“depa” Holds Media Trip to Witness Success of Muang Sam Sip Organic Farm with IoT Technology

“depa” Holds Media Trip to Witness Success of Muang Sam Sip Organic Farm with IoT Technology Used to Help Reduce Costs, Standardize Crop Yields, Raise Income of No Less Than 1 Million Baht Annually for Farmers

July 29, 2020: Muang Sam Sip District, Ubon Ratchathani – The Digital Economy Promotion Agency (depa), took a group of press to witness the success of Muang Sam Sip Organic Farm in using advanced technology to enhance the efficiency of organic farming. Muang Sam Sip Organic Farm mainly grows melons and organic watermelons. The community enterprise’s smart farming received support from the depa in adopting the Internet of Things (IoT) to help monitor and control the agricultural productivity. The IoT-based smart farming can effectively deal with problems associated with unskilled workers, damaged and substandard farm products. The community enterprise acknowledged the challenges and decided to adopt the use of IoT and new technologies to address the problems to help control water usage and enhance precision fertilization in order to reduce losses. By the use of modern technology in smart farming, it has led to household income at Muang Sam Sip District increasing, emphasizing the depa’s commitment to allow communities to learn, understand and choose what is right solutions for them to achieve sustainability.

Dr. Nuttapon Nimmanphatcharin, President/CEO of depa, said Mr. Buddhipongse Punnakanta, Minister of Digital Economy and Society (MDES), instructed the depa to focus on promoting the adoption of digital technologies across segments in society, including rural and grassroots people so that they will have a sustainable income. The depa has provided support and promotion related to digital development to communities so as to enhance the competency and competitiveness of each community enterprise so that they can grow with sustainability. Community enterprises were allowed to choose to adopt any digital technologies that match the needs of each community. Muang Sam Sip Organic Farm is a case in point. It is one of community enterprises that received promotion and support measures from the depa.

Muang Sam Sip Organic Farm chose to utilize the IoT-based technology to optimize smart farming to help monitor and control the agricultural productivity, quality and standard as well as reducing losses. The depa also aims to provide support to no less than 200 communities across the country within 2020.

“About the way the depa providing promotion and support to encourage the use of digital technologies, the depa has never chosen the digital technology for them or even forced them to accept certain digital technologies and said this is the must-needed, suitable technology for them. The depa will make a field inspection to study the real causes of problems facing each community enterprise and to create opportunities to jointly develop with them. The depa will also provide them with knowledge, equal, greater access to digital technologies so that communities will realize and understand the problems they are facing by themselves. And they can choose certain digital technologies and solutions that better deal with their problems in order to accomplish the sustainability,” said the President/CEO of depa.

Preecha Yotha, Representative of Muang Sam Sip Organic Farm, said that Muang Sam Sip Organic Farm is a group of farmers spearheading to mainly grow melons and organic watermelons. Farm

products and agricultural process of Muang Sam Sip Organic Farm also have a certified quality in line with the Good Agricultural Practice (GAP). All organic farm products will be distributed to several convenience stores in the Northeast. They received an overwhelming response and orders from customers. It is so much that Muang Sam Sip Organic Farm has to hire workers from other areas to help reduce workloads at the organic farm. They are generally unskilled workers with lack of expertise in growing melons and organic watermelons. It resulted in crops being always damaged by those unskilled workers due to the improper farming practices such as providing oversupply of water as the water-deficit conditions can destroy the melons. The lack of precision farming also led to the melons and organic watermelons falling to meet the standard. Hence, Muang Sam Sip Organic Farm decided to find a new technology to improve precision farming to help monitor and control water supply in the organic farm and help with precision fertilization in order to reduce the ensuing production losses that might occur.

The depa provided support for Muang Sam Sip Organic Farm by helping with conducting a feasibility study and gathering the requirements before entering the process of analyzing the data and information collected to figure out what is actually the real problems facing the community enterprise. Then, the depa recommended suitable technologies, innovation and solutions to directly cope with the problems related to farming from the beginning of the agricultural process and how to better look after and maintain the good conditions of farm production through precision farming and crop management devices. Doing so could reduce and effectively solved the problems for the community enterprise. The depa also helped with expanding sales and distribution channels.

Muang Sam Sip Organic Farm chose to use the IoT-based digital technology as the solution to tackle the farming problems. The digital service provider “Smart Think Control” was responsible for laying out plan and setting up use cases, operating system and interface controller to develop the IoT-based methods and approaches for smart water management in precision irrigation to adequately distribute water for organic crops in the greenhouse. It also helped save water usage and successfully helped farmers with pre-harvest sales and marketing plan. The installation of an intelligent water management system using the IoT technology enabled farmers to optimize an appropriate supply of water to maintain crop growth rate and improve the quality of organic crops. The IoT-based precision irrigation for agriculture helped farmers save time and water usage and reduce operating and production costs. The smart water management platform is expected to help increase income for the community by no less than 30% or around 1.7 million baht per year and help save costs by no less than 40% or more than 700,000 baht per year.

Thawatchai Khotwong, Vice President, Northeast District Office of the depa, said Muang Sam Sip Organic Farm received support and assistance from the depa via the depa Digital Transformation Fund for Community. Muang Sam Sip Organic Farm is a model community enterprise that is ready and eager to adopt digital technology to elevate the quality of life of people in the community. Moreover, the organic farming group has a clear operating plan and goal to generate higher income using the digital technology to maximize the efficiency of farm production, lower labor costs and improve agricultural productivity and yields. They will be able to raise the production capacity during the rainy season due to the use of modern technology to optimize the efficient irrigation and precision fertilization. The technology can monitor rainfall, which has higher correlation to crop yields, and increase survival rate of the crops as well as helping to improve the quality of crops and reducing reliance on farm chemicals to achieve 100% organic farming. It also helped maintain sales prices by creating value added to the farm products in order to raise income for people in the community. This beneficial knowledge on smart farming practices can be passed on to other people and farmers in the vicinity. The depa is committed to leave no one behind by collaborating with people to move forward to the sustainable development.