TRANSLATION

# Remote sensing technology supports accurate and timely farming

The Remote Sensing Based Information and Insurance For Crops In Emerging Economies Project is helping Vietnam to monitor crop production in an accurate and timely way, and the support will continue.

The Remote Sensing Based Information and Insurance For Crops In Emerging Economies – experiences, challenges and opportunities

Vietnam has huge potentials for agriculture development and is currently in the top group of exporters of agricultural products such as rice, coffee, etc.

However, farmers, businesses, insurers, policy makers and experts still have limited access to production data leaving many risks unattended

Speakers at the workshop “Remote Sensing Based Information and Insurance For Crops In Emerging Economies – experiences, challenges and opportunities” jointly organized by Ministry of Agriculture and Rural Development and the Swiss Embassy in Hanoi on October 25 believed that RIICE is providing crop production monitoring support to Vietnam making it more accurate and timely by using new and cost-effective technologies.

According to Mr. Nguyen Quang Dung, Director of the National Institute for Agriculture Planning and Projection (NIAPP), RIICE relies on two major components—the earth observation data provided by Sentinel satellite of the European Space Agency, and the algorithms and crop growth model developed by sarmap, a Swiss company, and the International Rice Research Institute (IRRI).

“We have satellite overpass every 6 to 12 days and can clearly identify the start of the rice season in every commune. This is fed to our module to assess the yields on a commune basis with consistently high level of accuracy in the range of 90 – 92% over several past seasons”, said Mr. Nguyen Quang Dung.

According to NIAPP, the remote sensing technology provides better results than traditional tools. For instance, the data collection for statistical purpose has been relying on traditional method that is more time consuming and less accurate. The remote sensing, on the other hand, provides results in a shorter time and can cover larger areas.

RIICE has implemented a pilot during the period 2012 - 4/2015 followed up with a scale up phase in 10 major rice producing provinces in the Red River Delta and Mekong Delta with funding provided by the Swiss Agency for Development and Cooperation and technical contributions of other international partners.

Assistant Professor, Dr. Pham Quang Ha of the Agriculture Environment Institute said at the workshop that the remote sensing technology with its accuracy will greatly improve the crop production planning and management, assessment of disaster losses, support insurance business and ultimately reduce risks to farmers. The technology can also provide important support to other stakeholders such as the statistical office, food reserves agency, climate change mitigation and planning agencies, scientific research and teaching institutions, etc.

Mr. Marcel Reymond, Head of Cooperation at the Swiss Embassy in Hanoi stressed that the technology provides accurate and transparent data of rice production losses. As such it helps insurance companies to overcome the prohibitively high transaction cost in insurance programs aiming at small-holder farmers.

At present, RIICE is helping several other governments in the region to make remote sensing data work for smallholder farmers. The Indian state Tamil Nadu, for instance, has applied RIICE its rice insurance program.

In Vietnam, several insurance companies, such as Bao Viet, also expressed its willingness to use RIICE for their rice insurance program once it starts.

Experts explained that the remote sensing, modelling and mapping technologies, when combined, will provide loss maps that will be essential for government relief agencies, if any, and prove of loss so that insurance companies can compensate farmers immediately.

Assistant Professor, Dr. Pham Quang Ha provided the recent season as a fresh example when rice production was damaged by tropical storms. Farmers only know that their crop is damaged. If they want to get government support, the crop loss must be proved. In this case, the remote sensing technology would be able to provide loss assessment at the district, commune, and even plot level. On that basis, government support and insurance payout can be triggered.

However, still according to Assistant Professor, Dr. Pham Quang Ha, the challenge remains with regards to plot level assessment, soil erosion, pest and insects, etc.

Mr. Nguyen Quang Dung draws the attention of the audience to the fact that it will take time to develop capacity, including human resource capacity, and to “Vietnamise” the system in order to make it fully effective.

Vietnamese parties made a lot of efforts to acquire skills, but there remain challenges related to the software license putting some constraints on the sharing of management information.

In addition, huge investments are usually needed in the initial phase while the current resources remain short of the needs of piloting and upscaling.

Mr. Marcel Reymond added that food security is important and he sees no security concerns related to the use of remote sensing technology. The data is in the hands of the government and it is the government's own decision with whom the data can be shared. "And the Government of Switzerland is willing to continue support to this project," said Mr. Marcel Reymond.