Findings & Recommendations of CFSAM 2019

FAS meeting
3 October 2019

Jalal Al Hamoud (FAOSY)
Objectives

• For the Sixth year, FAO and WFP received a request from MAAR to conduct a CFSAM under the current conditions related to the crisis and the multiple adverse factors.

• In response to this request FAO & WFP formed a joint team to conduct the mission in order to:

  • Provide an overall view of the current agricultural situation in Syria (crops and livestock).
  
  • Quantify the production of the main food crops in all governorates and Identify areas of high and low production.
  
  • Identify and describe the reasons for the level of production of the main crops in the various governorates (e.g. rainfall, irrigation, pest and disease outbreaks, availability and cost of inputs, labour, mechanization, level of insecurity etc.)
Objectives

- Prepare a cereal balance sheet for the country as a whole in order to quantify the country’s needs in terms of imports or food aid.
- Describe current situation of livestock in Syria, Especially numbers, health and condition of animal, veterinary services, pasture condition, and availability and cost of livestock feed.
- Make recommendations that can improve the crop and livestock production and food security.
- Prepare a report that will be useful for Government and international agencies in their task of supporting crop and livestock production and national and household food security under the prevailing conditions.
A joint (CFSAM) visited Syrian (8 June - 4 July 2019) to estimate crop production and to assess the country’s overall food-security situation.

On arrival in the country, the international members of the CFSAM team spent 3 days in Damascus prior to going to the field. And they joined by a small number of national FAO and WFP staff.

Meetings were held with MAAR and several other relevant Ministries and State bodies of the Syrian Government.
Procedures

- All team members’ (national and international) spent 3 weeks in the field collecting data, observing the agricultural and food-security situation in 9 governorates.
- On return to Damascus, the CFSAM team held meetings with the agricultural directors of Quneitra and Sweida. Also discussed its field findings and observations with the principal technical staff of MAAR.
- Prior to departure from Syria, the Mission briefed the Minister of MAAR on its main findings.
ASSESSMENT METHODOLOGY

• In Damascus, the Mission held meetings with a number of line Ministries and agencies involved in aspects of agriculture, access to food, humanitarian and livelihood activities. (MAAR),(MWR), (Hoboob), MoELA, (SARC), (ICRC), (UN-OCHA), (UNHCR). On its return from the field the Mission had meetings with (GORS), (ACB), (MITCP).

• The Mission visited 9 governorates (Aleppo, Hasakeh, Hama, Homs, Deir-ez-Zor, Lattakia, Tartous, Rural Damascus and Dara’a).

• Raqqa and Idleb were considered too insecure to warrant a visit while Quneitra and Sweida were not covered for time reasons.
ASSESSMENT METHODOLOGY

• The Mission members held meetings with technical staff of the agriculture directorates, farmers, livestock herders and breeders, traders, and households. They also inspected fields of standing crops, fields being harvested and cereals being threshed, and visited livestock markets and wholesale farm-produce markets to assess price trends as an indication of supply.

• Figures for cereal areas planned, planted and harvested were provided by MAAR. Yield estimates were also provided by MAAR and the technical staff of the agricultural directorates. These estimates were critically reviewed by the Mission in light of field observations, crop inspections and other available information.
Much of this additional information emanated from interviews with farmers, and included, inter alia, planting time, seed rates, the availability and use of certified seed, fertilizers and other inputs, machinery, availability and reliability of irrigation. Other information used included rainfall records, soil moisture NDVI. Where deemed necessary, the yield estimates were modified by the Mission.

The Mission was assisted by a report estimating area, yield and total production of wheat and barley from the GORS using high-definition satellite imagery.
• There was sufficient standing crop in all governorates visited for the Mission to assess likely yields. In addition, harvested crops that had not yet been threshed were inspected.

• Hoboob provided an overview of the amount of grain that it had bought from the different governorates compared with previous years at the time of the Mission.

• The Mission also conducted 50 Focus Group Discussion (FGDs) across the visited governorates (Details about this will be provided by my colleagues from WFP).

• On its return from the field, the Mission discussed its findings, impressions and assessments with the technical staff of MAAR in order to fill information gaps and to arrive at credible yield and production estimates for each governorate.
Findings

Agriculture;

• The agricultural sector being one of the most resilient pillars of the Syrian economy.

• Like all sectors the agriculture has suffered serious setbacks since the beginning of the crisis.

• In 2010, agriculture accounted for 18 percent of the country’s GDP, 23 percent of its exports, and it involved 17 percent of its labour force in production.

• At the end of 2017 the International Labour Organization (ILO) of the UN estimated that 23 percent of the country’s population was engaged in agricultural production.
Findings

Agriculture;

- With the gradual return, over the last two years, of IDPs to their land, it seems reasonable to assume that the agriculturally productive population has begun to increase from its Rock bottom in 2017/18.

- The continuing crisis has devastated the previously flourishing agricultural sector by the loss of cultivated land, the movement of farmers away from insecure areas, the destruction of farm machinery, irrigation structures, shortages & high costs of farm inputs and fuel, a severely damaged infrastructure and compromised power supplies. The situation has been further aggravated by international trade sanctions.
Findings

Agriculture;

- In 2013 MAAR estimated that the annual revenue lost as a result of the virtual extinction of agricultural exports, was SYP 72 billion (about USD 0.73 billion at the exchange rate prevailing in June 2013).

- In 2016, ESCWA estimated the loss of capital stock in agriculture between 2011 and 2015 at USD 6 billion, or 6.7 percent of the country’s total capital stock losses over that period.
Findings

Cereal area,
The areas planted to wheat and barley increased by 23 percent compared with 2017/18. However, the favourable rainfall of 2018/19 resulted in a much higher percentage of the planted area being harvested.

In 2018 only 59 percent of the planted area of wheat was harvested while in 2019, with favourable rainfall, 81 percent was harvested.

Total wheat area (planned, planted and harvested)
Field fires,

This year with high temperatures and strong winds in May and early June, fires were much more frequent and extensive. The Government estimates that about 85 000 hectares of crops were burnt, mostly wheat and barley.

Hasakeh reported the loss to fire of 14 000 hectares of barley and 11 000 hectares of wheat, while Raqqa lost 9 000 hectares of barley and 2 000 hectares of wheat.
Findings

Weather,
Rainfall during the 2018/19 cropping season was markedly better than in recent years in terms of both amount and distribution.

The plentiful rains caused some flooding in some areas of the provinces (Al Ghab 2 400 h wheat where completely flooded, and 3 500 h partially flooded, in Hassakeh 72 h wheat and barely, in Raqqa 5 % of the crop, in Quneitra 150 h, Idleb also reported flooding in the west of the governorate).

In many parts of the country, the heavy rains prevented the timely sowing of cereals.
Findings

Irrigation,

• Before 2011, approximately 1.5 million ha of agricultural land were irrigated, the conflict caused to destruction of irrigation structures and pumping stations, shortage of electricity and fuel, which lead to decline of irrigated areas.

• By the end of October 2018, the water table in the village had dropped to a depth of 80 m. With the plentiful rains of the 2018/19 the water table rose to a depth of 20 m, by the end of June 2019 it dropped back again to 40 meters.

• Increasing salinity of well water has been reported in Deir-ez-Zor, Hasakeh and parts of the coastal governorates as a result of over-exploitation of the groundwater resource.

• This year’s good rainfall not only replenished dams and wells; it also allowed farmers to irrigate their crops less frequently.
Findings

Agricultural inputs;

Seed,

• Despite the very poor cereal harvest in 2018, farmers were able to access enough seed to plant an expanded area of wheat and barley in 2018/19.

• The country requires about 400 000 tones of wheat seed and 300 000 tones of barley seed annually to satisfy its planned cereal area.

• GOSM’s capacity was affected by the loss of physical facilities and skilled staff.

• Only 2 of 13 seed-processing centers currently operate, while professional staff are down by 50 percent, and experienced out-growers are down by 70 percent from pre-crisis levels.

• For the 2018/19 season, GOSM was able to distribute only 41 000 tons of wheat seed and 6 500 tons of barley seed, it is expected to produce 75 000 tons of wheat seed for the coming 2019/20 season.
Findings

Agricultural inputs;
Fertilizers,

• The use of fertilizers has declined significantly since 2011 because of the low availability and high prices occasioned by conflict.

• Agricultural Directorates in most governorates estimate that only (40-50%) of their farmers apply fertilizers to their wheat crop, and that those who do use fertilizers apply them at low rates.

• The main source of urea has been the fertilizer factory in Homs. However, in 2016, the factory was attacked and damaged, to the extent that it ceased operations.

• Prior to 2011, the Agricultural Cooperative Bank used to import about 600 000 tons of urea annually. Last year it imported 60 000 tons of urea and this year it expects to import 63 000 tons as well as 35 thousand tons of superphosphate.
Agricultural inputs;

Fuel,

Fuel prices in SYP terms have risen over the past 12 months in line with the SYP/USD exchange rate and international prices.

Crop-protection materials,

• Crop-protection materials such as herbicides and pesticides are available but remain expensive for farmers, with the result that they are often used at below the recommended rates or not at all.

• Many farmers’ complained that many crop-protection materials were ineffective.
Findings

Agricultural inputs;

Mechanization,
• Although there is still a serious shortage of functioning farm machinery following several years of conflict, the situation has improved slightly this year.
• Due to the high price of diesel this year, the cost of mechanized agricultural operations has increased.
• The cost of harvesting was initially the same as last year, but when the size of the harvest was realized the price rose. Most contractors, started charging between SYP 22,000 and SYP 25,000 per hectare.

Labour,
• Farm labour availability similar to last year, though there has been a slight increase in those areas to which IDPs have returned.
• Labour costs vary considerably in different parts of the country. In some, the cost has increased since last year, but in others the cost remains unchanged. Many small farms depend entirely on family labour.
Findings

Pests and diseases,

- Sunn pest was present in several locations but at low levels. Marked spread of yellow rust on wheat. Soft wheat varieties were more susceptible than the durum varieties.
- In most instances, the infection was below the economic threshold, but the Agricultural Directorate in Hasakeh estimated that yield reduction in the more affected stands of wheat might have been between 10 and 25 percent.
- Wild eggplant (Solanum sp) is becoming more troublesome as a weed. Farmers complain that it is difficult to eliminate using the herbicides that are available in the country.

Farm access and movement of farmers and produce,

- With increased security across much of the country, there has been a significant improvement in the accessibility of farmland. However, the potential presence of unexploded landmines continues to be an impediment to the cultivation or grazing of land in some parts of the country.
- The Government is now carrying out de-mining operations in parts of the Badia.
Findings

Cereal production;

Yields,

• At 2.08 tons/h, wheat yields on normally irrigated land were lower than those of 2017/18.
• The average rain fed wheat yields, at 1.46 tons/h, were almost double of last year at 0.75 tons/h.
• The average yield of irrigated barley this year was 1.53 tons / h, only 75 % from 2.04 tons/h last year.
• Average rain fed barley yields, at 1.49 tons/h, showed a more-than-fourfold increase on last year’s 0.35 tons/h.

Production,

• At 2.176 million tons, wheat production this year has shown a 21-percent improvement on the harvest of 2018.
• While the wheat production this year much better than last year’s, it is still well below the levels of production that were usually achieved before the crisis.
• By 1 June 2019, Hoboob had received 54 000 tons of wheat, in contrast to last year’s 49 000 tons by the same date.
OTHER CROPS;

Food legumes,

While larger than in 2017/18, the area planted to food legumes in 2018/19 was not substantially different to the average of recent years. The area planted to peas is still quite small but it has increased over the last five years. Yields this year are generally satisfactory.

Potatoes,

MAAR estimates that the area planted to potatoes in 2018/19 is 30 000 hectares. According to GOSM the demand for potatoes is increasing, and such an increase is supported by the Government through its Programme for Potato Seed Multiplication which was reactivated four years ago.
OTHER CROPS;

Vegetables,

- 2018/19 was a good year for winter vegetable production. At present, vegetable seed is imported from the Netherlands, GOSM, which used to produce vegetable seed, is now planning, in the medium term, to revive its production of tomato, eggplant and cucumber seed.

- Marketing of vegetables poses a serious and continuing problem. In the main production areas, face the problem of low purchasing power amongst consumers.

- Vegetable growers used to export much of their produce to neighboring countries. Unfortunately, the borders now appear to be closed bilaterally for the movement of fruits and vegetables.

- Syria used to have some reasonably sized commercial processing factories for fruits and vegetables, which provided another waste-saving outlet for surplus production. Now only a few small processors remain, and the price they offer the producer is usually unattractive.
OTHER CROPS;

Fruit trees,

- Fruit production is expected to be good this year, but marketing problems, especially for citrus fruits and apples, are similar to those encountered by vegetable growers; prices are low, and wastage can be substantial.
- Rainfall may have contributed to the observed increase in the incidence in olives of peacock eye, a fungal disease that can be spread from tree to tree by rainsplash.
Findings

Industrial crops;

Sugar beet,
- In 2011 Syria produced 1.8 million tons of sugar beet from 26,000 hectares. This year, according to MAAR, 350 hectares was planted, the produce destined for fodder.
- GOSM still has a large stock of sugar beet seed that it would like to offload.

Cotton,
- With the present crisis and the resulting shortages of seed, crop-protection materials and credit, and damage to irrigation systems, the area under cotton experienced further dramatic reductions.
- In 2016, 16,000 hectares were cultivated, MAAR estimates that 33,000 hectares were planted to cotton this year. In an average year with adequate irrigation and suitable varieties, The Syrian’s cotton yields are 3.5 - 4.5 tons/h.

Tobacco,
Tobacco is mainly produced in the coastal governorates of Tartous and Lattakia. Production appears to be increasing as the area under tobacco in Lattakia, 2,000 hectares, exceeds the 1,775 hectares normally cultivated there prior to 2011.
Findings

POST-HARVEST AND OTHER PROBLEMS:

- The transport of farm produce remains problematic but less so than last year.
- The cost of transport remains high and has changed little since last year.
- Prior to the crisis, Syrai had 144 grain-collection centers. Many of these were damaged, destroyed, in 2017 29 remained operational and under Government control. By 2018 that it increased to 35.
- As a result, wheat storage capacity, which was around 3.5 million tons before the conflict, is currently estimated at no more than 450 000 tons and around 80 percent of wheat stocks are currently stored in open spaces affected by weather vagaries.
- The number of operational cold stores for the collection of perishable fruits and vegetables available to the Government has been reduced to only 10 percent of its pre-crisis level.
LIVESTOCK;

- Prior the crisis, livestock accounted for (35 - 40 %) of the country’s total agricultural production, and occupied about 20 % of the labour force in rural areas. In addition, 35 % of rural households raised livestock, which is considered their main source of food and income.

- The poultry sector, which employed, directly and indirectly, more than 1 million workers, was also an important foreign exchange earner with significant exports of meat, eggs and day-old chicks.

- Before the crisis, MAAR supported services to the livestock sector such as extension, fodder rations, cultivation of pasture seeds and seedlings, digging of wells in Badia to provide water for the population and livestock, grading and improving activities, artificial insemination, vaccination, livestock treatments, veterinary drugs, improved breeds, and research services. (**Some of those services are still currently active**).
LIVESTOCK;

- Fisheries, a source of livelihood for many poor people in coastal and lacustrine areas, contributed an estimated 0.38% to agricultural GDP. Information on the current contribution is not available.

- Beekeeping used to be a traditional industry in Syria. Just before the crisis, there were about 700,000 beehives. A large number of them were neglected or destroyed, reducing their population and production.

- Like the rest of the agricultural sector, and despite the protracted crisis, the various livestock sectors still remain a key part of the economy and contribute substantially to the food security and nutrition of the rural population.

- MAAR estimated that during the first three years of the crisis, sheep numbers fell by 45 percent, goat numbers by 30 percent, cattle numbers by 40 percent, and poultry numbers by 55 percent.
Findings

Major constraints livestock;

- High prices of feed have been the most common cited challenges.
- The presence of landmines as a limiting factor to the access to Badia rangelands.
- Limited supply chains and cold chain disruptions due to power shortages and insecurity affecting both inputs and outputs, including transportation bottlenecks.
- Limited access of livestock owners to animal health services.
- Reports of low quality of drugs and animal semen persist, though this may be the result of incorrect application or administration.
- Lack of functioning veterinary diagnostic and food analysis laboratories and a shortage of well-managed slaughterhouses. This is an important issue as to control of animal diseases but also food security and public health.
Findings

Major constraints livestock;

- Weak livestock support services and low numbers of well-trained field veterinarians and animal husbandry specialists, which lowers livestock productivity.
- Lack of hatcheries to restart poultry activities.
- Problem of national fish-consumption patterns.
- Difficulty in accessing credit for fodder, agricultural inputs, and improved technologies from abroad.
- Lack of supply chain is preventing movement of goods, and creating regional differences in prices and availability. Dairy products are processed traditionally, and are often sold only in the area of production for fresh consumption.
Agriculture;

• The main recommendations focused on the urgent need to boost direct and indirect employment particularly in the rural areas, increase profitability of farmers, and increase sustainability of using natural resources in agriculture.

• The conditions for moving away from emergency and basic livelihood support to recovery and reconstruction of the agricultural sector seem to be opportune.

• While the immediate goal is to revitalize production and provide livelihood options to returnees resuming farming operations on their land, production revitalization should be pursued taking into account environmental constraints such as water availability and the recurrence of drought.
RECOMMENDATIONS

Urgent to mid-term;

- Seed: support the technical recovery of GOSM so that it can provide as many farmers as possible with clean certified cereal seeds of varieties that are appropriate for their agro-ecological zones.

- Availability and proper use of agro-chemicals: farmers complained that available agro-chemicals that they apply are ineffective. Extension agents and staff of agricultural pharmacies should be given extra training on the correct use of agro-chemicals, including.

- Irrigation and unauthorized wells: because of the destruction of a major part of the irrigation network, the approach to irrigation has been individualistic rather than community-based. Farmers should be instructed about the financial and production benefits of water-users associations (WUAs), and effective WUA structures should be promulgated.
RECOMMENDATIONS

Urgent to mid-term;

- Improve registration of animals to gather accurate information on animals and their location in the country to facilitate programming and assistance for the livestock development until the next census is carried out.

- Artificial insemination: Cattle owners reported that artificial insemination was only occasionally. Effective Veterinarians and AI technicians should receive further training on the correct identification of estrus in both local and exotic breeds of cattle.

- Cold chain for safe distribution of vaccines, veterinary drugs and AI straws should be rehabilitated. The possibility of collaboration with refrigerated-transport companies should be explored.

- Improve conditions for livestock producers in the Badia; Support should be provided to herders and breeders for re-stocking, especially of sheep, where possible. Watering places in the Badia that have been damaged during the crisis should be rehabilitated.
Urgent to mid-term:

- Rehabilitation of veterinary diagnostic laboratories, food safety laboratories and slaughterhouses in order to improve the identification of animal diseases and of food that is unfit for human consumption; thus, enhancing not only the control of animal diseases but also food safety and public health.

- Revitalize the hatchery centers to restart the activities of industrial poultry units.

- Rehabilitation of processing factories: to avoid the very significant waste of fruits and vegetables, support should be provided for the rehabilitation of some processing factories in the main producing areas.

- Improve market information systems to assist producers in making the right decisions and increase their profits as well as to reduce waste. Extension agents well informed about the profitability of different crops, and in particular of highly perishable fresh produce, should advise producers accordingly.
Long term;

- Consider cooperative arrangements: Where appropriate and necessary, farmers should be advised about the financial advantages of cooperative purchase of inputs and the marketing of produce, and of collective credit.

- Explore the feasibility of solar energy: to decrease the cost of running petrol-driven pumps for irrigation.

- Carry out a livestock census when conditions allow.
RECOMMENDATIONS

Long term;

- Re-establish various supply chains in the country to allow full recovery of the sector, including functioning cold chains. Functioning markets and supply chains will also contribute to a reduction of post-harvest losses in the field crops sector as well as losses in livestock production.

- Consider introducing risk-management-scheme tools such as weather-based insurance schemes to allow farmers to effectively hedge their risks.

- Improve the general technical capacity of human resources in the sector.

- Boost investment to assist reconstruction and recovery of the agricultural sector.
Thank you