INTRODUCTION

The Bi-monthly Agriculture and Food Security Monitoring System (AFSMS) Bulletin is main product of 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.
The cumulative rainfall during September and October 2021 was generally low, as it did not reach 60% of the long term average (LTA) in all governorates. It is reported that in September 2021, precipitation was limited to some governorates, while the northeastern governorates, Damascus, Quneitra and Dar’a did not receive any rainfall. In October 2021, rainfall was received across all the governorates, but it was generally weak to very weak across the entire country.

Syria has a diversity of irrigation water resources in the various governorates, these include rivers, dams, lakes, wells and public irrigation systems. All these are experiencing significant shortages and decreases in water volume compared to the previous month, as well as the previous season. This is due to seasonal fluctuations, as the first months of autumn represent a minimum peak for water reserves. The scarcity of snow and the limited rainfall during the 2020/2021 agricultural season, combined with a devastating early cessation in April 2021, is contributing to the general lack of water in most water resources. Water resources monitoring indicate that the current water levels in dams in Aleppo are good, while they are weak to very weak in the rest of the governorates.

Temperatures recorded across most governorates were close to LTA in most governorates, with temperature slightly lower than LTA by -0.1°C to -0.8°C, being recorded in Damascus, As-Sweida, Homs, Hamah, Idlib and Aleppo. For the rest of the governorates, the temperatures recorded were generally equivalent or slightly higher than LTA. In October 2021, the temperatures recorded were generally higher than the LTA in all governorates, especially in Al-Hasakeh, Hama and Deir-ez-Zor, where temperature was higher than the LTA by 1.3, 1.4 and 1.5°C respectively.

The health status and condition of most livestock is generally moderate / average. Most governorates reported low availability of pastures for livestock consumption across all the Governorates. The continued limited availability of pastures in September and October 2021, compared to same period last year, will most likely lead to an increase in demand and reliance on fodder. However, fodder prices have generally increased and the high cost of livestock feed, also observed by the FAO Agriculture Input and Commodity Bulletins of August–October 2021, will continue to limit access for many vulnerable livestock keepers. This prevailing 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 in most governorates.
GENERAL AGROMETEOROLOGICAL CONDITIONS

1. Precipitation:

The cumulative rainfall during September – October 2021 was low to very low in all governorates, since it did not exceed 10 % of its long-term average (LTA) in the northeastern governorates, and in Idlib it was about 18 % of LTA. In As-Sweida, Dar’a, Quneitra and Hama, the cumulative rainfall received during the reporting period ranged between 30 % and 36 % of the LTA, and in Al-Ghab, Damascus and the coastal governorates it ranged between 41 % to 57 % of the LTA.

1.1. Precipitation in September 2021:

Rainfall in September 2021 was limited to As-Sweida, the central and coastal governorates and the amounts were generally good. The recorded rainfall exceeded the LTA by 35 % on average. In Aleppo and Idlib governorates, very low amounts of rainfall were received and estimated to be 24 % and 9 % of the LTA respectively, while the rest of the governorates did not receive any rainfall. It is noteworthy that precipitation during the first Dekad of September 2021 was limited to the coastal governorates and was relatively low. In the second Dekad of September 2021, rainfall was received in the coastal governorates, Idlib and the western regions of Aleppo, Hama and Homs. Generally, good rains were received in the coastal areas, with low rainfall being received in the rest of the governorates. In the third Dekad of September 2021, the rainfall was good in the same above-mentioned regions of the coastal governorates, Homs, Hama and As-Sweida, while it was quite low in Aleppo and Idlib.

1.2. Precipitation in October 2021

Low to very low rainfall was received during October 2021 across all governorates. The rainfall ranged from 3 % to 17 % of the LTA in Hama, Al-Ghab, the northwestern and northeast governorates, while it ranged between 24 % and 40 % of the LTA in Homs, the coastal and southern governorates. In Damascus and rural Damascus, it was around 59 % of the LTA.

In the first dekad of October 2021, there was no rainfall in all governorates, while limited rainfall was received in the second dekad. The rainfall received during the second dekad of October 2021 was limited to some locations in Al-Hasakeh, the northwestern, central and coastal governorates, but in very low amounts. In the third dekad, low rainfall amounts were received across all governorates, though the rains were slight more in Al-Hasakeh, Raqqa and Aleppo.

Figure 1: Temporal and spatial distribution of rainfall in September 2021 ...(source; Global Information and Early Warning System on Food and Agriculture (GIEWS))

Figure 2: Temporal and spatial distribution of rainfall in October 2021 ...(source; Global Information and Early Warning System on Food and Agriculture (GIEWS))
2. Temperature:
Temperatures were generally higher than average during the first dekad of September 2021 in all governorates, while they varied between lower and higher than the average in most governorates, in the second and third dekads. In general, monitoring of climatic indicators and data shows that temperature experienced in September 2021 were quite varied among governorates. Temperature experienced in Dar’a, Quneitra and Deir ez-Zor, was generally lower than the LTA at -0.3 °C to 0.8 °C in Damascus and rural Damascus, As-Suwayda, the central and northwestern governorates. Temperature was generally higher than the LTA in Al-Hasakah, Raqqa, Lattakia and Tartous as indicated in figure 3 below.

![Figure 3: Comparison of the recorded September 2021 maximum temperatures, with LTA](source)

Source: Prepared by FAO technicians based on the daily weather bulletin, Official Facebook page of the General Directorate of Meteorology

In October 2021, all governorates were exposed to a major heat wave started at the beginning of the month until the second Dekad. The heat wave resulted in temperatures higher than LTA being experienced by between 2 °C and 4 °C. In the second half of October, it was similar to the average in varying proportions.

In general, temperatures in October 2021 were higher than LTA in all governorates by an average of 0.8 °C. The highest temperature were recorded in Al-Hasakeh (1.3 °C above LTA), followed by Hama (1.4 °C above LTA) and Deir ez-Zor (1.5 °C). Temperature in Tartous, Quneitra and Dar’a governorates, where the temperature exceeded the LTA by 0.2 °C, 0.3 °C and 0.4 °C respectively (figure 4).

![Figure 4: Comparison of the recorded October 2021 maximum temperatures, with LTA](source)

Source: Analysis prepared by FAO experts based on the daily weather bulletins and Official Facebook page of the General Directorate of Meteorology

3. Water Supply Situation
Syria has a diversity of irrigation water resources in the various governorates, these include rivers, dams, lakes, wells and public irrigation systems. All these are experiencing significant shortages and decreases in water volume compared levels reported in the July to August 2021 Bimonthly AFSMS, as well as the previous season. This is due to seasonal fluctuations, as the first months of autumn represent a minimum peak for water reserves. The scarcity of snow and the limited rainfall during the 2020/2021 agricultural season, combined with a devastating early cessation in April 2021, is contributing to the general lack of water in most water resources. Water resources monitoring indicate that the current water levels and stock in dams located in Aleppo are good, while they are weak to very weak in the rest of the governorates. Dam stock in all governorates decreased from August to October by an average of 9% and the greatest decrease was observed in Lattakia (39%), and the lowest was in Hama (1%).
Comparing the current stocks of water in dams with the same period last season, the stock is 39% less on average, and the greatest decline was observed in Dar’a, Rural Damascus and As-Sweida by 85%, 50% and 47% respectively. The least decline was noted in Tartous (14%), Aleppo (18%) and Quneitra (19%). It is crucial to note that there is a chronic water deficit that is being experienced in southern governorates and Hama. The current stock of dams in the afore-mentioned governorates remains very low and less than 20% of the storage capacity.

The winter agricultural season 2022-2021 began in September 2021, according to the agricultural production plan for the current season approved by MAAR. This season’s plan has seen a reduction in the area planned for crops, especially wheat and barley. The planned area for wheat production has been reduced by 17% compared to the area planned for the 2020/2021 season. For barley, the planned area has also been reduced slightly by 5%. In terms of the ongoing field operations and planting in particular, most farmers had finished harvesting the remaining summer and intensified crops by the end of October 2021, and some farmers had already started land preparation for the winter season.

Farmers have completed harvesting cotton, sesame, sunflower, soybean, peanut, yellow corn, and sorghum, while autumn potatoes are still at flowering stage. For the above mentioned summer crops, no major losses were observed during crop harvesting across most governorates. In terms of fruit production, the harvest of both citrusues and olives continued during this reporting period and was still ongoing by late October 2021. There were also reported incidences of the spread of the olive fruit fly (Bactrocer a spp) on olive trees, fruit fly on citrus fruits (Ceratitis capitata) and wood leopard moth (Zeuzera pyrina) on apple trees in Tartous governorate, but the pest population density did not result in any economic damage. During the reporting period, there were also reports of thrips infestation on cabbage and potatoes in Homs governorate. Light infestations of Fall Army Worm (FAW) were also reported on large areas planted under corn in Rural Damascus and Quneitra. The pest densities were also low and within normal limits to result in any economic injury and were subsequently controlled by farmers.

The main problem that farmers still face is the high fuel price and the subsequent limited access and affordability constraints. The limited access to fuel, particularly diesel, is making it difficult for farmers to irrigate their crops, and this is resulting in low production and agricultural output. The rise in fuel prices did not only affect water pumps and irrigation during the reporting period, but also impacted other agricultural operations (i.e. ploughing, –fertilizer application, –combating and harvesting). The limited access to fuel also affected the marketing of products, particularly in terms of the high transportation and marketing costs, which are resulting in a general rise in the prices of most agricultural foodstuffs. The significant increase in the prices of agricultural inputs, observed during the reporting period and indicated by the FAO Agriculture Input and Commodity Bulletin (AICB), led to an increase in total production costs. FAO’s AICB for September 2021 indicates that 18 out of 31 agricultural inputs recorded varied increases, especially ammonium nitrate, which increased by 40% month-on-month (m-o-m). The cost or fees for cultivating land also increased significantly due to the increase in fuel prices. During this monitoring period, the cost of land preparation reached 20,000 SYP/Dunam, compared to 8,000 SYP/Dunam in the previous season (150% year-on-year).

Regarding the 2021/2022 winter season, some farmers had already started their field operations during this reporting period and land preparation and phosphate fertilizer application was already underway, though the rainfall expected in October, November and December (OND) will need close monitoring. The challenges mentioned above, including the high cost of living due to the prevailing economic constraints, combined with climate-related risks, continue to worry farmers who depend on agriculture as a source of livelihood. There is urgent need for sector partners to support primary food production and help the recovery of agriculture-based livelihoods targeting crisis-affected farmers and families. The support should also include climate-resilient agriculture approaches which will help farmers realise higher productivity and income, despite climate variability.

LIVESTOCK SITUATION AND CONDITION

The livestock situation and condition in most locations in Syria is getting more difficult since most of the crop residues and stover from the summer crops are getting depleted. The residue from the summer crops were a good source of feed for livestock. During this reporting period and coming months, the availability of crop residues is further shrinking and this will push most livestock keepers to rely on fodder. However, the prices of fodder have also risen in the past two months and remain quite expensive for most vulnerable livestock keepers.
The prices of poultry feed did not rise during this reporting period but remain generally expensive and out of reach for most vulnerable poultry producers. The main problem for poultry breeders is the high prices of diesel and electricity, which is needed to heat poultry houses. The high cost of energy has resulted in some poultry breeders stopping poultry production during this reporting period. This has subsequently resulted in the price increases of eggs and chicken meat in September and October 2021.

The cost for veterinary services still remains high but despite this challenge, no significant rise in livestock mortality/deaths or livestock transmissible disease spread was recorded during this reporting period, across the monitored governorates. Veterinary medicines and vaccines are still very expensive and breeders are facing significant constraints in terms of economic access. Fish breeders also reported the lack of availability of special veterinary medicines for fish production and are relying on poultry medicines instead.

Animal health and nutritional status of herds in most of the monitored locations was generally medium (or moderate) since breeders are reducing the quantities of feed provided to their livestock, especially the concentrated feed which is more expensive. The inadequate feed being provided to animals will most likely reduce productivity and viability of livestock production, and have knock-on effects on food security. Livestock farmers are in a crisis and sector partners are encouraged to scale-up support towards the livestock sector, so as to help protect livestock assets, especially targeting vulnerable livestock farmers.

During the monitoring period, some breeders were already adopting adverse coping measures and selling part of their herd to secure fodder, vaccines and veterinary services for the remaining herd. The challenge for smallholder livestock farmers is that selling part of their herd constitutes a huge loss since livestock represent a valuable asset for the family. The distress sell of livestock observed across the monitored sites is leaving livestock farmers poorer, food insecure and more vulnerable to adversity.

**FOOD SECURITY AND COPING STRATEGIES:**

During the September – October 2021 reporting period, most families continue to face challenges in terms of accessing the available food items. The major reason cited is that the food items are quite expensive in the local markets and unaffordable, especially with the prevailing economic difficulties and the weakening of the local Syria currency. To cope with the limited access to food, most families are adopting various food-based coping strategies. The major food-based coping strategy reported by most families in the monitored sites is “relying on less preferred foods” to better cope with shortfalls in food for consumption. Families in monitored locations also reported that they could only afford meat or protein meals once a month or never.

This was followed by “eating less preferred foods”. There is evidence that some families are switching food consumption from preferred foods to cheaper and less preferred substitutes. This may indicate consumption of less nutrient-rich food and will have short, medium and long term implications on nutrition, especially among the young and pregnant and lactating women. The other coping strategies which also came out prominently include “restricting consumption by adults in order for small children to eat”, “reducing the number of meals eaten in a day” and “limiting portion size at meal time”.

The monitoring report has seen that the is a general increase in the reliance on the above mentioned food-based coping strategies and though these may help families in the short-term, there may have significant impacts in terms of food and nutrition security. There is need for sector partners to closely monitor the food security situation across most governorates and design appropriate interventions that address all dimensions of food security, especially food production.

**Recommendations**

- There is need to protect agriculture-based livelihoods of the most vulnerable households in Syria through enhancing and restoring their food production capacity. Sector partners are encouraged to urgently provide agricultural inputs based on seasonality, so as to support crop and vegetable production.
- Sector partners and farmers are also encouraged not to use seed that has not been checked for purity, germinability of viability or is accompanied by a Phytosanitary certificate, since less productive or harmful seed may not only affect you during the current season, but may have ripple effects for years to come.
- Sector partners are also encouraged to promote climate-smart agriculture (CSA) approaches and modern and efficient irrigation systems in order to enhance the efficient use of natural resources and help farmers cope with the water shortages and climatic related risks.
- Water plays a fundamental role in many aspects of people’s livelihoods and food security in Syria. To ensure better recovery of agriculture-based livelihoods, there is need for sector partners to continue with the light rehabilitation of irrigation systems and canals. This will improve access to irrigation water for most vulnerable and crisis-affected farmers,
- Sector partners are encouraged to scale-up livestock asset protection interventions through emergency animal feed distribution and fodder production.

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.