INTRODUCTION

The Bi-monthly Agriculture and Food Security Monitoring System (AFSMS) Bulletin is a FAO-Syria product and system, which regularly monitors the agricultural and food security situation, including on climate 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 (KIs) and input from FAO technical staff in the field. The AFSMS information portrays the prevailing general situation in the community at the time of each bi-monthly AFSMS data collection cycle and helps FAO and the Food Security and Agriculture (FSA) sector to understand the prevailing agriculture situation, seasonal performance and outlook, including preliminary insights on food availability, accessibility and coping mechanisms being adopted by the majority of households, due to the difficult economic situation which could be affecting access and availability of food.
The cumulative precipitation for the current agricultural season (i.e. from September 2022 to the end of October 2022) was mostly low. However, the cumulative precipitation was good in Damascus and rural Damascus, and exceeded the long-term average (LTA), while it was acceptable in Dar’a and coastal governorates (15 – 28 %) but less than LTA. Precipitation was poor to very poor in the rest of the governorates, especially in Homs, Deir-ez-Zor and Aleppo governorates (77%, 86% and 96% respectively) and this is less than LTA.

The recorded daytime temperatures in September 2022, were higher than the LTA across all governorates, especially the northeastern parts of the country. In October 2022, the daytime temperatures recorded were higher than LTA across all governorates by between 0.8 C° - 2.5 C°. The highest daytime temperatures were recorded in the northeastern governorates.

During this reporting period, water level in lakes, wells and dams continued to decrease across all governorates, with the water reserves reaching critical levels, especially in the southern and central governorates and also in Al-Hasakeh. The water level recorded compared to the dam’s storage capacity was 6% in Southern governorates, 22 % in central governorates and 14 % in Al-Hasakeh. It is important to note that reservoirs and dams in the southern governorates and Al-Hasakeh, suffer from chronic decline and an accumulated deficit in the water balance.

During the September – October 2022 monitoring and reporting period for the current agricultural season, and by the end of the summer and onset of the autumn season, livestock (i.e. especially sheep and goats), faces a major challenge due to the normal and expected decline of pastures and the depletion of crop residues. This has left most livestock keepers and breeders mainly dependent on fodder and the costly ready-made fodder. Low feed availability combined with very high animal feed prices, medicines and veterinary services, has increased the financial burden on livestock keepers and breeders.

In addition to the aforementioned factors and conditions, recent fluctuation in the exchange rate of the Syrian currency, had a noticeable impact on the flow of some food commodities to the markets, especially oils and sugar. The weakened domestic currency has also resulted in continued increase in prices for most food commodities. This has led to a further decline in the purchasing power of the majority of families, especially the vulnerable and headed by women.

During this reporting period, the harvesting and marketing of cotton, olives, citrus fruits, fodder crops, cash crops and apples, began in the governorates producing these crops. Harvesting and marketing of summer vegetables is in its final stages, while the harvesting and marketing of some types of winter vegetables has begun in most governorates.

The area planned for wheat cultivation for the current 2022-2023 season is about 1.7 million hectares. This represents a 13 percent increase from last season’s wheat planned area. Of the planned area, 824,000 hectares is irrigated, and this is 37 percent more than the previous season.
GENERAL AGROMETEOROLOGICAL CONDITIONS

1. Precipitation

1.1. Cumulative Precipitation

At the end of October 2022, the cumulative rainfall for the 2022-2023 rainfall season, was good in Damascus and rural Damascus and exceeded the LTA, while it was acceptable in Dar’a and the coastal governorates (15 – 28 %) less than LTA. Cumulative precipitation was poor to very poor in the rest of the governorates, especially in Homs, Deir-ez-Zor and Aleppo (77%, 86% and 96%) less than LTA in respectively.

Figure No. 1: % Deviation of the cumulative precipitation from Long Term Average (LTA), October 2022
Source: Analysis of the data from official daily rainfall bulletins

1.2. Monthly precipitations

1.2.1. September 2022:

In September 2022, varying amounts of rainfall were recorded within two days only during the third dekad of the month, in separate areas of Al-Ghab, Tartous and Latakia. However, rainfall was low and less than LTA by 82%, 5 % and 72% in the mentioned locations respectively. No rainfall was received in the rest of the governorates. It is important to highlight that no rainfall was received in the first and second dekads of September 2022 across all the governorates, see figure 2 below.

Figure No. 2: Estimated Precipitation Anomaly during September 2022,
Source: FAO Global Information and Early Warning System (GIEWS)

October 2022:

In October 2022, high rainfall was received in Damascus and rural Damascus. The rainfall recordings were above the LTA by 72 %, while the recorded rainfall was acceptable in Dar’a and Tartous, though 12 % and 14 % less than the LTA respectively. Low to very low rainfall was received in the rest of the governorates, especially in Al Ghab, Deir-ez-Zor and Aleppo, and was 75 %, 85 % 96 % less than the LTA respectively (see figure No. 3).

In the first dekad of October 2022, low amounts of precipitation fell in the coastal governorates, and the amounts of precipitation were relatively good in the northern regions of Al-Hasakeh Governorate, while there was no rainfall at all in the rest of areas and governorates. In the second dekad, there was good rainfall in the coastal governorates, northern region of Idleb and rains fell in a limited area in the southwest of Aleppo Governorate, while there was no rainfall at all across the rest of areas and governorates.

In the third dekad of October, high amounts of rainfall were recorded in most areas of Al Hasakeh, As-Sweida and some parts of Ar-Raqqa, Deir-ez-Zor, rural Damascus and the Badia of Homs governorate. While the rainfall was poor and less than the LTA across the remaining governorates and areas.
2. Temperature

The recorded daytime temperature in September 2022 were higher than the Long Term Averages across all governorates, especially in the northeast, where temperatures exceeded the LTA. In the north the temperature exceeded LTA by 1.6 °C, while in the central and costal governorates temperature exceeded LTA by 1.2 °C and by 2.0 °C in the northwest and northeast governorates (see figure 4).

![Figure No. 4: Graphical analysis and comparison of the daytime-temperatures recorded in September 2022 compared to LTA. Source: Analysis of the temperature recordings done by FAO technicians based on the official daily weather bulletins.](image)

In addition, in October 2022 the daytime temperatures recorded were higher than LTA across all governorates, ranging from 0.8 °C to 2.5 °C. The highest daytime temperatures were recorded in the northeastern governorates and this was 2.5 °C above LTA, while it was 0.8 °C above the LTA in the southern governorates, 1.3 °C higher than LTA in costal and northwest governorates and 1.7 °C in the central governorates (figure 5).

![Figure No. 5: A graphical analysis and comparison of daytime-temperatures recorded in October 2022 compared to LTA. Source: Analysis of the temperature recordings done by FAO technicians based on the official daily weather bulletins.](image)

SECTION B: NORMALIZED DIFFERENCE VEGETATION INDEX (NDVI)

In October 2022, the vegetation cover receded from that of September 2022 in most governorates, especially in the northeastern and southern governorates. Where it was lower than the long-term average by 10 – 15 % in the Badia regions, southern and Idleb governorates, while it was less than LTA by 15 – 30 % in the east, northeast, Hama and several areas of Aleppo governorates. This could be attributed to the generally low precipitation recorded in October in the mentioned locations.

It is noteworthy that the acceptable condition of the vegetation cover shown by the observation in the remote Badia areas of rural Damascus and Homs is due to these areas not being accessible currently to the herds, due to the present conditions, and therefore it is a semi-natural reserve.

It is important to note that the vegetation cover in September and October 2022 has decreased significantly compared to the same months of 2021, especially in the central and southern governorates and Al Badia regions (see figure 6).

![Figure No. 6: A comparison of vegetation through analysis of 2022 and 2021 NDVI maps. Source: FAO Global Information and Early Warning System (GIEWS)](image)

SECTION C: WATER SUPPLY SITUATION

During this reporting period, water level and reserve in lakes, wells and dams continued to decrease across all governorates, reaching critical levels, especially in the southern, central and Al-Hasakeh governorates, where the water reserve reached only 6%, 22 % and 14 % of the dam’s storage capacity respectively (figure No, 7).

![Figure No. 7: The evolution of dam stocks in the 2022 / 2023 season. Source: Analysis of Monthly Bulletin of Drought Monitoring (MBDM) from MAAR.](image)
It is also mentioned that the current water stocks are less than the stocks of October 2021 in As-Sweida, Al-Hasakeh and Aleppo. The water stock in Dar’a remained similar to the stock recorded in October 2021, while it was higher in the coastal and central governorates.

It is important to note that water reservoirs such as dams in the southern governorates and Al-Hasakah, suffer from chronic decline and an accumulated deficit in the water balance. Furthermore, there are indications that the water level of ground water wells continues to decrease and salinity is increasing in Al-Hasakeh and Deir-ez-Zor. This makes the unsuitable for irrigating crops since most crops do not tolerate saline water and saline water may cause yield loss and decreased quality. The lack of water flow in the Khabur River to date, and the many surface dams in Al-Hasakeh that have dried up, present more challenges in terms of water availability for irrigation and livestock.

SECTION D: SUMMARY ON PROGRESS OF 2021/2022 CROPPING SEASON

During this reporting period, the harvesting and marketing of cotton, olives, citrus fruits, fodder and cash crops (i.e. corn or maize, soybeans, peanuts, sesame and sunflowers..), and apples, began in the governorates producing these crops. The harvesting and marketing of summer vegetables is in its final stages, while the harvesting and marketing of some types of winter vegetables (leafy vegetables such as Swiss chard, spinach, cabbage..) has begun in most governorates.

In addition, the cultivation of Broad bean and fodder barley has begun in many governorates, especially al-Hasakeh and Deir ez-Zor, as well as the preparation of fields in most of the governorates for the purpose of growing wheat and barley during the coming winter cropping season (i.e. November and December 2022).

It is important to note that the production and yield of the crops mentioned above ranges between low and moderate, due to the challenges that crops faced during the last season and with the beginning of the current season. Most notably is the low availability and high cost of fertilizers, which prevented them from being applied as required, following recommended dose rates. In addition, limited access to sufficient irrigation water due to the low water level, the lack of fuel needed to pump irrigation water, and high fuel prices, as well as the low rainfall received in most of regions for this reporting period and the high temperatures, continue to affect crop production in Syria. During this reporting period, there has also been some limited spread of the olive fruit fly (Bactrocera oleae) and stem borer on olive trees in most of the governorates, especially the coastal, central, and in Quneitra. Cotton bollworms (Helicoverpa armigera) have also been reported in the northeast governorates, and Fall Armyworm (Spodoptera frugiperda) on corn in Homs and Hama. Noting that the prevalence of the above mentioned insects on crops was quite limited and farmers managed to control them.

Some farmers in the northeastern governorates have difficulty to secure their need for good quality wheat and barley seeds for the current season. There is also reported shortage of olive presses, high fees for oil extraction and transporting products in Al-Hasakeh and Deir-ez-Zor.

According to MAAR projections and pans for the 2022-2023 cropping season, the area planned for wheat cultivation is about 1.7 million hectares. This represents a 13 percent increase from last season. Of the 1.7 million hectares planned area, about 824 thousand hectares is earmarked for irrigated wheat, and this is also more than the previous season by about 37 percent.

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Figure No. 8: Graphical comparison of area planned for wheat cultivation during the current 2022 – 2023 agricultural season, compared to the previous 2021– 2022 season.
Source: FAO field monitoring reports
SECTION E: LIVESTOCK SITUATION AND CONDITION

During the September – October 2022 monitoring and reporting period for the 2022 – 2023 agricultural season, and with the end of the summer and the advent of autumn season, livestock - especially sheep and goats - faces a major challenge due to the decline of pastures and the depletion of crop residues, attributed to the lack of summer crops due to the lack of water. This has resulted in limited availability of summer crop residues compared to the same period last season. This has pushed vulnerable livestock keepers to mainly depend on fodder and ready-made fodder. It is also important to note that the growth and condition of natural pastures is currently worse compared to last season across most areas of the Badia region.

Photo from the archive

Low feed availability, coupled with very high feed prices, medicines and veterinary services, has increased the financial burden on livestock breeders and left most of the flocks in poor health and nutritional status (i.e. body condition). Most of the livestock breeders, especially in the northeastern governorates, were forced to sell a number of their animals to obtain fodder for the rest of the remaining herd. Noting that due to the increase in sold numbers and the decline in the nutritional and health status of sheep and goats, the prices of livestock decreased significantly. Some breeders have recently resorted to feeding their animals with low or poor quality feed because it is cheaper. This coping strategy will unfortunately affect the nutritional and health status of the remaining and reduced herd.

Despite the availability of veterinary services and medicines, to some extent, the cost of treatment and the prices of veterinary medicines remains very high. The challenges mentioned above, have prompted many small breeders to sell-off the rest of their small ruminant flocks - especially sheep and goats - and some livestock keepers have actually discontinued livestock production and breeding due to their inability to bear the high costs.

For some vulnerable livestock keepers, livestock are no longer assets but have turned to be a liability since livestock requires significant financial resources with sometimes low returns due to the limited purchasing power haunting most crisis-affected families.

Regarding cows, it is in a better-off condition, because they often depend on fodder rather than pastures. However, as previously mentioned the significant rise in animal feed prices, as well as the cost for veterinary services and veterinary medicines, combined with low milk selling prices, which are not commensurate with the increase in feed prices, constitutes a major challenge for livestock keepers and milk producers. Most livestock keepers and milk producers are forced to sell milk at a low price due to the lack of ability to preserve milk and limited knowledge or capacity to process milk into dairy products.

Poultry feed prices have recently risen significantly, as well as the production costs increased due to the scarcity of energy supplies (i.e. electricity and fuel) and high energy costs. On the other hand, the limited purchasing power among most of Syria’s population, has limited the purchase and consumption of eggs and broiler (i.e. chicken) meat. This continues to expose many poultry breeders to significant losses and some farmers have actually discontinued poultry production due to economic viability concerns.

In general, the livestock sector (especially sheep and goats); will require great support in the immediate to near future. It is critically important that the livestock sector receive adequate support and attention to prevent further losses that may negatively affect food and nutrition security in the coming months and in 2023.

SECTION F: FOOD SECURITY AND COPING STRATEGIES

In addition to the aforementioned factors and conditions, recent and continued depreciation of the domestic currency versus the USD and other currencies, has had a noticeable impact on the flow of some food commodities to the markets, especially oils and sugar, as well as the high prices of most food commodities. This has led to a further decline in the purchasing power of the majority of families, especially the vulnerable and women-headed households.

Syrian families, especially the most vulnerable, including women, children and the disabled, continue to face several challenges, that include the consequences of the prolonged crisis, severe weather fluctuations and drought-like conditions, water scarcity, exchange rate fluctuations and local currency
depreciation, scarcity and high cost of energy and fuel resources.

These aforementioned challenges have combined and are burdening the population, further eroding their resilience and pushing the most vulnerable families to rely more on negative and harmful coping strategies. Coping options are becoming limited due to the over-reliance on them over a long period. Some of coping measures include relying on less preferred and less expensive foods, limiting portion size at mealtime, reducing number of meals eaten in a day. Some families have been reported to selling off their assets to meet basic needs. Furthermore, most families are also resorting to reducing consumption by adults in order for small children to eat.

Recommendations

The implementing partners of the food security and agriculture (FSA) are advised to adhere to the FSA recommendation SO2 and SO3 package and to insure the synchronized activity implementation with the cropping calendar and agro-ecological zones. In particular, sector partners are encouraged to focus more efforts towards wheat and fodder production.

- With the onset of the autumn season, majority of farmers have started procurement of inputs such as seeds, fertilizers and pesticides. FAO and the sector Farmers are advised to use reliable, quality and well-known agricultural production inputs, and to adhere to the recommended application rates, dates and agricultural standards.
- Farmers are also advised to consult with agricultural extension staff and through other communication platforms (i.e. WhatsApp groups) to be updated on the agricultural condition and access technical advisory.
- Implementation of urgent interventions, especially emergency fodder distribution, to support livestock, especially sheep and goats (i.e. small ruminants). Where feasible, this must also be linked to climate-resilient fodder production (e.g. training on good agricultural practices for winter and summer fodder production coupled with provision of fodder seed which may include barley, alfalfa, corn, soybean production etc), This support should also be combined with animal health care. Funds permitting, sector partners may also consider provision of fodder pressing devices, to help the livestock keepers and fodder producers preserve their fodder for later use. This support will ensure that livestock keepers have the ability to cope with future agro-climatic shocks.
- Sector partners are also encouraged to scale-up efforts in promoting relevant and context specific climate smart agriculture (CSA) approaches, as a concerted effort to make food production systems in Syria more resilient to climate-induced shocks. Online trainings on CSA are available on the FAO websites and sector partners may reach out to the FAS Agriculture Working Group (AWG) in HCT for more details.

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 Bulletins for September - October 2022.
- 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.