

# Agricultural Market Information System MIS



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Agricultural Market Information Systems

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# Foreword

The Market Information Organization of the Americas (MIOA) has, in this publication, documented and compiled relevant information on agricultural market information systems (MIS) for use by its member countries and others in general.

Background information on agricultural market information systems was summarized and made accessible to a wide audience with assistance from the United States Department of Agriculture (USDA): the Agricultural Marketing Service (AMS), funding from the Foreign Agricultural Services (FAS), and coordination and implementation from the Inter-American Institute for Cooperation on Agriculture (IICA) under the project “Knowledge Management for Agricultural Market Information Systems”. Also included were conceptual issues on the importance of these systems in the public and private decision making processes within the countries, including the components of a MIS, notably, collection, analysis, and dissemination of agricultural marketing data.

It is also expected that this material will be developed gradually in keeping with the scope of agricultural markets and information needs. It is anticipated that the knowledge generated in various agricultural areas will be accessible to those actors involved in agricultural marketing.

In addition to other topics, the material here provides information on MIS experiences in several MIOA member countries, best practices, use and development of information and communication technologies (ICT) as well as the expectations of those involved in these processes. It also includes the background of MIS in the Americas, the elements of an information system, agricultural marketing systems and several case studies to provide readers with specific information on lessons learned by those working in agricultural market information systems.

The material was compiled and edited by Dra. Olga Patricia Arce, IICA Consultant, coordinated and reviewed by Frank Lam, IICA Agribusiness and Marketing Specialist. Validation and final review was conducted by Luis Fernando Palmer, Head of Section for International Reports, USDA , AMS, SC, and Helena Ramirez Montt, IICA Specialist in Market Information, and Program Coordinator of the MIOA.



# I. Introduction

In order to contribute to knowledge management for agricultural market information systems in the countries of the Americas, the Market Information Organization of the Americas (MIOA) decided to document and compile, in this paper, relevant information on agricultural market information systems (MIS) for use by its member countries and others in general.

This reference material is being provided for consultation by academics, users, producers, retailers and wholesalers, etc. to enable public and private decision makers to access information on conceptual and educational issues relating to agricultural marketing activity in member countries. Its publication was supported by the Inter-American Institute for Cooperation on Agriculture, as well as the Technical Secretariat of the MIOA, and by funding from the Foreign Agricultural Service (FAS).

This publication is meant to serve as a reference or guide in which MIS related information on tasks, knowledge and experience in the Americas and the MIOA in particular are summarized.

It will integrate a conceptual framework and practical vision to strengthen MIS in the countries. Also included within the MIS methodology, are analyses of experiences and effective practices for MIS, which will support future recommendations or actions within the hemisphere.

The material has been organized in the following way:

- Market information concerns: theoretical framework on the importance of information, specifically agricultural market information.
- Background of MIS: Relevant background data showing the evolution of MIS in the Americas and its scope in agricultural marketing.
- MIS, definition and operational data: As a structured instrument for the collection, analysis and dissemination of information on agricultural markets and their marketing.
- MIS Components: Data collection, analysis and dissemination of information on agricultural markets.
- Agricultural Marketing Systems: Scope and role of each of the links in the chain. .
- MIS Best practices: Experiences learned as a baseline to help identify suitable partners, share knowledge and build capacity.
- ICTs and their importance to MIS
- MIOA and its key role in strengthening MIS in the member countries.
- MIOA member countries, with their specific institutional information, description of functions, web sites etc.
- Future of MIS: Expectations and Goals.

Details are provided in different sections for each of these areas, and are subject to continued development with new information that will support knowledge management and effective utilization.





## II. Reference framework





## 1. Importance of Market Information

Information is becoming increasingly important to decision making in businesses, institutions, the public and private sector, academia, consumers, and of course, throughout the product marketing chain, in this case, the agricultural sector.

It is therefore expected that current information that is also timely, reliable and accurate will be available at all times.

It is essential, in the case of agricultural markets, that the information be considered with a variety of angles and variables in mind, i.e. the characteristics of the products' place of origin such as climates, regions, cultures etc.

The group of Market Research Consultants (n.d.) reports that, according to Philip Kotler, marketing expert analyst, the lack of accurate, objective and regularly updated information results in companies, organizations and institutions in general risking ignorance of a complex and changing reality. This involves constant changes within the social, economic, political, cultural and technological environment in which the company operates, as well as the constantly changing expectations, desires, tastes and preferences, needs, purchasing and consumer patterns of customers.

Therefore, having access to an agricultural market information system suitable for these conditions will enable decision makers to use this knowledge to assist those in need of it, in order to

confront the realities of food safety, transparency and fair returns for actors in the marketing chains of these products.

Kotler also notes that it is essential to identify what information is needed for decision-making, so that research may be targeted toward such needs, rather than the acquisition of information without knowing what it is to be used for, what gaps it will bridge, how it will be processed within the organization, who will be responsible for managing and systematizing it, and how often it will be updated, etc.

It is therefore important to have effective technical teams who will determine the type of information that each country needs, as agriculture has become a modern industry in urgent need of a solid foundation in its production and marketing strategies. As part of this process, the use of information and communication technologies has become a mainstay for the actors in the chain.

Similarly, the decisions taken by the public and private sector are based on the veracity, reliability, objectivity and timeliness of the information. This information influences trends in imports and exports, the impact on market pricing as well as the development of national and regional public policies.

According to Kotler's definition, a market information system consists of personnel, teams and procedures geared towards obtaining, organizing, analyzing, evaluating and distributing necessary, timely and correct information to decision makers on marketing issues.

Consequently, it is necessary to establish what type of analysis should have this information, and to this end, recent studies have given rise to the issue of market intelligence.

Several features of market intelligence were integrated in a coordinated presentation by the “City E, a model for the development of enterprise systems” and the Family Compensation Fund of Antioquia (COMFAMA):

- It is defined as the ability to acquire knowledge and understanding and use it in new situations.
- It is the ability to see beyond converting “data” to “information”.
- It does not provide enough information for deciding to start up a new business, except when the information is of the highest quality. Field work is recommended.
- It is the set of methods, techniques and mechanisms for collecting, recording, analyzing and disseminating strategic information on competition, government actions and the environment.
- It is an inherent discipline in the strategic management of companies that allows, through the constant flow of information, deeper knowledge of the market and the performance of the company in relation to this.
- With respect to knowledge of the market, it is assumed that we want to gather information on both customers and competitors.
- It is a process of exploring the variables indicative of the current trend and behavior of supply, demand, and prices globally or in specific market niches.
- Conducting a market intelligence study is a necessary step for all entrepreneurs wishing to enter or improve their participation in international marketing.

Similarly, these authors point to the benefits and possible errors of market intelligence. These are outlined below:

#### Benefits of market intelligence

- Reduces market risks.
- Identifies business opportunities before, or more effectively than the competition.
- Anticipates changes in the market.
- Provides high quality information on the client or competitor
- Reduces sales costs.
- Improves sales control and management.

- Improves knowledge of the competition.
- Optimizes the transmission of information within the organization and its security.
- Facilitates effective planning and execution.
- Allows for prioritizing investment in marketing.

Good market information and intelligence both play a key role in guiding the development of export oriented business.

The information quoted also adds that a good market intelligence system serves to:

- Raise the general knowledge level of stakeholders.
- Lower barriers of uncertainty that inhibit decisions to go into business and limit major investments.
- Provide the necessary evidence to optimize a business already undertaken or to be undertaken.
- Encourage the entry of new exporters.
- Facilitate the development of entrepreneurs and exporters along the learning curve.


#### Mistakes in market intelligence:

- Non evaluation of the information
- Non application of the information.
- Paying attention to rumors and opinions.
- Under/over estimation of the analysis and conclusions.
- Faulty judgement of competitor.
- Lack of contingency plans

Furthermore, Ortiz (2011) refers to market intelligence as key information, resulting from three sources whose constant flow boosts core market analyses of businesses. These three sources of information are: the company’s own business, the competition and the consumer.

Therefore, market intelligence is a broad concept which includes at least three disciplines. These are:

- 1 The discipline responsible for reinforcing our market intelligence system with information from our own business, referred to as Business Intelligence (BI).
2. Competitive intelligence is defined as the discipline that provides information and analysis of competition, a key element in a comprehensive market intelligence system.

- 
3. The consumer's perspective will contribute to the market research, a discipline that also forms part of the market intelligence system (Ortiz, 2011).

The MIOA (2011 ) Manual on price lists and dissemination of information provides other elements that should characterize market information:

1. Reliability and impartiality: Must objectively reflect market conditions.
2. Timeliness: Must be available to users in the shortest possible time after collection.
3. Relevance: Must be meaningful to the producer and the buyer based on the importance of product and marketing strategy.
4. Accessible: Must be available to all stakeholders, ensuring that there are no special privileges derived from its use.

Thus, market intelligence is a process by which the available market information (prices, volumes, information about consumers and competitors, climate, etc.) is used to increase effectiveness in decision making. Not taking intuitive decisions and making decisions based on market intelligence instead, reduces the risk to decision makers in their business proceedings.

Additionally, market intelligence is created through technical analysis processes that identify market trends and opportunities through collecting, systematizing and analyzing information.

## **2. Importance of Agricultural Market Information**

As the complexity of agribusiness increases and markets transcend borders, business decisions require more and better market information.

Agricultural market information refers to all the data necessary for meeting the demands of clients involved in the production and marketing of agricultural goods and services. In this regard, market information is important for decision makers not only from the point of view of supply, but also demand, i.e. consumers, as these also require timely information to make the best decisions at the time of purchase.

In effect, market information allows for greater transparency in transactions between buyers and sellers, who will be better informed of various available options. In this regard, each participant often handles information related to the part of the marketing chain of interest. Therefore, the information for the producer on specific consumer demands is often more limited.

# III. Background to MIS in the Americas



## 1. MIS in the Americas

According to Lam (2010: 51), agriculture is one of the sectors that has attracted the most attention from governments in the countries of the hemisphere, mainly due to its strong potential for generating jobs and wealth. Lam noted further that this sector has the ability to create economic and social stability in rural areas, where governments generally do not focus all their resources on meeting the basic needs of their people.

Further to this, Lam indicates that agriculture has undergone a series of changes in its operational structure, with the initial prevalence of large cattle ranches and farms, followed by the transformation of the sector by technological changes with substantial increases in productivity over the past 50 years.

Emphasis on the diversified agricultural system is geared to supplying international, regional and local markets, and providing access to technology and an expanding business vision.

This is where MIS become one of the key instruments for contributing to increasing the competitiveness of agribusinesses:

*This, in effect, is market information - defined as information that can help decision makers in agricultural production and marketing and the integration of data on consumer needs. This information also includes references to price and volume trends of agricultural products, business market reports, crop estimates and even weather reports, etc.*

*Market information targets total market transparency, i.e. the amount of information that can be gained with respect to a specific product. The greater the availability of information, the greater the transparency of the product. The agricultural sector is often privy to information generated by specialized media*

*but not specialized on the issue of new markets, consumer trends, and news about the companies engaged in the distribution and processing of agricultural products.*

*Similarly, producer associations and businesses generally have marketing departments, whose primary role is to provide classified market information to their members. Finally, companies involved in marketing agricultural products have market intelligence teams, whose aim is to ensure that the decision-making process occurs under absolutely favorable conditions during negotiations with customers and suppliers (Lam 2009).*

MIS were created because of the need for current and accurate information, for informing decisions at the public and private level of the agribusiness sector in countries.

According to economist Gilberto Mendoza (2005:3):

*Price information systems and agricultural markets have been in progress in the Americas for decades, the oldest being the US with 90 years. In Latin America, there are services in existence for over 30 years, with most operating for more than 10 years, even with constant ups and downs. Virtually all Latin American countries have an information system on prices and markets, and there is interest in continuing and strengthening this system, despite fiscal difficulties.*

*There is little doubt regarding the significant importance of timely and accurate information. In relation to this, Peter Drucker, expert in management and economics, states, "four global economies are currently emerging: A global information economy, a capital one, another that is multinational, and a mercantilist economy of goods, services and trade." Information as a concept and a defined category is an*

*eighteenth century invention... In the span of a century, information became global due to the development of the modern postal system ... meanwhile, "public information" - press, radio, television - flowed in only one direction - from editor to receiver. The editor, not the receiver, decided what was "fit for print". The Internet, in stark contrast, gives the information a universal and multidirectional nature, rather than a private and unidirectional one. Anyone with a phone or a personal computer has direct access to any other human being with a phone and a PC. The Internet provides everyone with virtually unrestricted access to information. It also facilitates creating information at minimal cost, that is, the opportunity to mount a website and become "publishers".*

Moreover, we should bear in mind the observation of the FAO (Food and Agriculture Organization of the United Nations), regarding the need to increase transparency in global food markets. Significant increases and fluctuations in food prices require strengthening of record keeping and control of marketing methods. In the case of the Americas, areas have been identified for the creation of these systems- some that have a large reach, and others in the process of consolidation through policy measures both in the public sector and through linkages with the private sector.

## 2. The First MIS

The first MIS within the hemisphere was established in the United States by that country's Department of Agriculture. The most relevant aspects of its establishment are outlined below:

- The development of transport in refrigerated wagons led strawberry growers in Hammond, Louisiana, in the United States, to the realization that they did not have information on prices and markets, and as a result, they hired someone to take responsibility for collecting and reporting prices; this gave rise to the first price report on agricultural products on May 15, 1915. Thus, the first office for fruit and vegetables was set up, and the Market News Service was established as the Agricultural Marketing Service.


- The Shepherd Amendment of 1916 authorized the Ministry of Agriculture to collect information from storekeepers, Livestock Farmers' and Farmers' Associations, dispatchers, trade fairs, stockbroker firms, livestock trading, slaughterhouses and meat packing companies etc., concerning the number of different kinds and grades of marketable livestock, especially cattle, pigs and sheep, in the main livestock breeding and cattle rearing sectors, in addition to prices, reception and shipments of varying kinds and grades of cattle, sheep, pigs, and sheep and ranching centers, prices of meat and meat products, and the quantity of each product stored. This information is compiled and disseminated at appropriate times to guide producers, consumers and distributors in the buying and selling of livestock, meat and other animal products, and any information relating to marketing and distribution of livestock, meat and animal by-products is collected, published and systematized.

- The Agricultural Marketing Act of 1946. Congress declared that "an efficient system of distribution and marketing of agricultural products, that is properly operated, is essential to a thriving agriculture and to the maintenance of full employment and the welfare, prosperity and health of the Nation". This act provides the Market News Service with extensive authority.

The Agricultural Marketing Act of 1946, by which marketing services activities were consolidated, contains this list of duties relating to the activities of market news :

" collect and disseminate market information (...) and collect, tabulate and disseminate statistics on the marketing of agricultural products including, but not restricted, to statistics on supply marketing, storage, stocks, quantity, quality and conditions of such products at various levels of the distribution channel, the use of such products, shipments, offloading etc.. "

- The Agriculture and Food Act of 1981 authorized charges to cover transmission costs of market news by fax, mail, hard copies, handling and remittances from Market news reports.
- Since 1993, the service also accepts international market prices, under the guidance of the International Markets Report.

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- The Livestock Mandatory Reporting Act of 1999 – legislation emanating from Congress, October 22, 1999, as an amendment to the 1946 Agricultural Marketing Act, imposes

mandatory reporting of trade in cattle, pigs, lambs and meat products for certain meat packers, processors of meat products, and importers.



# IV. MIS



## 1. Definition and operating data

For the MIOA, an agricultural market information system (MIS) involves a structured set of different but interrelated units for collecting, processing, analyzing, and disseminating agricultural market data. For users, the system must be designed primarily to ensure market transparency and to enable them to make more informed decisions about production and marketing.

A MIS should benefit its users in a number of ways:

1. Users should have more and better quality information about the market in which they participate.
2. Users should be able to make better-informed decisions.
3. Users should be able to plan production and marketing.
4. The system's existence should lead to good knowledge management practices.

The ultimate objective is for the various participants to be able to use the information generated to make their businesses more profitable.

Andrew W. Shepherd has said that:

*For many years, FAO and other organizations involved in the development of agricultural marketing have advocated the establishment of market information services (MIS) as a means of increasing the efficiency of marketing systems and promoting improved price formation. Improved information, it has been argued, enables farmers to plan their production more in line with market demand, schedule their harvests at the most profitable times, decide to which markets they should send their produce and negotiate on a more even footing with traders. Other benefits have been seen for traders. Improved information should enable*

*traders to move produce profitably from a surplus to a deficit market and to make decisions about the viability of carrying out storage, where technically possible. (Shepherd 2000:1).*

MIS usually collect, analyze and disseminate different types of information for their users. As the price of products is one of the elements that changes most often in the market, MIS make the constant monitoring of prices a priority.

Andrew W. Shepherd also underscores the importance of market information:

*Efficient market information provision can be shown to have positive benefits for farmers, traders and policymakers. Up-to-date or current market information enables farmers to negotiate with traders from a position of greater strength. It also facilitates spatial distribution of products from rural areas to towns and between markets. Well-analyzed historical market information enables farmers to make planting decisions, including those related to new crops. It also permits traders to make better decisions regarding the viability of intra- and, perhaps, inter-seasonal storage. Moreover, information of this type assists agricultural planners and researchers and can make an important contribution to early warning of impending food security problems. Market information can be regarded as a public good, particularly where there are numerous small farmers who are unable to pay for information. (Shepherd 2000: V-VI).*

A MIS can collect price information at different levels within the marketing chain, depending (among other things) on the cost of the process involved. One of the points at which price data is usually gathered is at the retail level, i.e., the system reports the price that end consumers pay for a given product.

Prices in wholesale markets are also monitored, as that is the link in the marketing chain where produce is collected and distributed. Lastly, information on farm-gate or packing plant prices is also collected.

The users of the information will be different in each stage of the marketing chain; however, as mentioned earlier, price monitoring in each stage generates an additional cost for the MIS. In fact, everything will depend on users' information needs and the cost involved in collecting the data.

For the MIS, information about the prices of agricultural products required by the user is fairly accessible and easy to disseminate, as it is usually available in real time or, in many cases, a few hours after it has been collected.

The way in which market information is disseminated will also depend on users' needs. In the case of prices, the main means used are as follows:

1. Internet. The dissemination of prices via the Internet has become an inexpensive way for MIS to distribute data widely. The information is usually made available on the MIS's Web page in real time or immediately after it has been collected. Dissemination is not limited to the country concerned.
2. Boards placed in the main markets, where the latest prices are announced transparently. The information is available to the public, buyers and sellers.
3. Cell phones. Many MIS use cellular telephony to communicate the prices of certain agricultural products. Users subscribe to the MIS to receive the information. Unlike the previous method, the information is only available to subscribers.
4. Local media. Many MIS disseminate market information via the written press, radio and television. This kind of strategy calls for a process of negotiation with the media and often involves an extra cost for the MIS.

David-Benz et al. (2012) suggest that a MIS should do more than disseminate price data. To support policy decisions, a MIS should provide comprehensive and analytical information, explaining market situation determinants, price formation from farm to consumer, interactions with regional or international markets, etc. The results of this broader market observatory approach can then be used to help define and implement consistent policy measures.

For farmers and market operators, a MIS should provide business information about market trends, individual contacts with potential commercial partners, and transaction opportunities (bids and offers). Technical information such as weather forecasts and production advice can also be offered. The information can be customized to fit individuals through interactive voice response, individual advice or brokerage services.

The interinstitutional management of MIS is also important for the establishment of ties with professional organizations, such as national producers' organizations or chambers of agriculture (or joint business organizations), that can foster efforts to meet producers' needs and help boost the advocacy capacity of producers' organizations, whose participation in the political dialogue is often limited in less developed countries.


Finally, the involvement of a MIS can further improve the bargaining position of farmers. Marketing support may include credit access, storage infrastructure, warehouse receipt systems, improved marketplace facilities, commodity exchanges, the linking of MIS to new market institutions, etc.

First-generation MIS achieved the objective of improving agricultural market transparency by collecting, processing and disseminating food price data. According to David-Benz et al. (2012), market information systems (MIS) began to be promoted in developing countries in the 1980s, in the wake of market liberalization and the withdrawal of parastatal agencies from the agricultural sector. The authors also point out that the design of MIS largely failed to take into account the special features and constraints of individual markets. In some cases, markets played a key role in food security policy and control.

Second generation MIS, which rely heavily on cell phones, run the risk of bypassing remote areas that are not covered by cell phone networks, poor farmers who cannot afford cell phones, or illiterate farmers who have difficulty using SMS.

Moreover, SMS service users generally make few requests for information (mostly only when they wish to sell), and are unaware of seasonal price movements, information they could obtain by listening to a radio program regularly.

Second-generation MIS benefit farmers who take new SMS technologies on board more easily. This second generation arose at the end of the 1990s




as a result of several developments: the emergence of cell phones and the spread of the Internet offered huge opportunities. Before that, transmission of price data from the collection point to the central unit could take several days. Nowadays, “real time” information can be delivered within a few hours. This has made it possible to expand the categories of products and take into account different quality standards. Data is

no longer limited to prices, but includes other market information (local trade flows, imports/exports, contacts of buyers or sellers), production (weather, technical advice) or policy measures (standards, regulations). Real transaction opportunities and buyer/seller contact details can be transmitted through individual bids and offers (David-Benz 2012:2).

# V. Components of a MIS





The components of a MIS (data collection, information analysis and information dissemination) are described in this section.

The methodology described should be used in all cases to obtain and evaluate the information collected on prices and market conditions, to ensure that the data is subsequently useful for knowledge management and meets the needs of users in each market segment.

The main points are taken from the Price Collection and Information Dissemination Manual published by PROMEFUT and the MIOA (2015). The pertinent section is summarized for instructional purposes.

The manual suggests that market reporters should follow the methodology described in order, as the saying goes, to “obtain the information, obtain it properly, and report it.” It also points out that reporters have a responsibility to make regular visits to wholesale markets and obtain the information related to the marketing of products from reliable primary sources.

#### Importance of the market reporter

*The market reporter is responsible for gathering information in markets by interacting directly with market traders; hence, the need to maintain good personal relations with them, to obtain reliable, quality information (PROMEFUT and MIOA 2015:2)*

The manual lists the following as the duties and characteristics of market reporters:

- Attend and participate in training courses and other events organized by the information system.
- Study the instructions carefully and thoroughly to ensure you understand them completely.
- Carry out in full the instructions set out in office manuals and instructions.
- Fill out the form for gathering information in the market.
- Keep lists of informants who supply information about the products monitored in the market, and furnish technical and management staff with copies of them.
- Follow the instructions of the management of the information system and inform them in a prompt manner of any difficulties you encounter in performing your tasks that you cannot resolve, or any irregularities encountered in the course of your work.
- Carry out, personally and with the utmost diligence, the tasks assigned to you in the respective areas, markets or establishments.
- When gathering data, do not expect to work according to the usual schedule of civil servants. Given the nature of the work, a special schedule is required, involving work in the early hours of the morning or late into the night, to collect the data required for the information system.
- Be sure to collect the prices of the products specified and quality indicated in the markets, since prices tend to vary according to product size, ripeness and other quality criteria.
- Deliver the data collected in the markets to the main office of the information system, when and in the format required.
- Inform management in advance of any possible absences from work due to vacations, illness, etc. This allows management to make the necessary arrangements to ensure that the information continues to be collected in the market.
- Consult the manual when not clear about some aspect of your work. If you do not understand a particular instruction, request additional information from other technical staff or the management of the information system.
- Prepare a report on each market visited for dissemination among the users.

- Reporters must be proficient in the use of the software for entering data and preparing reports in the information system. They should receive training in this area.
- Listen to the comments and needs expressed by users in order to establish the mechanisms required to meet those needs with the managers of the system.

All MIS should have a training program for market reporters to ensure that they carry out their work consistently and continue to develop their skills. The program can be divided into six stages, ensuring that new reporters gradually become familiar with the integrated activities required of them if the system's administrative offices are to operate effectively.

The possible stages are as follows:

- Orientation in the MIS's structure or organization, employees' rights, etc.
- Training in entering the data on the electronic price form, operation of the equipment, etc.
- Responsibilities of the office.
- Implementation of the market research survey.
- Entering of the price information each day into the system's database.
- Preparation of market reports on the supply and demand for products (including report on stocks).

The Price Collection and Information Dissemination Manual is a basic tool that is used throughout the training and for the operation of the information system. Reporters should familiarize themselves with this publication. It also includes things that reporters are prohibited from doing in the course of their work:

- Perform another task when collecting price information.
- Alter data obtained in the market or record false data.
- Reveal, disseminate or comment on the data obtained in the market. The forms containing the information may only be examined by system staff or authorized Ministry of Agriculture personnel.
- Note down the information in documents other than the forms and auxiliary registers provided for the task.

The conduct expected of employees is also mentioned:

- Be courteous with users of the system.
- Employees' behavior should reflect favorably on the institution for which they work.
- During working hours, employees should refrain from consuming alcoholic beverages or other substances that affect their work performance.
- Employees should not fail to turn up for work without permission.
- Employees should not use profane or obscene language.
- Employees should not accept gifts, loans, or other favors from market informants.

## 1. Data collection

### *a. Accuracy of the information*

In every information system, the data collected and supplied to users must be timely, reliable, and accurate, as it affects market stability and the flow of products, and keeps producers, carriers, sellers and receivers abreast of stocks, supplies and prices. Accurate information is essential for the preparation of market reports and production plans, and marketing planning activities.

### *b. Policy*

To ensure that the market reports published are useful, the policy for information systems establishes the following:

- Market reporters are responsible for the accuracy of the information contained in the reports.
- Information should not be included unless it has been validated.
- The market trend reported should be based on supplies of produce of good quality and condition, not poor quality and condition, as the continuity of the price may be questionable, except when the production conditions on the land mean that most produce in the market is of poor quality.
- Reporters should not determine the market price of any product. A market trend should not be reported if the sales volume is too small.

- Data should be collected in the market from at least three different informants. The prices provided by buyers can be used to verify the prices provided by informants.
- If the mode price is used, it should be included in the market report, immediately after the range of reported prices. The other terms used to describe prices, such as “few,” “occasional,” “some,” etc., should be recorded after the “frequent” price. This should be included if the reporter is certain that more than 50% of the product by volume was sold at that price.
- The report’s content should be as simple as possible, to avoid confusing users.
- Market reporters should maintain a good relationship with informants. It is a good idea to share information with them in which they may be interested, and to keep the data that traders provide confidential.
- Reporters should be continually looking for new informants for the system.
- Contact information on informants should be kept at the system’s offices.
- Reporters should be objective and careful with the information collected and then transcribed.

*d. Characteristics of the information*

The data collected should have the following characteristics:

- The largest possible number of informants should be consulted to determine the price of a given product. It is recommended that reporters make an exhaustive tour of the market to ascertain how many informants are available per product.
- Informants should be carefully selected to ensure they are wholesale traders who buy and sell large volumes of product; that is, they receive the product first in the market, have experience in marketing, and provide reliable information.
- Reporters should visit informants daily in order to maintain a close relationship with them and assure them that information will be delivered regularly.
- Informants should be willing to provide information for the system.
- Informants should be trained by the market reporter in order to obtain accurate information. Such training entails showing them the work carried out by the information system, the importance of the information they can provide, and the variables that need to be collected. For example, to determine the sale price of a given product, reporters should ask informants for the price at which most of the product was sold and not the price they are asking at that moment.
- Reliable and impartial: it should reflect market conditions objectively.
- Timely: it should be available to users as soon after it is collected as possible.
- Relevant: it should be representative for the producer and the buyer, based on the importance of the product and its strategic value for the market.
- Accessible: it should be available to all interested parties, ensuring that no one benefits unfairly from its use. .

The data gathered should also be validated. The prices collected must be verified, to be sure that the information obtained from the selected informants is accurate. This validation of the sale price can be done mainly with the buyers identified in the market. The information can also be confirmed with the secondary receivers of the product, ascertaining the price at which they purchased the product. The sale price of the product cannot be sought from the secondary recipients; those prices will be much higher as they have to cover their operating costs and make a profit. If there are doubts about a given price and it cannot be confirmed, it should not be included in the market report.



The confidentiality of the information should also be assured. Prices should be verified to confirm that the information obtained from the selected informants is accurate.

*e. Confidentiality of the information*

The market information provided by informants, as well as their identity and the name of their business, should be kept confidential. This will help to maintain the flow of information and informants' continued confidence in the system's activities. Reporters should introduce themselves to the informants and explain the system's objectives, to reassure them that the source of the information they provide will not be revealed.

*f. Frequency of collection*

The days on which wholesale prices are collected are determined based on the volume of transactions that take place in each market. Therefore, reporters should study with traders and buyers the business conducted in each market. The frequency of collection will depend on the operating characteristics of each market. Usually, in markets in large cities wholesale buying and selling take place every day of the week. On the other hand, in markets in small cities most business is conducted on a specific day of the week.

*g. Price collection schedule*

Buying and selling in wholesale markets mainly take place in the early hours of the morning. The price collection schedule is determined based on the particular characteristics of each market, where the biggest and smallest numbers of transactions are carried out. It is recommended that market reporters collect price information after ascertaining the times at which the largest number of purchases and sales occurred. This guarantees that the price information collected applies to the largest volume of product, which is the intention.

*h. Selection of products to be reported*

The following criteria should be applied in selecting the products on which to focus in the market:

- Product's presence in the market, relationship between quality and quantity, whether it is produced domestically or imported.

- Socioeconomic importance of the product to national or regional production.
- Product's importance as an item in the basic shopping basket.
- Seasonal nature of production.
- Demand for information on the product from users of the information system.
- The market reporter should carefully observe the presence of the different products in the market to avoid including products that only appear in the market sporadically over the course of the year, and to keep the range of products being reported on up to date.


*i. Information about weights and units of measure*

Information about the weights and units of measure used in the market should be gathered for all products included in the report. Reporters should weigh and measure each product and obtain additional information about the type and form of packaging used and the different sizes or quantities sold. The name by which each product is known in the market, and its respective equivalence in weight, should be noted. The dimensions should also be recorded (height, area and diameter). Weights and units of measure should be noted down continually in the market.

*j. Data collection methodology*

The methodology used to collect details of market prices consists mainly of two phases: the gathering and the processing of the information.

- 1. Gathering of information:** this phase includes all the stages involved in obtaining the price resulting from wholesale purchases and sales of products traded in the market. This phase includes the following stages:
  - Tour of the market: Management need to be well acquainted with the market in order to determine how many reporters are needed to cover the area where wholesale trading in fresh produce takes place; one or more reporters may be assigned, depending on the size of the market. The tour of the market should take place during the period previously identified as the one during which most business is done. The usual schedule for the tour is between 06:00 and 08:00. Reporters should tour the market before performing any of their other duties and



cover the entire facility. During the tour, the time that the reporter takes to collect the data on each product will vary, depending on how busy the informant is and the day of the week on which the biggest or smallest amount of products are traded in the market.

- Tour of the market: Management need to be well acquainted with the market in order to determine how many reporters are needed to cover the area where wholesale trading in fresh produce takes place; one or more reporters may be assigned, depending on the size of the market. The tour of the market should take place during the period previously identified as the one during which most business is done. The usual schedule for the tour is between 06:00 and 08:00. Reporters should tour the market before performing any of their other duties and cover the entire facility. During the tour, the time that the reporter takes to collect the data on each product will vary, depending on how busy the informant is and the day of the week on which the biggest or smallest amount of products are traded in the market.
- Informant interviews: reporters should contact all the wholesale traders to obtain details of original wholesale sales, if transactions of this kind are carried out. It usually turns out that a few traders specializing in large volumes of certain products establish the market conditions and small traders follow their lead. The quotations provided by small traders will be important to verify the information obtained from large traders. Information must be obtained from both buyers and sellers, with emphasis on sellers. If the price paid by a buyer can be obtained and confirmed, the reporter will report on that price.

Reporters should not depend on only one or two businesses for information about a given product if there are others operating in the same sector. To obtain a complete report,

each major player in the market should be contacted. Personal contact with the sellers is the best way to obtain information. The phone should only be used for businesses located some distance away or to confirm additional information, quotations or conditions that do not seem right.

Reporters should never take a sampling of traders but obtain information from all wholesale traders. This makes it possible to analyze the price, whereas, if only a sample is taken, there is a risk of omitting the wholesalers responsible for the biggest volumes in the market. Sampling is not usually sufficient to corroborate information on the different wholesalers interviewed, and if the information is incorrect, it will have a substantial impact on the prices reported.

- Information gathering: the information collected in the market should be recorded on the form developed by the information system. This guarantees the accuracy of the information being compiled in the market, as it is practically impossible to remember every price obtained, especially in the case of products with numerous varieties, packaging, origins, grades, or sizes. Reporters should develop their own method of taking notes, so that it is easy to find them if they need to interpret information to report on market conditions. Reporters should not waste the time of busy sellers trying to find the form for noting down prices, or asking them to repeat the information.

Wholesale market reporters should analyze and record detailed information on stocks and supplies in the market, demand, the amount of business being done, quality and condition, market trends and prices by source, types of packaging materials, varieties, grade, size and other factors that affect prices. This is important because prices by themselves are of little value unless they can be associated with a specific description of the product. The following information should be noted on the form:

- *Demand:* The demand terms should not necessarily be included on the sheet used to gather the information, unless it is important to explain an unusual market situation.
- *Market trend (tone):* The market trend should be shown for each important product. This information should not be included for less important products.
- *Origin:* The information should include the name of the area, region, department, province, or country where the product originated. This variable is very important because product quality can vary considerably depending on the production area involved, and that can translate into differences in price according to the place of origin. It is important to know in which months products from different places are available and to look out for them. For example, some Hass avocados in Costa Rica are produced domestically (in Copey, Pérez Zeledón and Los Santos), while others are imported from Mexico. Domestically produced avocados are cheaper than imported ones, as the Costa Rican product is less resistant to the effects of transportation and handling than the Mexican one.
- *Packaging:* Reporters should describe the type of package or container in which products are sold. It is important to ascertain the specific capacity of the different types of packaging, such as baskets, canvas bags and crates. For example, the capacity of a basket should always be described as a "XX pound basket." Bags or sacks of potatoes, onions, etc. are normally sold by weight and should be described in that way.
- *Varieties:* The variety is an important factor in the sale and purchase of certain products, so the corresponding information should be included. In the case of products such as cabbage, the type is important (green, red, etc.). Varieties of some products, such as potatoes and lemons, are easy to identify. On the other hand, close attention should be paid to products whose varieties are difficult to recognize, such as mangos, pineapples, plantains, etc.
- *Size:* The information reported should be as specific as possible. For example, "apples 100-125," "potatoes 6-10 ounces," "peaches 2 inches or more."
- *Grade, quality, and condition:* Some products are nearly always sold based on their quality. Quality should include size, color, texture, cleanness, absence of defects, and other physical properties that could affect the product's value in the market. Quality can be divided into first, second and third grades. The appraisal of quality depends mainly on the judgment of each reporter.
- *Price:* Price is the most important variable for the users of the information system. Therefore, reporters should collect price information from informants with the greatest possible accuracy, properly reflecting developments in the market. The price to be determined in the market should be the general range of prices for most transactions involving products of good quality and condition. However, if most of the produce available in the market is of poorer quality, that price should be reported, and the matter duly clarified on the information sheet. The range of prices should be as small as possible in order to better understand the market. A wide range of prices with no information about product quality or condition tells users very little about the market. For example, recording a range of prices from "USD 3.00-USD 4.00" with no details of the product's quality or condition tells users very little. Detailing the range of prices in the following way helps users understand the market better: "USD 3.50-3.75" when the product is of good quality and condition / often from "USD 3.60-3.65" / some of better quality "USD 4.00" / regular quality, "USD 2.00".

The prices collected in the market are:

**Minimum price:** the lowest price paid for the product.

**Maximum price:** the highest price paid for the product.

**Mode price:** the price paid for 50% or more of the total volume of product sold.



*Frequent price: the price repeated the most.*

- 2. *Processing of the information:*** This phase includes checking and validating the data and entering it in the database. Checking the information allows the reporter to detect any mistakes or data omitted when the information was collected in the market. Most errors in the data collection process occur when the prices are noted down, while information concerning the origin of products is the most likely to be omitted. If mistakes or omissions are found, it is up to the reporter to decide the best course of action, including revisiting the area where the product was being sold.

Validating the information includes determining the mode price and calculating the total volumes of product bought and sold, if this information is collected in the market.

Once the information has been reviewed and validated, it is entered in the database. The information entered should be checked to correct any mistakes.

#### ***Wholesale markets***

In wholesale markets, business is usually conducted in the early hours of the morning, so reporters should make their round of the market before performing their other duties.

Reporters should contact all wholesale receivers to obtain a record of the original sales by wholesale lots, or by shipment if applicable. It is customary to verify whether a few operators or handlers of a specialized line of products establish the market conditions, and smaller businesses largely follow their lead. Quotations from smaller traders can be especially useful to confirm the information obtained from large operators. Quotations should be obtained from both buyers and sellers, paying special attention to

the latter. Sometimes a seller may be unwilling to provide a specific price; if it can be obtained from the buyer and then verified, the reporter will be able to report that price.

Do not rely on one or two companies for information about a product if there are others operating in the same sector. The only way to provide a complete report is by contacting each major player in the market. Personal contacts with sellers are the best. Phone calls should only be made to companies located some distance away, to verify additional information or quotations, or conditions that do not seem right.

Reporters should use a notebook or folder to write down prices, as exact quotations are the only ones worth reporting. In larger markets, it is practically impossible to remember every price obtained, especially in the case of products with numerous varieties, types of packaging, places of origin, grades, or sizes. Reporters should develop their own method of note taking, so they can find data easily if they need to interpret information to report on market conditions. There is nothing more annoying for busy sellers than reporters rummaging through their papers to note down prices, or asking the sellers to repeat themselves. Notes should be kept for the next day or so, long enough to clarify any misunderstandings that might arise. Notes need not be kept permanently; they soon outlive their usefulness, as people will not remember what they said in any case. Reporters should never keep notes for more than five days; they can easily be used against them.

#### ***Shipping point markets***

The manual also states the following:

The task of reporting on production and shipping point markets, or shipping point markets, is similar to that of wholesale markets, although there are some marked differences. The former encompass a larger geographical area, personal contacts are less frequent, greater use of the phone is made, and reporters must analyze

the market in greater detail. You do not need to call each shipper daily unless you are compiling information on shipments by truck. When a large number of shippers deal in the same product, it is appropriate to have a selected sample in order to gain a precise understanding of the market. Long-distance calls should be kept to a minimum, but not if it means sacrificing the accuracy of market reports or losing valuable relationships in the business sector. While business in terminal markets is conducted in the early hours of the morning, in shipping point markets it is carried out all day long and, as a rule, the information is collected in the late morning or late afternoon.

Whenever possible and practical, information should be disseminated about the prices paid to farmers, which will depend on the base of sale, quality of supplies, etc., being sufficiently consistent. Every effort should be made to determine whether there is a consistent base of information. It may not be possible to compare with any degree of precision products sold by one farmer by hundred-weight and with differing grades of quality with those of another who sold a warehouse full or a container without classifying them by quality, a total sum, calculation of the price as an estimated percentage of U.S. No. 1 grade, etc.

### ***Link with the sector***

According to the Market News Service Manual (Instruction 932-1 DE FH), no one is obliged by law to furnish reporters with information. This service is based entirely on the voluntary cooperation of the business sector, transport agencies, and other entities. Experience has shown that voluntary cooperation is an excellent method of operation, so strong, cordial relations with the business sector should be supported.

It is recommended that the information be kept confidential. The business sector holds well-informed reporters in the highest regard but rapidly loses respect for those who leak information of a confidential nature.

Contacts in terminal markets or other places should be studied and information obtained about their operations, with as much background information as possible.

Shipping point reporters should maintain as many personal contacts as possible with the

components of the business sector. Frequently, buyers and shippers will phone or drop by the Market News offices during the day, often ready and keen to provide information they have collected. Buyers, including individuals hired by buyers, brokers or purchasing organizations to inspect products, make the rounds of packing ships, loading areas and cold storage facilities and are excellent sources of information on volumes available in peripheral areas, the quality on the different ships, the influence of the climate, and other news. A few well-formulated questions over the course of the day will give a reporter a great deal of background information on the state of the market.


Cultivate personal relationships with your contacts. At shipping points, the nature of the work means that opportunities to travel are limited, but every effort should be made to carry out visits to shippers and other contacts with whom you can share information as often as time constraints and funds permit. Ideally, you should visit each contact at least once a year to establish a satisfactory relationship with them and other people who will be furnishing you with information, especially if the reporter has recently been assigned to the district in question. It is essential that shipping point reporters visit their contacts at least every two years, unless ordered otherwise.

## **2. Analysis of the information**

After a reporter has checked the information collected, the next step is to validate it and enter it in the database. During this same stage, the reporter can identify any mistakes and information omitted during the collection of the data. Once the information has been checked and validated, the process of information analysis gets under way.

Through interviews and observation, wholesale market reporters gain an in-depth understanding of stocks and supplies, demand, activity, quality and condition, trends in the market and prices by state of origin, type of packaging, varieties, grades, sizes and other factors that affect prices.

Prices by themselves are of little value unless they can be associated with a specific description of the products concerned. Shipping point reporters compile this information by observation, although most is obtained by phone



calls. Thus, the analysis of the information actually begins during the collection process, as important components for the analysis become evident.

The Directorate of Agrifood Markets of Argentina's SAGPyA (n.d.) suggests that the information analysis needs to take into account the importance of accurately determining the makeup of large volumes. The aim is to extract the main pertinent and useful information that will lead to better decisions being taken. With that in mind, the relationship between producers and the consumers of processed information should be studied.

The key points involved in deciding what every political-strategic decision needs to achieve its objectives:

- The analysis should provide 90% of the support for the information processed for decision-making.
- Close relationship between analysts and decision makers.
- Responsibilities call for the best possible information.

Timely, good quality and easy-to-use processed information is required. The information evolves from the simple collection and reading of data to an interpretation of likely future trends. Here analysts generate intelligence from all the information and data in order to produce a specific output for decision-making. They draw on their professional expertise to organize what is available and summarize the contents before proceeding to draft reports designed to provide the knowledge that the user requires (SAGPyA, n.d.).

The report should be framed in simple, accessible, unambiguous language and presented in logical order. It should state clearly what is known and what is not known, and possible future developments if independent external variables do not emerge that change the scenario.

During this process, time is the main enemy, since decision makers require quick answers (the uncertainty factor).

The SAGPyA (n.d.) suggests that creativity is needed, combined with professional experience, methodological knowledge, training, and a sense of vocation for certain key tasks that the analyst must perform. Some points that should be borne in mind are:

- Users must be assured that the material sent is reliable.
- Every possible source open to the reporter must be explored and tapped.
- Access to alternative sources must be maintained.

The SAGPyA (n.d.) also highlights "impurities, noise and interference when the analysis is carried out," such as the following:


- Dubious quality of information sources
- Unreliable and inaccurate information
- Inability to prioritize
- Existence of preconceptions
- Failure to regularly review work methodologies
- Pressure groups
- Warnings of possible structural changes
- Underestimation of actors' tactics
- Overestimation of the importance of unfounded warnings
- Internal flow of communications: flawed and slow
- Missed opportunities for distributing the results.

The following points are added as the basis for "continuous improvement":

- Incorporation of new technologies
- Greater access to information
- Training
- Greater interaction with users
- Growing awareness by authorities

The following are some important aspects for agricultural market analysts to consider related to price setting and price information:

- a. Report on real sales. MIS do not establish the market conditions, although their reports can influence the market and the decisions of buyers and sellers. A sale is a reasonable indicator of the fact that buyer and seller have agreed to the pricing terms and conditions and the delivery schedule.
- b. Reporters should not be influenced by statements to the effect that “the price has been agreed upon but that is not the market price.” This should usually be taken to mean that prices will need to be lower to sell more or, conversely, that under specific special conditions a higher price could be obtained. Traders may regard such an argument as valid. On the other hand, market reporters must never quote prices outside the range within which products are actually sold. Nevertheless, a market reporter should not refuse to quote any large sale that is clearly legitimate simply because it is “outside the market.” The fact that a trader has achieved a good sale above or below market prices generally does not mean that their quotations should be excluded from the market report. As a rule, such data should be included but clearly stating that it was outside the general range. Do not assume that a big chain purchases at the bottom of the market price range, based on its volume or retail prices. Some of the large chains can, and do, pay top dollar.
- c. The prices or quotations requested during negotiations are not reported as market prices as no sale is involved and they are never included. In the case of certain unusual events (frosts or late harvests due to rains, etc.), an explanatory phrase should be used to describe the situation. Keep in mind the difference between “quotations” and “sales.”
- d. Often major purchasing organizations make bloc purchases with more distant delivery dates. The prices paid influence current trading and should be reported on the date of the sale, if the corresponding information can be obtained. Many companies are reluctant to report on their sales by contract. As such shipments are made, it may be necessary to mention them due to a difference in prices compared with the current market. They can be mentioned in the report on FOB (free on board) operations as “some current shipments at higher (or lower) prices under previous contracts.” The price level or range should be specified, where applicable. At shipping points, statements referring to sales under previous contracts are more likely to mention lower prices than higher prices. Buyers of large volumes are usually in a position to negotiate price adjustments at lower levels if market prices have fallen since the original bloc sale took place.
- e. The invoice prices that buyers must pay should be reported as market prices. Brokerage charges are not relevant. Reporters should not attempt to quote market prices as the net price to farmers/shippers or sales agents, unless it is the invoice price.
- f. In general, information about price adjustments is not reported once the market report has been published. Some adjustments are being made all the time but do not affect the performance of the market in general. Nevertheless, in the event that all prices are adjusted, the report should contain an explanatory comment, such as “some shippers adjusted yesterday’s sales based on today’s market prices.”
- g. Some purchasing organizations do not pay a higher price than the one that appears in the report. The buyers of those organizations may agree to pay a price above the recognized market price on the understanding that the price agreed upon is the one that appears in the market report. This is a problem for the reporter when deciding whether to include this kind of sale. If it is what is known as a “manipulated” sale, contingent exclusively on its appearance in the market report, it should not be used.
- h. Certain wholesale market receivers and shippers make a practice of billing at the highest market price, or above that price, and if pressured, lowering the prices later.



As a rule, market reporters should be aware of such practices, especially if employed over a period of time by the same people. In such cases, additional verification is required. Often, reporters who have gained the trust of sellers who make sales of this kind may learn the truth about the operation directly from them. Conditional sales of this type, which will almost certainly be adjusted later, or those that a buyer has not agreed to, should not be included in market reports.

- i. At shipping points, price protection is a marketing tool that is sometimes used when market prices are falling to stimulate sales of products that cannot find a buyer. In general, this occurs with highly perishable produce that cannot be stored for long. Farmers cannot control the level of supply at harvest time or prevent surpluses but stocks must be marketed. Due to those factors, sales staff are obliged to adopt a certain method of selling in order to move stocks quickly and prevent serious interruptions to shipments. Price protection is used to prevent abrupt falls from occurring in the market.
- j. Various statements can be used to report such situations in reports on FOB operations, the most common of which are: “some sales include price protection” or “some sales protected against a fall in prices.” The use of such phrases is questioned in some parts of the country; those who object to them argue that the practice further weakens the market. Those in favor of their use, on the other hand, believe them to be necessary so that impartial observers, such as market reporters, can describe what is taking place in the market. Another phrase often used by market reporters is “some

sales made at prices to be established later.” It should be borne in mind that market reporters have a responsibility to report on the market and market conditions as accurately as possible.

- k. Prices of shipments may vary depending on whether they are to be sent by air or by truck. In such cases, a special reference should be included to those that arrive “by air.”
- l. Price reports are used mainly to provide information about the current market; nevertheless, market prices are also used in many statistical documents. The ideal datum for statistical purposes is the weighted average of the prices included in the daily range. It is only possible to determine those prices in sales by auction, where the details of the exact quantities sold at each price are known. Average prices should never be given in market reports, unless they are real weighted averages.
- m. Sales to government agencies via bidding processes are not normally used as part of daily market quotations. In sales of this kind, companies submit bids in writing and sales are concluded based on the lowest price offered or according to some other criterion. The written bid system is slow and, therefore, does not form part of the current market. These prices can be included separately in market reports if they are of some value, but they should be kept separate from the report on FOB operations. On the other hand, direct purchases by the Department of Defense or government buyers in the shipping area or terminal market should be included in the price range, like those of any other buyer.



### 3. Dissemination of information

#### a. General considerations

Communications media, such as radio, newspapers and television, should be important dissemination tools used to ensure broad coverage of the information generated at little or no cost. The staff of the information system should maintain close contact with the media to guarantee the reporting of information and secure expanded coverage.

#### b. Policy

All information generated by the market information system should be available to users through different media, including:

- E-mail
- Web page
- Phone
- Fax
- Phone answering machines
- Communications media (newspapers, radio)

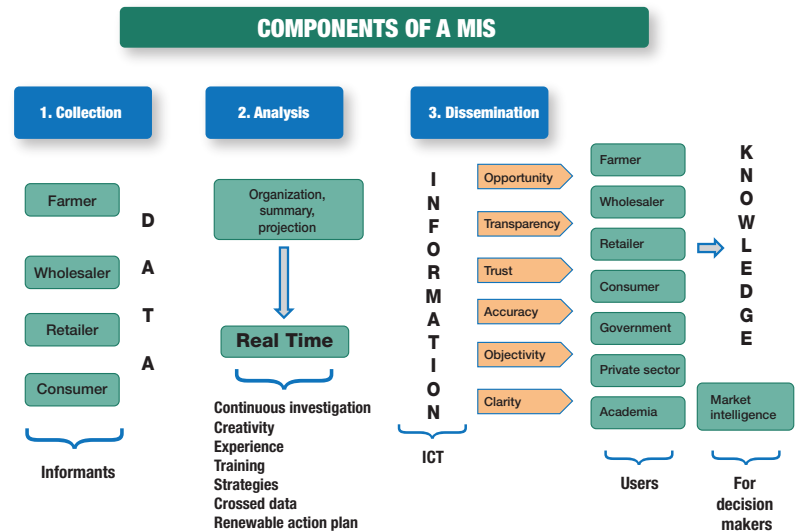
The frequency with which information is disseminated depends on the reporting schedule (daily or weekly reports). The information system should maintain a database of the users of reports and how they receive the information.

#### c. Dissemination of information

- *Web page and e-mail:* the information generated will be published on the system's Web page

and sent to interested users by e-mail.

- *Radio:* an important medium for the rapid and wide dissemination of information, especially among small farmers. Market information is broadcast daily according to a specific schedule so that users can keep abreast of market trends and other important factors.
- Use of the press or written media is another important way to disseminate information. The staff of an information system should be in a position to prepare special reports for dissemination in newspapers.
  - *Press associations:* information systems can obtain excellent coverage of the information they generate through these organizations, which have an extensive communication system and a large number of subscribers who work for newspapers and radio and television stations. Brief market reports should be prepared for such stations containing information of interest and of value to subscribers.




Graphic: Frank Lam



# VI. Best practices of a MIS





During the period 2005-2006, the MIOA decided to conduct an assessment of the agricultural market information systems (MIS) of the 19 countries that were members at the time, with the following objectives: to establish a baseline for each country; to help identify appropriate partners; to share information and experiences; and to build capacity.

The assessment was carried out by Dr. Gilberto Mendoza, who also undertook an “Evaluation Study of Best Practices in Agricultural Marketing Information Systems” for the MIOA. By 2014, evaluations had been conducted for the 33 MIOA member countries.

The purpose of the study was to learn about and evaluate the activities of the MIS known as “best practices” in the implementation of activities. Dr. Mendoza defined the term “best practices” as the activities carried out by a MIS that are done in the best way possible. Alternatively, he said that it could be a set of recommended procedures for carrying out the work of a MIS work that could be adopted to improve operations and reduce the learning curve in achieving objectives.

Criteria were established for evaluating the “best practices,” also known as “good practices,” used in three components of the work of the MIS:

- a) Data gathering
- b) Data analysis
- c) Information dissemination.

The MIOA regards the following as the three components of an agricultural market information system.

- a) Data collection
- b) Information analysis
- c) Information dissemination.

The list of variables regarded as “best practices” can also be thought of as the ideal standards that need to be achieved if a MIS is to perform well.

A total of 24 “best practices” were identified. Each one has a set of variables and elements related to what has been termed a “checklist”. Analysis of each of these variables makes it possible to verify the performance of a MIS in carrying out its activities, or “practices.”

With this information, a MIS can find out whether it has a good procedure for achieving its core objective of providing efficient market information.

The 24 best practices identified were broken down as follows:

- for data collection
- for data analysis
- 10 for information dissemination

Seventy variables related to the 24 practices were identified for the checklist under the same three groupings:

- 14 related to data collection
- 26 related to data analysis
- 30 related to information dissemination

### *Stage I. Data collection*

**Best practice 1:** The MIS has an operating manual for data collection (a manual prepared in line with technical criteria that is appropriate for the level of development of the MIS; methodology for data gathering, number of samples, schedules, materials, sources of data, etc.)

Checklist:

- There is a written manual and it is consulted by market reporters.
- The instructions contained in the manual are followed. Internal controls are in place to ensure that they are followed correctly.

**Best practice 2:** A technical process is used to recruit market reporters, who are trained to perform the task.

Checklist:

- There are rules governing recruitment that are applied in hiring staff for the institution.
- There are rules governing training for new staff joining the service.

**Best practice 3:** Market reporters have logistical resources for performing their tasks. They participate in training events and activities organized to evaluate and tweak the MIS.

Checklist:

- Annual budget of the system provides sufficient resources for the normal operation of the service.
- There is a program of training events for reporters, including internships, evaluation seminars, etc.

**Best practice 4:** Market reporters have a list of qualified informants.

Checklist:

- There is a list of highly knowledgeable market agents.
- There is a basic list of informants that can be complemented with random surveys (according to the manual).

**Best practice 5:** There are rules governing the validation of the data gathered from sources other than the informants usually consulted, or from other informants.

Checklist:

- Written rules (set out in the manual or elsewhere) or routine practices adopted by the service.

**Best practice 6:** The MIS has conducted a study of the chain of the main products to garner technical input for determining the data collection points and price levels (farmer, wholesaler, retailer, international entities, etc.).

Checklist:

- One or more authorized studies are available, conducted by the MIS or other parties, to guide the process of choosing sampling and data collection points.

- The MIS draws on authorized national assessments and research on the food system, which provide technical input for determining the sampling and data collection points.

- If no research or assessments have been carried out, the MIS at least makes efforts to seek suitable information for ascertaining marketing trends, in order to update its data collection methodology and not fall into a routine or fail to innovate.

**Mejor práctica 7:** The MIS gathers price information and complements it with observations, volumes and other market information (trends, analysis of the short-term situation, etc.).

Checklist:


- The MIS manual establishes the different information components. If not, there are plans for the development of the MIS that establish modules and components for the information to be provided under the “markets” variable.
- The MIS has information on prices and other data from foreign markets, including exchange prices in neighboring countries.

## *Stage II: Data analysis*

**Best practice 8:** The MIS has manuals on data processing and instructions for the different tasks involved in adding value to the data.

Checklist:

- There are general instructions for processing data after it has been collected and until it is delivered for dissemination.
- There is an up-to-date manual on the computerized processing of data; and instructions with figures and instructional forms tailored to computerized systems.
- There are instructions for storing data and statistical processes, prepared in consultation with experts. (Some MIS have leaflets explaining statistical processing methods that are not part of a complete manual).
- The technical officers responsible for processing the data are familiar with and use the manuals and instructions.



**Best practice 9:** The MIS keeps an up-to-date list of products, varieties and units of weights and measures, based on the markets' records, in order to organize and publish the information.

Checklist:

- A document is used to record the information on products by type of market, with classification by groups, varieties, product packaging (weights and measurements), updated as the market evolves.

**Best practice 10:** The MIS uses a computer program to manage the information in an organized, efficient way.

Checklist:

- A computer program structured for databases is used.
- The program permits primary data to be entered and processes data.
- The program is tailored to the operating skills of the staff of the MIS (language, access).

**Best practice 11:** The MIS has the capabilities required to update and maintain the computer program used to process the data, either purchased or developed internally.

Checklist:

- Economic or human resources are available to maintain and update the computer program.
- The program permits modifications to be made to the processing operation.
- The program includes modules for the management of related information, such as units of measure, packaging or containers, currency units.

**Best practice 12:** The MIS uses a computer program to process the data and share it freely in a standard data format compatible with other computer programs.

Checklist:

- The computer program has modules for consulting data other than the standard report generated.
- The program allows the user to extract or export data for incorporation into other platforms.
- The data exported can be extracted using the program, or is compatible with other database software.
- The data exported can be extracted using the program or is compatible with spreadsheets.

**Best practice 13:** The MIS uses a computer program for information management that makes entering data simple and easy, keeping typing errors to a minimum.

Checklist:

- The computer program has a special module for entering data.
- The module for entering data is easy to read and operate.
- The module for entering data includes validation of the information.

**Best practice 14:** The MIS uses a computer program that makes it possible to generate and modify the reports for dissemination of the information (print copies and electronic files).

Checklist:

- The computer program automatically generates standard reports.
- The computer program allows changes/adjustments to be made to reports.
- The program allows users to create new reports or the MIS has the capacity to modify

- the program used to generate reports.
- The program allows users to print reports.
- The program allows users to generate reports in the form of electronic spreadsheet files.
- The MIS has programs for creating electronic documents in standard formats.
- The program has a module for the interactive consultation of information.
- The program has a module for interactive consultation via Internet (on a Web page).

### *Stage III: Dissemination of information*

**Best practice 15:** The MIS promotes the system. It has a clear policy aimed at encouraging the dissemination of information, to expand the scope of its action and secure more clients and users.

Checklist:

- There are documents (manuals or instructions) in which these policies are defined. Service staff refer to the instructions when they need to incorporate users or promote the system with a view to expanding the list of beneficiaries.
- The MIS holds promotional and training events for users and potential clients to ensure they understand the bulletins, know how to interpret the information, and gain confidence as users.

**Best practice 16:** The MIS generates reports in a format that makes them easy to read and displays the content in an orderly manner.

Checklist:

- The MIS has the support of a social communicator or professional who contributes methodologies for presenting information in user-friendly formats for the general public.
- The MIS's report is presented in a way that is easy for users to understand.
- Each report includes a description of its content that is easy to understand (the description should preferably appear at the beginning of the bulletin or publication. If placed at the end or in a footnote, it should be complete and understandable).

- The report format is more like that of a “market news” report than a series of charts of statistical information.

**Best practice 17:** The MIS makes it a policy to always distribute the reports among its market informants.

Checklist:

- There is a policy for disseminating bulletins and data among the MIS's informants. A reporter or another member of staff regularly gives them printed copies of the bulletins or delivers them in some other format.

**Best practice 18:** The MIS keeps an updated register of the users who receive the reports.

Checklist:

- There is a policy calling for review and updating of the register of users.
- There is a register of users. The register of users is updated.
- There is a mechanism for verifying that users have received the reports.
- The register of users is confidential, to protect personal information.

**Best practice 19: : In the MIS register of users, users who are natural clients of the service should be listed separately from those who request reports for other reasons.**

Checklist:

- There is a register of “natural users” of the service (voluntary users). Natural users are those operating in the market (farmers, traders, market agents, processors, cooperatives, etc.).
- There is a register of beneficiaries to whom the information is sent who are not necessarily registered users of the service. Anyone can be a user of the service (some may be required to pay for it, however).

**Best practice 20:** The MIS uses communications media tailored to the natural users of the service, to ensure they have effective access to the reports.

Checklist:

- Users are classified according to the medium via which they receive the information. Users can select their preferred method for receiving the information.
- Various methods of dissemination are available to users: Internet, printed copies of reports, fax, radio, TV, newspapers, phone, etc.
- The MIS prints copies of reports for distribution among users.
- The MIS has the resources required to distribute printed copies efficiently.
- The MIS generates electronic versions of reports to distribute among users, or which users can access via the Web page.
- The MIS has the resources required to generate and distribute electronic versions of the reports.

**Best practice 21:** The MIS has a Web portal that is an important tool for distributing the information.

Checklist:

- Website designed and managed by experts supported by communicators who act on the suggestions and characteristics of clients or the “natural users” of the MIS in the country.
- Website is easy to access, the content is illustrated efficiently, and it is friendly and practical to use.

**Best practice 22:** The MIS establishes links with, and quotes, other information sources that complement the information on prices and markets.

Checklist:

- There is a policy for links with other information sources and for offering users a better service.
- Effective mechanisms are in place to complement the service’s work and Web links to other pertinent information sources. Data from reports of other authorized sources is quoted.

**Best practice 23:** The MIS consults the service’s natural users about the format and content of reports in order to ensure they are tailored to their needs.

Checklist:

- A policy or mechanism exists for communication with traditional and non-frequent users and those not registered with the service.
- Quality control mechanisms are in place and modifications are made to the system based on feedback from users and other groups.

**Best practice 24:** The MIS evaluates or receives opinions on the quality of the service


Checklist:

- A policy exists for control of the quality of the service offered.
- The quality policy is implemented or applied. Users are consulted about the quality of the service often or at scheduled intervals.
- There is a procedure for dealing with complaints and suggestions.
- The procedure is followed in dealing with complaints and users receive a reply. A record is kept of complaints made and replies sent.
- The service acts on the suggestions and recommendations made by users and other groups involved in the agrifood system.



# VII. ICTs and MIS





The received wisdom is that the term “information and communication technologies” (ICTs) refers to the sophisticated IT-based technologies developed over the last two decades, but the term also encompasses “old” communication tools like television, radio and telephones.

A useful definition of ICTs is provided by the United Nations Development Programme (UNDP 2002): “ICTs are basically information-handling tools - a varied set of goods, applications and services that are used to produce, store, process, distribute and exchange information.”

The following is another, more specific definition:

Theoretically speaking, information and communications technologies (ICTs) are thought of as the set of technologies that make possible the acquisition, production, storage, processing, communication, recording and presentation of information in the form of voice, images and data contained in acoustic, optical, or electromagnetic signals. Electronics is the core technology of ICTs, supporting the development of telecommunications, information technology and audiovisuals; as well as communications media of all kinds - mass media and traditional interpersonal communications media with technological support, such as the telephone, the fax machine, etc. (Marquis 2010, in Anzola 2014:74).

The integration of ICTs into the agricultural sector, which so far has been very limited, is a matter of great concern to the community, since information management is a factor in many of the long-standing challenges faced by the region’s trade and food production systems (such as fragmentation, isolation, and the lack of technical support and adequate marketing).

If used effectively, ICT applications and systems that facilitate the production and exchange of accurate, timely information can improve efficiency and productivity and bring

about significant advances in the region’s agriculture sector.

Some areas in which ICTs can improve the sector are as follows:

- Coordination of production efforts.
- Matching of opportunities and suppliers.
- Market intelligence for the analysis and use of information by extra-regional markets.
- Assessments of the impact of diseases on different types of crops.
- Agricultural storage and projection of crop yields, as well as availability for the market.
- Access to clients’ preferences and information on aggregate demand.
- Access to information on the productivity of different farming methods.
- Access to knowledge on climate-related farming methods.

Improvements in most of the areas described above would result in a significant increase in the sector’s productivity at the national and regional levels. Such improvements can only be facilitated by integrating ICTs into existing development frameworks in order to reap the benefits of enhanced information and communication capabilities. Once integrated into sector development programs, ICTs can play a key role in increasing the productivity and market reach of the region’s agribusinesses.

Greater integration of ICTs into agriculture can also be used to reenergize the efforts of the State and the private agricultural sector. However, the positive impact at the regional level depends on a harmonized strategy for the integration of ICTs that includes aspects such as:

1. Regional sectoral priorities.
2. Protocols for the integration and use of ICTs.
3. Protocols for the coordination of inclusive ICT-based initiatives in policy, infrastructure and human resource development.

4. Guidelines for national ICT program to complement regional objectives.

ICTs are used to disseminate market information, specifically prices, mainly through:

- a. Boards located in the principal markets, where the latest prices are posted transparently. The information is available to the public, buyers, and sellers.
- b. Cell phones. Many MIS use cellular telephony to communicate the prices of certain agricultural products. Users subscribe to the MIS to receive the information. Unlike the previous method, the information is only available to subscribers.
- c. Internet. The dissemination of prices via the Internet has become an inexpensive way for MIS to distribute data widely. The information is usually made available on the MIS's Web page in real time or immediately after it has been collected. Dissemination is not limited to the country concerned. It also allows users to key in data, collect information, and conduct research; and to perform administrative tasks, update registers, and communicate with interest groups by e-mail.
- d. Social media (Facebook, blogs, Twitter, etc.). Nowadays, all sectors use these technologies to disseminate information to interested parties and to collect data.
- e. Local media. Many MIS disseminate market information via the written press, radio and television. This kind of strategy calls for a process of negotiation with the media and often involves an extra cost for the MIS.

Sylvester et al. (2013) note that information asymmetry has traditionally constrained smallholder farmers' access to markets. With regard to ICTs, they consider that the difficulty of adopting modern technologies inhibits the capacity to enhance the productivity of smallholder farms. However, they suggest that improved access could reverse the current scenario of poverty in which some are trapped because they are unable to market their products.

In the study, the Propensity Score Matching (PSM) technique is used to evaluate the impact of

ICT-based participation through a project market information service (MIS) on farm input use and land productivity in Kenya. Specifically, Sylvester et al. found that participation in their ICT-based MIS project had a positive and significant impact on the use of seeds and fertilizers. It also improved land and labor productivity, but had a significant negative impact on the use of hired and family labor. These findings have vital political implications regarding the use of the ICT tools as a development strategy.

In his assessment of the MIS, Mendoza (2005:39) suggests that they do not need a budget for paid announcements in the media but rather good products that can be promoted among potential buyers. The information system's clients (farmers, traders) will call on the media to disseminate news about prices and markets, just as they request information on the exchange rate, the weather, and various types of events, which all readers or listeners expect to find available.

The U.S. Market News Service handbook (LGMN Instruction No. 933-1) states that MIS should disseminate the information as quickly as possible, making it available to all interested parties. Of the various methods that exist for disseminating the information published, the following should be given priority:

- a. Dissemination via electronic media.
- b. Use of answering machines.
- c. Preparation of information for newspapers, radio stations, and press services
- d. Responses to requests from the sector
- e. Dissemination by fax
- f. Reports sent by mail

### **Importance of the media for MIS**

The press, radio, and television should be the principal tools used to complement the regular means of dissemination, to achieve broader coverage of the information at little or no extra cost to the government.

In many rural areas, farmers receive a newspaper at the entrance to their establishment hours or days before they receive a report through the mail, and some farmers do not have fax machines or access to the information generated by their country's



MIS. A large percentage subscribe to a daily newspaper and the market report it contains could provide them with the information they require, with no need to receive a report by mail.

Therefore, market reporters in the field office should contact the local press before issuing their first report to determine whether the media are interested in publishing market reports. Terminal market reporters should contact the editors responsible for financial and/or agricultural topics at the different newspapers to find out whether their publications circulate in rural areas and if they would be interested in market reports.

Radio plays a very important role in the rapid dissemination of MIS information. The main press associations provide instant communication services with regard to information from markets for radio and television stations, and newspapers. Some stations have several scheduled daily broadcasts to furnish farmers in their area with regularly updated full details of market trends and other significant changes in market conditions.

In practically all surveys conducted, rural listeners stress the importance of the radio for rural dwellers.

It is suggested, therefore, that reporters do not give preference to one radio station in particular.

Stations can call and record information from answering machines for broadcasting. It is worth noting that automated answering machines are used in many offices to complement other methods of dissemination. The use of answering machines benefits the public. The machines also afford immediate access to up-to-date information, thus reducing the number of requests for information by phone.

It is suggested that the recorded messages be brief and specific. It is not necessary to include data on bases of sale, full descriptions of origin, packaging, etc., which is required for reports that are published.

Most answering machine users are familiar with the products and are only interested in obtaining the most recent market information.

Answering machines can be updated during the day to provide the most recent information available.

Television's usefulness as a means of disseminating market information has declined, but fruitful contacts could be maintained with producers of programs on food and agricultural production, especially those of local interest.

It is worth bearing mind what is stated in the article "The role of information and communication technologies (ICTs) in the improvement of agricultural value chains," which appeared in IICA's e-agriculture bulletin.

Several experiences in the region (e.g., Uruguay and Chile) show the importance of promoting public policies and fostering partnerships (public, private and civil society) to reduce the rural digital divide and to improve competitiveness in value chains while expanding access to communications infrastructure, developing services and content focused on value chains, promoting a culture for the appropriation of ICTs in rural areas and developing information literacy from primary education. In addition, it is beneficial to promote the exchange of experiences between producers and agro-entrepreneurs in the use of ICTs to improve their processes. (...)

The private sector is and will be one of the main promoters of ICTs, especially among those levels of the agrifood chain that have the potential to offer additional benefits (distributors, retailers, brokers, etc.), which in turn will have a positive effect throughout other levels of the value chain (primary producers).

The growth and penetration of mobile ICTs in rural areas (especially mobile phones), and innovations in electronic media to support education and training (e-learning), represent new opportunities to increase the development of human and social capital, among other aspects. Mobile ICTs can contribute to the strengthening of relations between stakeholders in the value chain; it is possible to promote the “culture” of the use of ICTs through ‘e-learning’, as well as the development of

information skills of different stakeholders in chains.

The future impact of ICTs in improving competitiveness of agrifood chains is very promising. Issues such as traceability, process control, transparency in market information, reduction of transaction costs, and identification and tracking of consumer needs, are only a few examples that illustrate its importance (pp. 3-4).



# VIII. MIOA



## 1. Consolidation of MIS in the MIOA member countries<sup>2</sup>

MIOA is a network for cooperation on training, and comprises government institutions or institutions linked to government, whose functions or main objectives are to compile, process, and disseminate information on markets and agricultural products.

The principal objectives of the MIOA network are the following:

- Promote cooperation among member institutions and facilitate the exchange of knowledge and experiences with respect to collection and dissemination of information.
- Help create standards in matters of terminology, methodology and technology to be used within the network.
- Facilitate timely and systematic exchange of market information among member institutions.
- Act as a channeling point and provide a multiplier effect for obtaining financial support from international aid agencies.

The MIOA network is defined as a catalyst entity for common efforts geared toward the objectives that have been set. These objectives arise from needs and concerns coming from the institutions that are a part of the network, and that are expected to be resolved with the resources of the members themselves and contributions from national and international cooperation agencies.

The member institutions of the MIOA network represent 33 countries throughout America. They all have direct links to the generation of information from agricultural markets in their own countries, either at the level of pricing for agricultural products, or at the level of market analysis and projections, or both.

In order to become a member of the network, the institutions should be governmental bodies or entities linked to government, and should have as their functions or principal objectives the compilation, processing, and dissemination of data related to the markets and to agricultural products: They have also signed a letter of agreement which outlines the official nature of their incorporation.

The strategic plan for the period 2016-2018 is:

### Mission

Boost the competitiveness of agriculture by promoting and facilitating access to, and the transparency of, its member countries' agricultural markets by connecting and integrating the members through a flow of experiences, knowledge, information and services intended to improve the capabilities, quality and transparency of information system services throughout the Americas.

### Vision

Be a leader in agricultural market information and intelligence, recognized worldwide for the development and integration of the MIS in the Americas.

### Purpose

Facilitate the timely and constant exchange of information from agricultural product markets among the members of the MIOA.

### Beliefs

- Market information is a public good
- Cooperation leads to shared benefits
- Exposure to new ideas and practices stimulates continuous innovation and improvement
- Timely, reliable and unbiased market information is essential to an efficient agricultural marketing

*1. Promote and position the Agricultural Market Information Systems and MIOA at national and regional levels, as tools to improve market intelli-*



## *gence and transparency throughout the Americas* Strategies

Develop a communication strategy for the promotion and financial support of MIS and MIOA.

- Develop a communication strategy for the promotion and financial support of MIS and MIOA
- Establish educational strategy aimed at decision makers at national, regional and global level on role and importance of agricultural market information and MIOA.
- Promote and facilitate the sharing of strategic information with critical stakeholders from the public and private sector at the national, regional (CARICOM, CAS, CAC) and hemispheric (IABA-FAO) events.
- Enhance and foster strategic relationships with private and public organizations.

### *2. Strengthen the institutional capacity of agricultural market information systems in MIOA member countries.*

- Conduct assessments of MISs to identify challenges and opportunities for improvement.
- Develop tools to support capacity building in data collection, analysis and dissemination of market information.
- Identify, develop and share Information and Communication Technologies (ICT)

### *3. Expand and improve the quality of the services of national agricultural market information systems*

- Identify and prioritize critical needs for enhancing market information services of the member countries.
- Establish strategic alliances with universities, public and private sector and experts with relevant knowledge and experiences.
- Share experiences, best practices and innovations
- Develop information and communication technologies (ICT) to facilitate the sharing of information

### *4. Ensure the sustainability of MIOA*

- Explore options for alternative sources of financial support
- Develop projects with strategic partners for financing.
- Develop promotional materials and communication strategies

## **History**


The idea of creating this network was conceived and supported by the Agricultural Marketing Service of the Department of Agriculture of the United States. This idea was based on one of the principal objectives of the AMS, which is to facilitate efficient agricultural product marketing in national and international markets. A principal objective of this effort is the creation of market transparency, that is, all the participants in the market have access the network, i.e., to reliable and impartial market information.

The AMS has worked for years to provide access to information on international markets to its clients. In many cases, this implied providing technical assistance to countries with emerging markets. The agency had access to information on the international market mainly through bilateral discussions, negotiations and agreements. Given the number of commercial partners, especially in the Americas, the AMS has sought ways of increasing its efforts, improving its efficiency in access, and focusing on the development of some coherence in terminology and methodology among cooperating countries.

The most logical environment for access to information about the markets of several countries was to establish an informal organization of information specialists in the market of several nations, as well as the National News Bulletin Market Association located in the U.S. This organization would provide an excellent way to access not only information on the international market, but also information for creating a forum for standardizing the methodology, terminology and technology used by several market information programs.

Since the AMS had relationships with a number of countries in North, Central and South America, it was decided that the initial effort in establishing a better organization would focus on the countries of the Americas.

Based on the above, the AMS was the headquarters for the founding meeting of the Market Information Organization of the Americas, in Oakland, California, from August 19-23, 1999 in the National News Bulletin Market Association (42<sup>a</sup>). Thirteen countries came together for this meeting and firmly supported the idea of creating an organization to facilitate the timely exchange of market information among the countries of the Americas. These countries are: Argentina, Brazil, Canada, Chile, Colombia, Costa Rica, Ecuador,



El Salvador, Mexico, Panama, Peru, the United States of America and Venezuela. The group established an initial action plan and several working groups or committees. The countries committed to a one-year period for formalizing the creation of the Organization. The Adjunct Associate Administrator of the AMS - USDA, Eric Forman, acted as Chairman until the organization met again for the inaugural meeting in Rio de Janeiro, Brazil, on June 11-13, 2000.

This transparency makes it possible for buyers and sellers of agricultural products to take informed marketing decisions, and identify market opportunities.

The inaugural meeting of the MIOA was very productive. The rules of procedure were determined, working groups were established and a site for the next meeting was selected. The benefit of the association of market information specialists in the countries of the Americas was evident, as evidenced by the identification of counterparts in countries throughout the hemisphere and by the rapid exchange of market information, ideas and experiences.

#### **Rules of procedure**

1. Affiliation
2. Executive Committee
3. Technical Secretariat
4. Observers
5. Sessions
6. Agenda
7. Voting and procedures
8. Documents and reports
9. Subsidiary agencies
10. Recommendations on methodology and procedures
11. Budget and expenditures
12. Languages
13. Amendments, additions and suspension of rules
14. Entry into force

#### **Statement of Purpose**

In recognition of the importance of transparency in the agricultural product markets for their effective operation, the MIOA was established as a cooperation network that promotes the exchange of information on agricultural markets and provides recommendations and technical assistance to its members with respect to technology, methodology, and administrative procedures that are appropriate for the collection, processing, analysis and dissemination of information on agricultural markets.

#### **Organizational structure**

- The Executive Committee was created to function on behalf of the Organization as its executive body between sessions of the Organization. The Executive Committee makes proposals with respect to the general orientation and the program of work of the Organization, examines special problems, and assists in carrying out the approved program. It also implements the policies and priorities set, and reports to the Organization on its activities.
- The Executive Committee comprises up to a maximum of seven Members, five of whom represent the Regions of the Americas that are part of the MIOA (North, Central, Caribbean, Andean and Southern Cone). The regional representatives are elected by the countries of that region. The sixth member is the Ex Officio President of the Organization and the seventh member is from the host country of the next regular meeting of the MIOA. The host country is an additional member of the Executive Committee until the conclusion of that regular meeting, as long as none of the other members of the Executive Committee is from the host country.

## Members

- In order to become a member of the MIOA network, the institutions must be governmental entities or entities that are linked to the government. Their function or principal objective must be the collection, analysis and dissemination of information related to agricultural markets and products. Additionally, they must sign a Letter of Understanding attesting to the official nature of their incorporation.
- Membership within the Organization is open to all national organizations or institutions (public or private) in South, Central and North America, and in the Caribbean, that have been designated by the national authority, and which regularly collect, compile and disseminate information about agricultural markets.
- Currently, there are 33 MIOA members throughout the Americas. Each one of them is directly linked to the agricultural market information system within their own country, either through pricing of agricultural products or through market analysis and projections.

Region	Member countries
Northern Region	Canada, United States, and Mexico
Central Region	Belize, Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica and Panama.
Southern Region	Brazil, Paraguay, Uruguay, Argentina and Chile.
Andean Region	Colombia, Ecuador, Peru, Bolivia.
Caribbean Region	Antigua & Barbuda, Bahamas, Barbados, Dominica, Dominican Republic, Grenada, Guyana, Haiti, Jamaica, Saint Lucia, Saint Kitts and Nevis, Saint Vincent and the Grenadines, Suriname, and Trinidad and Tobago.

## Achievements

- Over the 13 years since the creation of the MIOA, the following achievements have been recorded:
- Formal creation of the Organization in 2000.
  - Development of a Website with links to all member countries.

- Development of professional and personal relationships between market information specialists.
- Exchange of information, such as:
  - o Impact of natural disasters.
  - o Availability of new products.
  - o Changes in regulations.
  - o Market intelligence.
  - o Food security.
- Provision of information in response to specific requests.
- Numerous bilateral and multilateral efforts in technical assistance and exchange of specialists.
- Evaluation of MIS in the member countries to facilitate their use as a baseline.
- Development of the document “Best practices in Information Systems.”
- Strengthening of capacities of administrators of the information systems.
- Two hemispheric workshops for MIS administrators.
- Several regional workshops for capacity building among market reporters and data collectors.
- Development of professional and personal relationships between market information specialists in the Americas.
- Broad and increasing acknowledgment of the MIOA as the world leader in MIS for agricultural products.
- Continuous efforts as an Organization supporting technical assistance and capacity building in national and regional projects for other Organizations.
- Promoting the importance of accurate and timely information from agricultural markets in order to: a) obtain information; b) analyze it correctly; and c) disseminate it.
- Improve the visibility and value of Information Systems in the member countries.
- Strengthen the focus on service to the users and quality control.
- Recognition by and support from the Ministers of Agriculture at the 2011 IABA Hemispheric Meeting:
- Ministerial Declaration: “Support the work of the MIOA in order to promote greater collaboration between the Member States on innovative ways to collect, process, analyze, and disseminate information relating to markets and agrifood commodities, thereby fostering greater market transparencies and efficiencies.”

## 2. IICA in the MIOA

Since 2004, the Inter-American Institute for Cooperation on Agriculture (IICA) has been functioning as the Technical Secretariat of the MIOA through the Inter-American Program for the Promotion of Trade, Agri-business and Food Safety, located in Miami, Florida.

For the achievement of its objective, the MIOA, together with IICA as the Technical Secretariat has carried out strategic actions, the most notable of which are the following:

- Hold regular meetings of the MIOA and special workshops.
- Support the bilateral and regional exchange of specialists.
- Review and disseminate best practices identified in the evaluation of the agricultural market information systems (MIS) in order to support and guide initiatives for improvement in the member countries.
- Support efforts to provide technical assistance to similar organizations.
- Forge institutional partnerships based on the actions for improvement that were identified in the MIS evaluation.
- Identify and prioritize technical assistance projects.
- Define a process to develop relationships with international donor organizations in order to carry out those technical assistance projects identified as priority.
- Promote mutual collaboration and exchange of knowledge among the member countries of the regions that are part of the MIOA.
- Develop an internationally recognized procedures guide for use in the MIS.
- Design a program of hemispheric and regional workshops for administrators, based on best practices identified during the evaluation of MIS.
- Promote the development of specialized training workshops for data collectors and market reporters for the standardization of procedures and services.
- Promote in MIS the development of areas and professionals specializing in analysis of domestic and international markets, and develop training workshops.

## 3. What next for the organization?

- Develop and establish a process to ensure that are long-term results from MIOA's work: political and financial backing.
- Promote greater support and collaboration among the member countries.
- Continue the activities related to technical capacity building in order to strengthen the market information systems in the member countries.
- Develop and continue partnerships with organizations such as: IICA, FLAMA, WUVM, CTA, FAO, CARICOM, UNCTAD, IDB, USAID, SIECA, CAC, CAN, CAS; among others.
- Support the commitment of the G-20 with respect to agricultural market information systems.
- Work toward the creation of a World Agricultural Market Information System Organization.

# IX. MIOA Member Countries



# Northern Region

## Canada

### **Institution**

Agriculture and Agri-Food Canada (AAFC) Canada

### **Description of the Institution**

Agriculture and Agri-Food Canada (AAFC) provides information, research, technology, policies and programs to achieve a competitive and environmentally sustainable agriculture, proactively manages risk, and an innovative agriculture, agri-food and agri-based products sector. Provides relevant market information and intelligence to the agri-food sector to allow its members to make informed production, marketing and investment decisions to support a competitive, profitable and innovative sector

### **Services provided**

Designated units within AAFC collect directly or acquire/buy ad-hoc market information and statistics, and compile, analyze and disseminate them primarily through the Internet, and also via other direct means. The Global Analysis Division serves as a centre of expertise and coordination for the data, information and intelligence/analysis necessary to support Canadian companies in their efforts to identify and seize global market opportunities to ensure the long-term health of the agriculture and food sectors in Canada.

AAFC partners with industry and other government agencies in its markets intelligence activities and priority-setting, but focus on activities appropriate to the role of government (public good, unique information, otherwise available due to cost/time/expertise constraints).

### **Web page**

<http://www.agr.gc.ca/eng/industry-markets-and-trade/statistics-and-market-information/?id=1361289956531>

## Mexico

### **Institution**

National Information and Market Integration System (Sistema Nacional de Información e Integración de Mercados- SNIIM)

### **Description of the Institution**

SNIIM is the primary source of information on wholesale prices of agricultural and fishery products. It has become a basic tool for accurate decision-making by stakeholders in the production-marketing-consumption chain, who are interested in identifying business opportunities and improving the competitiveness of their businesses.

- Provide daily wholesale price information for agricultural and fishery products.
- Prepare analyses on price trends in the national market.
- Promote direct contact between producers and buyers of agricultural products, in order to shorten the marketing chain.

- Advise and guide economic agents participating in the production-distribution-consumption chain on marketing aspects.
- Contribute elements for designing supply and production policies.

### **Services provided**

SNIIM surveys, gathers, processes and disseminates wholesale price information on a daily basis for approximately 500 agricultural and fishery products. Quoted prices are obtained from 45 fruit and vegetable distribution centers, 77 meat processing and distribution centers, and 28 fish and seafood distribution centers.

SNIIM also processes, translates and disseminates information by AMS-USDA on agricultural and fishery products from 13 cities in the U.S., two cities in Canada and two cities in Europe.

SNIIM fosters direct links between producers and buyers of agricultural products by promoting online and in-person meetings (negotiating tables), a trade fair and exhibition calendar, and a directory of wholesale traders at distribution centers and fish and seafood centers.

### **Web page:**

[www.economia-sniim.gob.mx](http://www.economia-sniim.gob.mx)

## **United States of America**

### **Institución**

Agricultural Marketing Service (AMS) - USDA

### **Description of the Institution**

The Market News Service of AMS collects and disseminates price and supply data for agricultural commodities, both in the U.S. markets and in international markets of importance.

Services provided

The Market News Service tracks price, supply and other key factors in the marketplace and serves as a neutral third party in reporting the markets. The information is collected, analyzed and disseminated in a timely, consistent fashion via the media, the Web, through printed reports and recorded messages that can be directly accessed by data users. Market News also serves as the front line in terms of collecting important information on food supplies, markets and transportation services for government policy makers in times of severe weather or other significant events.

The AMS Market News Service Web page produces over 1,500 market reports that are updated daily, bi-weekly, weekly, monthly or annually depending on the report. Reports include: international and domestic wholesale market reports, movement reports (domestic shipments, crossing from Mexico and other imports) transportation costs and inventory reports, shipping point market reports including imported products, and other levels covered in the marketplace such as, retail advertised weekly specials, farmers auctions and farmers' markets, and other specialized reports on commodities.

### **Web page**

<https://www.ams.usda.gov/>



## Central Region

### Belize

**Institution**

Belize Agri-Price Information System (BAPIS)

**Description of the Institution**

BAPIS generates, analyzes and disseminates reliable market information through gathering of prices of agricultural products, related to the production and marketing of agricultural commodities

**Services provided**

Provide weekly bulletins on market price performance. The unit also collects production data, regional basic grain production and fuel prices.

**Web page**

<http://www.agriculture.gov.bz/>

### Costa Rica

**Institution**

National Production Council (Consejo Nacional de Producción-CNP)  
Agricultural Marketing Program (Programa Integral de Mercadeo Agropecuario (PIMA)

**Description of the Institution**

The Agricultural Market Information System function is to promote the competitiveness of agribusinesses and their inclusion in trade circuits by providing marketing services such as business management, commercial management, market systems and information, and quality and safety management.

**Services provided**

- Keep the Domestic and International Prices System updated.
- Establish warning systems for changes in market conditions and market access.
- Provide market information to all levels of the agrifood sector.
- Provide timely information that has been adapted to fit the needs of Institutional Supply Program (PAI) producers and clients.
- Develop training programs on the use of information for decision-making.

**Web page**

[www.cnp.go.cr](http://www.cnp.go.cr)  
[www.pima.go.cr](http://www.pima.go.cr)



# El Salvador

## **Institución**

General Directorate of Agricultural Economics, Ministry of Agriculture and Livestock (Dirección General de Economía Agropecuaria-DGEA, Ministerio de Agricultura y Ganadería -MAG).

## **Description of the Institution**

The DGEA is an operational unit of the Ministry of Agriculture and Livestock, the General Directorate of Agricultural Economics is responsible for researching, generating, analyzing and disseminating timely and accurate statistical agricultural and market information at the national level, to facilitate decision-making processes by the sector's various financial institutions.

## **Services provided**

- Defining the standard methodology to be used by market reporters to compile statistical information about marketing, prices and trends of the main agricultural products and supplies.
- Creating documents and reports on prices and marketing of the main agricultural products and supplies.
- Recording the daily prices of agricultural products in the Agricultural Markets Information System (SIMAGRO) database.
- Processing and analyzing the aforementioned data and disseminating the information via the website and email, for any stakeholders in the sector who have requested this information.

## **Web page**

[www.mag.gob.sv](http://www.mag.gob.sv)

# Guatemala

## **Institution**

Planning Directorate of the Ministry of Agriculture, Livestock and Food. (Dirección de Planeamiento – DIPLAN- del Ministerio de Agricultura, Ganadería y Alimentación –MAGA-).

## **Description of the Institution**

Planning Directorate of MAGA is the technical support entity responsible for designing, reviewing and updating the Sectoral Policy and its corresponding implementation instruments, as well as carrying out planning, programming, monitoring, strengthening, modernization and international trade processes.

## **Services provided**

- Prices of carriers and rural distribution centers: Information on prices for basic grains; carriers and producers supply information regarding distribution center prices.
- Wholesale prices: Daily information on the main wholesale markets in Guatemala City, which are representative of other markets and determine nationwide prices.
- Consumer prices: daily information on consumer prices in the same wholesale markets; used as a reference, since other state entities regulate this data. The MAGA offices in each of the 22 departments monitor prices in the main market of each department on a weekly basis.
- Prices in production areas: Using information provided by FAO/GUATEMALA for corn and bean, which is obtained on a weekly basis at the community level and disseminated via a monthly report.
- Monitoring of international prices for the main products
- Ordinary and extraordinary reports: weekly reports, monthly reports, price yearbooks, historic price records.
- Production and international trade information: Agriculture in numbers, status reports on corn and bean crops, meetings about quotas, negotiations and the management of treaties that influence the prices of certain products; support for the agribusiness system and production chains, analysis of national and international trade and trade intelligence.

## **Web page**

<http://web.maga.gob.gt/diplan/>



## Honduras

### **Institution**

Market Information System of Agricultural Products of Honduras (Sistema de Información de Mercados de Productos Agrícolas de Honduras-SIMPAH).

### **Description of the Institution**

Collects and disseminates information of wholesale prices of agricultural products in the main markets of Honduras. It also performs monitoring and analyzing the behavior of wholesale prices and provides technical assistance in using the information generated by SIMPAH.

### **Services provided**

Collects, processes, analyzes and disseminates information of wholesale prices, by reporting and advertising spots, to different system users and media.

### **Web page:**

[www.fhia.org.hn/simpah/simpah.html](http://www.fhia.org.hn/simpah/simpah.html)

## Nicaragua

### **Institution**

Ministry of Agriculture and Forestry

### **Description of the Institution**

Provides information of the agricultural and forestry sector to support decision making to economic actors involved in the development of the agricultural and forestry sector.

### **Services provided**

Collects, processes, analyzes and disseminates agricultural and forestry information.

### **Web page**

[www.magfor.gob.ni](http://www.magfor.gob.ni)

## Panama

### **Institution**

Agricultural Market Institute (Instituto de Mercadeo Agropecuario- IMA)

### **Description of the Institution**

Allow the producer or businessman to analyze market cycles, monitor maximum and minimum prices, program or plan seeding activities, steer its crops or agricultural activity, in order to develop the production types more suitable for the market in order to determine the market locations that can be accessed in a more efficient manner. The IMA summarizes an effort by Panamanians providing, for the first time, a technical and scientific base to meet the challenges surrounding the agricultural producers involved in decision-making activities needed to conduct its marketing process for its products.

**Services provided**

IMA has market reporters, that with the support of base personnel, digitalize information to Information System Database, so that it can be distributed to the Information and Documentation Center, which is the means to spread the information to all registered customers on the Agribusiness Information System; also they keep their smartphone application with all the pricing information.

**Web page**

[www.ima.gob.pa](http://www.ima.gob.pa)

## Andean Region

### Bolivia

**Institution**

Ministry of Rural Development and Land (Ministerio de Desarrollo Rural y Tierras-MDRyT)  
Production and Agro-environmental Observatory (Observatorio Agroambiental y Productivo-OAP)

**Description of the Institution**

The Ministry of Rural Development and Land established the Production and Agro-environmental Observatory to serve as the technical body responsible for monitoring and managing agricultural information in order to guarantee food sovereignty, and that the observatory shall work in coordination with the National Statistical Institute (INE)

**Services provided**

- Generating and monitoring information on domestic and international prices.
- Conducting analyses of and applied research on food security performance indicators for the agricultural sector.
- Managing the database of national agricultural geostatistics.

**Web page:**

<http://observatorio.ruralytierras.gob.bo/>

### Colombia

**Institution**

National Administrative Department of Statistics  
(Departamento Administrativo Nacional de Estadística-DANE).

**Description of the Institution**

DANE is responsible for the planning, collection, processing, analysis and dissemination of official statistics in Colombia. It belongs to the executive branch of the Colombian state and has about 60 years experience. The company meets the highest quality standards and offers the country and the world more than 70 inquiries from all sectors of the economy, industry, population, agriculture and quality of life, among others.

All this work, together with the application of modern technologies for capturing, processing and dissemination, as well as the human quality of everyone involved in the process of the organization, allow the DANE strengthen the knowledge, confidence and statistical culture Colombians, reaffirming its status as rector of statistics in the country.

### **Services provided**

Pricing and Supply of Agricultural Sector Information System (SIPSA), has three components: wholesale prices, food supply and inputs and factors associated with agricultural production.

### **Web page**

[www.dane.gov.co](http://www.dane.gov.co)

## **Ecuador**

### **Institution**

General Coordination of the National Information System, Ministry of Agriculture, Livestock, Aquaculture and Fisheries (Coordinación General del Sistema de Información Nacional, Ministerio de Agricultura, Ganadería, Acuacultura y Pesca).

### **Description of the Institution**

This institution is responsible of research, advise and manage products and services related to the National Information Systems of Agriculture, Livestock, Aquaculture, Fisheries and Forestry Production, in such a way as to guarantee the generation and provision of up-to-date, quality and timely information in accordance with technological advancements, about the availability, potentialities and limitations of renewable natural resources. To provide statistics on the agricultural sector, create regulations and provide technical advice to the public and private sectors in that regard.

### **Services provided**

- Draw up primary economic climate and structural information.
- Generate geographic information for territorial planning.
- Create analytical statistical newsletters.

### **Web page:**

[www.agricultura.gob.ec](http://www.agricultura.gob.ec)

## **Peru**

### **Institution**

Ministry of Agriculture and Irrigation, General Directorate of Monitoring and Policy Evaluation (Ministerio de Agricultura y Riego, Dirección General de Seguimiento y Evaluación de Políticas-MINAGRI)

### **Description of the Institution**

The objective of the General Directorate of Monitoring and Policy Evaluation is to increase the competitiveness of the agricultural sector, within the framework of sustainable and inclusive development.

**Services provided**

The Supply and Prices Information System (SISAP) is an innovative service of consultations that MIN-AGRI provides for access to real time information concerning volumes, prices and origin of the main agricultural and agro-industrial produce.

**Web page**

<http://sistemas.minag.gob.pe/sisap>

## Southern Region

### Argentina

**Institution**

Ministry of Agro-industry (Ministerio de Agroindustria)

**Description of the Institution**

The Ministry of Agro-industry is the agency responsible for designing and monitoring policies for the agrifood sector in Argentina. The ministry analyzes each product's production, markets, and value chain. It also oversees sanitary control at the internal level as well as for export, and creates quality and technological research standards. The ministry manages several social programs targeting micro- and small-scale producers. Furthermore, the ministry oversees all matters related to international negotiations involving agricultural products.

**Services provided**

The information comes directly from each division (e.g. grain harvest forecasts, market indicators, special regimes). All offices collect, process, and disseminate information in a direct manner through various channels such as print materials, emails, phone consultations, faxes, personal contacts, etc.

**Web page**

[www.minagri.gob.ar](http://www.minagri.gob.ar)

### Brazil

**Institution**

National Supply Company (Companhia Nacional de Abastecimento – CONAB)

**Description of the Institution**

Conab is a public company, attached to the Ministry of Agriculture, Livestock and Supply. Its activities are directly related to production, distribution, commercialization and consumption of products, mainly ones of agriculture, livestock and extractives, besides the important task of producing and disseminating information and knowledge in the agricultural arena.

### Services provided

The definition of pricing research is made according to the governmental program and it contemplates the specificity of the product, level of commercialization (wholesale, retail, produces, industry), the location of survey, the frequency (daily, weekly, monthly), among other complementary information that allow the researchers to collect the data according to the demand.

The technicians of the state units of Conab plan and perform the movement to the indicated producing or commercialization regions, searching for the price informants. Typically meetings are held with the main governmental organs and category representatives to explain the goals of the survey and how it will be carried out based on the contacts made.

Therefore, the surveys start being made by telephone, in the required frequency. After contacts by telephone, or directly whenever possible, the data is fed into the system, which has treatment processes of generating statistics, consultations and producing reports. The analyses are made through technicians and managers in the states and also in the central coordination at the headquarters in Brasília, DF.

The prices are reported daily (wholesale market), weekly on the internet and by e-mail, and monthly through the Magazine of Agricultural Indicators (Revista Indicadores da Agropecuária).

### Web page

<http://www.conab.gov.br>

## Chile

### Institution

Agrarian Studies and Policies Office (Oficina de Estudios y Políticas Agrarias-ODEPA)

### Description of the Institution

ODEPA is a public service that provides information and delivers analyses on the most important topics for the forestry, farming and livestock sector. The office possesses a wide range of agricultural and forestry statistics at the regional, national and international levels, to assist different stakeholders in the sector with decision-making.

### Services provided

The activities focus on providing information services related to agricultural markets, information analysis services and agricultural monitoring services, including:

- Analyzing forestry, farming and livestock activities, including the current situation of the main areas and topics of interest to the sector.
- Creating and publishing statistics on the sector: prices, production and trade.
- Cooperating in the development of sectoral policies and in the coordination of the Ministry of Agriculture's programs and instruments.
- Coordinating the work carried out by the Ministry of Agriculture's National Committees, by area.
- Participating in the country's foreign trade negotiations.
- Carrying out research on topics that are relevant to the sector.

### Web page

<http://www.odepa.gob.cl/>

# Paraguay

## Institution

Ministry of Agriculture and Livestock / Marketing Division Paraguay  
(Ministerio de Agricultura y Ganadería/Dirección de Comercialización)

## Description of the Institution

The Ministry of Agriculture and Livestock through the Marketing Division, studies and performs ongoing analysis of the domestic and international markets for agricultural and forestry products. Together with other relevant government agencies and private entities, it develops standards and norms for domestic and foreign marketing of the products and by-products of the agricultural and forestry sectors (Law N°:81/92).

## Services provided

- Carrying out the three key steps in information management: collection, processing and dissemination
- Gathering data on the main domestic and international produce markets
- Processing data, and developing and reproducing materials for dissemination
- Analyzing the status of agricultural product quotes and prices
- Disseminating relevant information
- Handling requests for specific information
- Coordinating with other departments of the Marketing Division regarding training activities for producers as to the use of the information provided
- Identifying and maintaining contact with the domestic and international organizations that provide information on agricultural markets

## Web page

[www.mag.gov.py](http://www.mag.gov.py)

# Uruguay

## Institution

Farmer Observatory (Observatorio Granjero)

## Description of the Institution

The Farmer Observatory is an inter-institutional entity that gathers, analyzes and disseminates data on the wholesale fruit and vegetable business. This work is carried out jointly by the Municipality of Montevideo (the Administrative Commission of the Model Market) and the Ministry of Livestock, Agriculture and Fisheries (the General Directorate of Farms and the Directorate of Agricultural Statistics).

## Services provided

Gathering and dissemination of important information related to the commercialization of fresh fruits and vegetables:

- Wholesale prices in the Model Market
- Model Market income
- Imports
- Exports
- Field trips (to observe production in situ)
- Training activities

Construction of historical statistics with the abovementioned variables and, based on their analysis, incorporating data on production, crop evolution and product conservation, the preparation of reports that make it possible to explain current trends and predict market behavior in the medium term.

## Web page

<http://www.mercadomodelo.net/>

<http://www.mgap.gub.uy/portal/page.aspx>



# Caribbean Region

## Antigua y Barbuda

### **Institution**

Central Marketing Corporation (CMC)  
Production Marketing Information Service (PROMIS)

### **Description of the Institution**

PROMIS is an Agricultural information initiative developed to better serve the public and the Agricultural community through the presentation of clear, relevant and accurate production and marketing information. The key outcome targeted is enhanced market access and ultimately the promotion of a more informed decision-maker (Producer) as it relates to cultivation and a satisfied Consumer.

PROMIS endeavors to meet the needs of the Agricultural industry partners and stakeholders such as Hotels, Restaurants, supermarkets, Agro-processors and other Government agencies informing them in a timely and consistent manner of the availability of local produce.

### **Services provided**

- Data collectors make scheduled visits to collect pricing information; they also periodically visit the farms in conjunction with the Extension Officers to observe firsthand what is being produced.
- Import/Export data is received from the Statistics Division and included in the report to show peak import periods of the commodities that are grown locally to aid the Farmers in their production plans.
- PROMIS serves as a mediator between the producers and the consumers by disseminating market prices of available commodities on the local market.

## Bahamas

### **Institution**

Bahamas Agriculture & Marine Science Institute (BAMSI)

### **Description of the Institution**

BAMSI is a tertiary level institution in the Ministry of Agriculture and Marine Resources. BAMSI has taken the leading role for the development of Agriculture in the Bahamas, not only are we training Bahamians to be the next generation of agribusiness men and fishermen. We are also empowering veteran farmers, by assisting them with meeting the criteria for getting their produce to market. Farmers receive expertise from the institute in addition we assist with land clearing and farm inputs, we provide packing material, we pay freight, and last but not least we sell the farmers produce and pay them within 7-14 days. We set our own prices our tools are the Retail Market and the USDA Agricultural Marketing Service (AMS).

El BAMSI es la nueva cara de la agricultura de Bahamas.

### **Services provided**

Gather data on prices, production, diseases and needs of the agricultural community. In addition, they will be able to give advice and find the answers for those (questions) things they do not know.

### **Dirección electrónica o sitio web**

leslieminns@bamsibahamas.com



# Barbados

## **Institution**

Ministry of Agriculture, Food, Fisheries and Water Resource Management

## **Description of the Institution**

transform and reposition the agricultural sector in Barbados through the delivery of efficient services that promote the development of internationally competitive and resilient agricultural and agri-business industries; facilitate the management and mitigation of risks; support an environment for knowledge creation and sharing that contributes to socio-economic development, food and nutrition security and the sustainable utilisation of natural resources.

## **Services provided**

Two officers from the BADMC visit supermarkets and vendors markets across the island twice weekly and updates the website one Tuesdays and Fridays of each week.

The PCU has contracted 3 enumerators to collect information at the farm level on planting and harvesting of crops this information is then used to estimate production levels for the country.

Fish price information is collected from the two major fish landing sites daily by phone and is then uploaded to the site.

Livestock and poultry production is collected from the abattoirs and poultry producers association respectively.

## **Dirección electrónica o sitio web**

<http://www.basis.gov.bb/Web page/>

# Dominica

## **Institution**

Dominica Export Import Agency, (DEXIA)

## **Description of the Institution**

DEXIA is a public sector institution. It was established by Act No. 14, and came into existence on July 1, 1986. DEXIA is a Government statutory body created on 1st July 1986 to spearhead the development of the Dominica's export of agricultural and agro-processed products.

DEXIA was created to spearhead the development of Dominica's export of agricultural and agro-processed products and functions as a Trade promotions Agency. In addition to exports, DEXIA is the sole importer of bulk rice and sugar and is the Authority for the Roseau Market. DEXIA operates as a Government Statutory Body attached to the Ministry of Employment, Trade and Industry and Diaspora Affairs.

## **Services provided**

- Visiting the market place
- Weighing of produce
- Collection of prices
- Prices passed to Information Officer by Enumerator and then unto General Manager for approval
- Dissemination of prices

## **Web page**

[www.dexiaexport.com](http://www.dexiaexport.com)



## Grenada

### **Institution**

Ministry of Agriculture, Lands, Forestry, Fisheries and the Environment

### **Description of the Institution**

To develop an agricultural sector that is globally competitive; contributes to economic growth, enhanced national food and nutrition security, poverty alleviation and social wellbeing, and conservation of the natural environment; and that is aligned to regional and international agricultural policies and strategies that are beneficial to the country’

The ministry also aims to stimulate economic growth in the agriculture sector through the development of a well-coordinated planning and implementation that are interactive, and effective, and involve the full participation of the stakeholders, which promotes food security, income generation and poverty alleviation.

### **Services provided**

Specific to the Marketing Officer with whom the responsibility for data collection on prices and purchases are assigned, the activities carried out in the performance of this task are thus summarized:

- Circulation of data collection forms electronically to all major commercial purchasers of local farm produce.
- Entities upload requested data on form and email to Marketing Officer.
- Reports are compiled.
- NB: wide circulation and sometimes meaningful circulation of report has been a challenge due to cost considerations.

### **Web page**

[www.gov.gd](http://www.gov.gd)

## Guyana

### **Institution**

Guyana Marketing Corporation

### **Description of the Institution**

Guyana Marketing Corporation (GMC) was established under section 46 of the Public Corporations Act, Cap 19:05 of the Laws of Guyana. The Corporation has been working assiduously over the years to promote the development and export of Guyana’s non-traditional agricultural products to Regional and Extra Regional markets.

The Guyana Marketing Corporation (GMC) is the marketing arm of the country’s Ministry of Agriculture. It is primarily responsible for enabling the growth and development of the fresh and processed products sector. Additionally, it is tasked with promoting the expansion of agri-business investment throughout Guyana, with emphasis on maximizing exports.

The GMC is also charged with the responsibility of providing marketing services for the development of the non-traditional agricultural sector. Exporters of non-traditional agricultural products are provided with marketing advice, assistance for sourcing supplies, facilitating logistical arrangements for exports among others.

#### **Services provided**

- Monitoring, analysis and dissemination of information on exports, prices, production and other relevant data.
- Examination and preparation of investment profiles for various crops
- Conducting in-depth market research to strengthen the MIC, such as market surveys and market intelligence studies.
- Compilation of crop profiles for agricultural commodities
- Organisation of training sessions for farmers, exporters, manufacturers and other relevant stakeholders.
- Preparation of Weekly, Monthly, Quarterly and Annual Reports on prices, exports and production.
- Establishment and maintenance of several electronic databases e.g. wholesalers, retailers, importers, farmers and other stakeholders.

#### **Web page**

[www.newgmc.com](http://www.newgmc.com)

## Haiti

#### **Institution**

Ministry of Agriculture, Natural Resource and Rural Development (MARNDR)

#### **Description of the Institution**

In Haiti, the Ministry of Agriculture, Natural Resources and Rural Development is the main institution responsible for regulation and promotion of the agricultural sector. Its main objective is to create good conditions for the growth of agricultural production, including food security.

#### **Services provided**

The Agricultural Markets Information Service (SIMA) carries out the following activities:

- Coordinate the data collection of the Agricultural Market Information System (AMIS);
- Develop methodologies and tools for collecting data on prices and availability of agricultural products, the slaughter of animals and the prices of agricultural inputs and equipment ;
- Prepare procedures for data processing and reports publication;
- Ensure the operation and monitoring of the Information System on Agricultural Markets (SIMA ) and border markets ;
- Prepare the support for staff training (central and field offices) mobilized in the transactions and conduct training;
- Collection of import and export of agricultural products data;
- Collect data from other institutions involved in price , specially consumption price;
- Process and analyze the data collected;
- Preparation and publication of reports;
- Ensure the web accessibility of data and reports generated;
- Etc.

#### **Web page**

[http://agriculture.gouv.ht/statistiques\\_agricoles/](http://agriculture.gouv.ht/statistiques_agricoles/)



## Jamaica

### **Institución**

Jamaica Agricultural Marketing Information System (JAMIS)

### **Description of the Institution**

JAMIS provides weekly prices at varying price points, provides access to the produce grading manual as a guide to farmers and a comparative shopping tips for users. Visitors are also able to subscribe via this site to receive the varying weekly reports published under JAMIS free of charge.

### **Services provided**

Compiling and disseminating market prices and other information that will aid producers, purchasers, distributors and consumers in the trading of agricultural commodities nationally and internationally. Approximately thirty (30) Data Collection Officers are assigned to create batches containing prices of selected commodities in specific extension areas/entities on the Jamis website; these batches are then reviewed and published by the JAMIS Administrator, and the data is in turn used in the compilation of the various weekly reports.

### **Web page**

<http://www.ja-mis.com/Companionsite/home.aspx>

## República Dominicana

### **Institution**

Agriculture Ministry (Ministerio de Agricultura-MA)

### **Description of the Institution**

The role of the MA is to formulate and oversee implementation of all the country's agricultural policy, in line with general development plans. Its specific purpose is to facilitate food security for the population, promote the process of technological transformations and innovations, provide services in support of production, and channel investments into infrastructure works designed to enhance production in the sector. It also represents the country in the bilateral, regional, and multilateral agricultural negotiations.

### **Services provided**

- Register of on-farm and wholesale prices in the agricultural regions. The area's specialists validate and process the data on monthly on-farm and wholesale prices gathered and forwarded by the eight Unidades Regionales de Planificación y Economía (URPE) at the regional agricultural bureaus via which the ministry provides its services across the country.
- Collection, processing, and analysis of data on wholesale and retail prices in Santo Domingo's principal markets. Every other day, the staff assigned to this area in the main commercial establishments (Santo Domingo's markets and supermarkets) gather data on the wholesale and retail prices of agricultural products, which is then analyzed, processed and disseminated. Reports are prepared on the latest trends, which are made available to all stakeholders.
- Collection of data on the monthly prices of agricultural inputs from the URPEs, to estimate agricultural production costs.

- Calculation and analysis of the marketing margins of agricultural products.
- Consolidation of the statistics used to prepare the document, “Dominican Republic Agriculture Sector Statistics.”
- Calculate and update the wholesale and retail seasonal price indexes, and prepare analyses based on the results.
- Keep up to date the table for the conversion of the different units of weights and measures used in the marketing of agricultural products.
- Prepare price bulletins with time series; compare prices during specific periods.
- Prepare statistical tables with information compiled by other sector institutions, such as data on agricultural settlements from the Instituto Agrario Dominicano (IAD); on planting, harvesting, and production under irrigation from the Instituto de Recursos Hidráulicos (INDHRI); and on budgetary execution in the agricultural sector, and the calculation of estimated consumption, among others.
- Every other day, the staff of this area updates wholesale market price statistics on a Regional Platform known as the Sistema Regional de Inteligencia de Mercados de Frutas (SIMEFRUT).

### Web page

[www.agricultura.gob.do](http://www.agricultura.gob.do)

## Saint Kitts and Nevis

### Institution

Ministry of Agriculture, Marine Resources, Cooperatives and Environment (AMRCE)


### Description of the Institution

The mandate for the Ministry of Agriculture, Marine Resources, Cooperatives and Environment is clear. We aim to improve and increase our food and nutrition security and bio-safety measures through programs, initiatives and improved relationships. The Department of Agriculture provides a wide range of services as well as technical support to the agricultural sector. The Department of Agriculture has realigned its services and support around four core programs, specifically:

1. Operation Food Security (OFS), placing emphasis on selected schools, home gardens and public spaces to improve practices, productivity and ultimately impact positively on (a) household and community food and nutrition security status and (b) youth engagement in agriculture.
2. Farming and Agriculture Systems Transformation (FAST), premised on the principle of achieving efficiency gains and expanding output by (a) reducing wastage in resource and input use, and (b) introducing and expanding utilization of improved production and farm systems technologies and practices.
3. Agribusiness and Market Development (ABMD), with a primary focus on strengthening and improving efficiency in systems that link farms to market in order to (a) complement national capacity food and nutrition security, and (b) build profitable and competitive value added products for trade.
4. Agriculture Risk Management and Climate Change Adaptation (ARMCCA), which will focus on guiding the critical process of transformation and adaptation to a more high-risk environment and changing climates.

### Services provided

The Marketing and Extension Units are the main bodies responsible for collecting agricultural marketing information. Extension officers collect production data on a wide range of commodities including livestock. The Crops Program Leader verifies and aggregates the data collected by the Extension Officers before sending it to the Marketing Unit for dissemination. As a result, Extension Officers are in the field on a daily basis.



The Marketing Unit collects information on a weekly basis from supermarkets, vendors and the municipal market on twenty six (26) commodities which includes both local and imported commodities. The Marketing Officer would then analyze the data and create a factsheet with all the marketing information for dissemination to stakeholders.

The Marketing Unit host information sharing workshops for both crop and livestock farmers.

Production and price data that has been collected is managed on excel spreadsheets with careful guidelines as to eliminate any errors from occurring.

The Marketing Officer will also verify the information entered into excel for accuracy and to generate a number of reports from the data.

**Web page**

[www.sknis.info](http://www.sknis.info)

## Saint Lucia

**Institution**

Ministry of Agriculture, food production, Fisheries, Cooperatives and Rural Development- Marketing Unit

**Description of the Institution**

To provide, reliable, efficient, effective, top quality Agri- enterprise services to the agricultural sector.

**Services provided**

- Farmer certification
- Data collection
- Agri- business management and development support

**Web page**

[marketing.agriculture@govt.lc](mailto:marketing.agriculture@govt.lc)

## Saint Vincent and the Granadines

**Institution**

Ministry of Agriculture, Rural Transformation, Forestry, Fisheries and Industry (MARTFFI)

**Description of the Institution**

The role of the MARTFFI is, “To ensure national food security and contribute to increase employment, rural incomes and foreign exchanges through programmes that will promote the enabling environment for the entrepreneurial drive of farmers, fisher folks, forest users and other stakeholders while ensuring the efficient utilisation and sustainability of the natural resources”.

### **Services provided**

Production/supply data is collected daily at the farm level. This information is entered fortnightly into an excel database. Supervision and quality control is performed by agricultural extension officers at the district and regional levels.

Data collectors visit the central vegetable market, the fish market and the meat markets to collect prices on a weekly basis from supermarkets.

Cost of production is revised periodically, based on interviews with producers and updated price from input suppliers.

Quarterly and annual statistical reports are compiled based on collected information collected. Currently, reports are provided on requests. However, recent reports have been distributed to various stakeholders via the email route.

### **Página web**

[www.agriculture.gov.vc](http://www.agriculture.gov.vc)

## **Suriname**

### **Institution**

Ministry of Agriculture, Animal Husbandry and Fisheries

### **Description of the Institution**

The Ministry of Agriculture, Animal Husbandry and Fisheries strives to promote and support the development of the Agricultural Sector, such that high quality products are produced in compliance with the standards of the World Trade Organization (WTO). Because of the sustainable development of this sector and the agro-industry, there is a significant contribution to the economy of Suriname in the form of jobs and income of foreign exchange (through export).

### **Services provided**

provide timely information on the agricultural sector on a continuous manner to all stakeholders, through an efficient and reliable Suriname Agricultural Information System (SAIS). The information that is collected, processed and analyzed is also being used for several planning purposes and policy formulation regarding sustainable rural and agricultural development.

### **Web page**

[www.lvv.gov.sr](http://www.lvv.gov.sr)

In order to understand the goals and expectations of MIS, a consultation interview was held with Frank Lam, IICA Agribusiness and Marketing Specialist; Luis Fernando Palmer, Head of Section for International Reports, USDA, AMS, SC; Terry C. Long, Chairman and MIOA Northern Region Representative; Arlyne Alfaro, Coordinator of the Agricultural Information System, National Production Council of Costa Rica; and Victor Hugo Bucheli, MIOA, Andean Region Representative.



## Trinidad and Tobago

### **Institution**

The National Agricultural Marketing and Development Corporation (NAMDEVCO)

### **Description of the Institution**

NAMDEVCO was created by Act of Parliament No. 16 of 1991 in Trinidad and Tobago with the mandate “to create, facilitate and maintain an environment conducive to the efficient marketing of agricultural produce and food products through the provision of marketing services and the stimulation of business investment in the agro-industrial sector of Trinidad and Tobago”.

In 2005, NAMDEVCO’s mandate was revised to include value added product development and marketing of these products.

### **Services provided**

Market information collected and disseminated in a timely and consistent manner via our website, the media, newsletter and reports. Initially, NAMIS was designed to accommodate only fresh produce and sea-food; it has now been enhanced to allow the collection of all processed packaged products on our local supermarket shelves inclusive of processed agricultural and non-agricultural based products (salt, etc.).


### **Web page**

[www.namistt.com](http://www.namistt.com)



# X. The Future of MIS: Goals and Expectations





In order to understand the goals and expectations of MIS, a consultation interview was held with Frank Lam, IICA Agribusiness and Marketing Specialist; Luis Fernando Palmer, Head of Section for International Reports, USDA , AMS, SC; Terry C. Long, Chairman and MIOA Northern Region Representative; Arlyne Alfaro, Coordinator of the Agricultural Information System, National Production Council of Costa Rica; and Victor Hugo Bucheli, MIOA, Andean Region Representative.

They were asked specifically to provide information based on the following indicators:

- a. Long term vision of MIS.
- b. Expected impact of new technologies on MIS
- c. Types of regional and interregional agreements that will be needed to strengthen the performance of MIS

To begin with, Luis Fernando Palmer and Terry C. Long believe that in order to make medium term projections on the MIOA and MIS, as the touchstone or authority on these information plans, it would be best to revisit the last five or ten years . This would provide insight into what could happen over the same time period in the future. They indicate that they view the growth of systems as an inverted pyramid and see MIS gaining strength with major advances in places such as Trinidad and Tobago or Brazil.

They point to the existence of software or databases that are being shared in three countries (St. Lucia, the Dominican Republic, and St Vincent and the Grenadines), which indicate the countries' interest in sharing their technology, experiences, and knowledge. They note that the use of social networks will be extremely common in the future. Within ICTs there are networks and within networks there is Twitter, Facebook etc. The increasingly frequent use of cell phones reveals the ease and speed of use for anyone, even in the search and analysis of prices and demand for information.

They also believe that adjustments can be made, as necessary, across all systems. Technical personnel in regional meetings, in particular, can present this information so that learning is two-way. Meetings occur at least once a year, where opportunities are created for the exchange of information and experiences, and capabilities are actualized in countries through exchange networks. MIOA , for example , is a type of network.

They add that information coming from MIS is becoming more valued by senior officials. It will therefore become increasingly easier for an institution to demonstrate the need for institutional support, resulting in funding, then sustainability.

They are convinced that, information must first be shared, mechanisms that produce it must be strengthened, and the type of information required, refined, in order to convince the higher echelons to obtain the necessary funding to transform each decision into appropriate public policies

They point to the importance of demonstrating the value of MIS to decision -making and being as prepared as possible to raise this issue with the appropriate authorities, such as the Meeting of Ministers of Agriculture of Latin America.

Regarding the importance of agreements, these refer to the document signed by all member countries of the MIOA in a letter of intent<sup>3</sup>. The strategic plan<sup>4</sup> to promote and support the efforts of this organization may also be viewed.

One may observe how a contract signed between institutions and the MIOA operates as an agreement generally for all countries; however, within countries there are regions and within regions there are bilateral and regional agreements. The letter of intent stresses that the agreement is with the institution that represents the country and not the country itself, as it is understood that institutions are the ones that manage agricultural market information systems.

3. Letter of intent available at <https://www.google.com/webhp?sourceid=chrome-instant&ion=1&espv=2&ie=UTF-8#q=car-ta+de+intenci%C3%B3n+OIMA>

4. MIOA Strategic Plan available at [://www.mioa.org/sobre-oima/plan-estrategico/](http://www.mioa.org/sobre-oima/plan-estrategico/)

They note that the success of MIS depends primarily on analysis and market intelligence. The US system is quite developed (100 years) and has confirmed that this, to a great extent, is due to the profile of officials, training (64 weeks) and the identification that each person has with the subject. Human resources is fundamental. Technologies are only means. In addition, over the years, the overall importance of MIS in agricultural marketing and the economy has endorsed the support now being received by the State.

Regarding the long-term vision, Frank Lam believes that based on more than a decade of experience working with MIOA in the hemisphere, one of the most critical challenges facing MIS is improving its position within the agricultural sector, both public and private. Timeliness, fairness and accuracy of information should be the three pillars that support the long-term vision and that, at the same time, will allow MIS access to more financial resources to strengthen them institutionally, technically as well as administratively and technologically.

Also, as with any other public service being provided, users are becoming increasingly informed and are demanding better quality products. MIS must respond to the changing and dynamic needs of users throughout the agricultural chain and constantly provide feedback on fresh demands, as well as new methodologies and technologies required by users. The simple fact of getting to know the behavior of the agricultural chain, will add value to operational procedures within MIS.

Finally, another important point for the long term should be the professionalization of MIS. The genesis of these systems was in response to the development of agricultural marketing, and it can be said that this was characterized by an empirically-based, initial development and that, throughout the years, at least in the Americas, has been specialized and professionalized. However, there is currently an asymmetric development of MIS in the region, where there are still countries that do not have an established MIS operating regularly.

The professionalism of MIS must be accompanied by academic entities in the countries, i.e., by universities linked to the agricultural sector, so that they can strengthen the entrepreneurial and commercial skills of MIS officials and also sensitize new generations of professionals to the increasingly important need for market information for informed decision making.


With regard to the query on the impact of new technologies on MIS, Lam notes that MIS represents the eyes and ears of agricultural markets, mainly for fruits and vegetables, given that its function compels units, normally situated within ministries of agriculture, to monitor trends in supply and demand for these products for both private and public actors. He indicates that prices are the real reflection of the way these variables interact in the market.

ICTs are the best allies of MIS, for several reasons. First, markets are becoming more complex (new varieties, new players in the market, new market segments) and data collection, although a personalized process, increasingly requires greater automation to expedite the processes. .

On the other hand, MIS will require greater capacity for gathering more data, which leads to the search for more effective options in terms of cost and upgrade options for available technology. For example, the use of the “cloud” for storage and data management, has become the most viable, safe and economic option for many MIS in the region.

Finally, the dissemination of market information has crossed borders that traditionally limited their access. Users, both private and public, are becoming more connected every day and are demanding more timely information, as well as more user friendly and efficient access. Smart phones are no longer just telephones: they are becoming an interactive communication device, more graphic and easier to use. Since these devices are with the users wherever they go, unlike the computer, which remains at home or in the office, it is the accessory of choice for both producers and other actors in the agricultural chain. In many MIOA member countries, not only are agricultural prices shared, but also technical information on agronomic crop management, strategic production timing for producers, weather information, etc.

Lam sees a more intensive and substantial use of ICT for the three vital functions of MIS: collection, analysis and dissemination of market information. Technology costs are falling and there is a very proactive global movement in favor of “democratizing “ information and “enhancing transparency “of processes, from the farm to the table. In this regard, MIS will play a key role in these processes.



Regarding the regional and interregional agreements necessary for strengthening the performance of MIS, Lam stated that what is even more necessary is strengthening relationships at the local level, with private actors, from producers to consumers, wholesale retail markets, processors, importers and exporters, dispatchers, and large supermarket chains in order to meet more directly market information needs—not only in terms of quantity, but also quality. There are still thousands of users, especially in family farming, that are not being included at the market level, and who require that information for decision-making.

At the regional level, since international trade is increasingly impacting countries - both importers and exporters -, information is becoming a dynamic element for agricultural marketing and increasingly, regions are attempting to integrate and consolidate their information systems to streamline the key functions of MIS. The work begun by the MIOA, along with IICA as the Technical Secretariat, has greatly facilitated the exchange of information, multilaterally and bilaterally among the MIS in each of the MIOA member countries. And this has even led to the signing of cooperation agreements for developing new initiatives.

Undoubtedly, the strength of international trade in fruits and vegetables is crucial and is transforming the information needs in agricultural chains. Information is becoming increasingly “internationalized”, to the point that the day will come when there will be only one regional agricultural market information system.

For her part, Arlyne Alfaro notes that MIS should be more committed to expanding services that go beyond pricing information and market analysis. She considers it necessary to become more involved in generating strategic information for decision-making in marketing and production.

She also believes that producers are more prepared or are attempting to be, to face a series of threats as a result of market liberalization (high domestic production costs that do not allow them

to be competitive with imported products). As they attempt to survive, we are called to support the provision of information required to make decisions, says Arlyne Alfaro. It is necessary to strengthen domestic markets and create value-added products that give them greater market opportunities, and therefore MIS should include information on new products and engage in productive projects being developed to provide information required by groups of producers.

She also believes that we should definitely make use of modern technology where the user is able not only to consult MIS databases on the web, but that the variables collected in the field can be related to geographic information systems

She states that automatization of each of these processes is required: collection, processing, analysis and dissemination of information and also being more adept at providing timely and reliable information.

In the case of Costa Rica, Mrs. Alfaro indicates that “we are entering into an agreement with academia: the Universidad Nacional (UNA) and the Costa Rica Institute of Technology (ITRC) to make use of their ICTs and apply these to institutional needs. In the case of UNA, we will begin by using a drone to verify planting areas with grain and then mount a GIS with information on areas by production zone. Alliances are also being formed with the School of Informatics for developing web applications that facilitate user consultation. In the case of the ITRC, an information system is being created in the Northern Huétar Zone with a Regional Value Added Center, using production-related information provided by agribusinesses as well as information on production areas”.

For Arlyne, this is an example of, how budget constraints, as is the case with MIS, make it difficult to confront and enter today’s technological world; and so regional or intra-regional agreements must be aimed at upgrading ICT use.

Meanwhile, Hugo Bucheli notes that markets and technology are sources of communication. And since the countries of the Andean Region are purely raw material producers, information from the agricultural sector is necessary and relevant, as long as it is timely and accurate. This is what is considered essential for the development of agriculture in these countries. The Andean region is basically an exporter of agricultural products, so it is necessary to have information that allows for the formulation of policies, building stronger markets, and for trading.

Although the technology facilitates these exchanges, a central point is always needed to coordinate these actions - the MIOA fulfills that need. There are many ways of viewing the MIOA as a coordinator, since it enables the exchange of experiences, sharing of technical resources, obtaining of advice, etc.

Concerning the long term vision, we can say that this organization seeks to strengthen all countries so that no asymmetries exist and the level is the same among each of them.

This tool will bring about more fluid mechanisms and achieve greater exchange of information. It will also benefit those in the marketing chain, from producers to consumers and will enable decision makers to develop policies more efficiently. Market prices are a natural outcome of policies and the opportunity cost of production.

The long-term vision for the organization should be to become a hub of information systems of member countries in the organization. Information platforms should be built to achieve this. During 2015, regional efforts were made in the Andean Region to have databases connected, but not people. The goal is that all are connected and data exchange is enabled.

Regarding the issue of technology, Bucheli indicates that the MIOA have been focusing on technological issues. Most of their efforts over the past 15 years have been focused on building the capacities of each country, by providing expertise in methodologies for capturing information, and these methodologies have enabled access to accurate information in a timely manner.

On the issue of web services, the expectation is to develop program codes that connect databases

and extract information from them for placement in a repository to be displayed in a format that can be understood by everyone. At the moment, information on the main products chosen by each country is available. The background, objectives and outputs achieved thus far are included.

There exists detailed work by computer technicians on the management of this information, and continuous monitoring of the implementation of this service in each of the countries is sufficient.


There is an advantage to working with IT leaders from each country who know the language and share a mutual understanding; this is not the same as working with MIS managers, as they alternate, participate once or twice and then disappear. Moreover, their viewpoint is not the same.

The ultimate goal is the data, the market price, and presentation; for communicating these, the servers are quite. Computers communicate on their own and present the information; the software processes and uploads it to the MIOA website or ministries, and that is the advantage of technology.

Data must be converted into information. For this to become knowledge, the capacity to transform must be created, and then that knowledge must necessarily be transformed into intelligence. Information analysis must have as its ultimate goal to support decision makers in the public and private sectors.

Bucheli states the following regarding regional and interregional agreements:

Countries do not have unlimited resources, nor are these always available. Information is somewhat elusive. In a given year, governments and authorities may give priority to an investment, and yet it may be that this does not happen in another year. One mechanism to avoid putting the information systems of some countries at risk, must international technical support and funding from other agencies. However, the problem is that these agencies are also experiencing economic crises and have increasingly fewer resources, and although they are an option, they will not always be the ones to provide economic resources. The long-term solution could be to work internally in our countries to create a culture of effective, necessary and essential statistical information for private and public sectors. In this way, the importance of fiscal resources and



not only investments, for the continued sustainability and support of MIS operations is given priority. Of course it is a risk, which makes continued support from international organizations the better option.

Regarding the issue of regional agreements, these are appropriate and necessary when the expertise that international agencies provide

can be harnessed. These strengthen and build capacity; however, the agreements will not finance the operations within the country. They are responsible mainly for managing training, exchanging experiences and playing an important role in the use of technology. It should be explained, however, that capacity building is created from human resource experts, and technology is only a means.

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