

MED-Amin

Réseau méditerranéen d'information sur les marchés agricoles
Mediterranean Agricultural Market Information Network

Ukrainian Dam Sabotage Impacts

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Edito

At harvest time in many Mediterranean countries, the MED-Amin outlook for 2023 winter crops production has provided informative, detailed and near real-time notice of the situation in each of the countries. The last of the three monitoring bulletins has shown an **unexpected degradation at the end of the campaign in western Mediterranean countries**, which may impact quality of grains in addition to volumes. For more details, have a look at and share MED-Amin Bulletins ([N.1 of March](#), [N.2 of May](#) and [N.3 of June 2023](#)), available in English and French.

The June Bulletin reported rainfall in the Maghreb and the Iberian Peninsula which arrived too late to bring a beneficial effect on crops. However, they contributed to some replenishment of water reservoirs that may be beneficial to summer crops and the next 2023-2024 campaign. Crop failures occurred in several important grain-producing regions of Spain, Morocco, Algeria and Tunisia. In other areas, crop growing conditions remained favourable despite a clear degradation due to over-wet conditions prevailing before harvest operations in parts of Türkiye, Italy and Greece. New France regions are under the spotlight after a new-coming dry spell.

We are glad to announce that **Albania has offered to host next MED-Amin annual meeting** and to ensure the future Presidency of the MED-Amin network, currently chaired by Spain. There is no doubt that

this tenth edition will be rich in exchanges and cooperation for the Mediterranean region.

In June, MED-Amin Secretariat, Presidency and key partners took part of the IGC Grains Conference 2023 in London (12-13 June) and at the AMIS Information Group (15-16 June) to promote its activities and products. The Secretariat presented its commitment to enhance agricultural market transparency and the resilience of Mediterranean food systems by facilitating dialogue between producers, exporters and importers, and providing and sharing critical information (in particular on stocks, utilizations as well as prices, policy developments and trade

restrictions, production and product cost for end-users).

This ambition is pursued by the **Early warning system initiative**,

developed jointly with experts' contributions. This

ambition will also be served by **two webinars organized back-to-back on July 6**, on cereal supply and demand balance forecasting, and on early production forecasting of major grain exporters for 2023/24 marketing year. We would like to thank in particular the **International Grains Council (IGC)**, the French

intersectoral office for agrifood and seafood (**FranceAgriMer**), the **Ministry of agriculture, fisheries and food of Spain (MAPA)** and the Global Information and Early Warning System on Food and Agriculture (**GIEWS-FAO**) for their support and valuable contribution to the debates. The discussion demonstrated the importance of:

- cross-sourcing data from different players, combining national, international, public and private sources, producer organisations, traders, etc.
- monitoring throughout the season and the marketing year, to gain an accurate understanding of the S&D market situation.
- maintaining this opportunity for exchange, which is particularly valuable: thanks to partners involved, we made possible to have an anticipated vision of the current season and the season to come; but also to know the deadlines by which additional information will be available and the channels through which it can be obtained.
- working also on long-term resilience, in a context of changing markets and climate change, as illustrated by Spain and Australia.

SPAIN

Logistic Challenge

(World Grain, 06/05)

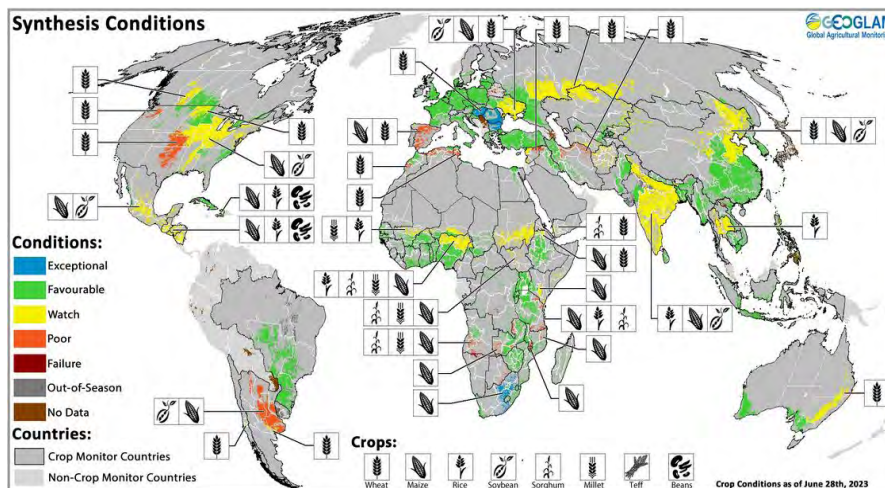
Poor harvest is confirmed, with a cut from 30 to 60% against the 5-year average production depending on the region and winter crop. **Spain** will import a significant amount of grain to meet domestic demand, early estimated to break 20 Mt, pushing its supply chain to deliver from port to end user. Ports are expected to operate at high capacity, and unloading, in-land transport and grain storage logistics will be particularly key to allow grains to flow toward consumption areas. Even with a poor domestic crop registered in 2022-23, the country's ending stocks of grains are projected to expand compared to the previous season, as farmers may opt to hold onto their grains in expectation of a recovery of grain prices during the 2023-24 campaign.

MAGHREB

Poor Harvest Confirmed

(Al Monitor, 01/06; Webmanagercenter, 05/06;)

After a reduction of cereal production by 67% in 2021-2022, the **Morocco's** production is expected to perform better this year, despite the continuous drought until May 2023. Morocco imported more than 8.8 Mt of cereal last year, an increase of 23.2% compared to the previous year, according to the National Ports Agency. The rainfalls in May and June 2023, sometimes violent, arrived too late to allow a crop recovery and save yield potential. Also in Tunisia and large parts of **Algeria**, the recent rains could not relieve the harsh conditions prevailing since the beginning of the 2022-2023 campaign. In **Tunisia**, production will not exceed 0.25 Mt, more than 75% reduction versus last year, according to the Central Council of the Tunisian Union of Agriculture and Fisheries (UTAP), and could even not be sufficient to provide seeds for next season plantings.



Crop conditions as of June 28th, 2023 (AMIS & Early Warning latest synthesis map)

Destruction of Ukraine's Kakhovka Dam Spells Trouble for Regional Agriculture

Feature Article of the AMIS Market Monitor, No. 110 July 2023.

On 6 June 2023, the Kakhovka dam in southeastern Ukraine catastrophically collapsed causing widespread flooding, threatening drinking water supplies and raising alarm for the agricultural areas in this region that are dependent on irrigation from the reservoir.

Kakhovka Reservoir's Importance to Agriculture

The Kakhovka dam and reservoir are of critical importance to agriculture. Four major irrigation canals snake from the Kakhovka reservoir, carrying water into the semi-arid surrounding land - a necessity for croplands on both sides of the Dnipro river.

Water from the Kakhovka reservoir fills more than 12,000 km of canals to irrigate more than 500,000 hectares of farmland. The croplands surrounding the reservoir produced about two million tonnes of grains and oilseeds in 2021, mostly wheat, soybean, sunflower and rapeseed along with a variety of vegetables and fruits including major production of melons. In addition to the impacts on vital cropland, the dam's collapse also threatens water supply for human consumption, leaving the habitability of affected settlements and the future restoration of farms in question.

Immediate Impacts of the Dam's Destruction

After the dam's collapse, settlements and cropland downstream experienced significant flooding across more than 40,000 hectares (mostly wetlands), according to satellite data analysis, with over 46 towns and villages affected, including

Kherson City. Despite initial fears, the agricultural area flooded was minimal with approximately 1,000 hectares of croplands flooded. However, upstream of the dam, all four major irrigation canal inlets were disconnected from the dam within a few days as the reservoir's water levels dropped rapidly. While the canals still retained water at the end of June 2023, they will likely dry out as the summer season progresses. The irrigation canals primarily serve summer crops such as maize, soybeans, and sunflowers as well as fruits and vegetables, but they also provide water to winter crops like wheat. As this is a semi-arid area, precipitation cannot always meet crop requirements and the canals played a critical role in ensuring water supplies for irrigation. Immediate attention will have to be paid to the growing conditions of summer crops currently in the ground. However, as planting of next year's winter wheat approaches in late summer/early fall, decisions will also have to be made by individual farmers as to the feasibility of a successful harvest given limited water supply.

Issues from the destruction of the Kakhovka dam will continue well beyond the 2023 planting and harvest seasons. It will take time for the dam to be rebuilt, the reservoir to refill, and the canals to flow again. AMIS will continue monitoring croplands in Ukraine in cooperation with partners like GEOGLAM that uses global satellite systems and on the ground observations to analyze crop health throughout the growing season.

➡ Read the [full report](#).

Exploring Irrigation and Water Supply Technologies for Smallholder Farmers in the Mediterranean Region (2023)

Pereira, D.; Leitao, J.C.C.; Gaspar, P.D.; Fael, C.; Falarca, I.; Khairy, W.; Wahid, N.; El Yousfi, H.; Bouazzama, B.; Siering, J.; et al., *Sustainability* 2023, 15, 6875.

Water security is a hot topic all over the world, due to global warming, climate change, natural calamities such as droughts and floods, overuse of water, and other factors. Water issues have been scientifically investigated from several perspectives, namely institutional, economic, social, environmental, managerial, and technological. However, the technological aspects of irrigation and water supply for smallholder farmers in the Mediterranean region

have not been adequately addressed. This paper explores irrigation and water supply technologies for smallholder farmers in the selected Mediterranean countries (Egypt, Malta, Morocco, and Portugal, as part of the MED-WET PRIMA founded project). The methods of analysis are literature review, fieldwork, and observation. The literature survey reveals that Mediterranean countries share many common features in terms of climate, water and land resources, and development issues. Nevertheless, the selected countries differ in terms of type of crops, water management regulations, labor force availability, financial sustainability, and economic approaches. These remarks

signal the need for applying a specific approach in selecting a technology for irrigation and water supply according to the regional context. Additionally, the financial and economic perspectives of the three key technologies (i.e., Self-regulating, Low Energy, Clay based Irrigation - SLECI -, desalination technology, and engineering constructed wetlands) require further analysis. Exploratory results provide an important set of implications, not only for policymakers, but also for higher education and research institutions, and for small farmers.

➡ Read the [full article here](#).

Sécheresses en Méditerranée : comment l'agriculture est-elle impactée ?

Extrait de [l'article](#) de la Fondation FARM, juin 2023.

En 2022, la Méditerranée occidentale connaissait déjà une très forte sécheresse estivale qui s'est prolongée en 2023 avec une sécheresse hivernale importante et une recharge des réserves d'eau limitée. D'après [l'Observatoire européen de la sécheresse](#), au début du mois de juin 2023, l'Ouest de la Méditerranée était encore en état d'alerte sécheresse, avec des anomalies de températures et de précipitations. Cette alerte concerne en particulier l'**Espagne**, le Sud du **Portugal**, le Sud de la **France**, le Nord-Ouest de l'Italie et le Maghreb.

L'Est de la Méditerranée n'a pas connu d'épisodes importants de sécheresse. Au contraire, certaines zones ont été touchées par de fortes précipitations. Ces conditions de sur-humidité ont pu dégrader par endroits la production céréalière, en particulier en **Turquie**, **Italie** et **Grèce**. Malgré tout, selon [MED-Amin](#), les conditions de culture sont beaucoup plus favorables à l'Est qu'à l'Ouest.

L'Ouest de la Méditerranée a, elle aussi, été soumise à de forts orages entre mai et juin dernier. D'après Serge Zaka, chercheur et modélisateur en agro-climatologie, « les pluies qui sont tombées dans cette région sont tombées trop tard, en dehors de la période de recharge des nappes. [...] Sur toute l'eau qui est tombée, 20 % s'infiltre dans les nappes, 80 % est du ruissellement, du captage en surface ou essentiellement un captage par les végétaux via leurs racines pour leur croissance. » Ces orages localisés ont donc pu donner un peu de répit à la végétation par endroits avec des sols agricoles rechargés, mais ils n'ont pas amélioré la situation de manière durable.

Les réserves d'eau restent préoccupantes pour la plupart des pays concernés par l'alerte. En **Tunisie**, bien que [le taux de remplissage](#) soit en hausse, atteignant près de 38 %, les mesures de restriction limitant l'usage de l'eau potable du réseau de distribution, notamment pour l'agriculture et l'irrigation, sont maintenues jusqu'à septembre. En **Algérie**, le taux moyen de remplissage des barrages a également augmenté à l'échelle nationale mais avec de grosses disparités régionales. Les barrages avec un bon taux de remplissage se trouvent majoritairement à l'Est du pays. Il en est de même au **Maroc** avec un taux de remplissage national de 32% à la fin juin, lui qui est en baisse depuis 2015.

Face aux sécheresses, les agriculteurs peuvent également avoir recours aux eaux souterraines. Il existe peu de données actualisées sur cette ressource au Maghreb. Elle représente pourtant une part significative de l'eau utilisée pour l'irrigation : [42 % des terres irriguées le sont par les eaux souterraines](#) au **Maroc**, 64% en **Tunisie** et 88% en **Algérie**. Une partie importante des nappes phréatiques serait surexploitée (prélèvements supérieurs à la recharge). Sur la période 2007-2011, 57 % des aquifères du **Maroc** étaient surexploités, 26% en **Tunisie** et jusqu'à 100 % des aquifères du Sud et 60 % de ceux du Nord de l'**Algérie**. De l'autre côté de la Méditerranée, en **Espagne**, malgré les récentes pluies, la situation ne s'est pas beaucoup améliorée. Les réserves d'eau – superficielles et souterraines – restent basses, voire plus basses à certains endroits, qu'en juin 2022, [en particulier pour l'Andalousie](#). Au **Portugal**, les réserves sont [relativement hautes](#) sauf au Sud. En **France**, deux-tiers des nappes phréatiques sont [sous les normales](#).

Les cultures les plus touchées par le stress hydrique induit par les sécheresses seront surtout les cultures de printemps (maïs, tournesol, sorgho), puisque ce sont les cultures qui vont pousser tout l'été, au moment où les réserves en eau sont faibles et où la demande est la plus importante. Le stress thermique dû aux fortes températures peut aussi impacter les cultures. « Au-dessus de 35°C, pendant la période de floraison, les fleurs avortent », comme cela a été le cas en Espagne pour les oliviers. Cependant, cette année, la sécheresse précoce et les vagues de chaleur ont également impacté les cultures d'hiver, un phénomène auquel on ne s'attend pas nécessairement avec le changement climatique. L'élevage est également impacté, en particulier par le stress thermique qui peut provoquer des problèmes de gestation, de croissance, et de production qui s'ajoutent au mal-être animal. Selon Serge Zaka, « Tous les climats vont remonter vers le nord, nous allons vers une aridification plus importante. En parallèle, les biogéographies – l'aire de répartition des espèces y compris agricoles – remonteront également vers le Nord. L'agriculture méditerranéenne devra évoluer en parallèle du climat avec son lot d'opportunités et de grandes difficultés.

↪ Voir [l'article complet](#).

FAO Food Index ↘

(FAO, 07/07/2023)

The **FAO Food Price Index** averaged 122.3 points in June 2023, -1.4% M/M, continuing the downward trend and -23.4% vs the peak it reached in March 2022. The M/M decline reflected drops in the indices for sugar, vegetable oils, cereals and dairy products. The **FAO Cereal Price Index** dropped by 2.1% M/M and by 23.9% vs Y/Y. International coarse grain prices fell the most, -3.4% since May. A fifth consecutive monthly decline in international maize prices was mostly driven by increased seasonal supplies from ongoing harvests in Argentina and Brazil. Amidst concerns over drought conditions, some rain at the end of the month in key maize producing areas of the US also lessened the pressure on maize markets. Among other coarse grains, world prices of barley and sorghum also declined, influenced by spillover effects from maize and wheat markets. International wheat prices declined by 1.3% in June, as harvests in Northern Hemisphere countries started with likely ample supplies in Russia, with easing trade conditions as well as improved crop conditions in the US. International rice prices declined by 1.2% in June, amid subdued demand for non-Indica rice and efforts to attract export sales in Pakistan.

WTO/IGC Dashboard

Maritime trade flows [\(Link\)](#)

A new dashboard was released, developed jointly by the International Grains Council (IGC) and the World Trade Organization. It provides estimates for seaborne wheat shipments based on private vessel-by-vessel data, with a fortnight frequency. It offers a tool for monitoring short-term trends in international wheat maritime trade flows.

SCOOPS

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Severe drought: western Mediterranean faces low river flows and crop yields earlier than ever (2023)

Joint Research Centre, June 2023.

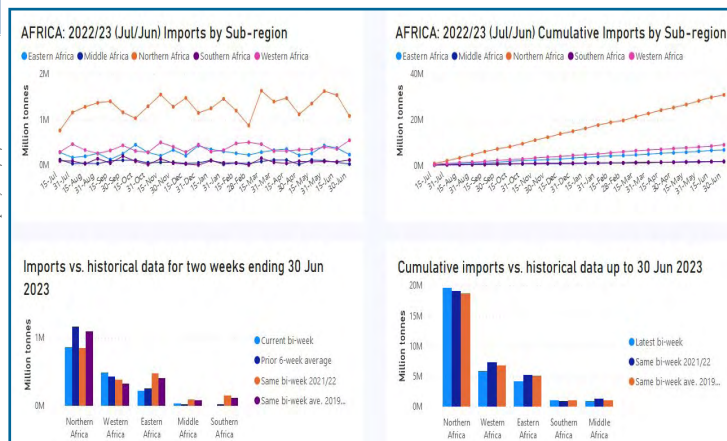
A new report on drought in the western Mediterranean from the JRC's Copernicus Global Drought Observatory reveals the extent of the water shortage hitting the Western Mediterranean region due to persistent lack of precipitation and temperature positive anomalies during more than one year, and because of exceptionally dry and warm late winter and spring conditions. Substantial negative anomalies of soil moisture, river flow and vegetation have triggered extensive warning and alert conditions according to the Combined Drought Indicator.

In both northern Africa and the Iberian Peninsula, severe impacts on crops have been reported with reduced and delayed sowing, and well below average yield forecast, as corroborated by the [latest MED-Amin Bulletin](#). Seasonal forecasts point to warmer than average late spring and early summer conditions over the western Mediterranean. Precipitation forecasts are characterized by higher spatial variability and uncertainty, even if a signal of wetter than normal conditions emerges in northern Africa. Close monitoring and proper water use plans are required, as next summer currently has a high risk of being

critical with respect to water resources.

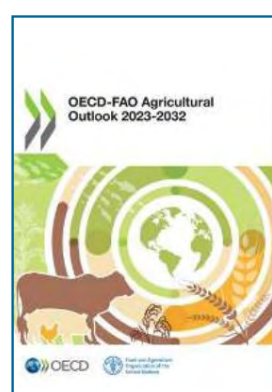
The final output will depend partly on sustainable soil management, given its crucial role in the water cycle. This summer, the Commission will adopt a proposal for a **Soil Law** aimed at ensuring all soil ecosystems will be in a healthy condition by 2050.

↪ See the [article here](#).



OECD-FAO Agricultural Outlook 2023-2032

EC-JRC-MARS Unit, April 2023



Ensuring global food security while meeting climate goals

The OECD-FAO Agricultural Outlook 2023-2032 identifies the key factors shaping the global agri-food sector in the next decade. Despite rising uncertainty from geopolitical tensions, climate challenges, animal and plant diseases, and volatile farming input prices, the report forecasts continued growth in agriculture

and food production. Helping ensure a secure food future for all requires the promotion of sustainable agri-food systems and efficient and resilient policies.

The chapter dedicated to cereals describes market developments and medium-term projections for world cereal markets for the period 2023-32. Projections cover consumption, production, trade and prices for maize, rice, wheat and other coarse grains. The chapter concludes with a discussion of key risks and uncertainties which could have implications for world cereal markets over the next decade.

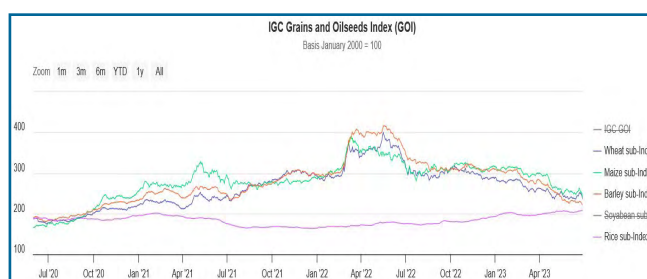
➡ Download the [complete report](#) or only the [Agricultural and Food Trends and Prospects](#), the [Regional Brief](#), or the [Cereals Chapters](#).

Trends on Global Markets

	Supply & Demand in June 2023 ¹		
	Global Price Index ¹ (June 2023)	From previous forecast (M/M)	From previous season (Y/Y)
Blé/Wheat	241 ↘	▲	↔
Maïs/Maize	251 ↘	↔	▲
Riz/Rice	205 ↗	▲	↔
Orge/Barley	228 ↘	n/a	▼

¹: Monthly average in USD, base 100=year 2000, ↗ ↘ ↔ vs last month (▲ : Easing ; ▼ : Tightening ; ↔ : Neutral, n/a : not applicable)

Sources : AMIS Outlook - <http://www.amis-outlook.org> and [International Grains Council](#) (for the Barley) and the graph below.



Events



IAOM Eurasia Conference & Expo (Istanbul, Türkiye)

The International Association of Operative Millers (IAOM) is the largest non-profit organization in the field of grain milling. This event will gather grain millers and trade representatives of Central and Eastern Europe, Baltic, Black Sea and Central Asian countries for sharing ideas, technical and educational opportunities, and networking.

➡ visit the [webpage](#)

BlackSea Grain and Oil Conference (Kyiv, Ukraine)

This event will allow to discuss the short- and long-term market forecasts, investments, logistics and exports to plan the recovery and development of the agricultural sector. Also to establish effective interaction between all players in the supply chains and support food security in the most demanding regions.

➡ visit the [webpage](#)



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