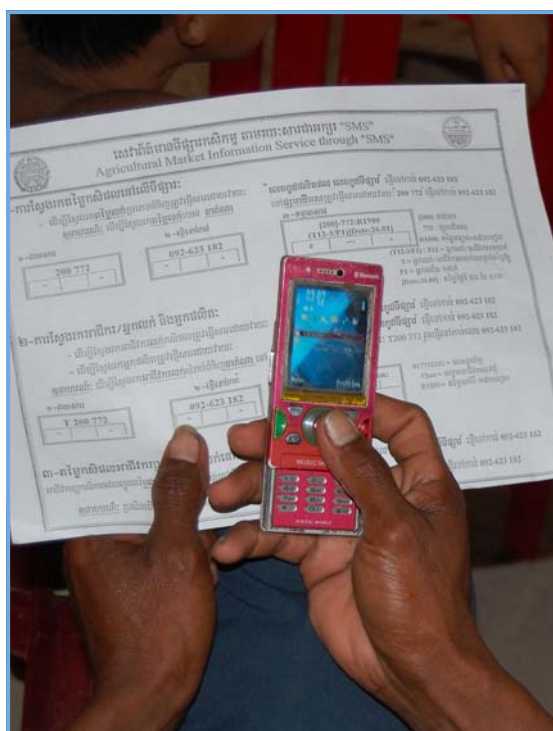


Exchanging Agricultural Market Information through SMS in Cambodia

Market information is essential for agricultural development and to improve food security, particularly for small-scale producers and traders, who typically have limited access to, and understanding of market information and analysis. Good market information helps ensure transparency, competitiveness and the more equitable sharing of benefits between market participants. Effective market information systems reduce information asymmetries, increase competitiveness, and improve marketing system efficiencies. For small farmers, this can help strengthen their bargaining position and improve their understanding of marketing opportunities and options. For traders, market information can help identify producers and others traders, expand their business and bargain more efficiently. Good market information is also an essential ingredient for governments to take appropriate policy decisions in support of agricultural growth and enhanced food security.

In Cambodia, the Ministry of Agriculture, Forestry and Fisheries (MAFF), Agricultural Marketing Office (AMO) operates the Cambodia Agricultural Market Information System (AMIS), with two main functions. The first is to provide timely and reliable market information to allow supply chain participants to take appropriate production, marketing and related decisions. To achieve this, AMO regularly collects market information for key commodities across the country, and disseminates it through regular market reports and bulletins, radio broadcasts, over the Internet and through a mobile phone SMS system. AMO's second major function is to help farmers, traders and others to understand and effectively use this information to make better decisions that will support agricultural growth and development, higher incomes and food security for all Cambodians.



What is the SMS Price Information System?

The AMIS Short Message Service (SMS) information system is a government-owned and user-friendly system that allows farmers and traders across the country to exchange and access prices of selected agricultural commodities sold in major markets through their mobile phones. It is a web-based data management system, developed in 2008 with support from the Canadian International Development Agency (CIDA), through the Cambodian Agricultural Market Information Project (CAMIP).

The SMS system transmits and records wholesale prices of selected commodities. Wholesale prices includes those paid by traders to purchase goods directly from farmers, as well as the selling prices charged by traders.

The system currently focuses on 21 perishable commodities (fruits and vegetables), and has been designed in a way that will allow additional commodities to be added over time. Coverage is nationwide, and currently includes 26 markets in all 24 provinces of Cambodia, as well as in Phnom Penh municipality. By providing a simple and inexpensive way for traders and farmers to share and access timely and reliable price information, the SMS system helps users make better-informed decisions, bargain more effectively, increase their professional network, and expand the scope of their business.

The SMS system also provides information about traders who are interested in purchasing commodities in specific markets. As the system is further developed and expanded over time, additional commodities, markets and other related information can be included. This could include price differentiation by grades, market requirements, information on pests and disease, as well as production advice, weather advisories and early warnings.



How to Use the SMS System

Farmers and traders use the SMS system to share and obtain commodity prices by sending an SMS from their mobile phones. Traders can submit both wholesale buying and selling prices of products. Farmers and traders can request average prices or prices currently being offered by traders for different products and markets. In less than 10 seconds the user will receive a response message with the requested information. For quality assurance, AMO provides training and tools to support traders and farmers on how to use the system.

Traders: Submit a Price

To submit a price, traders need to be registered in the system through their phone numbers. They can request their registration at provincial or national AMO offices. Currently, some 605 traders are registered in the system.

To **submit a selling price**, traders send a message to the SMS system, in the following format.

S + product code + product price

Traders are registered by market and therefore do not need to indicate a market code when submitting a price.

For example, the message below indicates that the trader is *selling Chinese kale for Riel 1,000 per unit*.

S 200 1000

If the price submission is successful, the trader will receive the following confirmation message, which tells the trader: *you have successfully updated your price for Chinese kale, the new price is 1000 Riel*.

0000 price is updated: [200] 1000

Farmers and Traders: Request a Price in a Specific Market

No registration is required to receive price information, the system is *feely* available to all. However, users must be familiar with the coding system. There are two steps to get price information from the system. However, experienced users often skip the first step.

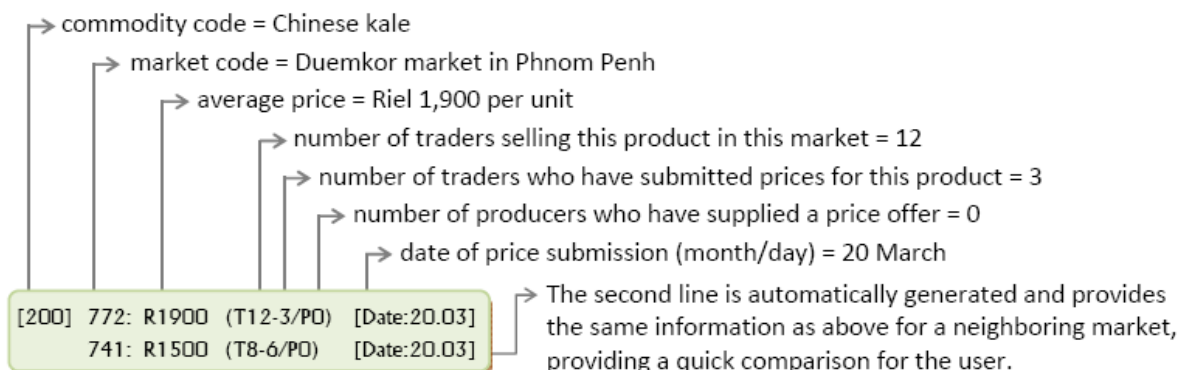
STEP 1: To find the average price in the market users must specify the product code and the market code.

To find the average price of Chinese kale (product code = 200) in Duemkor market (market code = 772), the user would send the following message.

[commodity code] + [market code]

200 772

If the price request is successful, the trader will receive the following confirmation message, which tells the user the average price of the product in the market requested.

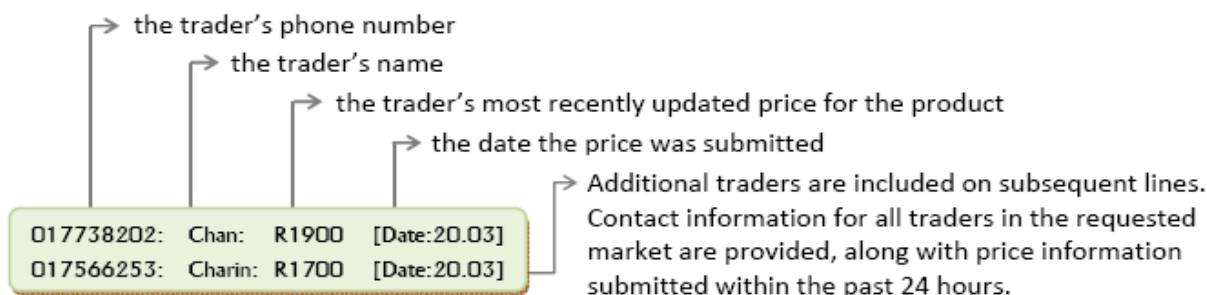


STEP 2: To find prices from traders of a product in the market and their contact information users must place a “T” before specifying the product code and the market code.

T [commodity code] + [market code]

T 200 772

In this case, users will be provided with details of the traders that have offered the product for sale over the past day in the selected market, as per the following example.



Creating Awareness and Capacity to Use the SMS System

The most effective way to raise awareness, build capacity and increase the number of users is by hosting specific trainings for traders and farmers. To-date, AMO has convened a total of 286 training sessions since the SMS system was launched in 2009. Over three-quarters of these training sessions have targeted farmers, and the remainder have targeted traders. Recent training efforts have focused on traders in the morning, and brought together traders and farmers in the afternoon for further training and dialogue on use of the SMS system and other market related issues, such as product grading. For many participants, this is the first facilitated discussion between producers and traders, which are greatly appreciated by both parties as they help build understanding and trust. Some months following the initial training, AMO tries to convene refresher courses to ensure the continued use and understanding of the system.

AMO also produces and disseminates various products to raise awareness amongst farmers and traders on the SMS system. These include posters, brochures and cards that include the system phone numbers, product and market codes and general guidelines. Informal relations and networking between users and with AMO officers are key to creating awareness and promoting the system with potential users.

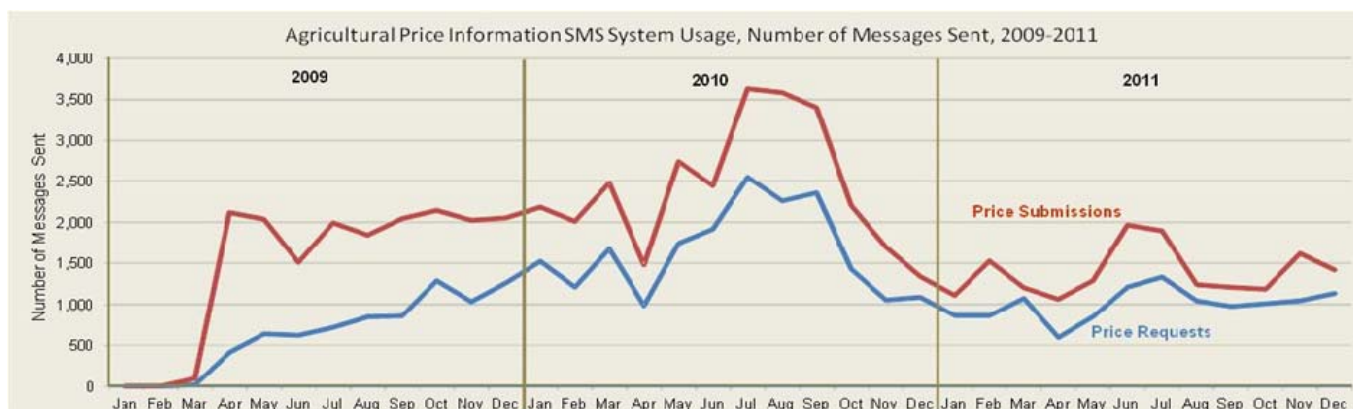


Use of the SMS System

The SMS System in Numbers, 2009-2011

28,950 Request for Trader Prices	42,310 Price Submissions
39,058 Request for Average Prices	133,664 Messages Received

Use of the SMS system is directly linked with the number of trainings and awareness events conducted. This in turn, has depended on the availability of donor resources to support the system. Following the system's development and launch in 2009, the Canadian funded CAMIP conducted considerable training in 2009 and 2010, with a major training initiative before the project ended in 2010. Faced with declining user numbers, the EC-FAO Food Security Programme on *Linking Information and Decision-Making to Improve Food Security in Selected Countries of the Greater Mekong Sub-Region* supported training in 2011, which helped maintain interest in and use of the system during 2011. WFP provided recent support to expand the system to new provinces, allowing for national coverage. Currently there are 605 registered traders.



Voices from the Field



Mr. Khoun Chea, Farmer, Krang Thmey village, Kandal province

Having access to prices directly from traders has helped me increase my vegetable production and income. I check prices almost everyday. When it is time to sell, I know what the prices are in different markets and can negotiate better prices. Although some traders offer higher prices than they will actually pay, overall I think the SMS system is reliable and is an easier way to get prices rather than from the TV or by going to the market. The system should be expanded to cover more crops, especially rice.



Ms. Kong Channy, Trader, Takmao market, Kandal province

My business has significantly expanded thanks to the SMS system. I now trade in three provinces and I sell about six times more vegetables than before. So far, no farmers have contacted me through the SMS system, but I now work with more traders. Although I have been using a mobile phone for business purposes, I had never used the SMS option on my mobile phone before. After the training, it took a few days of practice to really be able to use the system, because my phone supports SMS in English language only.



Mr. Meach Yady, AMO Chief, Ministry of Agriculture, Forestry and Fisheries

The main challenge facing the SMS system is empowering farmers and traders to effectively use price information to boost incomes. Smallholder farmers are the most challenging group to work with, because they generally farm a small area and are vulnerable to various risks. They need to understand that available information can help them manage their business, and provides bargaining power with traders. The priority is to always explore and think of possibilities and solutions to best serve the needs of user.

Challenges

- ⇒ Identifying sustainable funding mechanisms for operating the system and prevent service interruptions and a drop in user confidence.
- ⇒ Ensuring that the system remains accessible to small traders and farmers, given the cost of cellular and SMS services, particularly across networks.
- ⇒ On most low-cost mobile phones, the SMS service is available only in English language.
- ⇒ Limited cellular coverage in some areas.
- ⇒ Providing regular new and refresher training to ensure new and existing user awareness, quality control and expanded use of the system.
- ⇒ Enhancing dialogue between farmers and traders to build mutual understanding and trust.
- ⇒ Lack of differentiated prices by grade.
- ⇒ Limited capacity of small farmers to act on the available information.

Opportunities

- ⇒ There is an unmet demand from producer groups, traders, millers and exporters for better market information and market network facilitation.
- ⇒ The system can be easily expanded to include additional commodities and markets.
- ⇒ The system could be upgraded to provide additional market information, such as demand/offer matching with details of required volumes, quality, delivery dates, etc.
- ⇒ The system can be used to provide production advice, including early warnings to farmers and others in rural areas, when faced with climate threats or animal disease outbreaks.
- ⇒ Once established, the system has relatively low operating costs.
- ⇒ The system can be easily replicated in other countries where cellular service is adequate, in a matter of months, and at relatively low cost.



The Cambodia Agricultural Market Information System is operated by the Ministry of Agriculture, Forestry and Fisheries, Agricultural Marketing Office



Canadian International Development Agency

The SMS system was developed with financial and technical support from the Canadian International Development Agency (CIDA)



Operation of the SMS system and preparation of this Technical Brief have been supported by the EC-FAO Food Security Programme