<td>7304</td>
<td>16%</td>
<td>84%</td>
</tr>
</tbody>
</table>

Quality Control Laboratory Testing

A noticeable increase in the number of bakeries which do lab testing for flour and yeast was reported, as it increased form 46 bakeries in Q4, 2020 to 88 in Q1, 2021. The number of bakeries in Idleb governorate that do lab testing for flour and yeast is more than those that did not, whereas the case in Aleppo and Ar-Raqqa governorates were opposite. See figure 9 for more details.

Production cost

The production cost 1 MT of bread varied across the different governorate. The cost of flour and fuel was the main reason behind this variation. Idleb governorate came first with highest average production cost (429 USD/1MT of Bread), followed by Aleppo governate (384 USD/1 MT), and Ar-Raqqa governorate came last (258 USD/1MT). See figure 10 for more details.
Bakery Facility Mapping
Study for North West Syria

Figure 10: Bread Production Cost

- Average cost of production of 1 MT of Bread in USD
- Average cost of flour to produce 1 MT of bread
- Average cost of fuel to produce 1 MT of bread
- Average cost of yeast to produce 1 MT of bread
- Average cost of labour to produce 1 MT of bread
- Average cost of bag to produce 1 MT of bread
- Average other cost to produce 1 MT of bread

Idleb
Ar-Raqqa
Aleppo

384
283

259
172

429
312

49 14 15 12 10
45 9 17 3 13
86 13 16 12 10

Bread Production Waste

A new indicator was added to the current bakery round initiative in first round of 2021, to calculate the estimated waste of the produced bread in NWS. Seventeen percent (n = 47) of the opened bakeries reported that they had wasted quantity of bread which could not be sold due to low demand. The reported waste percentage was between 1 and 10%. The main usage of this wasted bread was selling it as animal feed for local herders, and sometimes this excess produced bread is distributed as free fresh bread to vulnerable people in the bakery community. These bakeries who reported a waste located at different governorate, 28 in Aleppo governorate, 17 in Idleb governorate and 2 in Ar-Raqqa governorate. See figure 11 “Waste at Bakery Production in NWS, Q1, 2021”

Figure 11: Lab Testing at Bakeries in NWS

- No Waste
- Reported Waste

Aleppo
Ar-Raqqa
Idleb

132
28
86
28
12
17

49 14 15 12 10
45 9 17 3 13
86 13 16 12 10
Type of Bakeries’ customers of bakeries

With the aim to enhance the accuracy of bread gap analysis and by applying the lessons learnt from previous bakery mapping rounds, a new indicator was added to look at the type of bakeries customers. Data showed that majority (90%) of bakery production were being sold to households, however the remaining 10% of the produced bread by bakeries were being sold to restaurants. See figure 12 for more details on quantity per governorate.

**Figure 12: Bakeries’ Customers Type**

- **Aleppo**:
  - Sold to Households: 3,422 MT
  - Sold to Restaurants: 545 MT

- **Ar-Raqqa**:
  - Sold to Households: 2,841 MT
  - Sold to Restaurants: 230 MT

- **Idleb**:
  - Sold to Households: 1,709 MT
  - Sold to Restaurants: 171 MT
Recommendations

- Harmonization in terms of NGOs type of support. Especially when it comes to conditions that bakery should abide to, like price of subsidized bread, % of provided/distributed flour, transfer value. And this harmonization should be area aware, as showed above the production cost is varies. One size fit all type of support may not work.

- Looking more in depth at AFAD support approach and try to conduct an impact assessment to draw lessons learnt from the different implementation approaches at bakery support programs.

- Looking more in depth at the area selection when it comes to support new bakery, for instance, as data showed that in Idlib governorate one sub-district received 45% of the support. (this needs more discussion with members of the NWS FSL Cluster and Bakery and Bread Coordination Group members (refer to the separately attached Annex Table of Needs and Bread Production Gap Analysis to identify and prioritize geographical targeting and people in need).

- Data showed that infrastructure of the exited bakeries is relatively fair, thus it is recommended to focus more on operational support; mainly flour and fuel support. Investing in using alternative power solutions could be prioritized for mills/bakery facilities as it is a critical resilience enabling intervention that will directly contribute to lowering the cost of flour and bread production, which will eventually reflect on the bread prices in the market. A good example is the use of solar energy.

- Rehabilitation of bakery/mills facilities is still an option for consideration where there is lack of bakeries which resulted in having less access of bread certain community members. Engage implementing partners for support towards mill/bakery rehabilitation, new mill/bakery machine/equipment procurement, and mill/bakery renovations, especially in areas where these facilities are critically absent but with high population of people (refer to the separately attached Annex Table of Needs and Bread Production Gap Analysis to identify and prioritize geographical targeting and people in need).

- Call for youths vocational training support for bakery labor on different aspects such as waste management, and machine maintenance. Many bakeries relied on external support to maintain their machinery and equipment.

- Innovative ways to increase the dependency on locally produced wheat-flour instead of imported one. Sustainability of every system is driven by home-grown production. In that regard, to avoid marginalizing of local wheat production, it is recommended for aid agencies, to support the local production of wheat from 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, humanitarian partners in northwest Syria could consider including incentivizing demand for local durum wheat and flour (e.g., subsidies, wheat input distributions, pilot contract farming, train wheat farmers on climate smart agriculture) and therefore encouraging local production of flour and supporting local production of wheat. Such interventions will empower the local market and encourage actors not to abandon producing wheat and flour.

- NWS partners through the NWS FSL Cluster can capitalize on the USAID/BHA and OFDA funded iMMAP IMRC, there is an existing budget line to train partners (Training of Trainers) on thematic areas like Sustainable Agriculture under limited resources, Climate Smart Agriculture for cereal production, Market Systems Development. Such trainings deliverables will be cascaded to farmers by the respective partners.

- Again, within the USAID/BHA and OFDA funded iMMAP IMRC project there is an existing budget line for Crop Monitoring and Food Security situation study, where the NWS FSL Cluster can also capitalize to assess local wheat production gaps to inform future interventions in supporting local wheat production to enhance local wheat-flour to bread value chain.