



MED-Amin:
a multilateral market monitoring initiative
for improved food security
in the Mediterranean area



www.med-amin.org



Christine Ton Nu

Deputy Director, CIHEAM-Montpellier
Co-coordinator MED-Amin network



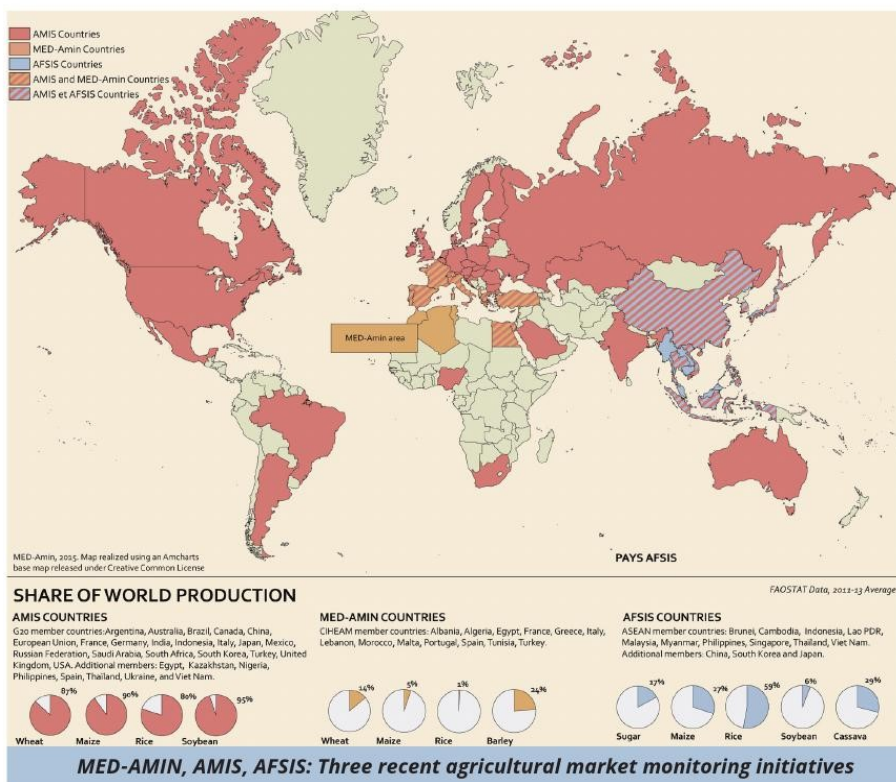
Nicolas Martin

Consultant, CIHEAM-Montpellier
Co-coordinator MED-Amin network

Abstract

'Market Information' is defined as a service "usually operated by the public sector, which involves the collection on a regular basis of information on prices and, in some cases, quantities of widely traded agricultural products from rural assembly markets, wholesale and retail markets, as appropriate, and dissemination of this information on a timely and regular basis through various media to farmers, traders, government officials, policymakers and others, including consumers." (FAO, 1997). Reassessing the importance of market information as a support to decision-makers, the article presents three recent initiatives extending on diverse areas of influence (world, mediterranean and asian area). The article presents their specificities and their common challenges (harmonization of methodologies, need a for a deeper understanding of agricultural markets, and of price transmission dynamics between the different levels, information transparency and capacity-reinforcement in terms of the analysis of markets' evolutions).

Article published in "CIHEAM Watchletter n°34", September 2015



2 Introduction

2 Informing the evolution of cereal markets: a common necessity

- 4 Why monitoring agricultural markets?
- 5 Decision-makers are the prime beneficiaries of a better cycle of information on cereal markets

6 Three recent agricultural market monitoring initiatives

- 7 MED-Amin (MEDiterranean Agricultural Market Information network)
- 8 AMIS (Agricultural Market Information System)
- 9 AFSIS (Asean Food Security Information System)

10 References



Introduction

The food crisis, and the associated financial and economic crises, that took place in 2007-08 fostered a strengthened awareness of the fragility of current national food security strategies based mainly on international trade; this issue is particularly true for countries depending on international trade for their food supply. The peaks of prices in agricultural commodities observed during this period generated strong rise in imports bills, further price peaks on domestic markets, and sometimes difficulties – real or overplayed – in procuring supply of basic food products.

The resulting cost-of-living riots caused by the cost-of-living contributed in some countries to political instability. In 2011, the G20 group called for a meeting of Agricultural ministers in order to elaborate an Action Plan on Food price volatility and agriculture based on five pillars: investing in agricultural in order to “produce more and better”; increasing market transparency; improving international coordination in preventing and responding to crises; developing risk management tools relative to agricultural price volatility; regulating agricultural commodity future markets. An information system on international markets, AMIS, has been implemented with the support of ten international organizations since 2011. Four year after the first agricultural ministerial meeting organized by France in 2011, the G20 group under Turkish Presidency has chosen, in 2015, to place again agriculture at the top of the agenda and to discuss food systems’ sustainability and the fight against food losses and waste.

In parallel to the global initiative AMIS, countries sharing interests at the regional level have additionally gathered to reflect on the implementation of shared information systems on agricultural markets. MED-Amin for the Mediterranean area and AFSIS for Asia are two examples that we will present simultaneously with AMIS. Thus, we propose to present first in this article the generic functional organization of market information initiatives, to continue with a presentation of three major initiatives illustrating these principles (MED-Amin, AMIS, AFSIS) and to close this development with some thoughts on potential synergies and convergences for these three different initiatives. We will conclude with the presentation of potential evolution paths, in particular for MED-

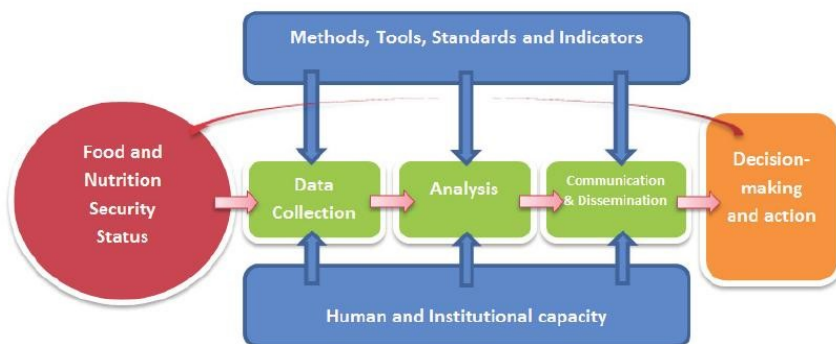
I) Informing the evolution of cereal markets: a common necessity

The interest of a collaboration aiming at increasing market transparency on strategic products such as cereals is undoubtful. In Asia, for example, rice is central to the diet of millions of people. In the Mediterranean area, wheat constitutes the food base in most countries.

The MENA region is the first importing region in the world for this product (currently around 30% of world imports). Cereals are also characterized by the strong trading activity that surrounds it: the part of production going to exports goes from 8% for rice, 10% for maize, 15% for barley, and rises to 20-25% for wheat. It is accordingly a top priority that decision-makers get the best information on the evolution of these markets, vital for their population and for the stability of their countries (Abis, 2015).

Krylov (UNCTAD, 2010) quoting (FAO, 1997) defines 'Market Information' as a service "usually operated by the public sector, which involves the collection on a regular basis of information on prices and, in some cases, quantities of widely traded agricultural products from rural assembly markets, wholesale and retail markets, as appropriate, and dissemination of this information on a timely and regular basis through various media to farmers, traders, government officials, policymakers and others, including consumers."

In the same spirit, the report entitled "Landscape of Key Actors Producing and Sharing Information for Food and Nutrition Security: Global Overview published in March 2014 by the Food Security Information Network (FSIN)¹ , proposes a definition of the cycle of information on food and nutrition security for decision-making demonstrating the interest of a good information-base when acting in favour of food security.



Cycle of information on food and nutrition security for decision-making. (FSIN, 2014).

¹ FSIN is an initiative launched in collaboration by FAO, IFPRI and WFP aiming at establishing a community of practice, at providing access to demand-driven, harmonized sets of standards, methods, tools and indicators, and at strengthening country and regional level capacities for food and nutrition security information collection, analysis and decision-making. For more information: <http://www.fsincop.net/about/>

● **Why monitoring agricultural markets?**

According to Krylov, the information on cereal markets remains too often concentrated in the hands of a few actors (usually the most important actors of the trading of cereal commodity), while the majority of stakeholders have little or no access to information on markets. The reverse problem may be sometimes encountered, and, in such cases, information may also be too important or too dispersed: the analysis is then rendered difficult by the time needed to compile and check all data. Information sources, when they exist, may not always be organized. Additionally, interpretation bias and a certain lack of objectivity may be observed in the way the information is presented by the different actors involved in the production- and trade-chains.

Consequently, the mission of public market information carried by networks and information systems presented in this article may allow for enhanced transparency, i.e., the knowledge by all stakeholders of market prices as well as of all information relevant to their analysis.

Such transparency allows for an increased allocation of productive resources, improved bargaining positioning for negotiating parties, and transaction costs reduction through the reduction of the market uncertainties that emerge from a lack of information. Transparency also helps to improve the knowledge of market opportunities and provide information that is useful to the different parties involved in trading in a timely manner. It should finally allow for the elaboration of informed food security strategies and for the anticipation of supply and demand dynamics, as well as the needs and difficulties to come, both on the short and long run.

This market information mission may be divided in four successive functions:

- Data collection
- Transmission, data treatment (conversion, harmonization,...) and analysis
- Information dissemination
- Use of information

The reinforcement of all four successive functions should be built in priority on the definition of common methodologies and indicators as well as on the reinforcement of the institutional and human resources involved in this cycle of information. As a second step, the implementation of suitable information systems may facilitate both the dissemination of results and harmonized collection of data within the different participating countries.

● **Decision-makers are the prime beneficiaries of a better cycle of information on cereal markets**

The collected information and the data-harmonization process aim clearly at serving decision-makers. The purpose of information system is to allow them to quickly detect changes in market structures, so that they may efficiently adapt their policies (in terms of trade, subsidies, fiscal policies, etc.). This theoretical framework allows a diversity of configurations when put in practice. We will present in the next part three examples of different initiatives aiming at improving the cycle of market information for policymakers.

II) Three recent agricultural market monitoring initiatives

The table below presents a comprehensive and comparative synthesis of all three initiatives presented hereafter.

Characterization of Regional/Global Agricultural Information Systems				
		AMS	MED-Amin	AFSIS
Objectives	* Promoting market transparency	x	x	x
	* Improving forecasting capacities	x	x	x
	* Improving the understanding of markets' functioning	x	x	x
	* Supporting the economic analysis of agricultural markets.	x	x	x
	* Collecting data for the construction of coherent and objective databases	x	x	x
	* Improving the data collection capacity of member countries	x	x	x
	* Acting as a network facilitator to foster the exchange of information and best practices	x	x	x
Collected data	* Yearly Country-level Cereal balance sheets (Production, Imports, Exports, Uses, Stocks, etc.)	x	x	x
	* Monthly Updates on next harvest campaign	x		x
	* Crop Calendars	x	x	
	* Country-level extraction rates		x	
	* Data on first transformation products (Flour, Semolina, etc.)		x	
	* Statistical sample survey			x
	* Social data (Labor force in agriculture, GDP, land use, cost of production, etc.)			x
Information & services provided	* Public website database on national statistics	x		x
	* Regular information letters	x	x	
	* Experts' studies	x		
	* Newsfeed on agricultural markets		x	
	* Monthly prices and indices, in particular on cereal futures markets	x		
	* Database of implemented public policies (subsidies, tariffs, exports/imports control, etc.)	x		
	* Data-visualization and mapping of harvest forecast	x		x
Type of data collected	* Early Warning / Rapid response mechanism	x		
	* Training/Exchange programme	x		x
	-Quantitative Data-			
	* Prices	x	x	x
	* Costs			x
	* Quantities traded by grade			
	-Qualitative Data-			
Scope	* Quality standards			
	* List of exporters, buyers			
	* Interest rates and prices levels in the value-chain (currencies, freight, storage, oil prices, etc.)	x		
	* Agricultural practices			
	* Number of covered countries	28	13	13
	* Commodities covered	Wheat Maize Soybeans Rice	Wheat Maize barley Rice	Cassava Maize Soybeans Rice Sugar

The MED-Amin initiative (Mediterranean Agricultural Information Network) was born thanks to the political impetus given by the Agricultural ministers from the CIHEAM countries that pushed forward the creation of this regional network in 2012. The network materialized in early 2014: the MED-Amin network was officially launched by the Agricultural ministers of the 13 CIHEAM member countries during the 10th ministerial meeting that was held in Algiers, in February 2014. MED-Amin aims at developing mutual understanding within Mediterranean countries, so as to provide enhanced transparency and better quality information necessary to meet the challenge of food security. The name of the network itself is a strong signal voiced by member countries as the amin adjective refers in Arabic to the notion of « trust ».

MED-Amin (Mediterranean Agricultural Information Network)

The MED-Amin network, coordinated by CIHEAM, aims at fostering cooperation and experience sharing between national information systems on agricultural markets of the 13 CIHEAM member countries within which focal points have been nominated. During its first phase, the network is dedicated to cereals (wheat, maize, barley and rice) that are strategic for food security in Mediterranean countries. Indeed, the evolution of prices, trade and the stability of supply for these vital products constitute a prime object of concern for populations and public authorities.

The activity of the MED-Amin network is characterized by:

- Regular face-to-face meetings allowing for the instauration of a relation of reciprocal knowledge and trust so as to improve cooperation and experience-sharing between members;
- Data collection on the cereals covered by the network, knowledge on methodologies and on statistics;
- Analyses on the collected data and publications tailored to decision-makers' needs;
- A permanent watch for the improvement of the knowledge of cereal markets, as well as capacity reinforcements towards members requesting training.

The activities should lay the foundations for an enhanced monitoring of food security issues within the Mediterranean area and lead on the long run to the establishment of a database, an early-warning system and, more generally, to a better coordination between countries.

Reviewing its first year of activity, the network published in April 2015 an activity report retracing the main achievements of 2014. The collaboration has taken shape thanks to two meetings in Paris and Izmir, and was concretized through a first statistical data collection process on soft and durum wheat over the last 6 calendar years. A set of communication was also created for use by the members of the network and of the public at large (website, newsletter, newsfeed, brochures, social network presence, etc.).

The report outlines the conclusions, gaps, and suggested improvements that should allow the network to enlarge its reach. Accordingly, four priority components for action are outlined:

- Improving the completeness of collected data: it is possible to improve the update of data (current or past year(s)) and the data collection on stocks, utilizations (food, feed, etc.), losses or prices (rarely reported and often non-harmonized between the different member countries).
- Going beyond data collection related methodological disparities between member countries: in 2015, the network thus implemented, as part of a second and more complete data collection, adapted forms as well as data collection handbook in French and in English so as to guide focal points in the data collection and checking.

- Validating data: to this end, a bilateral dialogue was initiated with focal points, in order to improve the understanding of the data collection context in order to implement the necessary corrections, where necessary. MED-Amin works in close collaboration with AMIS, the European Union (EC, CCR/ MARS, GLOBSTAT...) and is inserted as a complement to existing initiatives at the world level (IGC, USDA, FAOSTAT, etc.).

- Harmonizing collected data for their analysis, comparison and aggregation: MED-Amin realized in 2015 cereal balance sheets on the base of national marketing years in grain equivalent. The process requires in particular that extraction rates be collected on a number of first-transformation products (flour, semolina, malt, milled rice, etc.) covered by the network.

In 2015, a data collection on all five commodities was thus realized and the results will be discussed during the next meeting of the network in Rome in early October. A "Policy brief" type of publication tailored to the needs of decision-makers will also be released in Fall 2015.

AMIS (Agricultural Market Information System)

Created in 2011 at the request of the G20 group, the AMIS initiative (Agricultural Market Information System) is an inter-institutional platform whose objective is to increase the transparency of international markets so as to improve the coordination of policies aiming at the reduction of market uncertainties. AMIS thus fills the gap of a reference database providing harmonized, to-the-point and timely information on the main statistical series necessary to an efficient market monitoring of world agricultural commodity markets: supply, demand, stocks, exports availability. The initiative also fills the gaps in precise and coherent national production data delivered in a timely manner for a rapid decision-making process. Its creation was thus grounded on an acknowledgement of the lack of relevant data in terms of stocks, domestic prices, and on price transmissions between international and domestic markets, as well as on the risks of inappropriate or uncoordinated responses to market crises.

AMIS is characterized by a dual mechanism. Its first component is technical and carried out by an expert group (the Global Food Market Information Group) meeting twice a year and producing an analysis on four basic food commodities (wheat, maize, rice, soybean) feeding the second mechanism. This second mechanism is political and embodied in a rotating Presidency elected by member countries, a Steering Committee representing International Organizations and a Rapid Response Forum, a high-level decision-making committee, meeting once a year at the minimum in order to coordinate potential responses to market crises, if necessary. An important part of the AMIS activity consists in the harmonization of methodologies allowing for the integration of national statistics. Additionally, AMIS managed to establish its "Market monitor" as a monthly reference publication on cereal markets: the document integrates analyses, trends syntheses, and mapping of harvest forecasts, thanks to its collaboration

with GEOGLAM¹.

AMIS also implemented a number of research activities via the management of a series of case studies on the analysis of methodologies for a better estimation of utilization of cereals as fodder, on the study of price transmission mechanisms between the global and local scale, on the links between food and energy prices and production as well as on the exploitation of global information on the estimation of stocks' level. AMIS organizes thematic workshops and develops an exchange program allowing focal points to get training during intensive integration sessions within the AMIS team, localized within the FAO headquarters in Rome. The initiative finally developed a capacity-reinforcement activity initially developed around five target countries: Bangladesh, India, Nigeria, Philippines and Thailand. As wished by the G20 and CIHEAM ministers, the links between AMIS and MED-Amin are strong, as the AMIS experts intervene regularly to inform and advise the MED-Amin members and so as to reduce duplicate work to a minimum.

AFSIS (Asean Food Security Information System):

Launched in 2003, AFSIS is an ASEAN+3 initiative (the regional organization of the « Association of Southeast Asian Nations») to which China, Japan and South Korea also participate. The objectives of AFSIS include: 1) the facilitation of planning on food security issues, 2) the monitoring and evaluation of this planning via a data collection process and 3) an analysis and systematic dissemination of data and information related to food security. Historically, its actions were concentrated around two main components: capacity development as well as the establishment of a specific information system.

The first phase of the project was achieved with the launch of their website and database on production, imports and exports, market prices, utilizations and stocks for each of the covered activities (rice, maize, soybean, sugarcane and cassava). Phase 2 of the project, initiated in 2008, has been characterized by the reinforcement of activities initiated in phase 1, to which were added the development of an early warning system (Early Warning Information Report), a prospective publication on the evolution of the covered commodities (Agricultural Commodity Outlook), and an inter-country technical cooperation process (in pairs).

In 2008-2009, AFSIS realized 7 two-weeks training sessions on a number of themes (« AFSIS Food security Information systems», « Agricultural Statistics & Data Collection », « Forecasting techniques and development of agricultural prospective studies », « Introduction to the basic techniques and knowledge for statistical agriculture planning», etc.). Backed by the expertise of JAXA (Japan Aerospace Exploration Agency), AFSIS also commissioned the development of JASMIN (JAXA's Satellite-based Monitoring Network), an advanced satellite monitoring system for rice cultures. Achieved in 2012, Phase 2 made way to joint process aiming at establishing the persistence of the AFSIS system, via the signature of a mutual agreement engaging country to this end.

¹ GEOGLAM (Group on Earth Observation Global Agricultural Monitoring Initiative) is a G20 initiative producing the « Crop Monitor », a map synthesis reflecting the conditions of cultures at the end of each month, and develops the « Crop assessment tool », a database and satellite data-visualization system covering the growing and harvest progress. The initiative aims at establishing a global monitoring and warning system based on satellite data.

In September 2014, the ASEAN+3 ministers gathered in Myanmar noted the progress that had been achieved and the necessity of proceeding through a gradual approach, aimed in priority at local capacity-reinforcement.

The 16 Asean+3 Agricultural ministers will meet on September 12, 2015 (PNA,2015) at the International Rice Research Institute (IRRI). This meeting will be a renewed opportunity to strengthen AFSIS. A common regional action plan for food security has been designed, integrating both a long-term agricultural development plan and a trade-facilitation component. Asean countries are characterized by contrasting situations in terms of agricultural production: thus, for rice, some countries, such as Vietnam or Thailand, are exporters, while others, such as Philippines or Indonesia, are importers. Accordingly, a national plan for each Asean+3 country has been defined to strengthen its capacities regarding sustainable agricultural production; and a regional agenda has also been defined, both levels of action being interlinked through the development of inter-country trade and support to export competitiveness towards European and African markets.

● **Convergence between the three initiatives (MED-Amin, AMIS, AFSIS)**

The three initiatives present specific dynamics reflecting the objectives that governed their initial implementation as well as the specific culture of their home institution, members and secretariat. Thus, the AMIS initiative distinguishes itself by the accent that is placed on international markets and their dynamics, the MED-Amin network by the specificities of Mediterranean trade, and AFSIS by the programmed implementation of a specific information system for the monitoring of food security indicators.

In spite of these specificities, three components, at minima, are common to all three approaches. First, the need for the **harmonization of the specific data collection methodologies** that took place within the different participating countries. Secondly, the need for a **deeper understanding of agricultural markets and of price transmissions dynamics between the different levels** (local, international, etc.). Finally, the usefulness of supporting market **transparency and capacity reinforcement as far as the analysis of market evolutions is concerned** (data access, publicity, objectivity of the proposed analytical items, etc.).

These three components must be combined to allow countries in the long run to reduce their import bills. This objective requires a **better understanding of the imports' needs of dependent countries**, and should also be able to support a **deeper analysis of the prices obtained as a result of purchase negotiations on international markets**.

In terms of collaboration, a **degree of resource-pooling**, as recommended by FSIN (FSIN, 2015), should be developed, in particular around the regular diffusion of information on the evolution of the main indicators (oil prices, exchange rates, ...) and reference cereal prices, and this to the benefit of both private analysts and government entities involved in the different initiatives. A second collaboration component could be opened with **institutions involved in a more micro-economic analysis**, which would help feed macro-economic analysis and help put in perspective the statistics provided by countries, in particular in terms of utilization (food use, feed use, etc.), losses, or locally observed prices.

III) Conclusion

Created initially as a capacity-reinforcement mechanism (AFSIS), as a tool for policy response coordination (AMIS), or as the vehicle of reinforced cooperation between the countries of a same area (MED-Amin), the three initiatives presented here are advancing step-by-step cereal market transparency, multilateral cooperation, and knowledge on cereal issues ; as such, they contribute to the food security improvement objective as defined in the future Sustainable Development Goals of the post-2015 International agenda (objective n°2).

They share the common challenges of collaborating and establishing trust, trust and of harmonizing data from diverse origins; but they also share a number of question marks. The next steps of their development open a number of alternatives: utilization of geo-spatial data (oriented towards production forecasts), utilization of micro-scale data collected directly from farmers, intermediaries or consumers (allowing notably for an enhanced analysis of resilience capacities), improvement of customs data (for a better monitoring of logistical and commercial issues), research of political options for the reduction of sustainable food-dependency reduction, etc. No doubt significant progress is possible in these domains.

Références

- Abis, S. (2015), *Géopolitique du blé, Un produit vital pour la sécurité mondiale*. Editions IRIS-Armand Colin
- AMIS : *Progress Report on the Agricultural Market Information System (AMIS)*, October 2015, for the 70th session of the Committee on commodity problems
- AMIS: Market Monitor
- FSIN (2014), *Landscape of Key Actors Producing and Sharing Information for Food and Nutrition Security: Global Overview*
- FSIN (2015), *Review of Global Food Price Databases: Overlaps, Gaps and Opportunities to Improve Harmonization*
- KRYLOV, A., (2010), *Market Information Systems*, Course on Economics of Commodity Production and Trade, Special Unit on Commodities, CNUCED
- MED-Amin: Activity report 2014
- Philippine News Agency (2015), *ASEAN ministers tackle food security*, Manilla Times, 15 Septembre 2015

Websites

- AFSIS: <http://www.afsisnc.org>
- AMIS: <http://www.amis-outlook.org>
- MED-Amin: <http://www.med-amin.org/en>