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Organization of the
United Nations



SYRIA

**Agriculture and Food Security Monitoring
System (AFSMS)**

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INTRODUCTION

The Bi-monthly Agriculture and Food Security Monitoring System (AFSMS) Bulletin is an FAO-Syria product and system, which regularly monitors the agricultural and food security situation, including on crop, livestock, pasture condition, water supply and livelihood and its impact on the 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 inputs 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 partners understand the prevailing agriculture situation, seasonal performance, and outlook, including preliminary insights on food availability, access and coping mechanisms being adopted by the majority of households, due to the difficult economic situation.

Key messages

- **There is a noticeable increase in the areas planted with barley, food legumes, and aromatic medicinal crops compared to the previous season, compared to a slight decrease in the area planted with wheat, specifically irrigated wheat.**
- **By the end of February the weather conditions, are favorable, as most areas experience favorable weather conditions in terms of rainfall and temperatures. If these conditions continue the next two months, this would be favorable for crops and fruit trees, and particularly significant for the main stable crops. However, the southern governorates and Badia regions receive less rainfall which will impact the success of available grazing options.**
- **The new agricultural season poses significant challenges for farmers, such as high fuel and production input prices, and difficulties in financing their agricultural activities.**
- **FSA sector partners are encouraged to provide vulnerable households with high-quality production inputs and support to mitigate some of the main challenges farmers, for example, fuel, seeds, fertilizers, equipment, etc. It is also important that such interventions are aligned with crop calendars. These approaches will help ensure that the intended benefits of the intervention are well achieved, and can enhance and ensure the feasibility of production.**

HIGHLIGHTS

Precipitation



The total amount of rainfall received during the current rainy season (from the beginning of September 2023 to the end of February 2024) was significantly higher than the Long-Term Average (LTA) in all the governorates, except for Deir Ez-Zor and Al Hasakeh governorates. Deir Ez-Zor and Al Hasakeh received slightly less rainfall than the LTA. Homs and Tartous Governorates had the highest cumulative rainfall, while rural Damascus and A-Sewaida Governorates recorded the lowest amounts of rainfall at 1 – 14 % higher than the LTA.

During January, the amount of rainfall was below the LTA in most areas of Rural Damascus, Homs, Al Badia, northern areas of Dara' As-Sewaida and southern areas of Deir ez-Zor. However, in all the other regions and governorates, the rainfall was good and higher than LTA.

In February, there was a significant difference in the amount of rainfall received across various regions and governorates in Syria. The central and southern governorates, eastern regions of Al-Hasakah, AlBadia, as well as certain areas of Idlib and Latakia, received rainfall that was lower than the long-term average (LTA). However, the rest of the regions and governorates experienced rainfall that exceeded the LTA.

Temperature



In January 2024, Daytime temperatures across all governorates generally exceeded the LTA by approximately 2.5 C° on average. The northeastern governorates experienced the highest temperatures, surpassing the LTA by about 3.3 C°, while the northwestern governorates had the lowest temperatures, exceeding the LTA by 1.9 C°. In the southern, central, and coastal governorates, temperatures were higher than the long-term average (LTA). By 2,0, 2.5, and 2.7 C° respectively

In February, daytime temperatures across all governorates generally exceeded the LTA by approximately 2.5 C° on average. The coastal governorates experienced the highest temperatures, surpassing the LTA by about 2.5 C°, while the southern governorates had the lowest temperatures, exceeding the LTA by 1.0 C°. In the northeastern and northwestern governorates, temperatures were 2.4 C° higher than the long-term average (LTA). While in the central governorates it was 1.6 C° higher than the LTA

Water supply



At the end of February 2024, water stocks in Al Hasakeh, central, coastal, and southern governorates increased by 2 %, 11%, 20%, and 22% respectively, compared to January 2024, while it decreased by 4 % in Aleppo. In addition to that the water stocks in February 2024 increased compared to February 2023 in Al Hasakeh, central, coastal, southern, and Aleppo governorates 1%, 8%, 26%, 13, 1%, and 18% respectively. It is important to note that although dam stocks have improved in all governorates due to heavy rainfall this season, the current water level of the dams in Al-Hasakeh, is critical, as it is less than 20 % of the dams' capacity storage, this is due to a substantial decline in rainfall during the recent seasons.

HIGHLIGHTS

PROGRESS OF THE 2022/2023 CROPPING SEASON



During the reporting period, farmers who were late in planting completed planting their fields with winter crops, with the cultivated areas reaching the end of February of the current season: wheat, barley, legumes, and medicinal and aromatic (cash crop) about 1187, 1261, 125 and 85 thousand hectares respectively. Up to the end of February, the weather conditions for this season seem to be favorable for crop and fruit tree growth.

Farmers still facing challenges due to the high prices of agricultural production inputs, especially fertilizers, and low financing. Furthermore, the high cost of fuel and wages for mechanized agricultural operations is also contributing to the challenges faced by farmers. However, winter crops are in acceptable to good condition so far (due to the rainy season mentioned earlier). Note that crops were in the morphological growth stage between tillering and vegetative growth during the reporting period.

Livestock



the Badia regions experienced relatively low rainfall, which did not lead to significant improvement in vegetation cover and grazing in most areas. However, the marginal areas and other Agri-stability zones had good rainfall, resulting in a noticeable improvement in the pastures and limited improvement in the nutritional status of the herds compared to previous months.

Livestock conditions this season have improved in comparison to the previous one, but livestock and breeders have faced significant challenges and difficulties during the reporting period (January-February). These challenges include:

- Limited access to the Badia pastures continues to be a challenge due to an unstable security situation in the Badia areas of some governorates, especially in Deir ez-Zor,
- High fees for treatment, medicines, and veterinary care, and
- High transportation costs and wages of hired people, in general.

Overall, livestock require continuous support in terms of feed and veterinary services to ensure a healthy animal that can provide both milk and meat. Any disruption to such support would lead to vulnerable herders or livestock-keeping farmers to lose an important source of livelihood as well as a good source of nutritious food for the family and community.

Food commodities



As the new winter agricultural season begins, farming households face the challenge of financing various agricultural activities such as land preparation, sowing, fertilizing, pest control, and crop management. Livestock breeders also require funds to ensure an adequate supply of fodder for their livestock during the fall and winter seasons when pastures are scarce. However, the rising prices of agricultural production inputs and the costs of daily agricultural operations, along with the increasing prices of food commodities and living expenses, have made it difficult for farming households, especially the vulnerable ones, to manage their financial burden. This has narrowed the margin of options available to adapt to food insecurity, thus increasing the adoption of negative coping mechanisms.

SECTION A. GENERAL AGROMETEOROLOGICAL CONDITIONS

1. Precipitation

As of the end of February 2024, the total amount of rainfall received during the current rainy season (from the beginning of September 2023 to the end of February 2024) was significantly higher than the Long-Term Average (LTA) in all the governorates, except for Deir Ez-Zor and Al Hasakeh governorates. Deir Ez-Zor and Al Hasakeh received slightly less rainfall than the LTA, with 9% and 1% below it respectively. Homs and Tartous Governorates had the highest cumulative rainfall at 45 % higher than the LTA, while rural Damascus and A-Sewaida Governorates recorded the lowest amounts of rainfall at 1 – 14 % higher than the LTA. (See Figure 1).

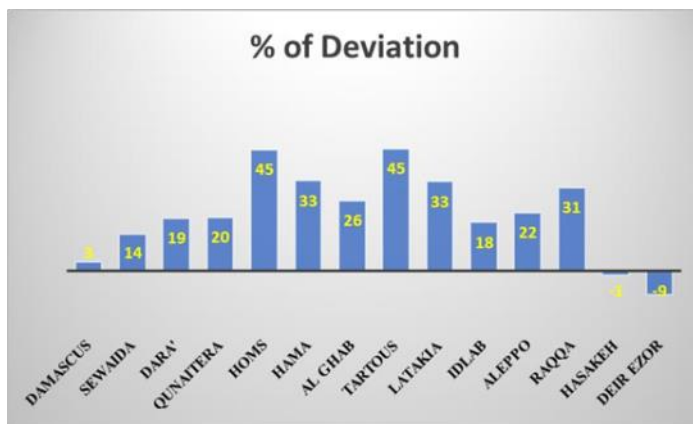


Figure 1: Deviation of cumulative rainfall from its (LTA) during September 2023 - February 2024.

Source: daily rainfall information.

Monthly precipitations

January 2024:

During January, the amount of rainfall was below the LTA by 20% - 30% in most areas of Rural Damascus, Homs, Al Badia, northern areas of Dara' As-Sewaida and southern areas of Deir ez-Zor. However, in all the other regions and governorates, the rainfall was good and higher than LTA, especially in the coastal governorates, Aleppo, Raqqa, and Quneitra, as the rainfall was up to 70% higher than the LTA.

In the first decade "Ten-day period" of January, high rainfall was limited to certain regions, including Raqqa, coastal governorates, northern regions of Aleppo and Deir ez-Zor, northern and western regions of Al-Hasakah, and western regions of Homs and Hama, where rainfall exceeded the LTA by 10 -70 %. While rainfall was low and below the LTA in the rest of the regions and governorates, especially in the southern half of Syria, where rain-

fall decreased below the LTA by 30 -70 %. In the second dekad of the month, rainfall has been significantly below the LTA by 30-50% in most areas of Al Badia, Homs, and rural Damascus governorates, as well as some areas of Dara' and Suwayda.

Meanwhile, heavy rainfall has been observed in other regions and governorates, particularly in the coastal and northwestern regions, as well as many areas of Hasakah, Raqqa, and Hama. These regions have experienced rainfall that has exceeded the long-term average (LTA) by up to 80%.

In January's third dekad, heavy rainfalls have been occurring across all regions and governorates, with snowfalls in several areas of the southern, coastal, and northern governorates. The heaviest rainfalls have been in Quneitra, Daraa, Suwayda, northwestern coastal, Hama, and Raqqa governorates, where they have exceeded the LTA by more than 70%. Meanwhile, the precipitation has been relatively less heavy in rural Damascus, Homs, and Al-Hasakah, exceeding the LTA by about 15%-30%. (see Figure 2)

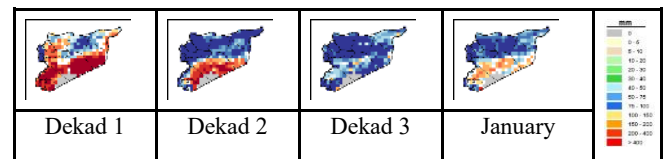


Figure 2: Estimated Precipitation Anomaly during January 2024.

Source: Global Information and Early Warning System on Food and Agriculture (GIEWS).

February 2024:

In February, there was a significant difference in the amount of rainfall received across various regions and governorates in Syria. The central and southern governorates, eastern regions of Al-Hasakah, AlBadia, as well as certain areas of Idlib and Latakia, received rainfall that was 20% - 50% lower than the long-term average (LTA). However, the rest of the regions and governorates experienced rainfall that exceeded the LTA by 10% - 40%, especially in Raqqa, Deir ez-Zor, and Tartous.

In the first decade "Ten-day period" of December, Rainfall in some regions of Syria has been significantly lower than the long-term average (LYA), with a decrease of around 40 – 60 % in Quneitra, western areas of Hama, Homs, Rural Damascus, and northern Daraa. However, in other regions and governorates such as Tartous, Deir ez-Zor, and Al-Hasakah, rainfall has been heavy and much higher than the long-term average (LTA), exceeding it by 60-80%. In the second dekad most regions of the Southern governorates and Southern areas of Homs received rainfall that was 20-40% below the LTA. As for the

rest of the regions and governorates, rainfall was high and exceeded the LTA by 15-65%, especially in Deir ez-Zor, Raqqa, Aleppo, and the western parts of Al Hasakeh.

In February's third dekad, all governorates experienced below-LTA rainfall, with some governorates such as Central, coastal, and northern receiving less than 10% of the LTA rainfall. While precipitation was below the LTA by 30 – 50 % in most regions of Al-Hasakeh and the southern governorates. (see Figure 3)

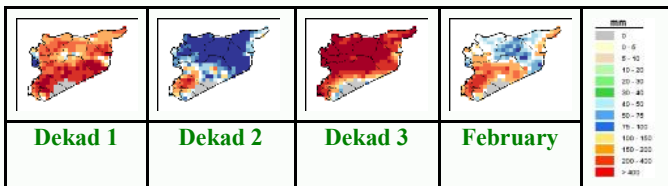


Figure 3: Estimated Precipitation Anomaly during February 2024. Source: Global Information and Early Warning System on Food and Agriculture (GIEWS).

To summarize, in January-February 2024 the coastal governorates experienced an almost ideal temporal distribution of rainfall with a coverage of over 80%. The northeastern, northern, and northwestern governorates, along with Hama and the northern regions of Homs, had an acceptable temporal distribution of rainfall with a coverage of around 50%. However, the temporal distribution of rainfall was somewhat weak in the Badia regions and the southern governorates, with coverage of about 25-35%. It is important to note that during the mentioned period, the majority of the crops that were planted, especially wheat, were in the tillering phase or the vegetative growth and elongation phase. This means that the condition of crops reflects the extent to which the phenological phases of the crop are affected by the temporal distribution of rainfall prevailing in each region.

2. Temperature

In January 2024, Daytime temperatures across all governorates generally exceeded the LTA by approximately 2.5 C° on average. The northeastern governorates experienced the highest temperatures, surpassing the LTA by about 3.3 C°, while the northwestern governorates had the lowest temperatures, exceeding the LTA by 1.9 C°. In the southern, central, and coastal governorates, temperatures were higher than the long-term average (LTA). By 2.0, 2.5, and 2.7 C° respectively. (see Figure 4).

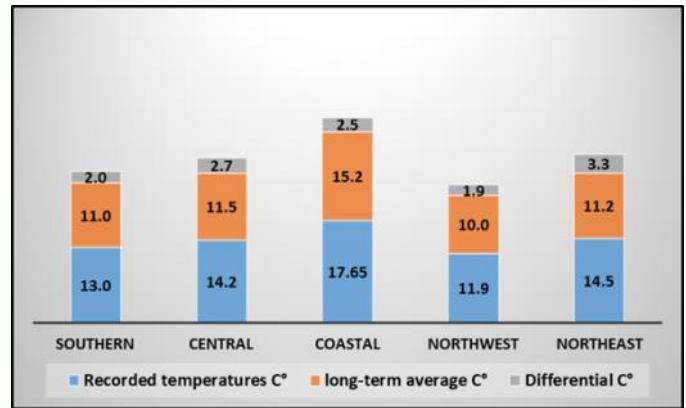


Figure 4: Graphical analysis and comparison of the daytime-temperatures recorded in January 2023 compared to LTA.

Source: Analysis of the temperature recordings based on the daily weather bulletins.

During the first dekad, the temperatures recorded in all governorates of Syria were generally high and exceeded the long-term average (LTA) by 5 – 6 C° across all governorates except for Al Hasakeh governorate where the central and southern regions witnessed temperatures higher than LTA by 1 – 3 C°. During the second dekad, temperatures in all governorates have remained higher than the LTA by around 5 - 7 C°. However, some areas in northwest Al-Hasakeh, north of Raqqa, and west of the southern governorates, Homs and Tartous, have experienced higher temperatures than the LTA by around 2-3 C°.

In the third dekad of January, all governorates experienced a daytime temperature rise of 1.5 – 3.0 C° above the LTA, (see Figure 5).

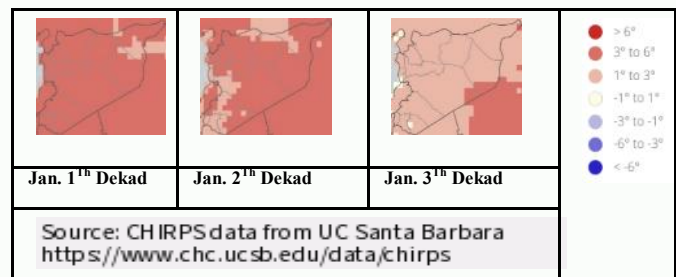


Figure 5: The estimated temperature deviation from its dekad LTA in January 2024.

In February, daytime temperatures across all governorates generally exceeded the LTA by approximately 2.5 C° on average. The coastal governorates experienced the highest temperatures, surpassing the LTA by about 2.5 C°, while the southern governorates had the lowest temperatures, exceeding the LTA by 1.0 C°. In the northeastern and northwestern governorates, temperatures were 2.4 higher than the long-term average (LTA). While in the central governorates it was 1.6 C°

higher than the LTA (see Figure 6).

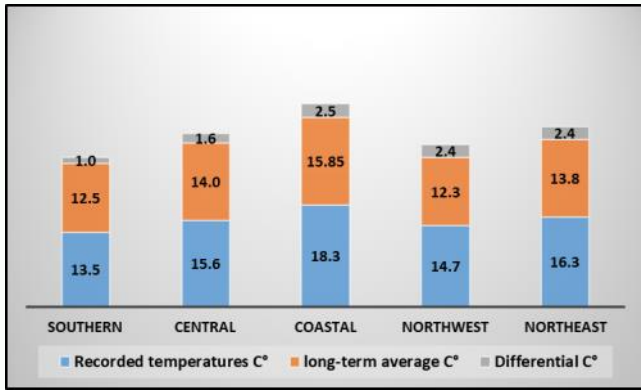


Figure 6: A graphical analysis and comparison of daytime-temperatures recorded in February 2024 compared to LTA.

Source: Analysis of the temperature recordings based on the daily weather bulletins.

During the first dekad of February, the recorded temperature was higher than the LTA by 1 to 2.5 C° across all governorates, except for southern governorates where most regions there experienced close to the LTA temperature. In the second dekad, the recorded temperature was higher than the LTA by 4 – 5 C° in the most areas of Al Hasakeh and Deir ez-Zor. While it remained higher by 1.0 – 2.5 C° in the rest of regions and governorates. In the third dekad, temperatures decreased in all governorates and regions and became significantly closer to the LTA. (see Figure 7).

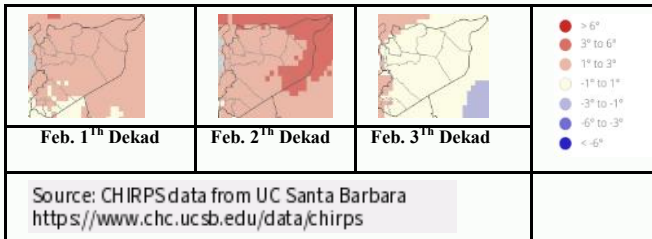


Figure 7: The estimated temperature deviation from its dekadal LTA in February 2024

It is important to mention that several nights during the reported period in several areas, especially the mountainous ones in the governorates of Rural Damascus, Homs and Hama, witnessed a drop below 0 C°.

SECTION B: NORMALIZED DIFFERENCE VEGETATION INDEX (NDVI)

During the reporting period of January-February 2024, there was a noticeable improvement in the vegetation cover in various areas such as central, coastal, and northwestern governorates, Raqqa, al Hasakeh, Dara', Quneitra, western regions of As-Suwayda, rural Damascus and northern areas of Deir ez-

Zor. However, there was a significant decline in other regions and governorates, especially in the southern regions of rural Damascus and Deir ez-Zor and most areas of Al Badia.

However, vegetation cover remains below the long-term average by 10 - 25% in various other regions, particularly in the southeast and center of Al-Hasakeh, the east and southeast of Deir ez-Zor, the southwest, northwest, and northeast of Aleppo, northwest of Idlib, west of Hama, south and east of rural Damascus, north of Quneitra and Daraa, and central, north, and south of As-Suwayda.

The current season has also seen a decline in vegetation cover compared to last season in the eastern and southern regions of Al-Hasakeh, Deir ez-Zor and most areas of Al Badia. However, there has been an improvement in vegetation cover in the rest of regions and governorates, particularly in Hama, Aleppo, Raqqa, northern areas of Al Hasakeh. (see Figure 8).

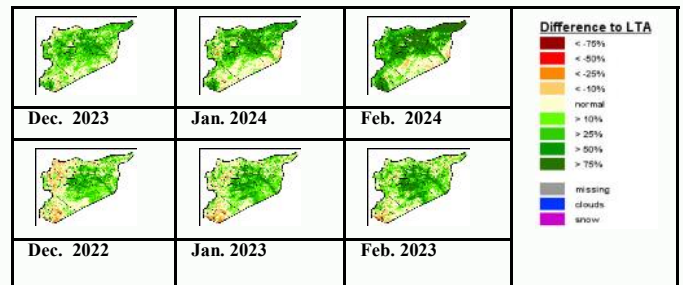


Figure 8: The development and presence of live green vegetation during the 2023-2024 agricultural season.

Source: Global Information and Early Warning System on Food and Agriculture (GIEWS)

SECTION C: WATER SUPPLY SITUATION

At the end of February 2024, water stocks in Al Hasakeh, central, coastal, and southern governorates increased by 2 %, 11%, 20%, and 22% respectively, compared to January 2024, while it decreased by 4 % in Aleppo. In addition to that the water stocks in February 2024 increased compared to February 2023 in Al Hasakeh, central, coastal, southern, and Aleppo governorates 1%, 8%, 26%, 13, 1%, and 18% respectively.

It is important to note that although dam stocks have improved in all governorates due to heavy rainfall this season, the current water level of the dams in Al-Hasakeh, is critical, as it is less than 20 % of the dams' capacity storage. Water levels are also low in Hama around 25%, due to the reduced rainfall during past seasons, while at the same time, the demand for irrigation water has increased. This means that the possibility of dams providing crop irrigation water during the coming months in

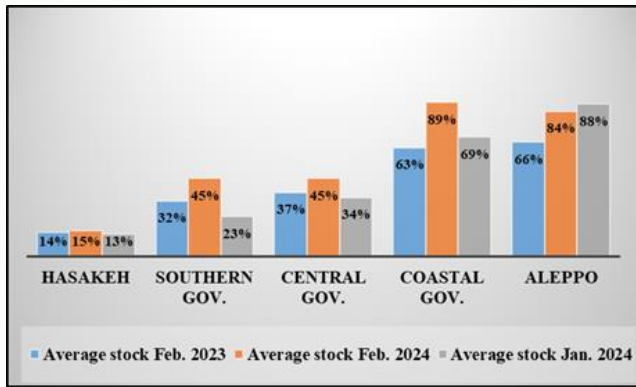


Figure 9: The evolution of dam stocks during the 2022 / 2023 season.
Source: Analysis of Monthly Bulletin of Drought Monitoring (MBDM) from MAAR

SECTION D: SUMMARY ON PROGRESS OF 2022/2023 CROPPING SEASON

During the reporting period, farmers who were late in planting completed planting their fields with winter crops, with the cultivated areas reaching the end of February of the current season: wheat, barley, legumes, and medicinal and aromatic (cash crop) about 1187, 1261, 125 and 85 thousand hectares respectively. (see Figure 10).

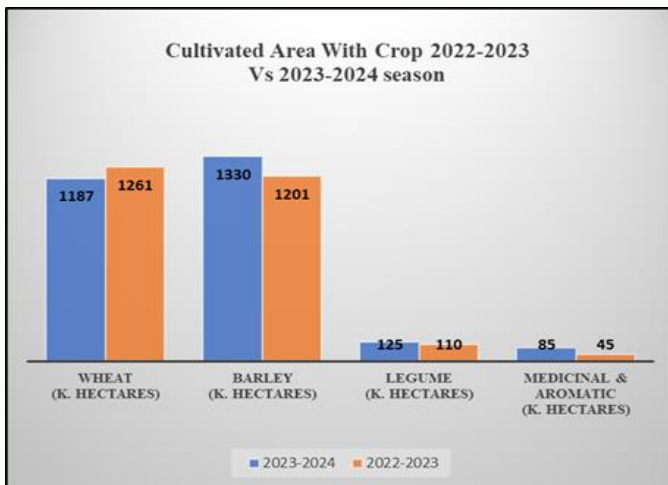


Figure 10: Graphical comparison of planned areas for Wheat, Barley, Legumes in 2023 – 2024 season, compared 2022– 2023 season.

Source: MAAR and FAO field monitoring reports

It's important to mention that the areas used for farming legumes, barley, and cash crops this season have increased by 12%, 10%, and 50% respectively, compared to the areas used last season. However, there has been a decrease in the cultivation of wheat by 6% compared to last season. It is important to note that the decrease in the area dedicated to wheat farming this season is a result of a reduction in both planned and cultivated areas of

irrigated wheat. This reduction is due to limited availability of water resources required for the irrigation of the crop.

Farmers responded to the abundant rainfall during the initial months of the current season by increasing their cultivation of rain-fed barley, food legumes, and medicinal aromatic plants. They believe that the production of these crops for the season will be promising and profitable.

Up to the end of February, the weather conditions for this season seem to be favorable for crop and fruit tree growth. However, there have been several occurrences of night frosts in different areas of the central, southern, and northern governorates. Additionally, significant flooding has been observed in the coastal and central governorates due to heavy rainfall in January and February, field mice in some areas of Hama, diseases and insects on olives in some areas of the central governorates. Farmers still facing challenges due to the high prices of agricultural production inputs, especially fertilizers, and low financing. Winter crops are in acceptable to good condition so far, ranging between tillering and elongated during the reporting period. Furthermore, the high cost of fuel and wages for mechanized agricultural operations is also contributing to the challenges faced by farmers.



SECTION E: LIVESTOCK SITUATION AND CONDITION

As earlier mentioned, the Badia regions experienced relatively low rainfall, which did not lead to significant improvement in vegetation cover and grazing in most areas. However, the marginal areas and other Agri-stability zones had good rainfall, resulting in a noticeable improvement in the pastures and limited improvement in the nutritional status of the herds compared to previous months.

Due to the increased availability of pastures, the prices of most fodder commodities have slightly decreased. However,

the prices of livestock have continued to rise by 5-10% compared to December 2023. This is because many livestock were sold during the past few months (due to increased demand and remunerative prices), which has significantly decreased the number of livestock offered for sale. Additionally, breeders are now more focused on maintaining and developing their herds because they have high expectations that the next grazing season will meet their ambitions. They also anticipate that improving pastures will reduce the cost of feeding their livestock, just as it did in the past.

Livestock conditions this season have improved in comparison to the previous one, but livestock and breeders have faced significant challenges and difficulties during the reporting period (January-February). These include:

- Limited access to the Badia pastures continues to be a challenge due to an unstable security situation in the Badia areas of some governorates, especially in Deir ez-Zor,
- High fees for treatment, medicines, and veterinary care, and
- High transportation costs and wages of hired people, in general.

Overall, livestock require continuous support in terms of feed and veterinary services.



SECTION F: FOOD SECURITY AND COPING STRATEGIES

As the new winter agricultural season begins, farming households face the challenge of financing various agricultural activities such as land preparation, sowing, fertilization, control, and crop management. Livestock breeders also require funds to ensure an adequate supply of fodder for their livestock during the fall and winter seasons when pastures are scarce. However, the

rising prices of agricultural production inputs and the costs of daily agricultural operations, along with the increasing prices of food commodities and living expenses, have made it difficult for farming households, especially the vulnerable ones, to manage their financial burden. This has narrowed the margin of options available to adapt to food insecurity, thus increasing the adoption of negative coping mechanisms.

Some coping measures include relying on less preferred and less expensive foods, limiting portion size at mealtime, and reducing the number of daily meals. Some families continue to rely on irreversible negative coping strategies, especially selling off their assets to meet basic needs. Furthermore, most families are also resorting to reducing consumption by adults for small children to eat.

Recommendations

- Farmers are advised to increase the observation for their crops, particularly wheat, and to stay in touch with the local agricultural technicians, for guidance and to take appropriate and timely measures. The upcoming weeks are crucial in terms of the spread of agricultural pests, including yellow rust, sunn pest, field mice, and crop worms.
 - Farmers are advised to regularly follow agro-meteorological information and weather updates and consult with their local agricultural extension staff for technical advisory. Farmers are also encouraged to obtain information on weather, Agro-Climatic conditions, and climate-related trends, through other communication platforms. This will ensure that farmers obtain timely alerts and appropriate technical advice on impending risks, especially for frost and crop diseases.
 - It is crucial to continue supporting livestock through fodder and veterinary services during the winter months until pastures become available in the spring.
- Sector partners involved in distributing agricultural production inputs or providing support for agricultural interventions should link implementation to the seasonality of the activities, and agriculture calendar.

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 2023
- 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.