



# SYRIA

## Agriculture and Food Security Monitoring System (AFSMS)

### Bulletin

January – February 2021



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## INTRODUCTION

The Bi-monthly Agriculture and Food Security Monitoring System (AFSMS) Bulletin is an FAO-Syria system, which regularly collects agricultural and food security information, including on crop, livestock, pasture condition, water supply and food security from randomly selected sub-districts and communities. The information is collected on a bi-monthly basis (i.e. once every two months), through discussions with key informants and input from FAO technical field staff. The AFSMS information portrays the prevailing general situation in the community at the time of each bi-monthly AFSM data collection cycle and helps FAO and the sector understand the agriculture situation and seasonal performance and outlook, including preliminary insights on food availability, access and coping mechanisms being adopted by the majority of households, due to lack of adequate food.

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# HIGHLIGHTS



No rainfall was received in all Governorates in the first dekad of January 2021, while favorable and good rainfall was received later in the 2<sup>nd</sup> and 3<sup>rd</sup> dekads of January 2021 across all Governorates in Syria except in Deir-er-Zor and the Badia region. Favorable rainfall was received in February 2021 across Southern governorates, with some areas experiencing snow, while the rainfall was quite low in the rest of the governorates.



Lower night temperatures were experienced during the fourth week of January 2021 and the third week of February 2021, with temperature reaching below zero. Majority of governorates experienced frost except for Dar'a and Deir-er-Zor governorates and the coastal areas. The average recorded maximum temperatures for January and February 2021 were 3-6 C° and 3.2 C° respectively, higher than the long-term averages (LTA) across all governorates.



In terms of water supply, the major water sources across the monitored sites are wells, dams, lakes, rivers and the supply from these generally improved in January and February 2021 compared to previous months. It should be noted that the dam and lake storage level was reported to be generally low in some monitored locations, especially Dará, Al-Sweida, Rural Damascus and Hama.



The health status and condition of most livestock ranges from moderate to good. There was reported low availability of pastures for livestock consumption across all the Governorates. The limited availability and poor condition of green pastures and grazing availability in January and February 2021, compared to same period last year, will most likely lead to an increase in demand and reliance on fodder, which is costly and out of reach for many livestock keepers. This subsequent limited access to fodder will most likely affect animal health and nutrition and milk production.



Most food commodities namely legumes, vegetables, chicken meat, rice, eggs, sugar and vegetable oil were generally available but most households in the community are facing challenges in terms of accessing the available mentioned food items, including wheat flour. The major constraint is that the food items are available but expensive, limiting access especially for vulnerable smallholder farmers (VSFs) and families. There was limited availability of bread recorded, especially in Dar'a, Aleppo and Hasakeh governorates.

## GENERAL AGROMETEOROLOGICAL CONDITIONS

### Rainfall Amounts

The first dekad of January 2021 was much drier than the same period in previous years and it is important to note that this was preceded by a period of lack of rain during the last dekad of December 2021. There was no rainfall received in all governorates in the first dekad of January 2021, while favorable and good rainfall was received later in the 2nd and 3rd dekads of January 2021 and the 1st dekad of February 2021, across all governorates in Syria, except in Deir-er-Zor governorate and the Badia.

The rainfall in January 2021 was less than the long-term average (LTA), by at least 10 - 30%, in the southern region of Ar-Raqqa and Al-Hasakeh governorates, and less than the long-term averages, by at least 30 - 70%, in Deir-er-Zor and most areas of the Badia. While the rainfall amounts received were good to very good (i.e. excellent) in the rest of the governorates, rainfall was higher than the LTA by up to 100% in the some regions.

There was no rainfall during the first dekad of February 2021 in central, coastal and northwest governorates, while very low and weak rainfall was recorded in Rural Damascus, Quneitra and northeastern governorate. Rainfall for February 2021 was generally acceptable in Dar'a and Al-Sweida. In the 2nd dekad of February 2021, very low and weak rainfall was recorded in Aleppo and northeastern Governorates, while it was acceptable to good for the rest of Governorates and country, especially in the southern governorates. During the 3rd dekad of February 2021, there was no rainfall recorded across all governorates, except for a few showers received and amounts captured in Latakia. The low rainfall received in Latakia did not even exceed 3% of the LTA for the same period.

Cumulative precipitation for the current 2020/2021 season is lower than the LTA for the same period, specifically in Al-Hasakeh (i.e. 30 – 60 % below average), Deir er-Zor (40 – 60 % below average) and Raqqa, Idlib and Western region of Aleppo

(10 – 40% below average).

The cumulative precipitation, especially in the central and southern governorates, is 5-25% higher than the normal average (see fig 1 and 2). Note that the Long Term Average (LTA) is the average rainfall or temperature recorded over several months or years.

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Cumulative rainfall measures the accumulated departure of precipitation from a mean defined from the beginning of September 2020 to the end of February 2021.

The current season witnessed a delay onset of rainfall by at least two months in all governorates since the rainfall started in the beginning of November 2021. Generally, the temporal and spatial distribution of the 2020/2021 rainfall has not been good from the period September 2020 to February 2021 across the whole country, although the amount of rainfall exceeded previous levels in most of the governorates. Note that the total amount of rainfall in the northeastern governorates is still below the average. Also important to note is that the northeastern governorates were affected by mid-season dry spells and this significantly affected crop and pasture growth and development.

It is early to estimate the agricultural production for the current season; however, FAO continues to monitor the performance of the rainfall season and will evaluate its impact and effect, among other factors, on crop, pasture and livestock production. The evaluation of the agricultural production during the current season will be presented at an appropriate time.

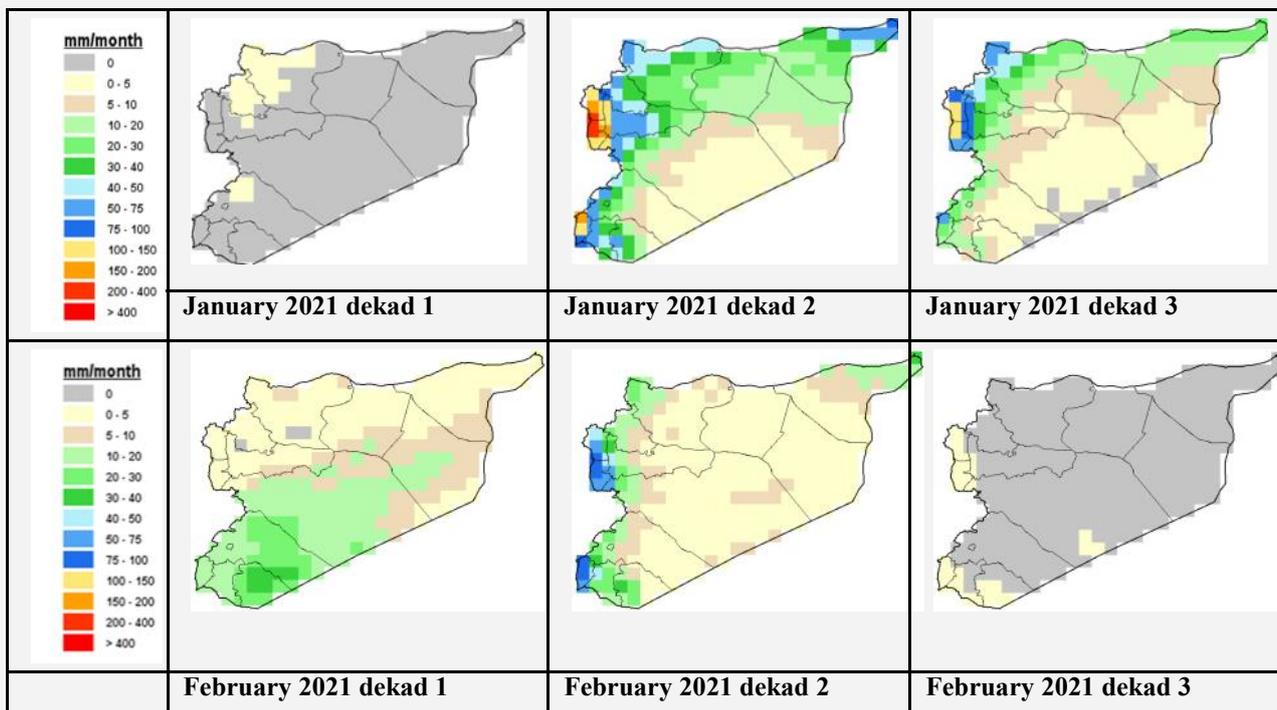


Fig 1: Rainfall distribution by dekad for January – February 2021

## Temperature

During the 1st and 2nd dekads of January 2021, the recorded temperature was higher than average by between at least 3 - 6 C°, and this was combined with no rainfall at all in the 1st dekad of January 2021. It is important to note that the temperature during the 3rd dekad was close to the LTA since night frost was experienced in most governorates. In February 2021, low night temperatures were recorded during the 3rd dekad of February 2021 (i.e. below zero degrees Celsius), in all governorates except in Dar'a, Deir-er-Zor and coastal governorates). Extremely low temperature was recorded in Rural Damascus, with lowest reading of -14 C° recorded in Sargaya on 17 February 2021. The average recorded temperature for February 2021 was 3.2 C° higher than the LTA across all governorates, especially in the central and northeastern governorates. The lowest temperature was in Dar'a (2 C°) higher than the LTA, while the highest was in Deir-er-Zor (4.4 C°) higher than the LTA.

## PROGRESS ON 2020/2021 CROPPING SEASON

By the end of January 2021, the total area planted to wheat and barley stabilized across all governorates, and the area planted to wheat for the current season is more than the planned or forecasted 1.4 million hectares and this represents a 10% increase from the total wheat planted area in the previous 2021/2020 winter cropping season. About 40% of the wheat cultivated area is under irrigation and 60% under rain-fed. As for barley, the cultivated area for the current season is about 1.38 million hectares, 8% less than the total area planted to barley in the 2019/2020 cropping season. The major reasons that have resulted in a decline in the area planted to barley in the 2020/2021 cropping season is the delayed onset of the rains at the beginning of the season by at least two months and probably limited access to barley seed.

In terms of the average crop stage for both wheat and barley, both crops are at late vegetative and tillering stage across most of the wheat and barley producing governorates. The wheat and barley crop condition generally ranges and varies from poor, normal to good in monitored governorates. For the wheat and barley crop in poor condition, this is mostly attributed to insufficient rainfall, limited water for irrigation, low availability of good quality seed, field mice infestation in Homs that weakened germination rates, crop-weed competition and the limited access to top-dressing nitrate fertilizer. It is important to note that nitrogen is one of the most important elements in the nutrition of winter wheat and barley crops. It is also one of the most costly production input for winter wheat and barley in Syria and the depreciation of the local Syrian currency and con-

tinued increase in most imported agriculture inputs, including nitrate fertilizer and urea, will further limit access and impact wheat and barley productivity.

The area planted to legumes for the current 2020/2021 season is about 163,000 hectares, with very slight increase over the total area planted to legumes in the 2019/2020 cropping season. The AFSMS monitors three main legumes, namely lentils, broad bean and chickpeas and the crop stage for these monitored legumes generally ranged from emergence to vegetative stage across the monitored legume producing governorates. The crop condition for legumes is generally normal to good across most monitored governorates. The lentil, broad bean and chickpea crops have not suffered any significant adverse effects except for the inadequate rainfall amounts reported in some locations.

The total area planted to medicinal and aromatic crops is about 94,800 hectares and this is slightly more than last season. The medicinal crops are generally in good to excellent condition, having suffered no major adverse effects. The total area planted to winter vegetables in the 2020/2021 cropping season is estimated to be 29,800 hectares, representing a 25% increase compared to last year. This increased cropping of vegetables can be attributed to the support being provided by sector partners, other organizations or agencies and other stakeholders, coupled with the awareness raising on nutrition and the importance of dietary diversity.

It is important to note that during the January – February 2021 monitoring period, all irrigated wheat and barley is currently at late vegetative growth stage and early tillering stage for the early-planted crops. The condition for irrigated wheat and barley is generally good. The rain-fed wheat and barley crop stage ranges from late vegetative to early tillering stage, noting that more than 60% of it is at early tillering stage. It is important to note that the condition of a significant area planted to rain-fed wheat and barley in the northeastern governorates ranges from moderate to weak (or poor). For the other governorates, the crop condition for rain-fed wheat and barley is generally good and acceptable.

Other crops and fruit trees are generally in good and acceptable condition, though some crops and fruit trees were affected by various agro-climatic factors, particularly the delayed onset of rainfall. Irregular temporal distribution of rainfall, frost incidences, windstorms and field mice and insect pests, also affected fruit trees, greenhouses and other crops in several governorates. In Tartous and at the time of developing this bulletin, the aforementioned rainstorms were reported to have damaged about 228 greenhouses, which provide a source of livelihoods to almost 60 farmers.

Fig 2: Total planted area for wheat and barley for the 2020/2021 season compared to previous season.

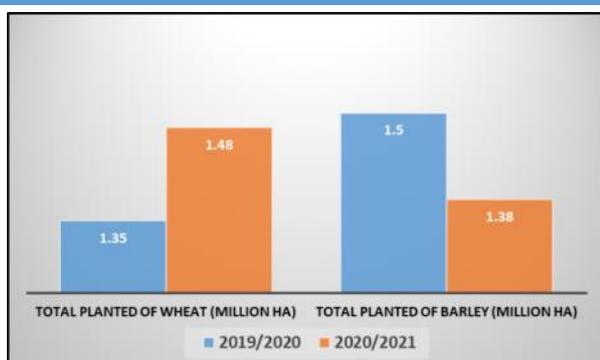


Fig 3: Total planted area for winter vegetables, aromatic/medicinal plants and legumes for the 2020/2021 season compared to previous



## LIVESTOCK SITUATION AND CONDITION

The livestock sector in Syria has great potential and presents a great opportunity for Syria's recovery from a protracted crisis that has lasted for more than 10 years. During this reporting period, the livestock condition ranged between acceptable to good condition in most governorates. However, the lack or limited availability of natural pastures, fodder, veterinary services and the high input prices and costs for livestock production remain the major challenges faced by livestock keepers. During this reporting period, the prevalence of common epizootic diseases remained relatively low and no major incidences of Lumpy-Skin Disease (LSD) were reported across all AFSMS monitored sites.

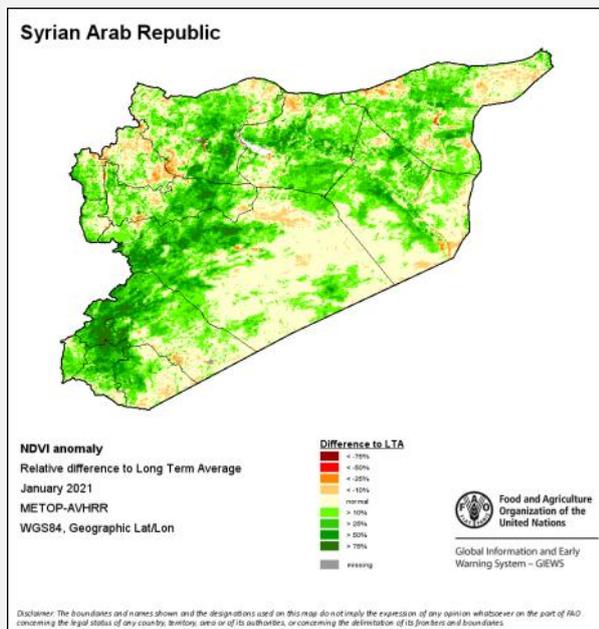
There is urgent need to intensify veterinary care especially as the temperature and humidity are on the rise and may favor vector transmission. Furthermore, there is need to help vulnerable livestock keepers to access livestock feed for their cattle, sheep, goat and poultry, or supporting them technically to produce fodder by themselves, as a sustainable alternative. This

will help the aforementioned livestock during the current breeding season. Detailed information on the availability and prices of fodder and poultry feed is available in the FAO monthly bulletins for January and February 2021 issued by FAO – Syria using the following link: <https://fscluster.org/search?text=syria>

## NORMALIZED DIFFERENCE VEGETATION INDEX (NDVI)

Based on FAO Global Information and Early Warning System (GIEWS) satellite imagery, there was an observed and significant decline in vegetation cover and plant health in January – February 2021, compared to the same period in the previous season in the Northern provinces, the Badia regions and the Western part of the countryside of Aleppo. In Idlib, Hama and the coastal region, a slight improvement was observed compared to the same period last year. While in Homs and the southern governorates, there is a significant improvement in the vegetation cover and health compared to the period January – February 2020.

Fig 4: NDVI Evaluation for January 2021



Vs. January 2020

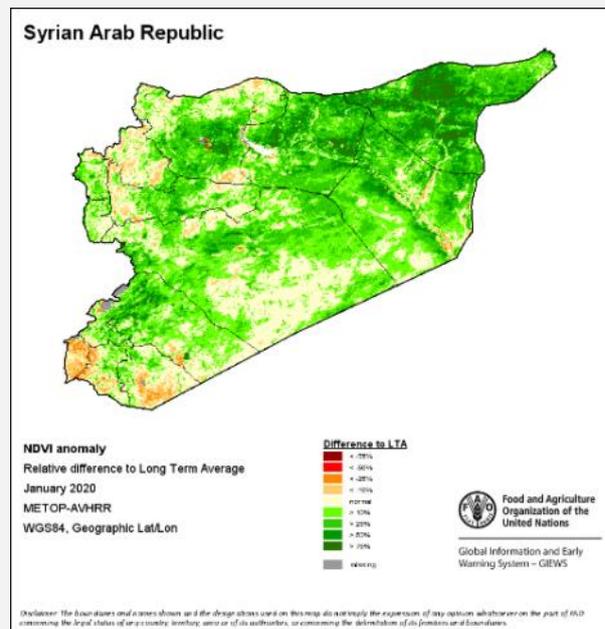
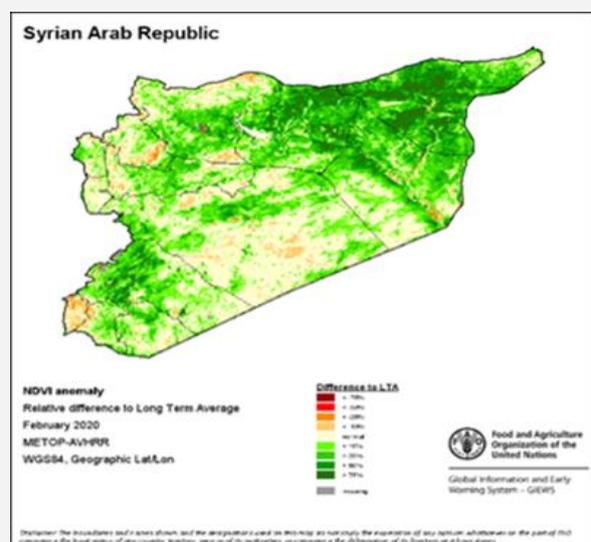
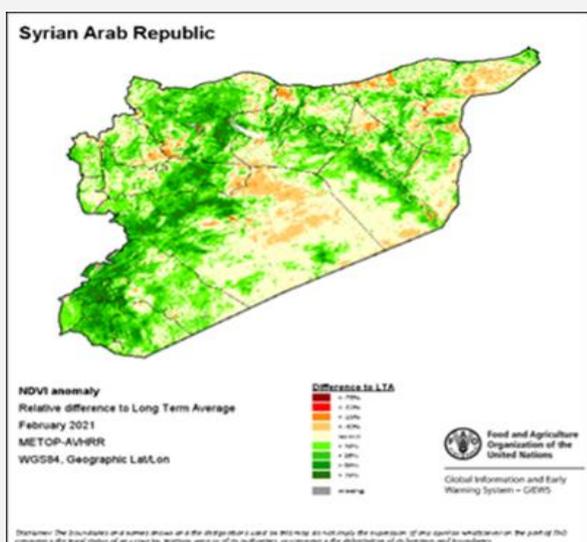


Fig 5: NDVI Evaluation for February 2021

vs

February 2020



## WATER SUPPLY SITUATION

In Syria, the major supply of water is from underground sources, rivers and reservoirs like lakes and dams. Based on the AFSMS bi-monthly data collected across the monitored governorates and locations, the water storage level of wells, rivers, lakes and dams remained at the same level in February 2021, compared to January 2021 in rural Damascus, Al-Sweida and Hasakeh, while it increased in the rest of governorates, especially in Tartous and Quneitra, where increases of more than 13 – 19 % were recorded.

The water storage level in February 2021 is higher than that of February 2020 in Homs (8%), while it is less than it was in February 2020 in the rest of governorates, especially in Latakia, which declined by 43%. This can be attributed to the limited inflow because of erratic rainfall and high outflow due to high demand for irrigation and other human needs. The major reasons for the low dam and lake storage levels and potential limited water availability and access includes the delayed onset of the rainfall season, erratic weather patterns as a result of climate change, inefficient irrigation practices, damaged water infrastructure and inequitable share of water from international rivers, especially the Euphrates. The Barada River, which flows entirely within Syria's territory, continues to record low levels and FAO continues to monitor this. However, across all the monitored sites, water was still generally available for livestock consumption and domestic needs

In general, the lakes and dams in most governorates in Syria, especially in Rural Damascus, Al-Sweida, Dar'a, Hama and Al-Hasakeh and Latakia, have low water storage levels in general compared to the same period last year.

## FOOD SECURITY AND COPING STRATEGIES

Most food items namely legumes, vegetables, chicken meat, rice, eggs, sugar and vegetable oil were generally available but most households in the community are facing challenges in terms of accessing the available food items mentioned. The major reason is that the food items are available but expensive. There was general limited availability of bread and wheat flour observed in Aleppo, Dara and Hasakeh governorates.

From the monitored locations and during this current January – February 2021 AFSMS reporting period, FAO observed that most families were facing significant challenges in securing or accessing bread, which is the staple food in Syria. Most families are unable to access or meet their daily requirements of bread

in addition to the fact that bread deliveries and supply is now erratic across most governorates compared to same period last year. The shortage of bread and the continued depreciation of the local Syrian currency has also resulted in an increase in wheat grain, coupled with the increased demand for wheat grain since most families are now depending on homemade bread.

The high exchange rate of the dollar versus the Syrian pound (SYP), coupled with energy shortages and scarcity or limited availability and supply of electricity, gasoline, diesel and gas, continues to be a factor affecting the food and agriculture sector. This is having knock-on effects on mechanized agricultural operations, high transportation costs for agricultural inputs and agricultural production and this is resulting in an increase in the prices of most food commodities, including bread, rice, eggs, chicken meat and vegetable oil. The gradual increase of food commodities due to the abovementioned contextual factors has made access to adequate food more difficult. Furthermore, most employees' salaries range from 60,000 Syrian Pounds to 80,240 Syrian Pounds, which is lower than the average price of the food basket. The national average food basket in Syria now exceeds the highest-paid official government monthly salary. The AFMS for January – February 2021 concludes that food availability is not the major concern but rather food access since most vulnerable families do not have adequate financial resources to buy the food that is available in the market.

Since livelihoods have been adversely affected by the prevailing economic crisis and many other contextual shocks, households were reported to be adopting various coping mechanisms (i.e. strategies), to deal with worsening food access. From the four regions / hubs monitored by FAO, namely South, Homs/Hama, Northeast and Aleppo, there were reports of families already adopting food-based reduced coping strategies (i.e. rCSI) to cope with the dire situation. Ranked according to the most common coping strategy, most families were relying on less preferred and less expensive foods, limiting portion size at mealtime and reducing the number of meals eaten in a day.

Refer to WFP Syria mVAM Bulletin for January - February 2021 for specific price trends.

Request for the FSA/FSLA factsheets for 202 from the Food and Agriculture Sector (FAS) to get specific details on food access and food insecurity prevalence by governorate and sub-district.

**Disclaimer:** The information contained herein, is based on FAO's Global Information and Early Warning System (GIEWS), collection of bi-monthly Agriculture and Food Security Monitoring System (AFSMS) data and triangulation of local weather periodicals. The data presented herein also captures results from field monitoring of crops, livestock and water resources done by FAO field staff. While FAO Syria strives to provide accurate and timely early warning information, there may be slight unintended technical or factual inaccuracies. Decisions based on information contained herein are the sole responsibility of the reader.

### For more in-depth statistics and trends:

- Refer to WFP Syria mVAM Bulletin for January - February 2021.
- Request for the FSA/FSLA factsheets for 2020 from the Food and Agriculture Sector (FAS) for details on food access and food insecurity prevalence by governorate and sub-district.